ODISHA HYDRO POWER CORPORATION LIMITED
BHUBANESWAR



APPLICATION FOR APPROVAL OF ANNUAL REVENUE REQUIREMENT AND TARIFF FOR THE

FINANCIAL YEAR 2025-26



BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN, PLOT NO-4, CHUNUKOLI, BHUBANESWAR-751023

Filing No: 1
Case No:

IN THE MATTER OF: APPLICATION FOR APPROVAL OF ANNUAL REVENUE REQUIREMENT AND TARIFF OF INDIVIDUAL POWER STATIONS OF OHPC FOR THE FINANCIAL YEAR 2025-26 IN TERMS OF SECTION 62 READ WITH SECTION 86 OF THE ELECTRICITY ACT, 2003.

AND

IN THE MATTER OF: ODISHA HYDRO POWER CORPORATION LTD., REGD. OFFICE: JANPATH, BHUBANESWAR-751022.

.....Applicant.

AFFIDAVIT VERIFYING THE APPLICATION

I, Pranab Kumar Mohanty, Son of Late Shri Prafulla Kumar Mohanty, aged 56 years residing at Bhubaneswar do solemnly affirm and say as follows:

(1) I am the Director (Finance) of Odisha Hydro Power Corporation Ltd., the applicant in the above matter and duly authorized to make this affidavit on its behalf.

(2) The statements made in this petition are true to my knowledge and are based on information available with OHPC and I believe them to be true to best of my knowledge.

DEPONENT
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

VERIFICATION:

I, the deponent above named do hereby verify that the contents of my affidavit are true to best of my knowledge, no part of it is false and nothing material has been concealed there from.

Verified at Bhubaneswar **on the day of** 27th Nov, 2024

DEPONENT
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

NOTARY GOVT. OF ODISHA SPECIAL ADHESIVE

SWORN BEFORE ME
N. MOHANTY
NOTARY
Regd. No.ON 20[illegible]
382, Bhoi Nagar,
Bhubaneswar-751022
27.11.2024

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IN THE MATTER OF: ODISHA HYDRO POWER CORPORATION LTD., REGD. OFFICE: JANPATH, BHUBANESWAR-751022.

.....Applicant.

THE HUMBLE APPLICANT ABOVE NAMED MOST RESPECTFULLY SHOWETH THAT:

1. **PROCEDURAL HISTORY:**

The Odisha Hydro Power Corporation Ltd. (OHPC) is a Generating Company under Part-I Section (28), (30) of the Electricity Act, 2003. The company was incorporated under the companies Act, 1956, in the year 1995, to carry out the business of Hydro Power Generation. After unbundling of the Odisha State Electricity Board (OSEB) in the year 1996, the assets, liabilities and personnel of Hydro Power Projects under erstwhile OSEB and Government of Orissa were transferred to OHPC to carry out the business of generation of hydro-electricity. The entire power (excluding 5MW share of Chhattisgarh State from HHEP generation) produced from OHPC stations is fully dedicated to the state of Odisha. After the Electricity Act, 2003 came into force and with the promulgation of the Government of Odisha Transfer Scheme 2005, GRIDCO is entrusted with the business of bulk power purchase from all generators and supply of power to different entities in the state/ outside the state as per power purchase agreements (PPAs). Due to the existing single buyer model presently prevailing in the state of Odisha, OHPC is supplying its entire power to GRIDCO, excluding corresponding generation of 05MW share of Chhatisgarh State Power Distribution Corporation Limited (CSPDCL) from Hirakud as per the Minutes of Meeting dated 24.12.2004 signed between the officials from Dept. of Energy, Govt. of Odisha, GRIDCO, OHPC, MPSEB and CSEB under the chairmanship of the Chief Secretary, Govt. of Odisha in pursuance to the interim judgment passed by Hon'ble High Court of Jabalpur, Madhya Pradesh in Writ Petition No.1241/2002 Dtd. 16.12.2004 and as per Order dtd 17.08.2006 of the Ministry of Power, Govt. of India regarding transfer of above 5 MW Share from erstwhile MPSEB to erstwhile CSEB (presently CSPDCL).

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2. **Applicability of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2024**:

Hon'ble OERC has published the OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 on 06.11.2024 for the block period FY2024-25 to FY2028-29 applicable up to 31.03.2029.

Hon'ble OERC at Regulation No. 1(4) of the OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 has set provisions for the period of applicability of the Regulation which is reproduced as follows.

"These Regulations shall come into force on the date of publication in the Official Gazette, and unless reviewed earlier or extended by the Commission shall remain in force till 31.03.2029."

OHPC has considered the norms for hydro power stations as stipulated in the OERC(Terms & Condition for Determination of Generation Tariff) Regulations 2024, the directions of Hon'ble OERC & methodology adopted by Hon'ble OERC for approval of Tariff of OHPC during previous years.

3. **BASIS OF ARR & TARIFF COMPUTATION OF OHPC POWER STATIONS FOR FY 2025-26:**

As per Regulation 61(2) of the OERC (Conduct of Business) Regulations, 2004; a generating company is required to file an application by 30th November each year to the Commission giving details of fixed and variable costs associated with generation of electricity in different power stations for approval of Annual Revenue Requirement (ARR) and determination of tariff for the generating stations for sale of energy in the state of Odisha.

As per the Regulation no. 9(7) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 also provides as follows:

"*Notwithstanding anything contained above OHPC and OPGC (UNIT-I & II) may make application (in the Format prescribed by the Commission) by November 30th of every year for determination of tariff in respect of their existing generating station as a whole or unit(s) thereof:*

Provided that the OHPC and OPGC (Unit - I & II) shall make application (in the prescribed Format) with necessary information and explanations for determination of tariff based on capital expenditure incurred duly certified by the auditors up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or

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projected to be incurred during the period for which application for determination by tariff is filed of the generating Company.

Provided further that application shall contain details of underlying assumptions for projected capital cost and additional capital expenditure, wherever applicable."

Accordingly, OHPC has prepared Tariff application of different power stations for FY2025-26 and the basis of computation are as follows:

i) The total Additional Capitalisation in the truing up proposal for the block period FY2020-21 to FY2023-24 is Rs 2544.853Crs and similarly, the total asset deletion in the truing up proposal for the block period FY2020-21 to FY2023-24 is Rs 42.765Crs as per the Regulation No. 8(2) & 11 of OERC (Terms & Condition for Determination of Generation Tariff) Regulations 2024.

ii) OHPC has also considered the estimated capital addition amounting to Rs 40.145Crs & Rs 114.92 Crs for the FY2024-25 & FY2025-26 respectively as per the provisions envisaged in the OERC (Terms & Condition for Determination of Generation Tariff) Regulations 2024.

iii) The gross additional capitalization for tariff computation of OHPC for FY2025-26 has been considered by adding the estimated capital addition for the FY2024-25 & FY2025-26 along with the total of additional capitalization in the truing up petition as on 31.03.2024.

iv) Project Cost/ GFA of old power stations has been considered on Historic Cost + Additional Capitalization from 01.04.1996 to 31.03.2024 + Estimated Additional Capitalization from 01.04.2024 to 31.03.2026 – Gross de-capitalization as on 31.03.2024;

v) Project Cost/ GFA of UIHEP has been considered on Original Project Cost/ GFA (Approved) + Additional Capitalization from COD upto 31.03.2024 + Estimated additional capitalization from 01.04.2024 to 31.03.2026- Gross de-capitalization as on 31.03.2024;

vi) OHPC has considered the norms of Return on Equity, Depreciation, Interest on loans, and Interest on working Capital as per the OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024.

vii) OHPC has calculated the O&M expense for FY2025-26 based on the average value of the actual O&M Expenses of FY2022-23 & FY2023-24(audited) and subsequently escalating @5.72% for each FY2024-25 & FY2025-26 in line with the previous approval of the Hon'ble Commission & OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024.

viii) OHPC has also added the estimated additional capital expendirure of an individual asset costing less than Rs 20lakhs & other spares of capital nature valuing up to Rs 10lakhs for the FY2024-25 & FY2025-26 to the proposed O & M expenditure for FY2025-26 as per Regulation 3(1)(vv) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024

ix) The interest repayment on Govt. investment at UIHEP & interest on UIHEP Normative loan of Rs 78.74Cr for FY2025-26 & their accumulated interest is not claimed in present Tariff as per the earlier directions of the Hon'ble Commission.

x) The 1st installment of proposed impact of truing up for the previous block period amounting to Rs 35.50Cr is also proposed to be reimbursed.

4. CLARIFICATION OF HON'BLE OERC ON TARIFF ORDER FOR FY2024-25:

After issue of the tariff order for FY2024-25, OHPC vide Letter No. 4276 dated 26.04.2024 had sought clarification on following issues.

i) Less approval of O & M.

ii) Less approval for interest on working capital.

iii) Less approval of reimbursement of Income tax.

In response to the submission of OHPC , Ho'nble OERC vide Letter No. 1190 dtd 14.10.2024 had made following observation.

" x.x.x.....issues such as less approval of O & M, less approval on interest on working capital and less approval of reimbursement of income tax can not be considered through a clarification from the Commsision since this will amount to review of OERC order in Case No. 111 of 2023 dated 13.02.2024 (ARR & Generation tariff of OHPC). Therefore you are advised to raise the matter in the truing up petition for the relevant control period."

The copy of the clarification letter of Hon'ble Commission is attached at **Annexure-8** for kind reference.

The Hon'ble Commission at Regulation No. 12(3) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 has provided the provision for truing up of expenses in respect to the capital expenditure and additional capital expenditure incurred during the previous year(s) for OHPC which is furnished below for reference.

"OHPC and OPGC (Unit - I & II) may file an application each year for truing up of expenses in respect to the capital expenditure and additional capital expenditure incurred during the previous year(s) for their existing generation plants/stations for determination of revenue gap/surplus for the ensuing year, within the time limit as specified in these Regulations."

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Similarly Hon'ble Commission in the Case No.55/2020 has made the following observation regarding non-consideration of Revenue Expenditures (O & M Expenses) and other elements of expenses as truing up element.

"...X..X..X.....Therefore there is no further scope for any truing up of these elements. Since the Regulations 2014 do not have any provision for truing up of other elements of expenses and revenue we are not inclined to carry out any truing up on these elements."

Therefore, the truing exercise for the O & M expense and reimbursement of income tax are not permissible as per the OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024

Hence, OHPC is considering the inclusion of unapproved O & M expenses and reimbursement of income tax for FY2024-25 in the ARR & Tariff for the FY2025-26.

However, the unapproved interest on working capital for the FY2024-25 shall be considered in the truing up exercise for the next block period i.e from FY2024-25 to FY2028-29 as per the OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024.

5. INSTALLED CAPACITY (IC):

After completion of RM & U works of Unit-5 & 6 of HHEP, Burla each Unit was uprated from 37.5MW to 43.65MW. Accordingly, the installed capacity of HHEP, Burla increased from 275.5MW to 287.8MW.

After acquisition of additional 20% share from Machkund Hydro Electric (Joint) Project, the Odisha share was increased from 36MW @30% to 60MW @50% of the total capacity of 120MW (i.e., 17MW x 3 = 51MW and 23MW x 3 = 69MW) of MHEP(Jt.) Scheme.

Hence, the installed capacity of OHPC is increased from 2063.5MW to 2099.8 (2039.8 + 60) MW including 50% from Machkund. So, the net MW addition by OHPC is 36.3MW (24MW of MHEP due to acquisition 20% stake + 12.3MW due to uprating.of Unit-5 & 6 of HHEP, Burla)

6. DESIGN ENERGY OF OHPC STATIONS:

A) The Design Energy (DE) of a Hydro Power Station is an important parameter for determination of Tariff. The approved Design Energy of OHPC Power Stations for the FY 2024-25 is given in the table below:

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Table-1

Design Energy approved for the FY 2024-25

(In MU)

Sl. No.	Name of the Power Station	Design Energy (DE)	Design Energy for sale to GRIDCO
1	RHEP	525.00	519.75
2	UKHEP	832.00	823.68
3	BHEP	1183.00	1171.17
4	HHEP	684.00	660.52
5	CHEP	490.00	485.10
6	UIHEP	1962.00	1942.38
Sub Total		**5676.00**	**5602.60**
7	Odisha share of MHEP (Jt.) Scheme	262.50	259.875
Total		**5938.50**	**5862.475**

B) Auxiliary energy consumption (AUX) of Hydro generating station with static excitation system is 1% for installed capacity above 200MW & 1.2% for installed capacity up to 200MW are considered as per Regulation 50 (e) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024. The copy of the relevant portion of the regulation is attached at **Annexure-9** for kind reference.

Accordingly, the Design Energy of six generating stations of OHPC including Odisha share of MHEP(Jt.) Scheme is 5938.50MU. After reduction of 1.2% towards auxiliary energy consumption (AUX) of CHEP & Odisha share of MHEP(jt.) Scheme; 1% towards auxiliary energy consumption (AUX) of BHEP, UIHEP, UKHEP, RHEP & HHEP and reduction of 16.644 MU allocated to Chhattisgarh State from HHEP generation, the net saleable Design Energy for GRIDCO shall be 5860.97MU.

It may be noted here that Hon'ble OERC in the Tariff Order of OHPC for the FY2022-23, FY2023-24 & FY2024-25 had deducted 16.644MU towards share of 05MW power of Chhattisgarh to be supplied to CSPDCL from the saleable design energy of HHEP, Burla as per the memorandum of understanding between the State of Odisha & State of Madhya Pradesh. So the saleable deign energy of HHEP, Burla has been considered as 660.52 MU for GRIDCO in the above table for computation of tariff.

C) In this connection, this is to mention here that, due to some specific reasons not attributable to OHPC, some of the generating stations consistently are not able to generate their Annual Design Energy approved by the Commission leading to non-recovery of the approved Annual Energy Charges resulting in substantial loss of revenue to OHPC year after year. Some of the constraints responsible for not achieving the Design Energy by different power stations are furnished below:

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i) In order to facilitate irrigation in the Hirakud Reservoir command area, HHEP is not allowed to generate below 595ft RL by the Department of Water Resources, Govt. of Odisha, although the MDDL of Hirakud reservoir is 590 ft RL. As a result, OHPC is constantly losing energy charges for 31MU (i.e.,14.81MU for HHEP, Burla & 15.95MU for CHEP, Chiplima) every year. Recently this restriction has further increased by DoWR not to generate below 600ft at HHEP, Burla. This has further resulted additional total loss of generation at HHEP and CHEP to the tune of 42MU.

ii) The approved Design Energy of CHEP, Chiplima has been kept at very higher side of 490 MU, which is unachievable based on its past records from its CoD. As a result, OHPC is constantly losing around 150MU every year.

iii) Consistent Hydrology failures are observed in case of Power Stations like UKHEP.

iv) By the end of water year, some of the water reservoirs do not achieve their MDDL where OHPC Power Stations lose generation up to MDDL.

v) There is additional loss of water due to running of multiple generating units in different Power Stations of OHPC under partial load.

vi) Another important issue is the short drawl of Odisha Share of Power from MHEP (Jt.) scheme. As on record, the short drawl by Odisha from FY2009-10 to FY2023-24 is 212.707MU.

The above-mentioned reasons are not attributable to OHPC. However, this has resulted into non-achievement of approved Design Energy by different Power Stations, followed by non-recovery of their approved Annual Energy Charges. As a result, OHPC could neither discharge its loan liability nor could recover its approved revenue expenditure.

D) <u>Hydrology Failure in OHPC Power Stations and the reasons beyond the control of OHPC</u>:

The Hon'ble Commision at Clause No. 45(7) & 45(8) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 has provisioned for recovery of energy charges for reasons beyond the control of hydro generators. The regulations are furnished below for kind reference.

Regulation No. 45(7): ***"In case the saleable scheduled energy (ex-bus) of a hydro generating station during a year is less than the saleable design energy (ex-bus) for reasons beyond the control of the generating station, the generating station may directly recover the shortfall in energy charges in six equal interest-free monthly instalments after adjusting for DSM Energy in the immediately following year and shall be subject to truing up at the end of the tariff period.***

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Provided that in case actual generation from a hydro generating station is less than the design energy for a continuous period of four (4) years on account of hydrology factor, the generating station shall approach the Central Electricity Authority with relevant hydrology data for revision of design energy of the station."

Regulation No. 45(8): *"Any shortfall in the energy charges on account of saleable scheduled energy (ex-bus) being less than the saleable design energy (ex-bus) during the tariff period 2020-2024 which was beyond the control of the generating station and which could not be recovered during the said tariff period shall be recovered in accordance with clause (7) of this Regulation."*

The copy of the relevant page of the OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 is attached at **Annexure-10** for kind reference.

During years of Hydrology failure, OHPC sustains substantial loss of Revenue due to shortfall in the recovery of Energy Charges. In response to the OHPC's claim towards Hydrology Failure, Hon'ble OERC had observed in the Tariff Order of OHPC for FY 2014-15 as follows:

"The compensation claimed towards hydrology failure is not to be allowed in view of the Commission's earlier orders dt.10.06.2005 & dt.23.03.2006 wherein OHPC was directed to maintain a separate fund to deposit the revenue earnings out of sale of secondary energy which shall be utilized to replenish the shortfall in revenue due to lesser generation by OHPC in years of hydrology failure to provide necessary comfort to the consumers of the state. {Para 6.5(e) of Order dt.10.06.2005}."

In view of the above, the energy sold by different power stations of OHPC for the last five years are given below:

Table-2 **(In MU)**

Sl. No.	Name of the Power Station	Design Energy (DE)	Saleable Design Energy (DE)	Actual Sale of 2020-21 (In MU)	Actual Sale of 2020-21 (In MU)	Actual Sale of 2021-22 (In MU)	Actual Sale of 2022-23 (In MU)	Actual sale of 2023-24 (In MU)
1	RHEP	525.00	519.75	647.71	980.77	837.92	732.53	754.79
2	UKHEP	832.00	823.68	813.04	771.26	440.01	531.94	565.33
3	BHEP	1183.00	1171.17	1482.02	1594.30	1001.96	980.72	1012.07
4	HHEP	684.00	677.16	518.80	613.82	700.72	886.34	850.22
5	CHEP	490.00	484.12	228.67	322.37	263.24	319.53	294.70
6	UIHEP	1962.00	1942.38	2188.21	1713.10	1124.80	1351.49	1687.00
Sub-Total		**5676.00**	**5618.26**	**5878.45**	**5995.62**	**4368.65**	**4802.55**	**5164.11**
7	MHEP	262.50	259.35	306.55	298.97	315.24	254.23	386.13
Total		**5938.5**	**5877.61**	**6185.00**	**6294.59**	**4683.89**	**5056.78**	**5550.24**

E) Status of Secondary Fund as on 31.03.2024:

(a) The status of secondary fund is (-) Rs 152.707 Crs as 31.03.2024. This fund has never been recognized by the Hon'ble Commission till date thereby depriving OHPC to recover the energy charge beyond the control of hydro generating Units of OHPC though there are provisions of recovery of enegy charges in case the saleable scheduled energy (ex-bus) of a hydro generating station during a year is less than the saleable design energy (ex-bus) for reasons beyond the control of the generating station as depicted in the regulations 45(7) & 45(8) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations 2024 and as per the observation of Hon'ble Commission in the Para 6.5(e) of Order dt.10.06.2005 as mentioned above.

(b) Compliance to the Order of Hon'ble OERC at Para No. 66 (d) of Tariff Order of OHPC for the FY 2023-24:

In the Tariff Order of OHPC for the FY 2023-24, Hon'ble OERC at Para No. 66 (d) of the said order had directed OHPC to provide details of secondary energy fund and utilization of such fund. In this connection, Hon'ble OERC had clarified on the creation of secondary energy fund in their earlier orders dt.10.06.2005 & dt.23.03.2006 wherein OHPC was directed to maintain a separate fund to deposit the revenue earnings out of sale of secondary energy. Accordingly, the Power Station wise status of Secondary Energy Fund was furnished at Annexure-6 of the original application for ARR & Tariff of OHPC for FY2024-25 based on the revenue earning from GRIDCO. However, Hon'ble Commission in the ARR & Tariff Order of OHPC for the FY2024-25, did not recognized the secondary fund, thereby OHPC was deprived of recovering the short fall of energy charges beyond the control of generators.

(c) Energy Compensation received from the industries to be adjusted in the Secondary Energy Fund:

In the earlier tariff applications, OHPC had considered the industrial consumption of water from the Reservoirs as a part of Hydrology failure and the compensation received in this regard had been adjusted in the deficit Secondary Energy Fund of OHPC.

As per the direction of the Hon'ble High Court, OHPC has received Rs 4.53Crs from the industrial units utilizing water from different reservoirs towards compensation for the loss of generation during the FY 2014-15. Besides, some of the industries have also paid some amount towards the energy compensation during the current period. Accordingly, OHPC have received total amount Rs22.199Crs from HHEP, Burla up to March 2024 & Rs0.559Crs from CHEP, Chiplima upto October 2024. The detail of

industry wise receipt of revenue is enclosed at **Annexure-11** . Though OHPC was adjusting this amount in the secondary energy fund, CAG of India has observed to keep this compensation in a separate account, as the matter is under sub judice in the Court of Law.

As per the direction of Hon'ble OERC vide Lr. No. 1161 dtd. 25.08.2016 addressed to the Commissioner-cum-Secretary, DoE, GoO, a detail note on collection of energy compensation charges from industrial units drawing water from different reservoirs in Odisha having hydro power units of OHPC along with all documentary evidence have been submitted to the DoE, GoO along with a copy to the Hon'ble OERC vide Lr. No. 8598 dtd. 22.09.2016 for further necessary Order in this regard. All the above documents had also been submitted in the Tariff application of OHPC for the FY 2017-18 for kind appraisal and order of the Hon'ble OERC.

The cases regarding the realization of energy compensation charges from the user industries are under sub judice in the Hon'ble High Court of Odisha. Further this issue is presently under active consideration of the Chief Secretary to Govt. of Odisha for reviewing the Executive Instruction dtd. 01.10.2013 regarding fixing of higher rate of energy compensation charges.

In view of the above, the final Order of Hon'ble High Court of Odisha & decision of Govt. of Odisha are awaited in order to address the above and provide necessary financial effect in the ARR of OHPC.

(d) **Revision of Design Energy of HHEP & CHEP on account of restriction in generation below 595 ft. at HHEP, Burla.**

OHPC is constantly losing energy generation of 31MU (i.e. 14.81MU at HHEP, Burla & 15.95MU at CHEP, Chiplima) on annual basis. As a result, Hirakud power station and Chiplima power station are not in a position to recover their Annual Revenue Requirement (ARR) through sale of electricity to GRIDCO. A brief note on the above matter along with all relevant documents had been submitted to DoWR vide Letter No. 3483(WE) Dtd. 02.06.2022 with a copy to Hon'ble OERC for kind consideration and issue of required Notification in this regard.

Further, under different situation like variation in the weather forecast by IMD and prediction of dry spell, as per the instruction of Dept. of Water Resources, OHPC is not allowed to generate above 595ft RL also at the end of the water year. Accordingly, it is observed that from FY2012-13 onwards the lowest RL at Hirakud reservoir had been kept much above 595ft. In the last 05 water years, the minimum R.L attended in the Hirakud Reservoir are given in the Table below.

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Table –3

MDDL (In ft)	MINIMUM R.L ATTENDED IN THE WATER YEAR((IN FT)				
	2019-20	2020-21	2021-22	2022-23	2023-24
590	598.39	599.65	599.73	599.65	600.02

Hence, further restriction of electricity generation below 600ft. RL shall reduce at least another 47 MU of combined generation at HHEP and CHEP, putting additional annual revenue loss of Rs2.3Crs approximately to OHPC. Accordingly, OHPC is being stressed to meet the huge expenditure incurred towards Renovation Modernization and Uprating of generating Units of HHEP Burla & CHEP Chiplima.

OHPC is constantly losing energy charges for 78MU (i.e., 31.0MU for restriction up to 595ft RL & another 47MU for restriction from 595ft to around 600ft RL) every year on account of restriction in generation from Hirakud reservoir below 600ft. R.L by DoWR, Govt. of Odisha. OHPC has consistently been raising this issue in its earlier tariff applications furnishing all the facts in detail with prayer to the Commission either to consider the reduction in D.E of HHEP, Burla & CHEP, Chiplima proportionately or allow compensation in accordance with the Clause No.11 of the Electricity Act, 2003.

Govt. of Odisha communicated to Hon'ble OERC its suggestions/views/comments on various issues involving tariff setting for the year 2016-17 having a direct bearing on fixation of tariff for the year 2016-17 vide their letter No.2091 dated 11.03.2016. DoE, GoO has viewed the following on generation of HHEP, Burla below 595ft of Hirakud Reservoir as follows:

"Energy Department is awaiting response of Water Resource Department regarding not allowing generation beyond the reservoir level of 595 ft of Hirakud Reservoir. However, in the 1st meeting of the Committee held on 3.7.2012 on formulation of policy for utilization of water in the reservoir by industrial units and hydroelectric project with optimum capacity, it was resolved that due to inadequate pressure in the end reaches of canal below RL 595 ft which is hampering irrigation it was declared that DoWR shall issue necessary circular/letter to OHPC maintaining minimum RL at 595 ft."

In the absence of the required notification from DoWR, Hon'ble OERC is neither considering the reduction in Design Energy in respect of HHEP & CHEP for computation of Tariff nor compensating for the loss of energy incurred by OHPC as per the provision of Clause No. 11 of the Electricity Act' 2003. The Notification in this respect is yet to be released by the Govt.

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On the above issue Hon'ble Commission in the Tariff hearing of OHPC for the FY2018-19 had also advised the representative of State Govt in the Deptt. of Energy to look into the matter at Govt. level. Accordingly, OHPC vide Lr. No. 4756 Dated 26.04.2018 had requested Additional Secretary, DoE to take the issue of reduction of Design Energy of HHEP, Burla & CHEP, Chiplima due to the restriction of DoWR to generate below RL of 595ft from the Hirakud Reservoir as an Agenda item in the 16th meeting of State Water Resource Board. The response of DoWR/ DoE is still awaited. After getting Notification from Govt. of Odisha the reduction of Design Energy of HHEP, Burla & CHEP, Chiplima can be made effective in the Tariff computation from the year of notification or retrospectively.

Besides the above correspondences, OHPC had also requested the Department of Energy & Department of Water Resources vide its letter No. 6314 dtd 09.09.2022.

Pending decision from DoE/ DoWR, OHPC has not considered reduction in Design Energy of HHEP, Burla & CHEP, Chiplima due to restriction in Generation at HHEP, Burla below RL 595ft in Hirakud Reservoir.

Considering the above facts, OHPC proposes the following Design Energy for its Power stations for computation of tariff for the FY 2025-26 for sale of energy to GRIDCO.

Table-4 **(In MU)**

Sl. No.	Name of the Power Station	Design Energy approved for FY2024-25	Saleable Design Energy for GRIDCO approved for FY 2024-25	Design Energy proposed for FY 2025-26	Saleable Design Energy proposed for GRIDCO for FY 2025-26
1	**RHEP**	525.00	519.75	525.00	519.75
2	**UKHEP**	832.00	823.68	832.00	823.68
3	**BHEP**	1183.00	1171.17	1183.00	1171.17
4	**HHEP**	684.00	660.52	684.00	660.52
5	**CHEP**	490.00	485.10	490.00	484.12
6	**UIHEP**	1962.00	1942.38	1962.00	1942.38
Sub Total		**5676.00**	**5602.60**	**5676.00**	**5601.62**
7	**MHEP Odisha Share**	262.50	259.875	262.50	259.35
Total		**5938.50**	**5862.475**	**5938.50**	**5860.97**

OHPC prays before the Hon'ble Commission to approve the proposed Saleable Design Energy of different power stations of OHPC for FY 2025-26 as furnished in the Table above. Further the deficit of secondary energy fund amounting to (-) Rs 152.707Cr may kindly be recognized and suitable provisions for recovery of short fall of energy charges due to hydrology failure which is beyond the control of generators of OHPC.

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7. **RESERVOIR LEVEL AND ANTICIPATED GENERATION FOR FY 2025-26:**

The Reservoir Level of OHPC Power Stations as on 15.11.23 vis-à-vis on 15.11.24 is given below:

Table-5

Sl. No.	Reservoirs	As on 15.11.2023	As on 15.11.2024
1.	Rengali	122.72mtr.	120.75mtr.
2.	Kolab	855.71mtr.	855.38mtr.
3.	Balimela	1487.90ft.	1505.80ft.
4.	Hirakud	627.93ft.	626.04ft.
5.	Indravati	636.02 mtr.	634.33mtr.

The actual generation of different Power Stations under OHPC from 01.04.2024 up to 15.11.2024 and anticipated generation up to 31.03.2025 for the FY 2024-25 prepared on the basis of the availability of water, irrigation requirement and peak load requirement of power in co-ordination with DoE, DoWR, GRIDCO and SLDC is furnished below.

Table-6

Sl. No.	Name of the power stations	Actual generation from 01.04.24 up to 15.11.24 (In MU)	Anticipated generation from 16.11.24 to 31.03.25 based on DoWR & DoE Schedule (in MU)	Total Anticipated generation for the FY 2024-25 based on DoWR & DoE Schedule (in MU)
1.	RHEP	721.1576	215.00	936.1576
2.	UKHEP	522.7320	399.00	921.7320
3.	BHEP	1220.3210	631.00	1851.3210
4.	HHEP	706.4060	109.00	815.406
5.	CHEP	178.4610	72.00	250.4610
6.	UIHEP	1044.3025	713.00	1757.3025
Total		**4393.3801**	**2139.00**	**6532.3801**

So, there shall be surplus of 856.3801MU from the approved designed energy of 5676MU. The extra/ shortfall in generation from the design energy approved for respective Power Stations shall be accounted towards the secondary energy as per the above-mentioned Order of the Hon'ble Commission which presently stands as (-) Rs 152.707Crs.

8) **PROJECT COST/ GFA:**

The revalued cost of old power stations under OHPC was Rs. 1196.80 Crs as on 01.04.1996 as per the Notification vide S.R.O No. 254/96 Dt. 01.04.1996 of Department of Energy, Government of Orissa. Hon'ble Commission in the order dated 23.03.2006 at clause no. 5.4 (C) has approved the same.

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The State Government had transferred the fixed assets of OHPC old power stations with a total value of Rs. 1196.80 crore as on 01.04.1996 without any breakup for individual power stations. As per the directives of the State Government, OHPC had engaged M/s MECON for the valuation of individual power projects and as per their report the value of the assets was assessed at Rs. 1557.95 crore. Thereafter, OHPC allocated the total cost of the project among the individual power stations by adopting the proportion formula devised by MECON. Hon'ble OERC at Para No. 5.4(c) of the Tariff Order of OHPC for the FY2005-06 had made following observations.

"The Commission has examined the facts and figures submitted by OHPC and come to the conclusion that since the value of assets has been duly accounted for, audited and reviewed by C & AG, now it is not justifiable to re-examine the figures already adopted in the books of accounts. ***Hence, the total value of Rs. 1196.80 crore is accepted and approved in the manner proposed by OHPC as presented below***

HPS	*RHEP*	*UKHEP*	*BHEP*	*TOTAL*
295.17	*259.01*	*307.96*	*334.66*	*1196.80*

For the purpose of determination of tariff for 2005-06 and 2006-07, the capital cost or old OHPC stations has been determined on the basis of their historical cost as on 01.04.1996 of Rs.472.00 crore with subsequent addition on account of R&M of unit 1 & 2, Burla Rs. 81.84 crore, both totaling to Rs. 553.84 crore as on 31.03.2003 as stated in our order dtd.10.06.2005*."*

OHPC has considered the Upvalued cost of Asset in the Audited Account of different power stations of OHPC. The opening balance of Asset as on 01.04.1996 for different old power stations of OHPC is reproduced in the Table below:

Table-7

Name of Power Stations	**Opening balance of Asset value as on 01.04.1996 in Audited Account (in Crs.)**	**Segregation of Asset as per MECON report (in Crs.)**	**Historic Cost approved by OERC for Tariff computation (in Crs)**
HPS (Burla & Chiplima)	210.645	295.17	164.98
RHEP, Rengali	259.01	259.01	91.09
UKHEP, Baraniput	307.956	307.96	108.31
BHEP, Balimela	334.658	334.66	115.42
Sub-Total	**1112.269**	**1196.80**	**479.80**
Capital work in progress of Unit-1 & 2 of HPS, Burla	84.531		
Total	**1196.80**	**1196.80**	**479.80**

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Thus the Upvaluation effect which is not considered in the Tariff since FY2004-05 & DoE, GoO in the subsequent years has kept in abeyance for considering this Upvaluation of these asset. Hon'ble Commsion during Tariff Approval of each year also take concensus from DoE, GoO for consideration of up-valuation of the assets.

Further, Hon'ble Commission, in the order dated 20.03.2008 has approved Rs. 1195.42 Crs. as final capital cost of UIHEP for the purpose of determination of tariff. However, the Tariff of Old power stations were determined on the historical cost of old power station of OHPC for Rs. 479.80 Crores as per the Notification No. 1068 Dtd. 29.01.2003 of DoE, GoO.

Hon'ble Commission's Decision on Notification No. 5843 Dt. 03.07.2015 of Department of Energy:

A) Hon'ble Commission in Para No. 98 of the Tariff Order for the FY 2017-18 had observed as follows:

"xxx.....xxxx....During public hearing of ARR and Tariff approval of OHPC for FY 2017-18, all the objectors vehemently opposed the proposal of OHPC for implementation of Government Notification No.5843 dtd.03.07.2015. The objectors have suggested not to consider the impact of the above notification and up-valuation of assets of old OHPC stations. Further, the consumer Counsel also pleaded not to take into account the effect of upvaluation of assets which would escalate the project Cost and thereby the RoE, depreciation and interest on loan."

B) Commission brought the issue to the notice of GoO vide letter No.JD(FIN)175/02 (Vol. II)/302 dt.23.02.2017 to take a view on keeping the effect of upvaluation in abeyance for the year 2017-18. Government of Odisha vide letter No. LCOERC-18/2017/1929 dt.08.03.2017 replied as follows:

"Regarding the issue of up-valuation of assets pertaining to OPTCL, Generators and other licensees the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets like previous years. Considering the present difficult situation, the Govt. agrees to extend the status-quo on up-valuation till 2017-18. X X X X X ***Relating to OHPC, the Hon'ble Commission may consider to include both payment of interest and repayment of principal in the ARR of UIHEP. However the interest w.e.f. 2006-07 to 2017-18 may be kept as Regulatory Assets of OHPC to be paid in future tariff."***

However, Hon'ble OERC at Para No. 100 of Tariff Order of OHPC has decided the Tariff of OHPC for FY 2017-18 with following view:

"The effect of Notification No.5843 dtd.03.07.2015 of Department of Energy, GoO cannot be taken into consideration while calculating tariff in view of the above-mentioned reply by the Government of Odisha. Accordingly, the Commission has not considered the effect of up-valuation of assets in determining the Tariff and ARR for FY 2017-18.....XXXX."

C) Hon'ble OERC at Para No. 65 of the Tariff Order of OHPC for FY 2018-19 has recorded as under:

"Government of Odisha communicated its suggestions/views/comments on various issues involving tariff setting for the year 2018-19 including subsidy / subvention and other important matters having a direct bearing on fixation of tariff for the year 2018-19 vide their letter No.ELC-OERC-03/2018/2253 dated 12.03.2018.

Regarding the issue of up-valuation of assets pertaining to OPTCL, Generators and other licensees the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets like previous years. Considering the present difficult situation, the Govt. agrees to extend the status-quo on up-valuation till 2018-19."

D) Hon'ble OERC at Para No. 71 of the Tariff Order of OHPC for FY 2019-20 has recorded following views of Govt on Upvaluation of Asset:

"Government of Odisha communicated its suggestions/views/comments on various issues involving tariff setting for the year 2019-20 including subsidy / subvention and other important matters having a direct bearing on fixation of tariff for the year 2019-20 vide their letter No.LC-OERC-06/2019-2283 dated 12.03.2019.

"Regarding the issue of up-valuation of assets pertaining to OPTCL, Generators and other licensees the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets like previous years. Considering the prevailing situation, the Govt. agrees to extend the status-quo on up-valuation till 2019-20.

E) Hon'ble OERC at Para No. 53 of the Tariff Order of OHPC for FY 2020-21 has recorded following views of Govt on Upvaluation of Asset:

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"The reply of the Government of Odisha is still awaited and in view of this, the Commission assumes the principles adopted for fixation of tariff for the year 2019-20 to be continued for the year 2020-21. Hence, the Commission has decided to keep in abeyance the up-valuation of assets like previous years while determining the tariff of OHPC Power Stations."

F) Hon'ble OERC at Para No. 143 of the Tariff Order of OHPC for FY 2021-22 has recorded following views of Govt on Upvaluation of Asset:

"The Commission has sought views of Government of Odisha vide its Letter DIR(T)-405/21-22/313 dated 25.02.2021 on the issue of keeping in abeyance the effect of upvaluation of assets of OHPC. Since no reply has been received it is assumed that the moratorium on upvaluation shall continue for FY 2021-22 also."

G) Hon'ble OERC at Para No. 57 of the Tariff Order of OHPC for FY 2022-23 has recorded as under on Upvaluation of Asset:

"xxx.....OHPC has also assumed extension of keeping in abeyance of the Upvaluation of Asset by the Government of Odisha....xxx."

H) Hon'ble OERC has not recorded any thing on keeping in abeyance of Upvaluation of Asset transferred to OHPC for a further period in the Tariff Order of OHPC for the FY 2023-24.

Hence, in view of the legal prohibition indicated by the Hon'ble Commission at para no. 98 of the Tariff Order of OHPC for the FY 2017-18 & assuming the extension of keeping in abeyance of the Upvaluation of Asset by the Govt. of Odisha for the Generators (OHPC) like previous years, OHPC has considered the Project Cost/ GFA of old power stations equal to Historic Cost as on 01.04.1996 plus New additions after 01.04.1996 up to FY 2023-24 (audited) plus estimated additional capitalization for FY 2024-25 & 2025-26 minus decapitalization (audited) and calculated the ARR & Tariff of OHPC old power station for FY 2025-26 considering their Project Cost/ GFA as Rs1752.055Crs. Similarly, the Project Cost/ GFA of Rs1384.897Cr is considered for calculation of ARR & Tariff of UIHEP for FY 2025-26.

9) <u>PROVISIONS OF ADDITIONAL CAPITALIZATION IN REGULATIONS/ ORDERS/ PPA</u>:

There are Provisions for additional capitalization of Capital Expenditure in the agreed PPA, OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 & previous Orders of the Hon'ble Commission. The relevant provisions are stipulated below:

(i) **Regulation No.21(2) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024** :

"In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) ***The assets whose useful life is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;***

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) ***The replacement of such asset or equipment is necessary on account of Obsolescence of technology;*** *and*

(d) ***The replacement of such asset or equipment has otherwise been allowed by the Commission.***

(e) The additional expenditure, excluding recurring expenses covered in O&M expenses, involved in relation to the renewal of lease of lease hold land on case to case basis.

Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met through normative O&M expenses."

(ii) **Relevant portion of Approved PPA:**

4.1.1 The Approved Capital Cost shall be:

(a) Increased by the cost incurred by OHPC in OHPC's complying with its obligations pursuant to and in accordance with clause 2.1(e) & ***also any additional capital expenditure on case to case basis duly approved by OERC can only be passed through tariff.***

(iii) **Relevant portion of Order dtd. 11.06.2020 in Case no. 56 of 2019:**

Para-21: - From conjoint reading of the above provisions, we find that additional capitalization can be permitted for renovation and modernization work after prudence check by the Commission. ***OHPC is to take up the capital maintenance of generating units as per the operating manual/manufactures guidelines since the units are in operation for a very long period. The following units are approved to be taken up under capital maintenance as proposed by OHPC****. This will extend the life of the generating units."*

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(iv) **Relevant portion of Order dtd. 01.05.2012 in Case no. 05 of 2012:**

*"A generator should not suffer from non-recovery of capacity charges due to **capital maintenance of a generating unit which takes around three months and normally taken in each 3 or 5 Years as per the manufactures guidelines.**"*

(v) **Regulation No. 8(2)** of OERC (Terms & Condition for Determination of Generation Tariff) Regulations 2024 provides as follows:

*"In case of an existing generating station or unit thereof, the application shall be made by the generating company by 30.12.2024 (as per formats prescribed by the Commission with necessary information and explanation) except OHPC & OPGC (UNIT-I & II) and **shall be based on admitted capital cost including any additional capitalization already admitted up to 31.03.2024 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2024-25 to 2028-29 along with the true up petition for the period 2019-20 & 2020-2024 in accordance with OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 and OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020;**"*

(vi) **Regulation No. 9(7)** of OERC (Terms & Condition for Determination of Generation Tariff) Regulations 2024 provides as follows:

"Provided that the OHPC and OPGC (Unit - I & II) shall make an application (in the prescribed format) with necessary information and explanations for determination of tariff based on capital expenditure incurred duly certified by the auditors up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or projected to be incurred during the period for which application for determination by tariff is filed of the generating company:

Provided further that application shall contain details of underlying assumptions for projected capital cost and additional capital expenditure, wherever applicable."

Accordingly, OHPC has incurred and also made proposals of additional capitalization as per above provisions for different power stations for different works like Power House Electrical & Mechanical Works, Water Supply Installation, Electrical Installation, Buildings, Power House Civil Works, Hydraulic Works, Dam, Tunnel & Substation Equipment etc.

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10) ADDITIONAL CAPITALISATION PROPOSED TO BE ADMITTED BY THE HON'BLE COMMISSION TILL 31.03.2024.

Hon'ble OERC at Para No. 10 of its order dated 08.06.2023 in case no 53-2022 regarding truing up for the period from FY 2016-17 to 2021-22, had made following observations.

"Para-10: Basing on the above discussion we are not inclined to accept the truing up application in its present form. However, we draw the attention to a general provision in OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 with regard to truing up which is reproduced below:

"8(1) The Commission shall carry out truing up exercise at the end of the Tariff Period along with the tariff petition filed for the next tariff period, with respect to the following:

(a) the capital expenditure including additional capital expenditure incurred up to 31.03.2024, as admitted by the Commission after prudence check at the time of truing up.

(b) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law."

The above Regulation relates to approval of any additional capital expenditure which has not been specifically allowed in each year's tariff order. Accordingly, the Petitioner has the liberty to approach the Commission under the above Regulation once the control period of the present Tariff Regulations expires on 31.03.2024."

Accordingly, OHPC had submitted the petition for Truing Up of the Gross Fixed Asset from FY2020-21 to FY2023-24 on dtd 17.09.2024 and the case is pending before Hon'ble Commission for approval. However, the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024 at Regulation.11 provides that capital cost admitted as on 31.03.2024 based on the truing up shall form the basis of the opening capital cost (GFA) as on 01.04.2024 for the tariff determination for the period 2024-2029. The relevant provision is furnished below for kind reference of the Hon'ble Commission.

Regultion No. 11 TRUING UP OF TARIFF FOR THE PERIOD 2019-2024: *"The tariff of the generating stations for the period 2019-20 & 2020-2024 shall be trued up in accordance with the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 and Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations), 2020 respectively along with the tariff petition for the period 2024-2029. The capital cost admitted as on 31.03.2024 based on the truing up shall form the basis of the opening capital cost as on 01.04.2024 for the tariff determination for the period 2024-2029."*

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In anticipation of approval of the proposed Gross Fixed Asset as on 31.03.2024, OHPC has considered the same as Project Cost/ GFA for FY2025-26 in line with the above regulation. The truing up petition is attached at **Annexure-12** for kind reference.

OHPC has considered the total additional capital expenditure of Rs 2544.853Crs as per the proposed truing up as on 31.03.2024 for calculation of Tariff for FY2025-26.

Approved Estimated Additional Capitalization for FY2024-25 & 2025-26

OHPC has considered the estimated additional capitalization of Rs 40.145Crs & Rs 114.920Crs for the FY2024-25 & FY2025-26 respectively. These estimated additional capital expenditures are having in-principle approval of Hon'ble Commission which are furnished in the table below for kind reference. The relevant documents of major estimated additional capital expenditure are enclosed at **Annexure-13** for appraisal of Hon'ble Commission. It may be noted that the relevant documents for major capitalization in the block period from FY2020-21 to FY2023-24 have already been furnished in the truing up petition in the Case No. 69/2024.

The major estimated additional capitalization proposed by OHPC in the tariff approval for the FY2025-26 based on the approval of the Hon'ble Commission which are furnished in the table below.

Table-8

Power Station / Corporate Office	Details of Capitalisation	Details of approval by the Hon'ble Commission	Amount proposed for capitalization (in Crs.)
CHEP	Capital Maintenance of Unit-1 & 2	Order dated 13.06.2022 in Case No 78 of 2021.	57.360
CHEP	Capital Maintenance for repair & rehabitation of Chiplima fore bay, Spillway and Surplus escape.	Order dated 11.06.2020 in Case No 56 of 2019.	87.000
HHEP	Capital Maintenance for Procurement and Commissioning of One No. of Generator transformer.	Order dated 11.06.2020 in Case No 56 of 2019..	4.615
UKHEP	Capital Maintenance for Procurement and Commissioning of One No. of Generator transformer.	Order dated 11.06.2020 in Case No 56 of 2019.	6.090

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Regulation No. 21(2) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 stipulates that:

"...x...x.....x...Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met through normative O&M expenses."

Accordingly, power station wise and asset wise estimated additional capitalization less than Rs.20 lakhs and Capital Spares valuing up to Rs. 10 lakhs as per budgetary provisions approved by OHPC for the FY2024-25 & FY2025-26 amounting to Rs 18.18 Crs are not considered as estimated additional capitalization and the same are included in the O & M Expenses as per Regulation 3(1)(vv) & 21(2) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024.

The additional capitalization considered for tariff for FY2025-26 are furnished in the Table below:

CAPITAL EXPENDITURES CONSIDERED FOR ADDITIONAL CAPITALISATION FOR FY 2024-25 & 2025-26.

Table-9 **(Rs. in Crs)**

SL. No	Power Stations	New additions from 01.04.1996 to 31.03.2024 (Considered in Truing up of GFA for FY2023-24 as OB)	Estimated Additional Capitalisation for FY2024-25 & FY2025-26	Proposed New additions in Tariff calculation for FY 2025-26
1	2	3	4	5=3+4
1	RHEP	89.333	0.000	89.333
2	UKHEP	42.759	6.090	48.849
3	BHEP	416.943	0.000	416.943
4	HHEP	452.144	4.615	456.759
5	CHEP	152.952	144.360	297.312
6	**Sub Total**	**1154.131**	**155.065**	**1309.196**
7	UIHEP	1390.722 (195.932 + 1194.79)	0.000	1390.722
8	**Total**	**2544.853**	**155.065**	**2699.918**

OHPC has proposed total new addition of Old Power Stations from 01.04.1996 to 31.03.2026 as Rs1309.196Crs and that of UIHEP as Rs1390.722Crs total amounting to Rs 2699.918Crs for computation of tariff for FY2025-26.

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11) DECAPITALISATION OF GROSS FIXED ASSET:

The **Regulation No. 22(3)** of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 stipulates that:

"In case of de-capitalisation of assets of a generating company the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised.

Provided that in cases where an asset forming part of a scheme is de-capitalised and wherein the historical value of such asset is not available, the value of de-capitalisation shall be computed by de-escalating the value of the new asset by 5% per year until the year of capitalisation of the old asset subject to a minimum of 10% of the replacement cost of the asset."

The details of decapitalization of Gross Fixed asset considered for computation of tariff for FY2025-26 is furnished in the table below.

Table-10

Sl. No.	Name of the Power Stations	Asset reduction during the FY 2011-12 to FY 2023-24 (Considered in Truing up of GFA for FY2023-24)
1	**2**	**5=3+4**
1	RHEP	**1.723**
2	UKHEP	**3.509**
3	BHEP	**3.205**
4	HHEP	**25.685**
5	CHEP	**2.818**
	Sub Total	**36.940**
6	UIHEP	**5.825**
	Total	**42.765**

The decapitalization of the asset of different power stations of OHPC from FY2011-12 to FY2023-24 as proposed in Truing up of Project Cost/ GFA was Rs 42.765 Crs out of which Rs 39.94Crs has been deducted from the Historic Cost for old power stations of OHPC since most of assets decapitalized belong to transfer asset. Similarly, Rs5.825Crs has been deducted from the Project Cost/ GFA of UIHEP towards decapitalization for determination of Tariff.

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12) TOTAL PROJECT COST/ GFA CONSIDERED FOR TARIFF OF FY 2025-26:

The total Project Cost/ GFA for computation of tariff for FY2025-26 is considered as follows:

(a) Total proposed additional capitalization as on 31.03.2024 considered in the truing up petition.

(b) Estimated additional capitalization for the FY2024-25 & FY2025-26.

(c) The Historic cost for old power stations (Rs 479.80Crs)

(d) The Approved original Project Cost/ GFA of UIHEP (Rs 1194.79Crs)

(e) Total proposed deletion as on 31.03.2024 considered in the truing up petition.

(f) The total Project Cost/ GFA for FY2025-26= (a) +(b) + (c)+ (d) – (e)

In view of the above, the Project Cost/ GFA considered for Computation of Tariff for FY2025-26 are furnished in the Table below:

Project Cost/ GFA for tariff Calculation for FY 2025-26

Table-11 (Rs. In Crs.)

Name of the power stations	New Addition from 01.04.1996 to 31.03.2024 as per Truing up Petiotion submitted by OHPC	Estimated additional capitalization for the FY2024-25 & FY2025-26	Historic Cost as on 01.04.1996 for old Power stations of OHPC	Approved original Project Cost/ GFA of UIHEP	Total Asset reduction/dec apitalisation during the FY 2011-12 to FY 2023-24 as per Truing up Petiotion submitted by OHPC	Project Cost/ GFA considered Tariff calculation
	(a)	(b)	(c)	(d)	(e)	(f)=a+b+c+d-e
RHEP	89.333	0.000	91.09	0.000	1.723	178.700
UKHEP	42.759	6.090	108.31		3.509	153.650
BHEP	416.943	0.000	115.42		3.205	529.158
HHEP	452.144	4.615	72.75		25.685	503.823
CHEP	152.952	144.360	92.23		2.818	386.724
Sub Total	**1154.131**	**155.065**	**479.800**	**0.000**	**36.940**	**1752.055**
UIHEP	195.932	0.000	0.000	1194.790	5.825	1384.897
Total	**1350.063**	**155.065**	**479.800**	**1194.790**	**42.765**	**3136.952**

Hence, OHPC prays before the Hon'ble Commission to approve the Project Cost/ GFA of different power stations of OHPC amounting to Rs 3136.952Crs as mentioned in the table above for computation of tariff for FY2025-26.

13) ANNUAL FIXED COST:

(i) OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2024 Regulation No 14(4) stipulates as follows:

"Not withstanding anything mentioned in these Regulations, Capacity Charge and Energy Charge for OHPC and OPGC (Unit-I & II) will be determined by the Commission by taking into account the notification(s) issued by the Government of Odisha from time to time and their PPAs."

(ii) According to the OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2024 the tariff computation for supply of electricity from a Hydro Generating Station shall comprise Capacity Charge and Energy Charge to be shared on 50:50 basis for recovery of annual fixed cost.

(iii) According to OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024 at Regulation No 14(1), the Annual Fixed Cost of a hydro generating station shall consist of the following components:

A) Return on Equity (ROE).
B) Interest on Loan.
C) Depreciation.
D) Interest on Working Capital.
E) Operation & Maintenance expenses.
F) Income Tax.
Less
G) Non-Tariff Income.

A) <u>Return on Equity (ROE)</u>:

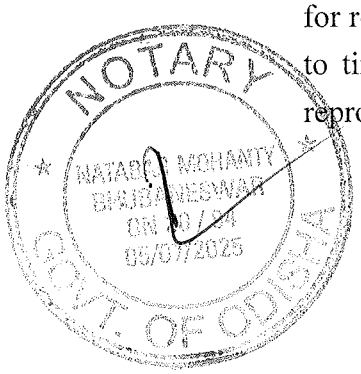
(i) Hon'ble Commission's tariff order dtd.19th April, 2002 in Case No. 65 of 2001 & Case No. 04 of 2002 vide Para 6.4.17 through Para 6.4.21 had decided the equity component of OHPC.

(ii) Based on the above order and subsequent Government Notification dtd.29.01.2003, the Return on Equity was allowed to OHPC on new investments made after 01.04.1996.

(iii) The Regulation No. 28(2) of OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2024 stipulates that, *"Return on equity shall be computed at the base rate of 14.0% for all thermal generating stations, at the base rate of 15.5% for run-of-river hydro generating station and at the base rate of 16.5% for storage type hydro generation station, pumped storage hydro generating station and run-of-river generating station with pondage;*

Provided that return on equity in case of existing generating stations of OPGC (Unit - I & II) and existing hydro stations of OHPC shall be as per the provisions of the PPA."

However, the PPA of old power stations of OHPC & that of UIHEP have a provision for revision of tariff norms as per the regulations issued by Hon'ble OERC/CERC time to time.The relevant clauses of PPA of old power stations of OHPC & UIHEP are reproduced below:





Clause No-9(ii) of Schedule-5 of PPA of old power stations under head " Revision of Tariff" norm, is reproduced below.

"*In case of any fresh guidelines / rules / regulations issued by OERC / CERC regarding the tariff and its application and it shall be applicable from the date of its notification*".

Clause No-11of Schedule-5 of PPA of UIHEP" under head "Revision of Tariff", is reproduced below.

"*The tariff shall be subject to revision at the time of renewal, replacement or extension of this Agreement or if required as a result of any guidelines/directives that Government of Odisha and/or GOI may issue from time to time regarding the tariff and its application*".

The copies of relevant portion in the PPA are enclosed at **Annexure-14** for kind reference.

Accordingly, since all the power stations of OHPC are storage/pondage type, the base rate of RoE for the power stations of OHPC is considered as 16.5% as per the norms of OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2024 applicable for storage type hydro generation station and run-of-river generating station with pondage.

(iv) As per the provisions made in Regulation No. 29(1) OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2024 the income tax of the Generating Company shall be recovered from the beneficiaries (This will exclude income tax on other streams i.e. from non-generation business).

(v) Hon'ble Commission, in the order dated 20.03.2008 has approved Rs. 1194.79 Crs. as final capital cost of UIHEP for the purpose of determination of tariff. Since UIHEP was commissioned after 01.04.1996, the investment in UIHEP is considered as new investment. Equity Base for Govt. investment in UIHEP was considered as Rs 298.70Crs (i.e.,25% of the Project Cost/ GFA). All decapitalization made in UIHEP is deducted from the Original Approved Project Cost/ GFA and Equity is calculated @25% on balance Original Project Cost/ GFA. However, for further additional capitalization over Original Project Cost/ GFA of UIHEP after COD, the equity base of 30% has been considered as per the provision in Regulation No. 26(3) of OERC (Terms and conditions for determination of Generation Tariff) Regulations, 2024. Hon'ble OERC has approved the same in the past years. OHPC has considered the same principle in the present tariff for the FY 2025-26. However, the Equity Capital for computation of RoE for tariff for FY 2025-26 has been considered as per the new capital addition shown in the Column No. 5 of Table No 9.

(vi) In case of old power Stations OHPC has computed the Equity Base considering approved Additional Capitalization from 1996-97 onwards up to FY2023-24 as

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proposed in truing up and estimated additional capitalization for FY 2024-25 & FY2025-26 of which 30% of these additional capitalizations are considered as Equity Base as per the provision in Regulation No. 26(3) of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024.

vii) As per the Government Notification dtd.29.01.2003, the Return on Equity was allowed to OHPC on new investments made after 01.04.1996. The power station wise details of new investment to be considered for computation of RoE is furnished in the Table below:

(Additional capitalisation after FY1996-97 considered for computation of RoE)

Table-12 **(Rs In Crs.)**

Sl. No.	Name of the Power Stations	New additions from 01.04.1996 to 31.03.2024 (Considered in Truing up of GFA for FY2023-24 as CB)	Original Project Cost/ GFA Approved for UIHEP	Estimated Additional Capitalisation for FY2024-25 & FY2025-26	Total New additions from 01.04.1996 to 31.03.2026 considered for Tariff 2025-26	Asset reduction from New addition after FY1996-97 to be considered for computation of RoE (For UIHEP only)	Net New additio for computation of RoE for FY2025-26
	1	2	3	4	5=2+3+4	7	8=6-7
1	RHEP	89.333	0.000	0.000	89.333	0.000	89.333
2	UKHEP	42.759	0.000	6.090	48.849	0.000	48.849
3	BHEP	416.943	0.000	0.000	416.943	0.000	416.943
4	HHEP	452.144	0.000	4.615	456.759	0.000	456.759
5	CHEP	152.952	0.000	144.360	297.312	0.000	297.312
	Sub Total	**1154.131**	**0.000**	**155.065**	**1309.196**	**0.000**	**1309.196**
6	UIHEP*	**195.932**	1194.790	0.000	1390.722	5.825	1384.897
7	**Total**	**1350.063**	**1194.790**	**155.065**	**2699.918**	**5.825**	**2694.093**

Reason for deducting decapitalization of Asset from the Historic Cost of Old Power Stations & from Initial Project Cost/ GFA of UIHEP:-

The asset of old power station which are decapitalised from the audited account are the Transferred Assets.Hence any deduction of Asset shall be made from the Historic value of the asset but not from the new addition made after 01.04.1996. Similarly the asset of UIHEP which are deleted from the audited accounts are the Initial Asset of UIHEP .Hence any deduction of Asset of UIHEP shall be deducted from Initial Project Cost/ GFA but not from the new addition after CoD of UIHEP i.e 19.04.2001.

The details of computation of RoE for different power stations of OHPC for the FY 2025-26 as per the OERC (Terms & Conditions for determination of Tariff) Regulations, 2024 is furnished in the Table below:

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Table-13

Computation of RoE for different power stations of OHPC for FY 2025-26:-

(Rs. in Crs.)

Name of the Power Station	Capital Addition considered for RoE upto FY 2023-24 audited account (in Crs) {refer col. 8 of Table-13}	Share of Equity (%)	Value of Equity capital (in Crs)	ROE @16.5% as per New OERC Regulations 2024 & provisions under PPA
1	2	3	4=2*3	5=16.5% of 4
RHEP	89.333	30	26.800	4.422
UKHEP	48.849	30	14.655	2.418
BHEP	416.943	30	125.083	20.639
HHEP	456.759	30	137.028	22.610
CHEP	297.312	30	89.194	14.717
UIHEP	1384.897	25&30	356.021	58.743
Total	**2694.093**		**748.779**	**123.549**

NB: Approved Project Cost/ GFA of UIHEP is Rs1194.79Cr.

Decapitalization for FY 2013-14 to FY 2023-24= Rs 5.825Cr. Decapitalization is deducted from the approved initial Project Cost/ GFA.

Updated Project Cost/ GFA (excluding Additional Cap.) = Rs 1194.79Cr – Rs5.825Cr =Rs1188.965Cr.

Additional Capitalization from FY2013-14 to FY2023-24 =Rs195.932Cr

Project Cost/ GFA for Tariff of UIHEP = Rs1188.965Cr. + Rs195.932Cr= Rs 1384.897Cr

- The Equity Capital of UIHEP has been considered @25% of Rs1188.965Cr= Rs 297.241 Crs. Adding to it the 30% equity towards net additional capitalization from FY 2013-14 to FY 2025-26 of Rs 195.932Cr. =Rs58.78Crs(i.e.). So the total equity capital of UIHEP comes out as Rs.356.021Cr..

OHPC prays before the Hon'ble Commission to approve Return on Equity of different power stations of OHPC amounting to Rs123.549Crs for the FY2025-26 as shown in the Table above.

B) Interest on Loan: The loan liabilities transferred to OHPC by State Government as on 01.04.1996 consisting of state Government loan, PFC loan and Normative Loan as given in the table below:

Table-14

(Rs. in Crs.)

Sl. No.	Description of loan	Amount as on 01.04.1996
1.	9.8% loan	39.20
2.	13% or 7% loan (UIHEP)	497.86
3.	Interest free loan (UIHEP)	132.14
4.	13% loan (Potteru)	14.30
5.	Zero Coupon Bond-I	383.10
6.	Zero Coupon Bond-II	383.10

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(I) State Govt. Loan:

a) Hon'ble Commission had examined the proposal of OHPC towards payment of interest on Government loan and considered Government loan of UIHEP as Rs.497.86 Cr. and normative loan to the extent of Rs.78.74 Cr. The Hon'ble Commission has already dealt with the matter in Case No.100/2012 and as per para 131 of the compendium of tariff orders for FY 2013-14 has directed as follows:

"The Commission has analyzed the proposal of OHPC and observes that the principal repayment has already been passed in the tariff of 2010-11, 2011-12 and 2012-13 @ Rs.30.23 Cr. per year. The same amount is allowed in the tariff of 2013-14 towards principal repayment. The total principal repayment will take 17 years i.e., beginning with 2010-11 and will terminate by 2027-28. Thereafter, the interest payment will be taken into consideration. In this circumstance for the year 2013-14 an amount of Rs.30.23 Cr. is allowed as principal repayment under the head Depreciation. No interest component for UIHEP is allowed in the tariff for 2013-14.

As far as repayment of normative loan of Rs.78.74 Cr. is concerned, the Commission feels that after the total repayment of Govt. loan as approved above, this loan repayment may commence at the same rate of Rs.30.23 Cr. each year i.e., beginning with 2028-29. The interest component will be considered after the total repayment of the principal in line with the Govt. loans. Moreover, OHPC had not mentioned about this loan in any of the filings made in the previous years. Based on the above observations and the letter dtd.28.12.2012 of the Commission to the Govt., the 7% loan on UIHEP has not been considered in the tariff of FY 2013-14.

Therefore, for the purpose of tariff of UIHEP for the FY 2013-14, the Commission approves an amount of Rs.30.23 Cr. in the head Depreciation for the purpose of loan repayment. Thus, at the end of the tariff period i.e., by March, 2014, the State Govt. loan is deemed to be repaid by an amount of Rs. 120.92 Cr. leaving an outstanding loan of Rs.376.94 Cr. to be repaid in the subsequent years. No interest on loan for UIHEP was allowed for the purpose of tariff for the FY 2013-14."

b) During passing the order for Annual Revenue Requirement of OHPC for the FY 2014-15 the Hon'ble Commission had examined the proposal of OHPC towards payment of interest on UIHEP Govt. loan of Rs.497.86 cr. and normative loan of Rs.78.74Cr. Hon'ble Commission has made the following observations in the tariff order of OHPC for the FY 2014-15:

"i) The Commission had observed that the depreciation has already been allowed in the tariff of 2010-11, 2011-12, 2012-13 and 2013-14 @ Rs.30.23 Cr. per year. The same amount is also allowed in the tariff of 2014-15 towards principal repayment of UIHEP Govt Loan. Thus, OHPC is required to make Principal repayment of Rs 30.23 Crs. against the depreciation allowed during the FY 2014-15. Further the depreciation allowed from the FY 2010-11 to 2013-14 totals amounting to Rs 120.92 Crs. may also be paid to the Govt. of Odisha.

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ii) *The Commission may consider the interest accumulated on Govt Loan and Normative loan of UIHEP in the ARR of OHPC after completion of the Principal repayment of the Govt loan and Normative loan as per our observations above.*

iii) *The Commission had examined the Comments of Comptroller and Auditor General of India regarding non-booking of interest by OHPC on Govt loan extended to UIHEP @ 7% w.e.f 2006-07 onwards based on the Govt Notification dated 6.01.2010 which provides that: -*

"***The State Government investment actually made in Upper Indravati Project, excluding the Normative Equity, should yield return to the State Government w.e.f FY 2010-11 after clearance of loan liabilities of PFC. However, interest @ 7% should be charged and paid on this investment from FY 2006-07 onwards."***

The Commission has accepted the interest element on UIHEP Govt loan since 2006-07 but could not pass the same to avoid tariff burden on Consumers. Hence the matter has been crystallized in the Tariff Order for FY 2013-14. Therefore, OHPC is required to book the interest on UIHEP Govt Loan @ 7% w.e.f 2006-07 on accrual basis based on the Tariff Order dated 20.3.2013.

Based on the above observations and the Commission's letter No. Dir (T)-175/02/77 dtd.16.01.2014 to the Government, Hon'ble Commission did not allow interest on loan for UIHEP for the purpose of tariff for FY 2014-15."

c) Govt. of Odisha communicated its suggestions/views/comments on various issues involving tariff setting for the year 2016-17 including subsidy / subvention and other important matters having a direct bearing on fixation of tariff for the year 2016-17 vide their letter No.2091 dated 11.03.2016. Govt. has already clarified its view on debt servicing and had furnished views as follows:

"XXXXXXX... *Regarding moratorium of debt services of OHPC, it can be stated that moratorium of debt service have been allowed by Govt. for both repayment of loan and payment of interest for UIHEP Govt. Loan. The State Govt. vide notification dtd. 06.01.2010 is of the view that, the State Govt. investment actually made in Upper Indravati Project, excluding the normative equity, should yield return to the State Govt. w.e.f. FY 2010-11 after clearance of loan liabilities of PFC. However, interest @7% should be charged and paid on the investment from FY 2006-07 onwards.* ***Further, the State Govt. vide letter no.4323 dtd.31.05.2014 has suggested Hon'ble Commission to include both payment of interest and repayment of principal in the ARR of UIHEP.*** *In view of above, Hon'ble Commission may include both payment of interest and repayment of principal in the ARR of UIHEP. The interest w.e.f. 2006-07 to 2016-17 may be kept as Regulatory Assets of OHPC to be paid in future tariff."*

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d) Again the Commission brought the issue to the notice of GoO vide letter No.JD(FIN)175/02 (Vol. II)/302 dt.23.02.2017 to take a view on keeping the effect of up-valuation in abeyance for the year 2017-18. Government of Odisha vide letter no. LCOERC-18/2017/1929 dt.08.03.2017 replied as follows:

"X *XXXX Relating to OHPC, the Hon'ble Commission may consider to include both payment of interest and repayment of principal in the ARR of UIHEP. However, the interest w.e.f. 2006-07 to 2017-18 may be kept as Regulatory Assets of OHPC to be paid in future tariff.*"

e) Hon'ble Commission at Para 103 of the Tariff approval of OHPC for the FY 2017-18 has stated as follows:

"Considering the above, the Commission allows OHPC to make Principal repayment of Rs.30.23 Cr. against the depreciation during the FY 2017-18. ***The Commission may consider the interest accumulated on Govt Loan and Normative loan of UIHEP in the ARR of OHPC after completion of the Principal repayment of the Government loan and Normative loan as per our earlier observations.*** *In line with the above observations and the Commission's letter No. DIR(T) 17512/57 dtd.13.01.2015 to the Government, no interest payment on Government loan and normative loans for UIHEP is allowed for the purpose of tariff for FY 2017-18."*

f) Hon'ble Commission at Para 65 of the Tariff approval of OHPC for the FY 2018-19 has stated as follows:

Government of Odisha communicated its suggestions/views/comments on various issues involving tariff setting for the year 2018-19 including subsidy / subvention and other important matters having a direct bearing on fixation of tariff for the year 2018-19 vide their letter No.ELC-OERC-03/2018/2253 dated 12.03.2018.

"Regarding the issue of up-valuation of assets pertaining to OPTCL, Generators and other licensees the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets like previous years. Considering the present difficult situation, the Govt. agrees to extend the status-quo on up-valuation till 2018-19."

g) Hon'ble OERC at Para No. 71 of the Tariff Order of OHPC for the FY2019-20 had furnished the views of GoO regarding Up valuation of Asset of OHPC as follows:

"Government of Odisha communicated its suggestions/views/comments on various issues involving tariff setting for the year 2019-20 including subsidy / subvention and other important matters having a direct bearing on fixation of tariff for the year 2019-20 vide their letter No.LC-OERC-06/2019-2283 dated 12.03.2019.

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"Regarding the issue of up-valuation of assets pertaining to OPTCL, Generators and other licensees the Government for the time being agrees with the views of the Commission to keep in abeyance the up-valuation of assets like previous years. Considering the prevailing situation, the Govt. agrees to extend the status-quo on up-valuation till 2019-20."

h) Hon'ble OERC at Para No. 53 of the Tariff Order of OHPC for the FY2020-21 in the matter of Up valuation of Asset of OHPC has viewed as under:

"The reply of the Government of Odisha is still awaited and in view of this, the Commission assumes the principles adopted for fixation of tariff for the year 2019-20 to be continued for the year 2020-21. Hence the Commission has decided to keep in abeyance the up-valuation of assets like previous years while determining the tariff of OHPC Power Stations."

i) Similarly, Hon'ble OERC at Para No. 143 of the Tariff Order of OHPC for the FY2021-22 in the matter of Up valuation of Asset of OHPC had made following observations:
"The *Commission has sought views of Government of Odisha vide its Letter DIR(T)-405/21-22/313 dated 25.02.2021 on the issue of keeping in abeyance the effect of upvaluation of assets of OHPC. Since no reply has been received it is assumed that the moratorium on upvaluation shall continue for FY 2021-22 also.*"

j) ***OHPC's view on debt servicing of Govt. investment in UIHEP***:
The difference in opinion in the debt servicing of the Govt. investment in UIHEP between the DoE, GoO & Hon'ble OERC is summarized as follows:

a) Decision of the State Govt.:

- ***State Govt. vide letter no.4323 dtd.31.05.2014 has suggested Hon'ble Commission to include both payment of interest and repayment of principal in the ARR of UIHEP.***
- DoE, GoO vide Lr. No. 3063 Dtd. 31.03.2015 had directed OHPC to pay the interest due to the State Govt. from the FY 2006-07 to FY 2014-15 amounting to Rs 329.25Cr. on UIHEP Govt.loan.
- *Govt. of Odisha vide lr. No.1929 dtd.08.03.2017 to Hon'ble OERC intimated that the interest w.e.f. 2006-07 to 2017-18 may be kept as Regulatory Assets of OHPC to be paid in future tariff.*

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b) Decision of the Hon'ble OERC.

Hon'ble Commission is of the view that the interest accumulated on Govt Loan and Normative loan of UIHEP may be considered in the ARR of OHPC after completion of the Principal repayment of the respective Government loan and Normative loan as per decision in Case No.100/2012 and as per para 131 of the compendium of tariff orders for FY 2013-14 and in subsequent orders of the Commission up to 2022-23.

Hon'ble OERC at Para No. 86 of the Tariff Order of OHPC for FY 2019-20 has once again expressed their view on Repayment of Interest on UIHEP Govt. Loan & Normative Loan of Rs78.74Crs or considering it as Regulatory Assets:

"*OHPC has claimed Rs.14.747 Cr. towards interest on Government loan of UIHEP in the Tariff for the FY 2019-20. OHPC has also claimed cumulative interest to be recovered from FY 2006-07 to FY 2018-19 @7% on Rs.497.86 Cr. (as per OHPC's rescheduled statement) to the extent of Rs.367.35 Cr. towards UIHEP Government loan which the Government has proposed to consider as Regulatory Asset.*

The Commission is not inclined to consider it in view of earlier orders."

OHPC View:

In view of the above contradicting scenario, OHPC is of the view that, both DoE, GoO and Hon'ble OERC may agree to a single decision which will not put OHPC into difficulty in Tariff computation of OHPC Power Stations.

Therefore, OHPC has not considered the impact of Interest on UIHEP Govt. Loan; Interest on Normative Loan of Rs78.74Crs. Also, OHPC has not claimed the Cumulative interest of these two loans as regulatory assets in view of the above directions of Hon'ble Commission.

Present Status of UIHEP Govt. Loan based on the approvals of Hon'ble OERC: -

Table-15

(Rs. In Cr.)

Original Approved Project Cost/ GFA	1195.42
Project Cost/ GFA after deducting the infirm power cost	1194.79
Equity @25%	298.70
Govt. Loan of UIHEP	497.86
Depreciation allowed from 2010-11 to 2024-25 @ Rs30.23 Crore	453.45
Loan Repayment made till FY 2023-24 & to be paid for FY2024-25	453.45
Balance Outstanding Loan as on 01.04.2024	44.41 Crore
Cumulative interest on UIHEP Govt. Loan from FY 2006-07 to FY 2024-25 @ 7%	424.09 Crore (Govt. proposed to consider as regulatory asset)
Cumulative interest on normative loan from FY 2001-02 to FY 2024-25 @ 7%	140.43 Crore (Not paid)

- PFC loan of Rs319.49 has already been repaid in full by FY 2009-10.
  OHPC has so far paid Rs423.22Cr to Govt. by March 2024. The depreciation approved for FY 2024-25 for Rs 30.23Cr shall be paid by the end of this Financial Year (2024-25).

(II) Break-Up of UIHEP approved Project Cost/ GFA: -

Govt. Loan	=	**Rs 497.86Cr.**
PFC Loan	=	**Rs 319.49 Cr.**
Equity	=	**Rs 298.70 Cr**
Normative Loan	=	**Rs 78.74 Cr**
Total	=	***Rs 1194.79Crs***

(Approved Project Cost/ GFA of OERC)

According to Clause No. 3(nnn) (ii) of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020

"***Useful Life in relation to a unit of a generating station from the COD shall mean the following, namely: -***

(ii) Hydro generating station including pumped storage hydro generation station - 40 years"

The schedule of payment for recovery of 90% of Project Cost/ GFA along with interest is shown under Depreciation at **Table No.17 below** considering useful life of 40years:

- **Views of the Hon'ble Commission on Govt. Loan**:
  Commission in the Para 131 of Compendium of Tariff Order of OHPC for FY 2013-14 has observed that "***after the total repayment of Govt. loan as approved above, this loan repayment may start at the same rate of Rs.30.23 Cr. each year i.e., beginning with 2026-27. The interest component will be considered after the total repayment of the principal in line with the Govt. loans***".
  Hon'ble OERC in the para 57(a)(ii) of the Tariff Order of OHPC for FY2024-25 had made following observations:
  "As per earlier directions of the Commission, OHPC has not considered the impact of interest on Govt Loan & Normative Loan of Rs 78.74Crs in respect of UIHEP for Tariff Calculation for the FY 2024-25. Similarly, in view of the directives of the OERC, OHPC has not claimed the accumulated interest on Govt Loan & Normative Loan in respect of UIHEP as regulatory asset."

III) Normative Loan:

(a) Normative Loans of different Power Stations due to Additional Capitalization: -

Though, 9.8% State Govt. loan has been repaid, the normative loans of the respective units are still pending. The normative loans of CHEP, RHEP & UKHEP for the FY2025-26 are considered @ 9.8% as per Clause No. 22 of OERC (Terms &

Conditions for determination of Generation Tariff) Regulation, 2024. The normative loan of BHEP, Balimela is considered @ 9.6 % for FY 2025-26 based on PFC interest rate applicable to BHEP. Similarly, the normative loan of HHEP, Burla is considered @ 8.75 % for FY 2025-26 based on PFC interest rate applicable to HHEP, Burla. The Normative loan of UIHEP for the FY2025-26 due to the additional capitalization based on audited accounts of FY 2023-24 is considered @7% being the prevailing rate of interest for State Govt. Loan as per the OERC tariff norms.

Consideration of normative loan of individual power stations:

As per the provision of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 any investment exceeding 30% shall be considered as normative loan. In the previous years OHPC had considered year wise and power house wise normative loan based on additional capitalization reflected in the audited account. Also repayment were adjuted year wise to calculate the closing balance.

Accordingly OHPC has computed Rs.47.607 Crs as total interest on Normative Loan for the FY2025-26. The power station wise breakup of the outstanding Normative Loan and interest on loan is shown in the Table-17 below.

(b) Normative Loan of Rs 78.74Crs of UIHEP: -

As far as repayment of normative loan of UIHEP amounting to Rs.78.74Crs is concerned, the Commission in the Para 131 of Compendium of Tariff Order of OHPC for FY 2013-14 has stated that ***"after the total repayment of Govt. loan as approved above, this loan repayment may start at the same rate of Rs.30.23 Crs. each year i.e., beginning with 2026-27. The interest component will be considered after the total repayment of the principal in line with the Govt. loans."***

Hon'ble Commission has never allowed interest and principal of the Normative Loan of Rs 78.74Crs in previous Tariff approvals of OHPC. The accumulated interest calculated up to 31.03.2025 will be Rs 140.43 Crore at the prevailing rate of interest of State Govt. Loan @7%.

Hon'ble Commission at para no. 91 & 92 of the Tariff Order of OHPC for FY2019-20 has once again furnished the view on repayment of UIHEP Govt. Loan & Normative Loan of UIHEP of Rs78.74Cr as follows:

"....X...X..X.... Commission agrees with the view of the objectors and the Consumer Counsel during hearing not to allow any separate interest on Government loan and normative loan of UIHEP in ARR."

"Considering the above, Principal repayment of Rs.30.23 Cr. against the depreciation during the FY 2019-20 is allowed and may consider the accumulated interest on above after completion of the Principal repayment as has been decided earlier. In line with

the above observations and the Commission's letter No. DIR(T) 175-12/57 dtd.13.01.2015 to the Government, no interest payment on Government loan and normative loans for UIHEP is allowed for the purpose of tariff for FY 2019-20."

Hence, based on the earlier directions of Hon'ble OERC, OHPC has not considered the impact of interest on Govt Loan & Normative Loan of UIHEP in the Tariff Calculation of OHPC for the FY2025-26. Similarly, OHPC has not claimed the accumulated interest on Govt Loan & Normative Loan of UIHEP as regulatory asset in view of the directives of Hon'ble OERC.

Summary of Interest:

Considering the above facts, the interest on outstanding loans payable by OHPC for the FY 2025-26 is given in the table below: -

Table-16

Statement of Outstanding Loan & Interest thereon for the FY2025-26

(Rs. in Crs.)

Sl. No.	Source of Loan	Loan O/S as on 01.04.2025	Interest on Loan for the FY 2025-26
1	State Govt. Loan of UIHEP @7%*	44.41	0.00
2	Normative Loan of Rs78.74Cr for UIHEP, Mukhiguda @ 7%	78.74	0.00
3	Normative Loan of CHEP@ 9.80%	155.99	14.78
4	Normative Loan of UKHEP@ 9.80%	16.30	1.54
5	Normative Loan of HHEP@ 8.75%	119.02	10.07
6	Normative Loan of BHEP@ 9.60%	123.52	11.46
7	Normative Loan of RHEP@ 9.80%	21.39	2.03
8	Normative Loan of UIHEP@ 7.0%	114.24	7.73
Total		**673.60**	**47.607**

Abstract of Interest:

The Power Station wise interest on loan as described above is given below:

Table-17

Source of loan	Interest on loan for FY 2025-26						(Rs. In Crs)
	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	TOTAL
Normative loan	2.026	1.544	11.462	10.067	14.777	7.730	47.607

Therefore, OHPC prays before the Hon'ble Commission to approve Rs 47.607 Crs. in the tariff of OHPC for the FY2025-26 for payment of Interest towards Normative Loans of the different Power Stations of OHPC as mentioned in the above table.

C) Depreciation:

(i) Depreciation is the refund of capital subscribed and is a constant charge against an asset to create a fund for its replacement. It is an important component of Annual Fixed Cost of the Generating Station.

(ii) Earlier, up to FY 2000-01, the Commission had calculated depreciation on prevalent norms i.e., post'94 rate, which substantially raised the revenue requirement due to upfront loading. Since 2001-02, as a part of corrective measures depreciation was limited to the principal loan repayment during a particular year. However, during 2003-04, as per the directions of the High Court of Orissa, depreciation was calculated at pre-1992 norms notified by Govt. of India on the book value of the assets. During 2004-05 again, the Commission calculated depreciation limiting to principal repayment. Hon'ble OERC continued this approach of allowing depreciation @2.57% of the Project Cost/ GFA or loan repayment whichever is higher upto FY2020-21. However from FY2021-22 to 2024-25, Hon'ble OERC allowed depreciation limiting to 2.57% of the approved Project Cost/ GFA(i.e as per pre-1992 Norms).

(iii) Direction of OERC on recovery of Loan Liability of UIHEP in the Tariff Order of OHPC for the FY2013-14:

Hon'ble Commission at Para No. 131 of the Tariff Order of OHPC for the FY2013-14 had given a detail direction for repayment of Loan Liability of UIHEP, which is reproduced as follows:

"The Commission has examined the proposal of OHPC towards payment of interest on Govt. loan of Rs.497.86 Crs. and the interest on normative loan of Rs.78.23 Crs. The Commission has observed that the repayment of Govt. loan be made phase-wise i.e., firstly the principal repayment will be made and then the interest component will be paid as is the usual practice in the case of Govt. loans. The Commission has analyzed the proposal of OHPC and observes that the principal repayment has already been passed in the tariff of 2010-11, 2011-12 and 2012-13 @ Rs.30.23 Cr. per year. The same amount is allowed in the tariff of 2013-14 towards principal repayment. The total principal repayment will take 17 years i.e., beginning with 2010-11 and will terminate by 2027-28. Thereafter, the interest payment will be taken into consideration. In this circumstance for the year 2013-14 an amount of Rs.30.23 Cr. is allowed as principal repayment under the head depreciation. No interest component for UIHEP is allowed in the tariff for 2013-14.

As far as repayment of normative loan of Rs.Rs.78.23 Crs. is concerned, the Commission feels that after the total repayment of Govt. loan as approved above, this loan repayment may start at the same rate of Rs.30.23 Crs. each year i.e., beginning with 2028-29. The interest component will be considered after the total repayment of the principal in line with the Govt. loans. Moreover, OHPC had not mentioned about this loan in any of the filings made in the previous years."

(iv) Loan repayment schedule of UIHEP from FY2024-25 to FY2039-40:

Keeping in view of the above, loan liability & repayment schedule of UIHEP up to FY 2039-40 is provided below for approval and subsequent consideration in the tariff.

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ON 21/
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GOVT OF ODISHA

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Table-18

Schedule of Payment for recovery of 90% of Original Project Cost/ GFA along with interest							
Financial year	**Depreciation**			**Interest on Loan**		**Total Recovery**	**Remarks**
	Principal Govt. Loan	**Bal. Depreciation @15% of Rs1194.79Cr**	**Princi pal Nor. Loan**	**Interest Govt. Loan**	**Interest Nor. Loan**		
2001-02 to 2009-10	PFC Loan Recovered					319.5	**PFC Loan Recovered in the first 10 years**
2010-11 to 2024-25	Govt. Loan principal Recovered @Rs30.23Cr					453.45	**Total Principal of Govt. Loan of UIHEP recovered through Depreciation= Rs30.23 x15= Rs453.45Cr**
2025-26	30.23	0	0			30.23	Interest on Govt. Loan UIHEP & Normative Loan repayment not considered .Only Rs30.23Cr towards principal of Govt. Loan to be approved.
2026-27	14.18	0	16.05			30.23	Principal of Govt. Loan stops; Principal of Normative Loan starts
2027-28	Fully Repaid		30.23	30.47		60.70	Repayment of Interest of Govt Loan Starts @32.82 (426.64/14)
2028-29			32.46	30.47		62.93	
2029-30		14.94		30.47	12.95	58.36	**Bal. Depreciation @15% of Rs1194.79Cr starts @14.94(179.22/12) & Interest on Normative Loan Starts @12.95 (155.36/12)**
2030-31		14.94		30.47	12.95	58.36	Same as above
2031-32		14.94		30.47	12.95	58.36	Same as above
2032-33		14.94		30.47	12.95	58.36	Same as above
2033-34		14.94		30.47	12.95	58.36	Same as above
2034-35		14.94		30.47	12.95	58.36	Same as above
2035-36		14.94		30.47	12.95	58.36	Same as above
2036-37		14.94		30.47	12.95	58.36	Same as above
2037-38		14.94		30.47	12.95	58.36	Same as above
2038-39		14.94		30.47	12.95	58.36	Same as above
2039-40		14.94		30.47	12.95	58.36	Project Cost Recovered & Loan Liability Repaid
2040-41		14.88		30.53	12.91	58.32	
Status	**Paid**	**Paid**	**Paid**	**Paid**	**Paid**	**Paid**	
Total	**498**	**179.22**	**78.74**	**426.64**	**155.36**	**1657.45**	**Rs 1075.45Crs(Recovery of 90% of Project Cost)+ Rs 582Crs towards Interest.**

N.B.:

i) OHPC has rescheduled the Recovery of Project Cost/ GFA & Loan Liability of UIHEP for useful life of 40 years instead of 35 years starting from FY2001-02 to FY2040-41 as per OERC Generation Tariff Regulation 2020.

ii) The Repayment of Principal of Govt. Loan @Rs30.23Crs shall continue upto FY2025-26 and balance repayment of Rs 14.18Crs shall be made on FY2026-27 and from FY2026-27 the repayment of Principal of Normative Loan of Rs78.74Crs starts upto FY2028-29 as per the direction of Hon'ble OERC in the Tariff Order for FY2013-14.

iii) Recovery of Accumulated Interest on Govt Loan of Rs426.64Crs starts from FY2027-28 after repayment of Principal of Govt. Loan as per the Principle stipulated by Hon'ble OERC in FY2013-14. The repayment is spread @Rs30.47Crs for the balance life period of 14 years.

iv) **Bal. Depreciation @15% of Rs1194.79Cr amounting to Rs179.22Crs (90% of Project Cost/ GFA- debt @ 75%) shall be spread over the balance life of the project @Rs14.94Crs as per the direction of Hon'ble OERC in Tariff Order for FY2010-11.**

v) Cumulative Interest on Normative Loan of Rs78.74Cr = Rs155.36Crs. The repayment of this accumulated interest shall start after repayment of Principal of the Normative Loan of Rs78.74Crs as per the direction of Hon'ble OERC at Para No. 131 of the Tariff Order of OHPC for the FY2013-14.

vi) If Hon'ble OERC approves depreciation of UIHEP as per the direction in the Tariff Order of OHPC for FY2010-11 than OHPC shall be able to recover 90% of Original Project Cost/ GFA of Rs1075.31Crs. Similarly, as per the direction of OERC at para no. 131 of the Tariff Order of OHPC for FY2013-14 OHPC shall be able to clear the interest liability.

vii) At this fag end of UIHEP the Renovation & Modernization of these machines will be due.

In view of the above Hon'ble Commission may kindly approve the Loan repayment schedule of UIHEP as shown above, so that 90% of Project Cost/ GFA is recovered & Loan Liabilities are cleared during the Useful life of the project.

(vi) Hon'ble Commission at Regulation No.31(5) of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024, has made provision for computation of depreciation for different power stations which is furnished below for kind reference.

Regulation 31(5). DEPRECIATION : ***"Provided that for existing Hydro generating plants of OHPC as per the directions of the High Court of Orissa, depreciation will be calculated at pre-1992 norms notified by Government of India on the book value of the assets or loan repayment linked to that asset, whichever is higher;"***

Accordingly, a comparative statement for actual loan repayment and depreciation @2.57% of the Project Cost/ GFA(pre-1992 Norms) for the FY2025-26 are shown in the Table below to arrive at the depreciation amount to be claimed in the ARR & Tariff of OHPC for the FY2025-26.

Table -19

Depreciation Claim for the FY 2025-26

(Rs in Crs.)

Sl. No.	Power Stations	Project Cost/ GFA	Depreciation @ 2.57%	Loan Repayment	Depreciation Claimed@2.57% of the Project Cost/ GFA or Loan repayment Which ever is higher
1.	RHEP	178.70	4.59	1.43	4.59
2.	UKHEP	153.65	3.95	1.09	3.95
3.	BHEP	529.16	13.60	8.23	13.60
4.	HHEP	503.82	12.95	7.93	12.95
5.	CHEP	386.72	9.94	10.40	10.40
6.	UIHEP	1384.90	35.59	37.85	37.85
Total		**3136.95**			**83.33**

OHPC prays before the Hon'ble Commission to approve Rs83.33Crs towards Depreciation for the FY 2025-26 for the different Power Stations of OHPC as mentioned in the above table.

D) Operation & Maintenance (O&M) Expenses:

(a) Provisions of O & M in OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 are reprpduced below.

Regulation 3(1)(vv) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 stipulates that:

*"**Operation and Maintenance Expenses**" or "**O&M expenses**" means the expenditure incurred for operation and maintenance of the project, or part thereof in a financial year and includes the expenditure on manpower, maintenance, repairs and maintenance spares, other spares of capital nature valuing up to Rs 10 lakhs, additional capital expenditure of an individual asset costing less than Rs. 20 lakhs, consumables, insurance, security expenses, overheads and fuel other than used for generation of electricity;"*

Regulation No. 21(2) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 stipulates that:

"...x...x.....x...Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met through normative O&M expenses."

Regulation 34(2)(f) *"O&M norms for the existing plants of OHPC will be as determined by the Commission from time to time."*

(b) Accordingly, power station wise and asset wise estimated additional capitalization less than Rs 20lakhs and Capital Spares valuing up to Rs. 10 lakhs as per budgetary provisions approved by OHPC for the FY2024-25 & FY2025-26 amounting to Rs 18.18 Crs are not considered as estimated additional capitalization and the same are included in the O & M Expenses as per Regulation 3(1)(vv) & 21(2) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024 as mentioned above..

The details of power station wise and asset wise such estimated capital expenditures less than Rs 20lakhs and Capital Spares valuing up to Rs. 10 lakhs are mentioned in the Table below for kind reference. However the relevant documents are enclosed at **Annexure-15** for kind reference.

CAPITAL EXPENDITURES CONSIDERED UNDER O & M FOR FY2025-26.

Table-20 **(In Crs)**

SL. No	Power Stations	Estimated Capital Spares valuing up to Rs. 10 lakhs for FY2024-25 & FY2025-26	Estimated Additional capital expenditure costing less than Rs. 20 lakhs FY2024-25 & FY2025-26 (Corporate office apportioned)	Proposed Restimated Capital expenditures considered as O & M Expenses as per the Regulations
1	**2**	**3**	**4**	**5=3+4**
1	RHEP	0.00	4.62	4.62
2	UKHEP	0.00	3.24	3.24
3	BHEP	0.00	2.66	2.66
4	HHEP	0.00	2.50	2.50
5	CHEP	0.00	3.38	3.38
6	**Sub Total**	0.00	**16.41**	**16.41**
7	UIHEP	0.00	1.77	1.77
8	**Total**	0.00	**18.18**	**18.18**

(c) Hon'ble OERC in the previous years has approved O&M expenses of different power stations of OHPC by escalating the average of actual O&M expenses of last two years @ 5.72% per year and deleted the Dam Maintenance Expense against UIHEP received from DoWR.

As per the existing practice of computation of O&M, OHPC has accordingly computed the O&M Expense of different power stations of OHPC for the FY 2025-26 by escalating the average of actual O&M expenses for FY 2022-23 & FY2023-24 @ 5.72% for FY2024-25 & FY2025-26 and has deductedan amount

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of Rs2.43Crs from the O&M Expense of UIHEP, Mukhiguda towards the Dam Maintenance Expense received from DoWR for the FY 2023-24(audited) as per the principle adopted by the Hon'ble Commission in the tariff orders of OHPC for the FY2022-23, FY2023-24 & FY2024-25.

(d) Consideration of capital spare & Capital expenditure in O & M Expense:

OHPC has included estimated other spares of capital nature valuing up to Rs 10 lakhs, additional capital expenditure of an individual asset costing less than Rs. 20 lakhs for the FY2024-25 & FY2025-26, in the O & M expenses as per **Regulation 3(vv) & 21(2)** of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2024. The same is computed as Rs 18.18Crs as shown in Column No 5 of the Table above , which may please be referred. This expense have been added with the escalated value of average O & M expenditure of FY2022-23 & FY2023-24(audited).

(e) Less approval of O & M for FY2024-25.

Hon'ble OERC at para no 57(d)(ii) of Tariff Order of OHPC for the FY2024-25 has approved the O&M Expenses with following observations:

"The Commission analysed the audited O&M expenses of OHPC for FY 2021-22 and FY 2022-23 and observed that certain audited expenditure cannot be treated as purely O&M expenses i.e. loss of asset, loss of inventory, CSR, Rebate on sale of scrap and Donation. The Commission, after due scrutiny, is not inclined to allow the above audited expenditures booked under O&M expense. The O&M expenses have been calculated by taking the average audited O&M after deducting disallowed expense mentioned above and DOWR share for FY 2021-22 and FY 2022-23. The same has been escalated @5.72% for FY 2023-24 and FY 2024-25. The Commission, after taking into due consideration, allows an amount of Rs 317.89 Cr towards O&M for FY 2024-25 ARR."

It is to submit here that after deducting loss of asset, loss of inventory, CSR, Rebate on sale of scrap and Donation (as observed by Hon'ble OERC) , the audited O&M expense for the FY 2021-22 & 2022-23 works out to Rs 278.646 Cr & Rs316.973 Cr respectively. Accordingly O&M expense for the Fy 2024-25 becomes Rs 332.854 Cr as against Rs 317.89 Cr as approved by Hon'ble OERC. Hence there seems to be a computation error of Rs 14.964Crs in the approval of O & M for the FY2024-25 which needs to be clarified by the Hon'ble Commission. Also Rs 13.18Crs (i.e. Rs 346.034Crs minus Rs 332.854Crs),

which has been deducted by Hon'ble OERC towards loss of asset, loss of inventory, CSR, rebate on sale of scraps, donation etc. may kindly be allowed to OHPC as a pass through since this expenditures are arising out of the operational activities of the corporation. This unapproved O & M Expenses have been to calculated value of O & M Expenditure for FY2025-26 to obtain the proposed O & M expense for FY2025-26.

Accordingly, the computation of O & M Expense of different power stations of OHPC for FY2025-26 are shown in the Table below.

Table- 21

Statement of O & M Expenses for different power stations of OHPC for FY 2025-26(Rs. Crs.)

Sl. No.	Particulars	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	CO	Total
1	O & M expenses for FY 2024-25 approved by Hon'ble OERC	57.7	55.3	57.82	54.32	24.56	249.70	68.19		317.89
2	O & M expenses for FY 2022-23 as per Audited Account.	47.57	46.21	45.63	43.02	21.25	203.68	49.61	36.87	290.16
3	O & M expenses for FY 2023-24 as per Audited Account.	48.95	57.51	68.11	48.67	31.51	254.75	55.60	41.88	352.23
4	Average of O&M expenses (2022-23 & 2023-24)	48.26`	51.86	56.87	45.85	26.38	229.21	52.61	39.37	321.20
5	Escalation @5.72% for FY 2024-25	51.02	54.83	60.12	48.47	27.89	242.33	55.62	41.63	339.57
6	Escalation @5.72% for FY 2025-26	53.94	57.96	63.56	51.24	29.48	256.19	58.80	44.01	358.99
7	Add: Estimated Additional capitalization less than Rs 20lakhs and Capital Spares valuing up to Rs. 10 lakhs for the FY2024-25 & FY2025-26 (Corporate Office apportioned)	4.62	3.24	2.66	2.50	3.38	16.41	1.77		18.18
8	Total O & M Expenses for the FY 2025-26(6+7)	58.56	61.21	66.22	53.74	32.87	272.60	60.57	44.01	377.17

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Sl. No.	Particulars	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	CO	Total
9	Corporate Office expenses apportioned to different units under OHPC based on Installed Capacity	5.39	6.90	11.00	6.21	1.55	31.06	12.94	44.01	
10	Total O & M Expenses for the FY 2025-26(8+9)	63.95	68.11	77.23	59.95	34.42	303.66	73.51		377.17
11	Less Amount to be received from DoWR towards Dam Maintenance Sharing of UIHEP for FY 2025-26							2.43		2.43
12	**O&M Expenses for the FY 2025-26**	**63.95**	**68.11**	**77.23**	**59.95**	**34.42**	**303.66**	**71.08**	**0.00**	**374.74**
13	Add: Unapproved O & M for FY 2024-25	8.88	12.78	7.06	-2.82	-1.50	24.40	3.74		28.14
14	**Total O&M Expenses for the FY 2025-26(12+13)**	**72.83**	**80.89**	**84.29**	**57.13**	**32.92**	**328.07**	**74.82**	**0.00**	**402.89**

It may be noted that in case the O&M expense for FY 2024-25 will be considered favourably by Hon'ble OERC, the audited O&M expense as per audited account for FY 2022-23 as mentioned in the above table will be revised accordingly for finalization of ARR for FY 2025-26.

OHPC prays before the Hon'ble Commission to approve Rs 402.89Crs towards O&M Expenses for the FY 2025-26 for the different Power Stations of OHPC as mentioned in the above table.

E) Interest on Working Capital:

Hon'ble OERC at Regulation No. 32(4) of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024 has stipulated as follows:

"*Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken loan for working capital from any outside agency.*"

OHPC has computed Interest on Working Capital of different power station for the FY2025-26 as per the provisions in the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024.

Further Hon'ble OERC has stipulated the following regarding rate of interest on working capital for OHPC at Regulation No. 32(3).

"Rate of interest on working capital shall be on a normative basis and shall be equal to the one year marginal cost of lending rate (MCLR) of the State Bank of India issued as on 01.04.2024 or on 1st April of the year during the tariff period 2024-2029 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later, plus 300 basis points."

The Reserve Bank of India has issued guidelines for setting lending rate (on loans) by commercial banks under the name Marginal Cost of Funds based Lending Rate (MCLR). The MCLR as on 1st April 2024 of SBI for one year was 8.65%. OHPC has considered the MCLR rate of SBI as on 01.04.2024 plus 300 basis point for computation of Interest on working capital as per the Regulation mentioned above. Hon'ble Commission may approve the same. The Photo copy MCLR is enclosed at **Annexure-16** for kind reference.

Accordingly, based on the above principles OHPC has calculated the Interest on working Capital of different power stations of OHPC for the FY 2025-26 in the table below:

Table- 22

Interest on Working Capital for FY 2025-26

(Rs. in Crs.)

Sl. No.	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
1	Interest on Loan & GC	2.03	1.54	11.46	10.07	14.78	39.88	7.73	47.61
2	RoE	4.42	2.42	20.64	22.61	14.72	64.81	58.74	123.55
3	O & M Expenses	72.83	80.89	84.29	57.13	32.92	328.07	74.82	402.89
4	Depreciation	4.59	3.95	13.60	12.95	10.40	45.49	37.85	83.33
5	Less Non Tariff Income	1.00	0.77	1.07	1.16	3.32	7.326	1.04	8.369
6	Adjustment of Non-Tariff Income of FY2023-24	0.61	0.78	1.24	0.70	0.18	3.497	1.46	4.954
7	Less Sale of Power to CSPDCL				3.43		3.429		3.429
8	Total[1+2+3+4-5+6-7]	83.48	88.81	130.16	98.87	69.66	470.98	179.56	650.53
10	O & M Expenses for One Month	6.07	6.74	7.02	4.76	2.74	27.34	6.24	33.57
11	Maintenance spares @15% of O & M Expenses	10.92	12.13	12.64	8.57	4.94	49.21	11.22	60.43
12	Receivable equivalent to 45days of Annual Fixed Cost	10.69	11.38	16.57	12.56	8.83	60.03	22.71	82.74
13	Total Working Capital	27.68	30.26	36.24	25.89	16.51	136.58	40.17	176.75
14	**Interest on Working Capital calculated @ 11.65%**	**3.225**	**3.525**	**4.221**	**3.016**	**1.923**	**15.911**	**4.680**	**20.59**

OHPC prays before the Hon'ble Commission to approve Rs 20.59Crs towards Interest on Working Capital for the FY 2025-26 for the different Power Stations of OHPC as mentioned in the above table.

(F) NON- TARIFF INCOME:

The Non-Tariff Income is dealt with Regulation No.35(1), (2) & 60 of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024. The relevant clauses of the said regulation is stipulated as follows:

Regulation No 60: SHARING OF NON-TARIFF INCOME

"The details of Non-Tariff income in case of generating station as listed in Regulation 35(2) shall be furnished by the Generating Company at the time of Tariff filling. The net Non-Tariff Income excluding Income from Investments shall be shared between the beneficiaries and the Generating Company, in the ratio 50:50."

Regulation No 35 (1): *"The amount of Non-Tariff Income of the Generating Company as approved by the Commission in accordance with Regulation 60 of these Regulations shall be deducted while determining its Annual Fixed Cost:*

Provided that the Generating Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.."

Regulation No 35 (2): *"The Non-Tariff Income shall include:*

(a) Income from rent of land or buildings;
(b) Income from sale of scrap;
(c) Income from investments;
(d) Income from sale of ash/rejected coal;
(e) Interest income on advances to suppliers/contractors;
(f) Net Income from supply of electricity by the Generating Company to the housing colonies of its operating staff and supply of electricity by the Generating Company for construction works at the generating Station, after adjusting the expenses incurred for supply of such electricity;
(g) Income from rental from staff quarters;
(h) Income from rental from contractors;
(i) Income from hire charges from contactors and others;
(j) Income from advertisements;
(k) Income from sale of tender documents;
(l) Net-Income from Eco-Tourism Activities;
(m) Any other Non-Tariff Income."

Accordingly, OHPC has submitted the power house wise details of Non-Tariff income as stipulated in the **Regulation 35(1),(2) & 60** of the OERC (Terms & Conditions for determination of Generation Tariff) Regulations 2024 & details of non-tariff Income of FY2023-24(audited) at **Annexure-17** for kind reference.

In line with the above regulation, the net non-tariff income excluding income from investment as per audited account of FY2023-24, which are to be shared between OHPC & beneficiary in the ratio 50:50 for computation of tariff for FY2025-26, are shown in the table below:

Table- 23

Sharable Non-Tariff Income of different Power Stations of OHPC for FY 2025-26

(Rs. In Crs.)

Sl. No	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
1	Net sharable Non-Tariff Income	1.994	1.549	2.145	2.318	6.646	2.086	16.738
2	**50% of net sharable Non-Tariff Income to be considered in ARR**	**0.997**	**0.774**	**1.072**	**1.159**	**3.323**	**1.043**	**8.369**

The interest earned on the old outstanding securitised dues of GRIDCO amounting to Rs 142.50 Cr has not been taken into consideration for computation of sharable non tariff income as Hon'ble OERC in its order dated 11.07.2023 passed in case no. 35/2023 gave its direction to GRIDCO for repayment of principal amount of Rs.619 Crore in 72 equated monthly instalments from July'2023 which will carry simple interest @ 6% per annum .Further Total outstanding interest up to June'23 amounting to Rs.236.50 Crore shall be paid by GRIDCO payable in 18 equated monthly instalment w.e.f. July'2023. Further ,it is humbly submitted that had the energy dues of Rs619 Cr been received in time, OHPC could have earned interest on such proceeds..

Therefore, OHPC prays before the Hon'ble Commission to approve the sharable non-tariff income of Rs 8.369Cr different power stations for the FY2025-26 as shown in the Table above.

(G) ADJUSTMENT OF EXCESS PAYMENT OF NON- TARIFF INCOME BY OHPC IN THE TARIFF FOR FY2021-22:

Hon'ble OERC in the Order dtd 05.09.2022 in Case No. 65 of 2021 at para no. 25 had made following observation on treatment of Non-Tariff income & recovery of excess deduction of Non-Tariff income in the FY2021-22.

"It is further observed that as per Regulation 41 of the OERC Generation Tariff Regulation, 2020, the non-tariff net income in case of generating station from rent of land or buildings, sale of scrap and advertisements shall be shared between the beneficiaries and the generating company, in the ratio 50:50. In the impugned order dated 26.03.2021, a lump sum amount of Rs.25.00 crore was deducted from the ARR of OHPC towards sharing of non-tariff income as OHPC had not furnished the details of the non-tariff income in its original application in Case No.70 of 2019. In the present review petition OHPC has furnished the details of non-tariff income from rent of land

or buildings, sale of scrap and advertisements for FY 2019-20 (at Annexure-II of its application) amounting to a total of Rs.0.46 crore (Rent of land and building: Rs.0.37 crore & Sale of scrap: Rs.0.09 crore). As per Regulation 41 of OERC Generation Tariff Regulation, 2020, 50% of non-tariff income i.e. Rs.0.23crore (0.5xRs.0.46 crore) is to be deducted from the ARR of the petitioner against which an amount of Rs.25.00 crore has been deducted from the ARR of OHPC in the impugned order for the FY 2021-22. The OHPC has prayed for recovery of the excess deduction of Rs.24.77 crore (Rs.25.00 Cr. – Rs.0.23 Cr.) within a period of coming three years. In the light of the discussions made in the foregoing paragraphs and taking into consideration the workability of the matter, this Commission allows for recovery of Rs.24.77 crore in the ARR of OHPC spread over next five years starting from the FY 2023-24 to ensure minimum financial burden on the consumers." Accordingly, OHPC has adjusted Rs4.954Crs (i.e. Rs24.77Crs/5= Rs4.954Crs) as 3rd instalment of recovery of excess Non-Tariff income deducted by Hon'ble OERC in the Tariff of OHPC for FY2021-22. The above Rs4.954Crs is apportioned among the different Power Stations of OHPC in the ratio of Installed Capacity.

Annual Revenue Requirement (ARR) & Tariff for the FY 2025-26:-

Based on the above parameters the power station wise ARR and tariff of OHPC have been calculated for the FY 2025-26 as follows:

The values of ARR along with its different components and the average tariff computed considering the Saleable Design Energy of 5601.62MU for the FY 2025-26 is shown in the table below. The Power Station wise detail calculations are enclosed at **Annexure-18** for kind reference.

Table-24

Station wise ARR and Tariff for the FY 2025-26 considering saleable D.E. of 5601.62 MU

Details expenses	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
Existing Saleable Design Energy (MU)	519.75	823.68	1171.17	660.52	484.12	3659.24	1942.38	**5601.62**
(Rs. in Crs.)								
Return on Equity	4.422	2.418	20.639	22.610	14.717	64.805	58.743	**123.55**
Interest on Loan	2.026	1.544	11.462	10.067	14.777	39.877	7.730	**47.61**
Depreciation	4.593	3.949	13.599	12.948	10.399	45.488	37.846	**83.33**
O & M expenses	72.830	80.893	84.292	57.132	32.919	328.066	74.821	**402.89**
Interest on Working Capital	3.225	3.525	4.221	3.016	1.923	15.911	4.680	**20.591**
Total Cost	87.095	92.329	134.213	105.773	74.736	494.147	183.821	**677.968**
Less Non-Tariff Income as per Audited Account for FY2023-24	0.997	0.774	1.072	1.159	3.323	7.326	1.043	**8.369**
Adjustment of recovery of 3rd	0.607	0.777	1.239	0.699	0.175	3.497	1.457	**4.954**

Details expenses	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
instalment of excess Non-Tariff income deducted in ARR of OHPC for FY2021-22 (Apportioned as per Installed Capacity)								
Less Sale of power to CSPDCL for 2025-26				3.429		3.429		**3.429**
Total ARR for FY2025-26	**86.705**	**92.332**	**134.380**	**101.884**	**71.588**	**486.889**	**184.235**	**671.124**
Average Tariff (p/u)	**166.82**	**112.10**	**114.74**	**154.25**	**147.87**	**133.06**	**94.85**	**119.81**

15. TWO PART TARIFF:

As per Regulation no. 45(1) of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024, The fixed cost of a hydro generating station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge (inclusive of incentive) and energy charge.

Further as per clause no. 45(12) of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024,

"*The computation and payment of capacity charge and energy charge for existing plants of OHPC will be as determined by the Commission from time to time.*"

a. The Capacity Charge (inclusive of incentive) payable to a hydro generating station for a calendar month shall be

Capacity Charge (CC) = AFC x 0.5 x (NDM/NDY) x (PAFM / NAPAF) (in Rupees)

Where,

AFC = Annual Fixed Cost specified for the year, in Rupees
NAPAF= Normative Plant Availability Factor in percentage (%)
NDM = Number of days in the month
NDY = Number of days in the year
PAFM = Plant Availability Factor achieved during the month in percentage (%).

The PAFM shall be computed in accordance with the following formula:

$$PAFM = 10000 \times \sum_{i=1}^{N} DCi \Big/ \{N \times IC \times (100-Aux)\} \%$$

Where,

Aux = Normative auxiliary energy consumption in percentage
N = No. of days in the month
IC = Installed capacity (in MW) of the complete generating station
DCi = Declared Capacity (in ex-bus MW) for the i^{th} day of the month which the station can deliver for at least (3) hours, as certified by the nodal load dispatch center after the day is over.

b. The Energy Charge shall be payable by every beneficiary for the total energy scheduled to be supplied to the beneficiary, during the calendar month on ex-power plant basis at the computed energy charge rate.

Total EC payable to the generating company for a month shall be:
{(Energy Charge Rate in Rs. /KWh) x {Schedule Energy (Ex-bus)) for the month in KWh}
The actual energy sent out (Ex-bus) is considered as the scheduled energy (Ex-bus) for OHPC Power Stations.

c. Energy Charge Rate (ECR) in Rupees per KWh on Ex-power plant basis for a hydro generating station shall be determined up to three decimal places based on the following formula.

$$ECR = AFC \times 0.5 \times 10 / \{DE \times (100 - Aux) \times 100\}$$

Where, DE = Annual design energy specified for the hydro generating station in MWh, subject to provisions in **Regulation No.-45(7)** of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024.

Accordingly, the Annual Capacity Charges (ACC), Annual Energy Charges (AEC) and Energy Charge Rate (ECR) of different power stations of OHPC for the FY 2025-26 is shown below:

Table-25

Proposed Capacity Charge and Energy Charge of OHPC Power Stations for the FY2025-26

Name of the Power Stations	Annual Fixed Cost (Rs in Crs.)	Capacity Charges (Rs in Crs.)	Energy Charges (Rs in Crs.)	Saleable Design Energy (in MU)	Energy Charge Rate(P/U)
RHEP, Rengali	86.705	43.353	43.353	519.75	83.410
UKHEP, Baraniput	92.332	46.166	46.166	823.68	56.048
BHEP, Balimela	134.380	67.190	67.190	1171.17	57.370
HHEP, Burla	101.884	50.942	50.942	660.52	77.124
CHEP, Chiplima	71.588	35.794	35.794	484.12	73.936
UIHEP, Mukhiguda	184.235	92.118	92.118	1942.38	47.425

OHPC prays before the Hon'ble Commission to approve the AFC, ACC, AEC & ECR of its power stations as indicated in Table above for the FY 2025-26.

16) APPROVAL OF REIMBURSMENTS FOR THE FY2025-26:

The following reimbursements are required to be approved by the Hon'ble OERC along with the Annual Revenue Requirements of OHPC for the FY2025-26.

A) APPLICATION FEE & PUBLICATION EXPENSES:

Hon'ble Commission at Regulation no. 66 of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024 under the head Application and Publication Expenses has stipulated the following:

"The application filing fee and the expenses incurred on publication of notices in the application for approval of Tariff, may in discretion of the Commission, be allowed to be recovered by the generating company, directly from the beneficiaries."

As per the Hon'ble Commission Notification No. 1992 on Dt. 31.08.2009 in the Regulation No. 17, the Hon'ble Commission has fixed a fee of Rs. 5,000/- per MW as application fee for determination of tariff of conventional fuel-based plant/Hydel Plants, subject to maximum limit of Rs. 25,00,000/- (Rupees Twenty Five Lakhs Only).

In consideration of the above order, OHPC has to deposit application fee of Rs. 25 Lakhs for the FY2025-26. OHPC may be allowed to recover the same amount from GRIDCO.

OHPC has incurred expenditure of Rs1.479Lakhs towards publication expense during Tariff approval of OHPC for the FY2024-25. The copy of publication expenses for FY2024-25 is enclosed at **Annexure-19**.

Considering Rs1.479Lakhs as last year publication expense, OHPC propose Rs2.0Lakhs as reimbursement towards publication expenses for FY2025-26. Therefore, Hon'ble OERC may kindly approve Rs27Lakhs to be reimbursed from GRIDCO towards application fees and publication expenses as shown in the Table below.

Table– 26

Application Fee & Publication Expenses

(Rs. In Lakhs)

Sl. No.	Particulars	Amount to be reimbursed
1	**Application fee for FY2025-26**	25.00
2	**Publication expenses for FY2025-26**	2.00
	Total	27.00

B) ELECTRICITY DUTY ON AUXILIARY ENERGY CONSUMPTION:

As per the agreed PPA, the taxes and duties including ED on auxiliary consumption etc payable by OHPC to the State Government and other statutory bodies shall be passed on to GRIDCO in the shape of supplementary bill raised by OHPC. GRIDCO will make payment accordingly within 30 days of receipt of bills.

As per the Odisha Electricity (Duty) Amendment Act, 2016 vide their Gazette Notification No. 1981 Dtd. 05.11.2016 the electricity duty (ED) on Auxiliary Energy Consumption shall be paid on auxiliary equipment consumption and the transformer losses within the power stations. The Auxiliary Energy Consumption (AUX) has been defined in CERC Tariff Regulation 2024 & OERC (Terms & condition for determination of generation Tariff) Regulation, 2024.

Based on the subsequent implementation of Odisha Electricity (Duty) Amendment Rules, 2017 by Govt. of Odisha in Dept. of Energy vide Notification No.617 dated 24.01.2017, OHPC is paying the Electricity Duty in "J" format, where Electricity Duty is payable on total Energy Generated minus total Energy Sold. This implies that the Electricity Duty is payable on the Auxiliary Equipment consumption and Transformer loss within the Power Station.

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Further in pursuance to Sub-section-I of Section-3 of Orissa Electricity (Duty) Act-1961 and supersession to the Govt. Notification No 9539 BT(ED)-01/2016-En dated 27.12.2016, the State Govt in the Dept. of Energy has revised the rate of ED vide notification No.912 dated the 12.05.2017. Accordingly, the Rate of Electricity Duty / Unit has been revised from 30 paisa per Unit to 55 paisa per Unit with effect from 12th May 2017 as per the Gazette Notification No. 912 dtd. 12.05.2017. Accordingly, OHPC has computed ED @55paise per Unit for all power stations for FY 2025-26 as reimbursement.

As per the Clause No. 6 of New Machkund Agreement, 2020, the ED for Odisha Share of MHEP(jt.) Scheme is to be approved by the Hon'ble Commission as reimbursement on payment to Govt. of Odisha as statutory dues. The relevant portion of the Agreement is reproduced below for kind reference.

" ...x...x...x ... However other statutory dues applicable if any shall be paid and shared equally by both parties."

Accordingly, OHPC has included the reimbursement of ED on sale of Odisha Share of MHEP in the Table shown below. The relevant portion of the New Machkund Agreement, 2020, is enclosed at **Annexure-20** for kind reference.

Table-27
ED for OHPC Power station for FY 2025-26

Power Stations	Design Energy (in MU)	Proposed Percentage of Auxiliary Energy Consumption (in %)	Auxiliary Energy Consumption to be approved (in MU)	ED Rate Applicable (in Rs/Unit)	ED proposed for Reimbursement by OHPC @55p/u & AUX (in Crs)
RHEP	525	1	5.25	0.55	0.289
UKHEP	832	1	8.32	0.55	0.458
BHEP	1183	1	11.83	0.55	0.651
HHEP	684	1	6.84	0.55	0.376
CHEP	490	1.2	5.88	0.55	0.323
UIHEP	1962	1	19.62	0.55	1.079
MHEP Odisha share	262.5	1.2	3.15	0.55	0.173
Total	5676		60.89	0.55	3.349

Hence, OHPC prays before the Hon'ble OERC to kindly approve reimbursement of ED amounting to Rs3.349Cr for the FY 2025-26 from GRIDCO which may kindly be provisioned in the ARR.

C) LICENSE FEE FOR USE OF WATER FOR GENERATION OF ELECTRICITY:

As per the gazette Notification Dt. 01.10.2010, OHPC was paying @Rs. 0.01/KWh as Licence Fee on water used for generation of electricity from all Hydro Electric Project and getting the same reimbursed from GRIDCO.

The Revenue & Disaster Management Department have amended the Odisha Irrigation (Amendment) Rule, 2016 which was published in Odisha Gazette on 27.09.2016. As per the amendment made in Rule-23-A (2) (f) of the Odisha irrigation Rule the license fee for drawl or allocation of water was enhanced @10% per annum w.e.f 1st day of April.

Accordingly, OHPC was paying water cess @1.1paise/ unit for the FY 2017-18, @1.2 paise/ unit for the FY2018-19, @1.3paise/ unit for the FY2019-20, @1.4paise/ unit for FY2020-21, @1.5paise/ unit for the FY2021-22, @1.6paise/ unit for the FY2022-23, @1.7paise/ unit for the FY2023-24 , @1.8paise/ unit for FY2024-25 and got reimbursed from GRIDCO. In a similar manner OHPC shall pay Licence Fee on water used for generation of electricity for FY 2025-26 @1.9 paise/ unit amounting to Rs 11.285 Cr based on the approved design energy for generation as shown in the table below, which shall be reimbursed from GRIDCO on actual basis.

As per the Clause No. 6 of New Machkund Agreement, 2020, the Water Cess for Odisha Share of MHEP(jt.) Scheme is to be approved by the Hon'ble Commission as reimbursement on payment to Govt. of Odisha as statutory dues. The relevant portion of the Agreement is reproduced below for kind reference.

" ...x...x...x ... However other statutory dues applicable if any shall be paid and shared equally by both parties."

Accordingly, OHPC has included the reimbursement of Water Cess on sale of Odisha Share of MHEP in the Table shown below.

Table-28

Licence Fee on water used for generation of electricity for OHPC Power station for FY 2025-26

Power Stations	Design Energy (in MU)	Licence Fee on water Proposed by OHPC @0.019Rs/Kwh of Generation (in Crs)	Remarks
RHEP	525	0.998	OHPC will claim reimbursement @Rs 0.019/Kwh on actual generation of each Power Station.
UKHEP	832	1.581	
BHEP	1183	2.248	
HHEP	684	1.300	
CHEP	490	0.931	
UIHEP	1962	3.728	
MHEP (Odisha Share)	262.5	0.499	
Total	**5938.5**	**11.285**	

Hence, OHPC prays before the Hon'ble Commission for approval of provisional amount of Rs11.285Cr towards License fee mentioned in the table above as Reimbursement from GRIDCO subject to approval of reimbursement to the extent of actual water Cess paid to the Govt. based on actual generation pattern for the FY2025-26.

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(D) SLDC CHARGES:

As per OERC (fees & charges of state load dispatch centre and other related matters) regulations, 2010 SLDC has to levy and collect annual charges from the users towards system operation charges and market operation charges.

Hon'ble Commission in light of such submission provisionally approved Rs 2.08 Cr to be reimbursed from GRIDCO by OHPC towards payment of SLDC fees & charges for the FY 2024-25 considering 1798.8 MW towards average available Capacity of OHPC power Stations for the FY 2024-25, which is to be collected by SLDC from OHPC on monthly basis and OHPC has to reimburse the same from GRIDCO. Since OHPC has not received the ARR, fees & charges of SLDC for the FY 2025-26, the previous year approved charges applicable to OHPC has been escalated @5.47% to arrive at the charges payable by OHPC for the FY 2025-26. Accordingly, Rs. 2.194Crs. has provisionally been considered as fees & charges of SLDC payable by OHPC on the average available Installed Capacity of 1635 MW (detail calculation at **Annexure-21** of OHPC Power Stations for the FY 2025-26 considering the shutdown of different generating units on account of Renovation & Modernization & other planned maintenance.

Hence the Hon'ble Commission may provisionally approve Rs 2.194Crs to be reimbursed from GRIDCO by OHPC towards payment of SLDC fees & charges for the FY 2025-26 considering 1635 MW towards average available Capacity of OHPC power Stations for the FY 2025-26.

E) REIMBURSEMENT OF CONTRIBUTION MADE TO ERPC:

OHPC is contributing towards ERPC establishment fund & ERPC fund from the FY 2006-07 onwards as per their demand note. Annually OHPC is paying Rs15Lakhs towards contribution to ERPC Establishment Fund & Rs 01Lakh towards contribution to ERPC Fund. Assuming the same claim of ERPC, OHPC has claimed this amount of Rs 16.0 Lakhs as a pass through in the tariff for FY 2025-26 to be reimbursed from GRIDCO. Any excess claim (above Rs16.0 Lakhs) made by ERPC for the FY 2025-26 will be claimed as additional reimbursement in the subsequent Tariff year.

Hence, Hon'ble OERC may approve a total reimbursement claim for an amount of Rs 0.16Crs towards ERPC contribution for FY2025-26 from GRIDCO. This amount may be accordingly provided in the ARR of GRIDCO.

F) INCOME TAX

Hon'ble Commission at Regulation no.29(1) of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024 under the head Tax on Income has stipulated the following:

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"Income tax of the Generating Company shall be recovered from the beneficiaries. This will exclude income tax on other income streams (income from non-generation and non-transmission business."

Income Tax paid by OHPC for the as per the Audited Accounts of OHPC for the FY2023-24 is detailed below:

Table-29

Calculation of Income Tax for Reimbursement for FY2025-26 based on Audited Account FY2023-24

Statement of Computaion of income Tax Reimbursement from GRIDCO		
		(Rs. In Crs)
Sl No	**Particulars**	**As per OERC Generation regulation 2024**
A	Total Other Income As Per Audited Accounts (Refer Note No- 31 of Audited Accounts)	358.011
B	Non Tariff Income reduced From ARR	16.738
C	Reimbursement from GRIDCO on A/C of Income Tax	7.290
D	Dam Share from DOWR	2.430
E	Net Other income	331.552
F	Income Tax On other Income @25.168%	83.445
G	Total Tax liability as per Audited Accounts	97.894
H	**Income Tax to be claimed from Gridco.(G-F)**	**14.449**

Accordingly, OHPC prays for approval of Rs 14.449 Cr towards reimbursement of income tax for FY 2025-26 on core business. The audited accounts of OHPC enclosed at **Annexure-7** may please be referred.

G) REIMBURSMENT OF UNAPPROVED INCOME TAX BASED ON AUDITED ACCOUNT OF OHPC FOR THE FY2021-22 & FY2022-23:

Less approval of Reimbursement of Income Tax based on the Audited Account of FY 2021-22 & 2022-23.

Hon'ble OERC had specified the procedure for approval of Income tax reimbursement in case no 65/2021 regarding review of Tariff order for FY 2021-22. OHPC adopted the same procedure and claimed IT reimbursement of Rs. 21.95 CR. for FY 2023-24 in its original application for approval of ARR for FY 2023-24. However Hon'ble OERC in tariff order for FY 2023-24, had approved only Rs.20.62 Crs towards IT reimbursement for FY 2023-24 instead of Rs.21.95 Crs as claimed by OHPC. Thereafter OHPC prayed for review of approval of IT reimbursement for FY 2023-24 and Hon'ble OERC in its order (case no 52 of 2023) observed that OHPC may submit details of reimbursement in the next tariff proceeding i.e. ARR application for FY 2024-25 which can be considered then. Accordingly OHPC in its tariff application for FY 2024-25 proposed for approval of differential amount of Rs. 1.3 Cr (i.e. Rs 21.95 Cr less Rs 20.62 Cr) towards IT reimbursement for FY 2023-24. However surprisingly Hon'ble OERC reduced its previous approval of Rs. 20.46 Cr to Rs 6.62 Cr which had already reached its finality.

Also following the same procedure as adopted by Hon'ble OERC case no 65/2021 in respect of approval IT reimbursement, OHPC claimed IT reimbursement of Rs. 17.02 Cr for FY 2024-25 in its original tariff application for FY 2024-25 whereas Hon'ble OERC allowed Rs. 7.29 Cr for FY 2024-25. As observed from the order, it is found that Hon'ble OERC has considered the Gross profit as [per Audited Account which has been prepared as per the companies Act,2013 for computation of IT reimbursement from core income. However, Gross Profit sa per the Income Tax Act and as per the Audited accounts are different and prepared under two different laws in different manner. Hence, Gross profit as per the Income Tax Act should be considered for computation of IT Reimbursement.

Further, while considering the other income for computation of IT reimbursement, Hon'ble OERC has not deducted some items like Dam share from DoWR, exempted income etc.

In view of above the differential amount of Rs. 15.33 Cr (i.e. Rs 21.95 Cr less Rs 6.62 Cr) & Rs. 9.73 Cr (i.e. Rs 17.02 Cr less Rs 7.29 Cr) for the FY 2023-24 & 2024-25 respectively towards IT reimbursement may please be reconsidered.

For the sake of brevity, the clarification sought as explained at above paragraph is depicted below:

Table No.30

Components of tariff	FY	Proposed (Rs in Cr.) (1)	Approved by Hon'ble OERC (Rs in Cr.) (2)	Difference Rs in Cr.) (3) = (1) -(2)	Remarks
Reimbursement of Income Tax	2023-24	21.95	6.62	15.33	Hon'ble OERC in tariff order for FY 2023-24, had approved only Rs 20.62 Crs towards IT reimbursement for FY 2023-24 instead of Rs 21.95 Crs as claimed by OHPC. Thereafter Hon'ble OERC observed in its review order dated 16.08.2023 (case no 52/2023) that OHPC may submit details of its claim of balance of Rs. 1.3 Cr in the next tariff proceeding i.e. ARR application for Fy 2024-25 which can be considered Accordingly OHPC, in its Tariff application for FY 2024-25, has claimed balance of Rs 1.3 Cr towards IT reimbursement. However in the Tariff order for FY 2024-25, Hon'ble OERC reduced its approval to Rs 6.62 Cr without citing any reason. Therefore Rs 15.33 Cr may kindly be reconsidered for pass through.

	2024-25	17.02	7.29	9.73	For computation of IT reimbursement from core income for both FY 2023-24 & 2024-25, Hon'ble OERC had considered the Gross Profit as per Audited Account which has been prepared as per the companies Act, 2013 instead of profit as per the Income Tax Act, 1961. Therefore, Rs 9.73 Cr may kindly be reconsidered for pass through towards income Tax reimbursement

Hence, Hon'ble OERC may approve the unapproved income tax reimbursement for an amount of Rs25.06Crs from GRIDCO in the Tariff of OHPC for tariff approval of FY 2025-26 This amount may be accordingly provided in the ARR of GRIDCO for FY 2025-26.

H) **REIMBURSEMENT OF 1ST INSTALLMENT OF TRUING UP IMPACT:**

"Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020" in Para No. 8.1.(c) stipulated as follows:

"The existing generation plants of OHPC and OPGC (Unit - I & II) may file an application each year for truing up of its generating stations of the previous year(s), with respect to the capital expenditure including additional capital expenditure incurred up to last day of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit as specified by the Commission."

In the Order dated 08.06.2023 in Case No. 53 of 2022 & Case No.19 of 2023 regarding approval of true-up of ARR and Tariff of individual power stations of OHPC from FY2016-17 to FY2020-21, Hon'ble OERC had made the following observations at para no. 10.

"Para no- 10: Basing on the above discussion we are not inclined to accept the truing up application in its present form. However, we draw the attention to a general provision in OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 with regard to truing up which is reproduced below:

"8.(1) The Commission shall carry out truing up exercise at the end of the Tariff Period along with the tariff petition filed for the next tariff period, with respect to the following:

(a) the capital expenditure including additional capital expenditure incurred up to 31.03.2024, as admitted by the Commission after prudence check at the time of truing up.

(b) *the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law."*

The above Regulation relates to approval of any additional capital expenditure which has not been specifically allowed in each year's tariff order. ***Accordingly, the Petitioner has the liberty to approach the Commission under the above Regulation once the control period of the present Tariff Regulations expires on 31.03.2024****."*

The copy of the Order dtd.08.06.2023 is enclosed at **Annexure-22** for kind reference.

OHPC Submission:

It is observed that there is a difference in the Gross Fixed Asset in some of the Power Stations as reflected in the Audited Account and Approval of same by OERC. The matter was intimated to Hon'ble OERC in the public hearing held on 11.07.2023 in Case No.52 of 2023 regarding review of ARR & Tariff of OHPC for the FY2023-24. Hon'ble OERC agreed for joint verification of Audited Account & Approval of OERC on Gross Fixed Asset of different power station of OHPC from FY1996-97 onwards. Accordingly in the Order dated 16.08.2023 at para no. 11 had made following observations:

"Para No. 11: The Commission heard the Petitioner and Respondents in extenso. During the hearing, the Commission had raised the following points:

c) *OHPC is required to submit the details of assets of each station (pre-1992 asset), additional assets capitalized each year, asset class etc.,* ***which will be verified jointly by concerned officer(s) of OHPC &OERC for finalization of the Gross Fixed Asset of OHPC*** *as per Audited Accounts vis-à-vis the approval of OERC already given."*

The copy of the Order dated 16.08.2023 in Case No. 52 of 2023 is enclosed at **Annexure-23** for kind reference.

Accordingly, as per the direction of Hon'ble OERC, OHPC has submitted the Audited Account of different power stations of OHPC from FY 1996-97 to FY2023-24 for joint verification and finalization of the Project Cost/ GFA of each power stations. As per the direction of the Hon'ble Commision in the Order dtd 16.08.2023 as mentioned above, OHPC had filed the Truing Up petition from FY2020-21 to FY2023-24 after completion of the block period. Based on the closing balance of approved Project Cost/ GFA as on 31.03.2020, OHPC has computed the new addition as per the audited account of FY2020-21, FY2021-22, FY2022-23 & FY2023-24 and compared with the approved GFA of the

respective years to find out short fall/ surplus of GFA for the respective years. The consequential effect of Truing Up shall be given in the Tariff of OHPC for FY2025-26 as an additional effect in form of reimbursement. Since, the truing up impact is to the tune of Rs 177.479Crs including interest amount of Rs 33.752Crs, it may provide huge impact on tariff rate.

Therefore, OHPC proposes Hon'ble Commission to consider the amount as Regulatory asset and approve the same in five equal installment starting from FY2025-26. Accordingly OHPC proposes to approve Rs 35.50Crs as reimbursement of 1st installment.

I) Details of Reimbursement:

The details of reimbursement claim from GRIDCO towards ED on auxiliary consumption, license fee for use of water for generation of electricity, SLDC charges, Application fee and publication expenses, ERPC Charges and Income Tax on Core business to be reimbursed from GRIDCO for FY 2024-25 of OHPC are summarized in the table below:

Table –31

Details of Reimbursement for FY 2025-26

(Rs. Cr.)

Component of Costs	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	MHEP (Odisha Share)	Total
(a) License fee for use of water for generation of electricity for FY 2025-26.	0.998	1.581	2.248	1.300	0.931	3.728	0.499	**10.786**
(b) ED on Auxiliary Energy Consumption for FY2025-26.	0.289	0.458	0.651	0.376	0.323	1.079	0.173	**3.122**
(c) SLDC charges for FY 2025-26.								**2.194**
(d) Application fees and publication expenses for FY2025-26.								**0.270**
(e) ERPC charges for FY2025-26.								**0.160**
(f) Income Tax for tariff Year 2025-26 as per Audited Account of FY 2023-24								**14.449**
(g) Unapproved Income Tax of Tariff Year 2024-25 as per Audited Account of FY2021-22 & FY2022-23								**25.060**
(h) 1st Year of Truing up Claim for the block period from FY2020-21 to FY2023-24 considering the reimbursement of truing up claim in five equal installment.	**1.362**	**0.434**	**8.009**	**10.204**	**5.737**	**9.749**	**35.496**	**1.362**
Total								**91.537**

Thus, the Commission may approve the total reimbursement of Rs 91.537 as proposed by OHPC in table above. The above expenditure may be included in GRIDCO's ARR for reimbursement to OHPC and hence shown as revenue requirement in OHPC filing for FY 2025-26.

17) **TARIFF FOR ENERGY BILLING TO CSPDCL:**

This is to bring to the kind notice of the Hon'ble Commission that as per the MoM mentioned under para no.1 (Procedural History), the long term customer, the erstwhile Chhattisgarh State Electricity Board (CSEB), presently Chhattisgarh State Power Distribution Company Limited (CSPDCL) drawing energy from Hirakud generation towards 5MW share of Chhattisgarh State (erstwhile share holder being Madhya Pradesh) was taking a plea since the FY 2006-07 to pay the energy charges at the tariff approved by the Hon'ble Commission for HHEP, Burla, applicable for the consumers of Odisha, considering the supportive measures extended by the Govt. of Odisha which is considerably less than the actual cost of generation from HHEP on which billing was made to them as per the Minutes of Meeting dtd.24.12.2004.

This is further to bring to the kind notice of the Hon'ble Commission that the energy billing @ cost of generation and other applicable terms & conditions have been decided by the Hon'ble High Court, Jabalpur, MP vide orders dated 16.12.2004 & dated 02.09.2005 in W.P. No. 1241/2002; Order dated 17.08.2006 of the Ministry of Power, Govt. of India; Minutes of Meeting dated 24.12.2004 under the Chairmanship of the Chief Secretary, Govt. of Odisha. In spite of this CSPDCL, Chhattisgarh did not accept the concept of energy billing @ cost of generation of Hirakud Power.

Finally in a meeting at Raipur between OHPC & CSPDCL on 28.10.2014, it was decided as under:

"Signing of PPA:

It is jointly agreed that PPA shall be executed between OHPCL & CSPDCL for purchase of 5 MW power from Hirakud Hydro Electric Project, Burla. For execution of PPA a draft power purchase agreement shall be sent by OHPC which is after getting approved by Chhattisgarh State Electricity Regulatory Commission, execution shall be done.

Applicable tariff for power purchase from HHEP, Burla.

CSPDCL suggested that as power is being purchased from a hydel power project situated in Orissa it has status of inter-state project, as such tariff should be decided in accordance to norms approved by Central Electricity Regulatory Commission.

It is further jointly agreed that Odisha State Electricity Regulatory Commission shall be requested to decide the tariff from 2006-07 onwards in accordance to regulation notified by CERC, treating HHEP Burla as a inter-state entity. In case OERC advises to apply CERC for fixation of tariff for this inter-state transaction, then OHPC shall file a petition before Hon'ble CERC for fixation of tariff.

Presently it is decided that from 2008-09 onwards CSPDCL shall pay at a rate as approved by OERC provisionally till the rate is approved by appropriate Commission and afterwards necessary adjustment shall be done in accordance to law."

Accordingly, as per the request of OHPC Hon'ble Commission have provisionally fixed the ECR for billing to CSPDCL for the FY2015-16 to FY2024-25. OHPC has computed the provisional tariff for billing of Energy to CSPDCL for coming FY 2025-26 as per the CERC (Terms and Conditions of Tariff) Regulation'2024, Upvalued Project Cost/ GFA of HHEP, Burla & approved additional capitalization from 01.04.1996 to 31.03.2024 as furnished at Table below.

Table- 32

Tariff for CSPDCL for 2025-26

Details of Expenses HHEP	**Amount (Rs in Crs)**
Salable Design Energy of HHEP (in MU)	677.16
Project Cost/ GFA (Up-valued cost as on 01.04.1996 + Capitalization up to 31.03.2023 - Decapitalization)	561.23
Return on Equity (@ 22.0494%)	37.12
Interest on Loan	11.82
Depreciation (@ 5.28%)	29.63
O & M expenses (Escalated @ 5.47%)	57.29
Interest on Working Capital (@ 11.90%)	3.64
Total ARR	139.50
Average Tariff (p/u)	206.012
Total amount to be billed for 16.644MU for FY2025-26 (Rs in Crs)	3.429

The detail calculation of the CSPDCL tariff for the FY 2025-26 is enclosed as **Annexure-24.**

In view of the above reasons, OHPC prays Hon'ble OERC to approve the tariff for energy billing to CSPDCL @ 206.012 paisa/unit for the FY 2025-26. As a result Rs 3.429Cr is to be adjusted from ARR of HHEP, Burla.

18) ANNUAL REVENUE REQUIREMENT & TARIFF FOR MACHHKUND H.E. (JT.) SCHEME:

As per the original Inter-State Agreement, 1945 signed between the two States, Machkund Hydro Electric Project (MHEP) is a joint scheme of Government of Andhra Pradesh (GoAP) and Government of Odisha with 70% and 30% share respectively with option of Government of Odisha to draw an additional 20% power at a cost of Rs. 0.08 per KWh as per the inter-state supplementary agreement signed in the year 1978 between Government of Andhra Pradesh and Government of Odisha.

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In pursuance to the Odisha Electricity Reform Act'1995 and subsequent enactment of the Transfer Scheme by the Govt. of Odisha in Dept. of Energy, the Assets and liabilities of Odisha share in MHEP (Jt.) Scheme had been transferred to OHPC on 01.04.1997 whereas all other hydroelectric projects such as HPS (presently HHEP & CHEP), BHEP, RHEP, UKHEP and UIHEP had been transferred to OHPC on 01.04.1996.

Since, all the Units of Machkund Project are almost 60 years old, it has been proposed to go for R&M of all the six units in phases and up-gradation wherever possible taking into account of the existing water conductor system. Being an inter-state Joint Project between Odisha & Andhra Pradesh, **execution of necessary inter-state agreement was signed between Govt. of Odisha / OHPC and Govt. of Andhra Pradesh / APGENCO on 23rd October 2020**. The true copy of the Agreement was submitted at Annexure-33 of Original Application of Tariff of OHPC for the FY2021-22 for kind reference of the Hon'ble Commission. As per the provisions made in the Agreement **for acquiring additional 20% share of the Joint Scheme, Govt. of Odisha / OHPC shall make payment of Rs 27.42 Crores to GoAP/APGENCO towards present depreciated cost of the Project and share the expenditure on account of RM & U works for all the generating units along with auxiliaries and switchyard system in the ratio of 50:50.**

As per the terms of the present new Agreement, it is agreed at Clause No. 7 that:

"The Original Agreement dated 14.01.1945 with modifications shall continue to be applicable together with this agreement upon its execution. The agreement dated 15.12.1978 shall stand superseded and become unenforceable." Accordingly, the Cost of Power Billing by APGENCO to OHPC / GRIDCO @ 8paise/unit for the energy drawl by Odisha beyond 30% up to 50% shall be discontinued from the date of payment of Rs 27.42 Crores as mentioned above. Similarly, the share of annual audited O&M expenditure of MHEP between the two States in the proportion of their maximum demand in MW availed during the year shall also be discontinued.

After payment of Rs 27.42 crores on 21.12.2020 by OHPC to APGENCO, Govt of Odisha / OHPC acquired 50% legitimate share of MHEP Joint Scheme as per the Clause No.3 of the Agreement, and is eligible to draw 50% of shareable power / energy generated [(Gross generation minus AUX)/2] on real time basis from MHEP in line with the provisions made under Clause No.13 and accordingly make payment of 50% share of the cost of Operation and Maintenance charges as may be required / actually incurred for the project every year. OHPC shall raise monthly energy bills to GRIDCO for the Odisha share of energy available from MHEP including the power drawn through the distribution network connected to MHEP as per the Clause No. 18 of the new Agreement, after taking over of Machkund distribution system by TPSODL.

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As per Clause No. 26 of New Machkund Agreement 2020, the O & M Expense during R, M & U & after R, M & U is to be shared between the two States. The relevant portion of the Agreement is reproduced below for kind reference.

"The O & M expenses excluding frpreciation and Return on Equity (ROE) shall be shared equally during and after the R, M & U work. Similarly, the repayment of the said project loan towards R, M & U works shall also be shared equally. ...x...x...x..."

As per the Annexure-IV regarding scedules of activities for Renovation & Modernization of Unit-1 to 6 of MHEP, Machkund, the Zero date for R, M & U works was 23.10.2020 and R, M & U work is under progress. The relevant portion of the Agreement is enclosed at **Annexure-25** for kind reference.

In view of the above-mentioned facts the proposed tariff of **Rs1.3704/KWh** for monthly energy billing to GRIDCO by OHPC towards the Odisha share of 50% shareable energy for FY 2025-26 has been computed in order to enable OHPC to pay 50% of the Operation & Maintenance charges to APGENCO subject to truing up with GRIDCO & APGENCO at the yearend considering the audited O&M expenditure of MHEP (Jt.) scheme.

MHEP(Jt.) scheme being a fully depreciated project, and presently in absence of any tariff mechanism for recovery of the investments, all capital as well as revenue expenditure of MHEP are considered under O & M expenditure and shared between the two States (Andhra Pradesh & Odisha) on annual basis.

Accordingly, the 50% share of the total audited O&M Expenses of **Rs. 31.7994 Crs.** for the FY 2023-24 has been escalated twice @ 5.47 % per year to arrive at **Rs. 35.5413 Crs** towards the share of Govt. of Odisha / OHPC for FY 2025-26 payable to State of Andhra Pradesh / APGENCO. The cost per unit is **Rs 1.36393** considering drawl of 50% share of saleable design energy of Machkund i.e., 259.35 MU. The Final O&M bill received from APGENCO for the FY 2023-24 is enclosed at **Annexure-26** ***for*** kind perusal of the Hon'ble OERC.

It is again to bring to the kind notice of Hon'ble OERC that due to the transmission constraints, OPTCL is not able to draw Odisha share of power on real time basis from MHEP, as a result Odisha is permanently losing the cheap power from MHEP. In case the present deficiency in the evacuation system continues, Odisha shall perpetually fall short of drawing its 50% shareable energy from MHEP. As a result, the investment made by OHPC at MHEP cannot be fully recovered as the approved AEC (Annual Energy Charges) can only be recovered, in case OPTCL is in a position to draw 50% of the available energy on real time basis from MHEP (Joint) scheme. This will result in considerable loss to OHPC. Also in the process, GRIDCO shall have to purchase same amount of costly power from other sources to meet the power requirement of the State, which will ultimately burden the consumers of the State of Odisha.

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In view of the above, OHPC in the 14th Intra-state Transmission Plan of OPTCL, had made following submission to strenghthen the power evacuation infrastructure from MHEP(Jt.) Scheme in order to tminimize the short fall in availing the Odisha Share.

- Revival of the 132KV Machkund –Traction line with LILO arrangement at 132KV/33KV Grid Substation at Lamtaput .
- Upgradation of the existing 132KV conductor of Machkund – Jaynager circuit to improve reliability of evacuation of Odisha share of power from MHEP(Jt.) Scheme.

In this regard, the relevant portion of the observation of the Hon'ble Commission in case No. 08/2024, is furnished below for kind reference and necessary order.

"...x...x... Similarly, OPTCL has also responded to the concerns of the OHPC regarding improved reliability of evacuation of power from Machhkund (Odisha share). However, stakeholders such as TPNODL, TPSODL, TPWODL, OHPC etc. have raised concerns that some of their proposals have not been addressed in the revised 14th Transmission Planning. Therefore, OPTCL should consider in subsequent transmission planning studies, if their issues are not properly addressed. If any proposal is not feasible based on the system study, OPTCL should provide alternative arrangements to address their issues. Further, OPTCL should consult stakeholders in advance and prepare Transmission Planning based upon their input/feedback."

In view of the above, Hon'ble OERC may issue necessary directives to OPTCL/GRIDCO/SLDC/TPSODL so that 50% of the available energy from MHEP can be drawn and supplied to Odisha Grid on real time basis forthwith & report the regular drawl position on daily/ monthly/ yearly basis by them to Hon'ble OERC. In view of the above, Hon'ble Commission may kindly issue notice to the above organizations and direct them to reply in the Public hearing.

The performance of MHEP (Jt.) Scheme for the FY2023-24 is shown in the Table below.

Table- 33

Performance of MHEP(Jt.) Scheme for the FY2023-24:

Sl. No.	Performance Parameters	Approval by OERC	Actual Performance	Remarks
1	Energy sold	259.875MU **(50% Share of saleable DE)**	386.127MU	126.252MU more than approved saleable energy
2	O&M Expenses	Rs32.1337Crs (ARR approved)	Rs31.799Crs	MHEP has generated 126.252MU more than Saleable DE even by spending Rs0.3347Cr less than ARR approved.
3	Short Drawl by Odisha		29.535MU	Odisha could not draw 29.535MU in the FY2023-24.

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The projected tariff calculation of MHEP for raising monthly bills to GRIDCO for the FY 2025-26 is given in the table below:

Table-34

PROJECTED TARIFF OF MACHHKUND (JT.) HEP FOR 2025-26	
	2024-25
Present Installed Capacity of MHEP (Jt.) Scheme (MW)	120
(50%) Odisha Share as per New Agreement dated 23.10.2020 (MW)	60
Design Energy of MHEP for Generation (MU)	525
Normative Auxiliary Energy Consumption (AUX) (%)	1.2%
Normative Auxiliary Energy Consumption (AUX) (MU)	6.3
Saleable Design Energy for sharing between Andhra Pradesh & Odisha (MU)	518.7
(50%) Saleable Design Energy Share of Odisha (MU)	259.35
Drawl of Total Share of Odisha Energy by GRIDCO (MU)	259.35
O&M Escalation factor @ 5.47 % for two years over the O&M Bill of MHEP for FY 2023-24.	1.112
	(Rs. in Crs.)
1. Total Audited Cost of O&M Bill of MHEP (Jt.) for the FY 2023-24.	63.5988
2. 50% O&M Expenditure share (Orissa share of Actual O&M Expenditure for 2023-24)	31.7994
3. O&M Expenditure for FY 2025-26 applying the escalation factor	35.3734
4. Total Expected Expenditure during the FY 2025-26	35.3734
5. Provisional Tariff (Paise/Kwh)	136.393
Reimbursements of Statutory Dues/Duty/Cess as applicable shall be considered under the O&M Expenses.	

OHPC prays Hon'ble OERC to kindly approve the provisional tariff of MHEP (Joint Scheme) @ 136.393 Paise/unit for the FY 2025-26 and kindly make provision of Rs 35.3734 Crores in the ARR of OHPC & GRIDCO. The differential amount payable to APGENCO if any shall be determined after annual joint reconciliation between OHPC & GRIDCO, and shall be considered on the next Tariff for approval.

19) NORMATIVE ANNUAL PLANT AVAILABILITY FACTOR (NAPAF):

Hon'ble Commission at Regulation no.50(c) of the OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2024 has stated as follows for fixing of NAPAF for different power stations of OHPC.

"The Normative Annual Plant Availability Factor (NAPAF) for existing Hydro Generating Stations of OHPC Ltd will be as determined by the Commission from time to time."

Further, Hon'ble OERC in Case No. 52 of 2019 had fixed the NAPAF of different power stations are as follows:

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Table-35

Power Stations	*RHEP*	*UKHEP*	*BHEP*	*HHEP*	*CHEP*	*UIHEP*
NAPAF (%)	*80*	*87*	*83- for first 3 years 87 – for subsequent 2 years*	*75*	*75*	*88*

In view of the above, the NAPAF of different power stations of OHPC for the FY 2025-26 for computation of Capacity Charges may please be extended as mentioned in the Table below:

Table-36

Power Stations	**RHEP**	**UKHEP**	**BHEP**	**HHEP**	**CHEP**	**UIHEP**
NAPAF (%)	**80**	**87**	**87**	**75**	**75**	**88**

20) COMPLIANCE TO THE DIRECTIVES OF HON'BLE OERC IN THE TARIFF ORDER OF OHPC FOR THE FY2024-25:

Hon'ble OERC in the Para No. 63 of the Tariff Order of OHPC for the FY2024-25 has directed OHPC to furnish compliance to the different issues. Accordingly, OHPC is submitting herewith the para wise compliances to these directives as follows:

Table-37

Compliance to the directives of the Hon'ble OERC as per Para no.63 of ARR & Tariff Order of OHPC for the FY 2024-25: Reg.

PARA NO	DIRECTIVES OF OERC	COMPLIANCE
63(a)	*"The Design Energy of UKHEP, BHEP, UIHEP, and CHEP has come down over the years. The reason for less generation shall be submitted to the Commission for each HEP along with actual generation (in MU) in last ten (10) years."*	The actual generation in MU of OHPC Power stations in last 10 years are enclosed at **Annexure-27** for kind reference. **Reasons for less generation:** **HHEP, Burla** : Unable to achieve its Design Energy till FY 2020-21 because of its Renovation, Modernization & Uprating (R,M&U) work of Unit-5 & Unit-6. The desired generation during spillage period could not be achieved due to R, M & U of the said units. **CHEP, Chiplima** : Unable to achieve Annual Design Energy generation since its inception. The ene generated by the CHEP for FY 2020-21 is 328 MU which is the maximum in last 10 years far below the Design Energy (490 M However, CHEP was maintaining mach availability more than approved NAPAF in rec years. **BHEP, Balimela** : Due to hydrology failure and R & M work BHEP generated energy less than its desig energy in some years. **UKHEP, Bariniput** : Unable to achieve Design Energy in most of years due to hydrology failure. It achieved Design energy of generation only in the FY 20 19 since last 10 years.

		UIHEP, Mukhiguda : Unable to achieve Design Energy of generation most of the years due to hydrology failure. However, UIHEP was maintaining machine availability around approved NAPAF in last 10 years.
63(b)	*"OHPC shall submit the status of capital maintenance of Unit 1&2 of Chiplima Power House and Repair & Renovation of power channel from Burla Power House to Chiplima Power House for which huge amount has been approved by the Commission."*	The status of capital maintenance of Unit 1&2 of Chiplima Power House and Repair & Renovation of power channel from Burla Power House to Chiplima Power House is enclosed at **Annexure-28** for kind reference.
63 (c)	*"OHPC shall submit the present status and the completion schedule of Kharag HEP (63 MU), pump storage projects associated with UIHEP, UKHEP, BHEP and nine (9) off the river closed loop PSP."*	The present status and the completion schedule of Kharag HEP (63 MU), pump storage projects associated with UIHEP, UKHEP, BHEP and nine (9) off the river closed loop PSP, are enclosed at the **Annexure-29** for kind referencre.
63 (d)	*"OHPC shall submit the status of implementation of floating solar projects on the existing reservoirs."*	The status of implementation of floating solar projects on the existing reservoirs, is enclosed at **Annexure-30** for kind reference.
63 (e)	*"OHPC shall submit brief details of any major Forced Outage of HEP, reasons thereof and remedial measures taken to avoid repetition of such incidence in future."*	The brief details of any major Forced Outage of HEP, reasons thereof and remedial measures taken to avoid repetition of such incidence in future, are enclosed at **Annexure-31** for kind reference.

21) Approval of capital maintenance work for replacement of MIV of 4 generating Units of UIHEP, Mukhiguada:

a) In complying with the provisions of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 and different Orders of the Hon'ble Commission, OHPC has submitted the proposals seeking approval of Capital Maintenance Works for replacement of Main Inlet Valve along with new MIV seal control system for all the 04 nos. of Generating Units of UIHEP. The matter was registered as Case No. 54 of 2024 and Hon'ble Commission vide letter no.970 dtd. 29.08.2024 had directed OHPC to serve the copy of the petition to the Respondents (i.e. Principal Secretary, DoE, GoO & GRIDCO). Complying to the direction of Hon'ble OERC, GRIDCO had submitted the reply on 13th September 2024.

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b) Public hearing on the said matter was held on 15.10.2024. Hon'ble Commission upon hearing the parties were of following view:

"we are of the view that the proposal of M/s. OHPC Ltd. for approval of capital maintenance work for replacement of MIV of all the four units of UIHEP needs views of all the stake holders through public notice, as it has impact on the tariff. Therefore, we decide to hear the matter along with the tariff proceeding for the ensuing year. Accordingly, M/s. OHPC Ltd. is directed to include the present matter in the public notice to be issued on the tariff proposal for the ensuing year inviting views/suggestions/objections from the interested parties. The matter will be heard analogously with the tariff petition of the ensuing year. Further, it is advised that M/s. OHPC Ltd. may make additional submission /modify the application basing on the suggestion given by the Commission during the hearing today regarding necessity of replacement of complete MIV of all the four generating units of UIHEP based on advice of OEM including a brief technical report of experts view in this regard. However, pendency of this proceeding before the Commission shall not act as a bar in case emergency arises for capital maintenance work for replacement of Main Inlet valve of all four units of UIHEP."

Accordingly, in compliance to the direction of Hon'ble Commission, OHPC is resubmitting its application for approval of the capitalisation for execution of the capital maintenance work for replacement of Main Inlet Valve of all four Units of UIHEP.

c) **Background**

UIHEP, Mukhiguda has 04 Nos. of Units having 150 MW capacity each of M/s. Fuji Electric, Japan Make. The Units had been commissioned during the year from 1999 to 2001. The Y piece of Unit No. 1 & 2 is one and that of Unit No. 3 & 4 are from another Y piece.

d) **Observation of Vibration**

Mainly vibration was observed in one penstock while all machines were in stopped conditions during 2018. Gradually, vibration was observed in all the penstocks & machines.

e) **Action of OHPC:**

This phenomenon of auto oscillation of penstock was rarest in India. OHPC had explored alternative options from Govt authorities such as DoWR, GOO and CWC to ascertain root cause of auto oscillation and penstock vibration problem, but did not succeed. Since the penstock vibration problem in all the four units of UIHEP were developed in 2018 and the same were getting accentuated over passage of time and above all considering the fact that alternative options were not forthcoming from other avenues, OHPC decided to seek assistance of the OEM for finding a long-term solution to the problem which was rising to a risky proportion.

OHPC intimated M/s. Voith Fuji, the OEM, to assess the root cause of penstock vibration and to furnish expert view to reduce the risk of auto oscillation and possible risk. The experts from M/s Voith, Hydro, Germany on 15th April 2021, had given online presentation

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regarding solution to auto-oscillation problem in the penstock of UIHEP and suggested to implement the solutions to the problem as fast as possible to reduce the risk of auto-oscillation and possible danger of severe accident arising out of rupture of penstock. The reasons of pressure pulsation were discussed and deliberated with the expert from Voith, Germany. As per the views of expert from Voith, Germany, pressure pulsation / vibration during shut down of the generating units may be occurring in MIV due to leakage of water from MIV seal or due to less area of MIV inside cavity (due to which upstream pressure becomes less than the downstream pressure).

The OEM (M/s Voith) expert after detailed analysis suggested that vibration is being experienced due to improper sealing of MIV. They suggested two possible alternatives:

- First alternative was to replace the seal rings and rubber seals of the all four Unit MIVs to stop leakage. However, no guarantee can be extended as the solution is temporary in nature.
- Second alternative was to replace the complete MIV with new improved design along with new MIV seal control system & OPU system for all the four units of UIHEP, Mukiguda for long term improvement mitigating auto-oscillation effects.

f) <u>OEM offer and approval of BoD OHPC</u>:

The OEM was requested to submit their techno-commercial offer. In response, the OEM submitted their offer for supply and replacement of old MIV with MIV of new improved design in four units of UIHEP, Mukhiguda at a price of Rs.54 Crores exclusive of GST.

After several rounds of discussion between OHPC and the OEM, M/s Voith, the matter was presented before the 167th meeting of the OHPC BoD held on 30th June'2022. The Board acknowledged the sensitiveness of the problem and advised to convene the TCC-I meeting at an early date and authorized the Chairman to take appropriate decision based on the recommendation of the TCC-I including any modification/cancellation required against the decision taken under the Item No. 167/24 for procurement of 4 sets of control valves for which orders have already been placed on the OEM in April'2022.

In obedience to the directives of the Board, the OEM contended that the existing control valves for which the order was placed on 16th April. 2022, will not be compatible with the new MIVs & hence will not be used. In place of the existing control valve, the OEM proposed installation of New MIV Seal Control System which are compatible with the new MIVs.

On the matters relating to short- closure of the existing contract dated 16th April'2022 for procurement of 4 sets of control valves of existing design, OHPC proposed that the running contract dated 16th April'2022 may be amended incorporating supply & replacement of 4 sets of New MIV Control System at the previously decided contract price amounting to Rs. 3.2203 Crores exclusive of GST unaltered without any additional financial involvement for procurement of the New MIV Seal Control System. The OEM consented to the proposition.

The Board after detailed deliberation on the subject matter, acknowledged & observed the followings:

That the auto oscillation & penstock vibration problems at UIHEP have been continuing since 2018 when the phenomenon was 1st observed. It was acknowledged that there exist associated risks to the plant if the vibration issue is not tackled effectively & remedied. The penstock vibration problem appears to be a complex phenomenon.

The Board also accepted the recommendations of the TCC-I held on 17th August'2022, the proposal regarding supply & replacement of New MIV Seal Control System within the same prices of **Rs. 3.2203** Cr excluding GST, terms & conditions as that of the existing UIHEP PO dated 16th April'2022 was also accepted by the Board.

In the 170th Board meeting of OHPC held on 19th January 2023, the Board felt prudent to opt for changing the entire MIV as recommended by the OEM which may help in eliminating the potential risks to the plant. Accordingly, the Board advised to consider the long-term proposal of the OEM for complete replacement of MIVs of improved design together with changing the existing control valves with New MIV Seal Control System compatible with the new MIVs.

In obedience to the directives of OHPC Board, a negotiation meeting was held between OHPC and M/s Voith to furnish further discount. In response, M/s Voith furnished final discounted offered price for supply and replacement of four sets of MIVs with new improved design MIVs at a price of **Rs. 49, 54, 50,000/-** along with four sets of new MIV seal control system at a price of **Rs. 3.2203** Cr. The detailed discounted offer is as below.

Table -38

New MIV Price Schedule:

Sl. No.	DESCRIPTION OF SUPPLY & SERVICES	QTY (Sets)	Unit FORD Price (Rs.)	Total FORD Amount (Rs.)
1	Design, Manufacturing & Supply of New Spherical Valves (MIV) of improved design along with New High Pressure OPU System, By-Pass Valves & associated pipelines & hardware.	04	11,00,00,000/-	44,00,00,000/-
2.	Removal of old valves, OPU system, by- pass valves, pipelines etc and installation & commissioning of the above supplies with New MIV Control System.	04	1,38,62,500/-	5,54,50,000/-
Total Final Prices exclusive of GST				**49,54,50,000/-**

NOTARY NATABAR MOHANTY BHUBANESWAR ON 94 05/07/2025 GOVT. OF ODISHA

ODISHA HYDRO POWER CORPORATION LTD. BBSR

Table -39

MIV Seal Control System Price Schedule:

Sl. No.	DESCRIPTION OF SUPPLY	QTY (Sets)	Unit FORD Price (Rs.)	Total FORD Amount (Rs.)
1	Design, Manufacturing & Supply of New MIV Seal Control System compatible with new MIV of improved design.	04	80,50,800/-	3,22,03,200/-
Total prices exclusive of GST				**3,22,03,200/-**

Thus, the total expenditure towards the replacement of old MIV & control valves with that of new MIVs of improved design along with new MIV seal control system = 49,54,50,000 + 3,22,03,200 = **Rs. 52, 76, 53, 200/- excluding GST**.

In obedience to the advisory of Board and approval of competent authority, LOI was placed on the favor of OEM, M/s Voith Hydro Pvt. Ltd., India.

With due approval of competent authority and in line with TCC-1 recommendation, a work order was issued to the OEM, M/s Voith Hydro Pvt. Ltd., India for design, manufacture, supply & replacement of New MIVs for all four generating Units of UIHEP at a total price of Rs.49,54,50,000/- exclusive of GST vide UIHEP Work Order No. 335, dated 13th Jan.2023 and another partial amendment purchase order was issued for supply of four sets of new MIV Seal Control System at a total price of Rs. 3,22,03,200/- vide UIHEP amendment Purchase Order No. 1318, dated 17.03.2023. The total expenditure to be incurred towards remedial measures against auto- oscillation & penstock vibration problem in the four generating units of UIHEP, Mulkiguda stands at 49,54,50,000 + 3,22,03,200 = **Rs. 52, 76, 53, 200/- excluding GST.**

g) **Compliance to the queries of the Hon'ble Commission:** During the public hearing on dated 15.10.2024, Hon'ble Commission has raised queries on following issues:

- Option of OHPC for not going for replacement of one set of MIV on trial basis.
- Advantages of new MIV with new improved design
- Reasonability of the rate quoted.
- Reason for choosing OEM for replacement of MIV work.
- Guarantee period.

The compliance to the above issues is enclosed at Annexue-33(i) for kind appraisal of Hon'ble Commission.

In this regard the following documents are furnished as **Annexure-32** for kind reference.

NOTARY GOVT. OF ODISHA NATABAR MOHANTY BHUBANESWAR OR/10/94 05/12/2025

ODISHA HYDRO POWER CORP. LTD. BBSR

i. Compliance to the queries raised by Hon'ble Commission in the public hearing dated 15.10.2024.

ii. Copy of the letter of OHPC to Govt authorities such as DoWR, GOO and CWC to ascertain root cause of auto oscillation.

iii. Extracts taken from the minutes of the 167th, 168th, 169th & 170th BoD of OHPC.

iv. Purchase cum work order for "Design, Engineering, Manufacturing, Supply, Erection, Testing & Commissioning of new MIVs for all the 4 generating units of UIHEP, Mukhiguda".

v. Purchase cum work order for Design, Manufacturing & Supply of 4 sets of new MIV seal control system for all the 4 generating units of Mukhiguda.

vi. The technical details of the new MIV as submitted and presented by the experts from Voith Germany.

vii. Copies of the orders Voith received from 118 MW Nikachhu HEP, a SPV owned by Royal Govt of Bhutan, for accessing the rate of new MIV.

viii. Rate reasonability certificate submitted by OEM.

h) <u>Period of Shutdown:</u>

As per terms of the UIHEP Work Order bearing No. 335, Dated 13th January'2023, the OEM shall successfully complete the commissioning of new MIV system along with MIV seal control system within three months from the date of handing over of each generating Unit. The shut-down period of 3 months per set of MIV may be staggered over a period of time depending upon machine availability and grant of permission from SLDC.

OHPC has to carry out Capital Maintenance work of two units simultaneously due to technical reasons. At present, OHPC is planning to carry out the maintenance work of Unit-3 & 4 during the lean period from November 2024 to January 2025.

The Capital Maintenance of Unit-1 & 2 shall also be taken up in future in consultation with SLDC.

In line with the previous Capital Maintenance approval Orders, the Hon'ble Commission may kindly allow OHPC & SLDC to deduct the installed capacity of the unit undergoing the above capital maintenance work for a maximum period of 03 months from the total installed capacity of 600 MW for the purpose of computation of PAFM (Plant Availability Factor during the Month) for recovery of Capacity Charges. The detail proposal in a tabulated form is furnished below for kind approval of the same by the Hon'ble OERC.

Table No.40
Details of proposal for approval of capital maintenance work of UIHEP, Mukhiguda

Sl No	Name of the Unit	Name of work	Estimated capital addition (Rs)	Period of shut down for availing capacity charge benefit	Remarks
1	Unit 1 to 4 of UIHEP, Mukhiguda	Design, Engineering, Manufacturing, Supply, Erection, Testing & Commissioning of new MIVs with new MIV seal control system.	52,76,53,200	3 months for replacement of each MIV with seal control system.	(1) Zero date for installation of each MIV shall be decided in consultation with SLDC (2) The capacity (MW) of the Unit under Capital Maintenance shall be deducted from the total Installed Capacity for computation of PAFM.

i) Prayer: It is respectfully prayed that this Hon'ble Commission may be pleased to approve the capitalisation for execution of the capital maintenance work for replacement of Main Inlet Valve of all four Units of UIHEP with an estimated price of Rs 52, 76, 53,200/-(excluding GST) and to allow the shutdown period of 3 months for each unit of UIHEP as mentioned in the Table-40 as above.

ODISHA HYDRO POWER CORPORATION LTD. BBSR

NOTARY NATABAR MOHANTY BHUBANESWAR ON 05/07/2025 GOVT. OF ODISHA

PRAYER

OHPC prays before the Hon'ble Commission to kindly approve the following in the ARR & Tariff Order of OHPC Power Stations for the FY 2025-26:

i) The proposed Saleable Design Energy of different power stations of OHPC for FY 2025-26 as furnished in the Table-4.

ii) The ARR amounting to Rs 671.124Crs. of OHPC Power Stations at an average tariff @ 119.81 Paise/Unit;

iii) The ACC, AEC & ECR of different Power Stations of OHPC as shown in the Table-25;

iv) The miscellaneous reimbursement of Rs 91.5366Crore by OHPC from GRIDCO;

v) The tariff for energy billing to CSPDCL @ 2.06012 Rs / kWh considering Up-valued cost of HHEP and the norms of CERC (Terms & Conditions of Tariff) Regulations, 2024;

vi) The tariff of MHEP (Joint Scheme) @ 1.3704 Rs/unit with provision of Rs 35.5413 Crores in the ARR of OHPC & GRIDCO to enable OHPC to make payment of O&M cost to APGENCO as per the new Agreement;

vii) The average available Installed Capacity as 1635 MW for payment of SLDC charges;

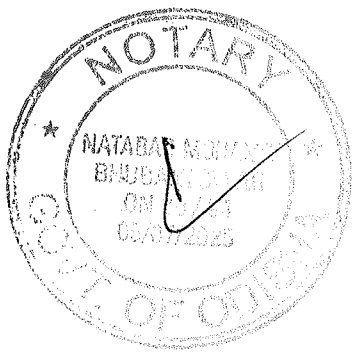
viii) Approval of the Loan repayment schedule of UIHEP as shown in Table No.18, so that 90% of Project Cost/ GFA is recovered & Loan Liabilities are cleared during the Useful life of the project.

ix) Recognition of the secondary energy fund as per the Para 6.5(e) of Order dt.10.06.2005 of the Hon'ble Commission which presently stands as (-) Rs 152.707Crs.

x) To accord the in principle approval of capital maintainance work for procurement & installation of 4 nos of MIVs with seal control system of UIHEP as proposed under Table-40.

xi) To Condone any inadvertent omission, errors, shortcomings and permit the Petitioner to add/change/modify/alter this filing and make further submissions as may be required at a future date;

Place : Bhubaneswar
Date :



Deponent
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

Annexure-1

SUMMARY OF TARIFF PROPOSAL. (FORM-1)

FORM - 1

Summary of Tariff

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **RENGALI HYDRO ELECTRIC PROJECT**
Region **State : ORISSA Dist: ANGUL**

(Rs. In Crs.)

Sl. No.	Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	Form No	3	4	5	6	7	8	9
1	Depreciation	12	3.895	3.864	3.920	3.966	3.985	4.170	4.593
2	Interest on Loan	13	1.455	1.094	0.854	0.582	0.335	0.470	2.026
3	Return on Equity		2.840	2.848	2.860	2.944	2.975	3.170	4.422
4	Interest on Working Capital	13B	2.630	2.820	2.430	2.566	2.305	2.210	3.225
5	O&M Expenses	15A	54.560	56.602	59.842	68.493	61.327	57.700	72.830
	Total		**65.380**	**67.228**	**69.906**	**78.551**	**70.927**	**67.720**	**87.096**

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 1

Summary of Tariff

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **UPPER KOLAB HYDRO ELECTRIC PROJECT**
Region **State : ORISSA Dist: KORAPUT**

(Rs. in Crs.)

Sl. No.	Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	Form No	3	4	5	6	7	8	9
1	Depreciation	12	3.296	3.325	3.470	3.486	3.481	3.610	3.949
2	Interest on Loan	13	0.115	0.141	0.450	0.334	0.280	0.490	1.544
3	Return on Equity		0.980	1.034	1.260	1.294	1.261	1.420	2.418
4	Interest on Working Capital	13B	2.627	2.864	2.490	2.028	2.073	2.090	3.525
5	O&M Expenses	15A	55.970	58.932	62.301	54.346	55.668	55.300	80.893
	Total		**62.988**	**66.296**	**69.971**	**61.488**	**62.763**	**62.910**	**92.329**

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 1

Summary of Tariff

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **BALIMELA HYDRO ELECTRIC PROJECT**
Region **State : ORISSA Dist: MALKANGIRI**

(Rs. In Crs.)

Sl. No.	Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	Form No	3	4	5	6	7	8	9
1	Depreciation	12	8.637	8.667	8.722	8.773	10.002	11.590	13.599
2	Interest on Loan	13	0.388	0.351	0.380	0.374	6.309	6.830	11.462
3	Return on Equity		10.607	10.663	10.440	10.530	12.729	16.100	20.639
4	Interest on Working Capital	13B	2.590	2.958	2.510	2.264	2.511	2.560	4.221
5	O&M Expenses	15A	48.860	54.602	57.729	55.870	60.214	57.820	84.292
	Total		**71.082**	**77.241**	**79.781**	**77.811**	**91.765**	**94.900**	**134.213**

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 1

Summary of Tariff

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **HIRAKUD HYDRO ELECTRIC PROJECT**
Region **State : ORISSA Dist: SAMBALPUR**

(Rs. In Crs.)

Sl. No.	Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	Form No	3	4	5	6	7	8	9
1	Depreciation	12	8.315	8.346	8.408	8.869	11.549	12.150	12.948
2	Interest on Loan	13	2.779	2.153	1.590	1.922	8.574	9.110	10.067
3	Return on Equity		12.590	12.648	12.360	13.200	17.513	20.130	22.610
4	Interest on Working Capital	13B	3.120	3.333	2.810	2.329	2.587	2.470	3.016
5	O&M Expenses	15A	58.830	61.115	64.608	56.149	58.967	54.320	57.132
	Total		**85.634**	**87.595**	**89.776**	**82.469**	**99.190**	**98.180**	**105.773**

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 1

Summary of Tariff

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **CHIPILIMA HYDRO ELECTRIC PROJECT**
Region **State : ORISSA Dist: SAMBALPUR**

(Rs. In Crs.)

Sl. No.	Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	Form No	3	4	5	6	7	8	9
1	Depreciation	12	3.628	3.635	3.667	5.271	5.279	5.400	10.399
2	Interest on Loan	13	0.188	0.144	0.171	4.182	3.723	3.240	14.777
3	Return on Equity		2.409	2.422	2.410	5.570	5.262	5.910	14.717
4	Interest on Working Capital	13B	1.400	1.467	1.260	1.080	1.098	1.080	1.923
5	O&M Expenses	15A	28.300	28.566	30.197	24.672	25.485	24.560	32.919
	Total		**35.925**	**36.234**	**37.705**	**40.775**	**40.847**	**40.190**	**74.735**

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 1

Summary of Tariff

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **UPPER INDRAVATI HYDRO ELECTRIC PROJECT**
Region **State : ORISSA Dist: KALAHANDI**

(Rs. In Crs.)

Sl. No.	Particulars		2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	Form No	3	4	5	6	7	8	9
1	Depreciation	12	36.051	35.866	32.020	32.035	32.842	33.220	37.846
2	Interest on Loan	13	1.670	1.331	1.522	1.043	2.662	3.377	7.730
3	Return on Equity		49.593	49.653	50.283	50.313	51.781	52.530	58.743
4	Interest on Working Capital	13B	5.260	5.772	4.660	3.874	3.876	3.623	4.680
5	O&M Expenses	15A	79.360	86.353	91.072	78.395	77.166	68.190	74.821
	Total		**171.934**	**178.975**	**179.557**	**165.660**	**168.327**	**160.940**	**183.820**

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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Annexure-2

DETAILS OF COD, TYPE OF HYDRO STATION, NAPAF & OTHER NORMATIVE PARAMETERS. (FORM-2)

FORM -2					
Details of COD, Type of Hydro Station, Normative Annual Plant Availability Factor and other normative parameters considered for tariff calculation.					
NAME OF THE COMPANY : Orissa Hydro Power Corporation Ltd.					
NAME OF THE POWER STATION : Rengali Hydro Electric Project					
Sl. No.	**Description**	**Year ending March**			
		2022-23	**2023-24**	**2024-25**	**2025-26**
1	Installed Capacity	250MW (5 X 50)	250MW (5 X 50)	250MW (5 X 50)	250MW (5 X 50)
2	Free power to home state	0%	0%	0%	0%
3	Date of Commisioning / COD				
	Unit-1	27.08.85	27.08.85	27.08.85	27.08.85
	Unit-2	26.03.86	26.03.86	26.03.86	26.03.86
	Unit-3	10.08.89	10.08.89	10.08.89	10.08.89
	Unit-4	19.03.90	19.03.90	19.03.90	19.03.90
	Unit-5	14.08.92	14.08.92	14.08.92	14.08.92
4	Typer of Station				
	a) Surface/underground	Surface	Surface	Surface	Surface
	b) Purely ROR/ Pondage / Storage	Storage	Storage	Storage	Storage
	c) Peaking /non-peaking	Peaking	Peaking	Peaking	Peaking
	d) No. of hours of peaking	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.
	e) Overload capacity (MW) & period	Overload Capacity may goes upto 110% of the rated capacity proportionately in case net head goes beyond the rated head.	Overload Capacity may goes upto 110% of the rated capacity proportionately in case net head goes beyond the rated head.	Overload Capacity may goes upto 110% of the rated capacity proportionately in case net head goes beyond the rated head.	Overload Capacity may goes upto 110% of the rated capacity proportionately in case net head goes beyond the rated head.
5	Type of excitation				
	a) Rotaing exciters on generator				
	b) Static excitation	Unit - 1, 2, 3, 4 & 5 (static)	Unit - 1, 2, 3, 4 & 5 (static)	Unit - 1, 2, 3, 4 & 5 (static)	Unit - 1, 2, 3, 4 & 5 (static)
6	Design Energy (Annual) in Gwh	525	525	525	525
7	Auxiliary Consumption including transformation losses in %	1	1	1	1
8	Normative Annual Plant Availability Factor (NAPAF)	80	80	80	80
9.1	Maintenance Spares for WC in% of O&M	15	15	15	15
9.2	Receivables for WC in days	45	45	45	45
9.3	Rate of Return on Equity	15.5% post tax	15.5% post tax	15.5% post tax	16.5% post tax
9.4	Tax Rate	IT of 2020-21 reimbursable	IT of 2021-22 reimbursable	IT of 2022-23 reimbursable	IT of 2023-24 & unapproved IT of 2022-23 & 2021-22 reimbursable
9.5	Prime lending Rate/MCLR of SBI as on April in %	SBI Base Rate (7.00%) + 300basis point	MCLR (7.00%) + 300basis point	MCLR (8.50%) + 300basis point	MCLR (8.65%) + 300basis point

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -2					
Details of COD, Type of Hydro Station, Normative Annual Plant Availability Factor and other normative parameters considered for tariff calculation.					
NAME OF THE COMPANY : Orissa Hydro Power Corporation Ltd.					
NAME OF THE POWER STATION : Upper Kolab Hydro Electric Project					
Sl. No.	Description	Year ending March			
		2022-23	2023-24	2024-25	2025-26
1	Installed Capacity	320MW (4x80)	320MW (4x80)	320MW (4x80)	320MW (4x80)
2	Free power to home state	0%	0%	0%	0%
3	Date of Commisioning / COD				
	Unit-1	10.03.88	10.03.88	10.03.88	10.03.88
	Unit-2	14.04.88	14.04.88	14.04.88	14.04.88
	Unit-3	12.02.90	12.02.90	12.02.90	12.02.90
	Unit-4	12.01.93	12.01.93	12.01.93	12.01.93
4	Typer of Station				
	a) Surface/underground	Surface	Surface	Surface	Surface
	b) Purely ROR/ Pondage / Storage	Storage	Storage	Storage	Storage
	c) Peaking /non-peaking	Peaking	Peaking	Peaking	Peaking
	d) No. of hours of peaking	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.
	e) Overload capacity (MW) & period	92	92	92	92
5	Type of excitation				
	a) Rotaing exciters on generator				
	b) Static excitation	Static excitation	Static excitation	Static excitation	Static excitation
6	Design Energy (Annual) in Gwh	832	832	832	832
7	Auxiliary Consumption including transformation losses in %	1	1	1	1
8	Normative Annual Plant Availability Factor (NAPAF)	85	85	85	85
9.1	Maintenance Spares for WC in% of O&M	15	15	15	15
9.2	Receivables for WC in days	45	45	45	45
9.3	Rate of Return on Equity	15.5% post tax	15.5% post tax	15.5% post tax	16.5% post tax
9.4	Tax Rate	IT of 2020-21 reimbursable	IT of 2021-22 reimbursable	IT of 2022-23 reimbursable	IT of 2023-24 & unapproved IT of 2022-23 & 2021-22 reimbursable
9.5	Prime lending Rate of SBI as on April in %	SBI Base Rate (7.00%) + 300basis point	MCLR (7.00%) + 300basis point	MCLR (8.50%) + 300basis point	MCLR (8.65%) + 300basis point

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -2

Details of COD, Type of Hydro Station, Normative Annual Plant Availability Factor and other normative parameters considered for tariff calculation.

NAME OF THE COMPANY : Orissa Hydro Power Corporation Ltd.

NAME OF THE POWER STATION : Balimela Hydro Electric Project

Sl. No.	Description	Year ending March			
		2022-23	2023-24	2024-25	2025-26
1	Installed Capacity	510MW	510MW	510MW	510MW
2	Free power to home state	0%	0%	0%	0%
3	Date of Commisioning / COD				
	Unit-1	14.08.73	14.08.73/ 15.04.22	14.08.73/ 15.04.22	14.08.73/ 15.04.22
	Unit-2	25.01.74/ 29.12.21	25.01.74/ 29.12.21	25.01.74/ 29.12.21	25.01.74/ 29.12.21
	Unit-3	24.08.74	24.08.74	24.08.74/ 10.04.24	24.08.74/ 10.04.24
	Unit-4	26.03.75	26.03.75/ 06.02.24	26.03.75/ 06.02.24	26.03.75/ 06.02.24
	Unit-5	07.05.76	07.05.76	07.05.76	07.05.76
	Unit-6	05.01.77	05.01.77	05.01.77	05.01.77
	Unit-7	23.12.2008	23.12.2008	23.12.2008	23.12.2008
	Unit-8	23.01.2009	23.01.2009	23.01.2009	23.01.2009
4	Typer of Station				
	a) Surface/underground	Surface	Surface	Surface	Surface
	b) Purely ROR/ Pondage / Storage	Storage	Storage	Storage	Storage
	c) Peaking /non-peaking	Peaking	Peaking	Peaking	Peaking
	d) No. of hours of peaking	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.
	e) Overload capacity (MW) & period	110% of the Rated capacity	110% of the Rated capacity	110% of the Rated capacity	110% of the Rated capacity
5	Type of excitation				
	a) Rotaing exciters on generator	Main Exciter & Pilot Exciter Unit -1 to 6	Main Exciter & Pilot Exciter Unit -1 to 6	Main Exciter & Pilot Exciter Unit -1 to 6	Main Exciter & Pilot Exciter Unit -1 to 6
	b) Static excitation	Unit-7 and 8	Unit-7 and 8	Unit-7 and 8	Unit-7 and 8
6	Design Energy (Annual) in Gwh	1183	1183	1183	1183
7	Auxiliary Consumption including transformation losses in %	1	1	1	1
8	Normative Annual Plant Availability Factor (NAPAF)	83	87	87	87
9.1	Maintenance Spares for WC in% of O&M	15	15	15	15
9.2	Receivables for WC in days	45	45	45	45
9.3	Rate of Return on Equity	15.5% post tax	15.5% post tax	15.5% post tax	16.5% post tax
9.4	Tax Rate	IT of 2020-21 reimbursable	IT of 2021-22 reimbursable	IT of 2022-23 reimbursable	IT of 2023-24 & unapproved IT of 2022-23 & 2021-22 reimbursable
9.5	Prime lending Rate of SBI as on April in %	SBI Base Rate (7.00%) + 300basis point	MCLR (7.00%) + 300basis point	MCLR (8.50%) + 300basis point	MCLR (8.65%) + 300basis point

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -2

Details of COD, Type of Hydro Station, Normative Annual Plant Availability Factor and other normative parameters considered for tariff calculation.

NAME OF THE COMPANY : Orissa Hydro Power Corporation Ltd.

NAME OF THE POWER STATION : Hirakud Hydro Electric Project

Sl. No.	Description	Year ending March			
		2022-23	2023-24	2024-25	2025-26
1	Installed Capacity	275.5.5 MW	275.5.5 MW	275.5.5 MW	275.5.5 MW
2	Free power to home state	0%	0%	0%	0%
3	Date of Commisioning / COD				
	Unit-1	11.05.58 / 16.04.98 (R, M & U)	11.05.58 / 16.04.98 (R, M & U)	11.05.58 / 16.04.98 (R, M & U)	11.05.58 / 16.04.98 (R, M & U)
	Unit-2	11.11.57 / 01.04.98 (R, M & U)	11.11.57 / 01.04.98 (R, M & U)	11.11.57 / 01.04.98 (R, M & U)	11.11.57 / 01.04.98 (R, M & U)
	Unit-3	18.12.56 / 01.01.06 (R, M & U)	18.12.56 / 01.01.06 (R, M & U)	18.12.56 / 01.01.06 (R, M & U)	18.12.56 / 01.01.06 (R, M & U)
	Unit-4	13.05.57 / 01.01.06 (R, M & U)	13.05.57 / 01.01.06 (R, M & U)	13.05.57 / 01.01.06 (R, M & U)	13.05.57 / 01.01.06 (R, M & U)
	Unit-5	19.04.62	19.04.62	19.04.62	19.04.62
	Unit-6	05.08.63/ 02.11.2021 (R,M & U)	05.08.63/ 02.11.2021 (R,M & U)	05.08.63/ 02.11.2021 (R,M & U)	05.08.63/ 02.11.2021 (R,M & U)
	Unit-7	13.09.90	13.09.90	13.09.90	13.09.90
4	Typer of Station				
	a) Surface/underground	Surface	Surface	Surface	Surface
	b) Purely ROR/ Pondage / Storage	Storage	Storage	Storage	Storage
	c) Peaking /non-peaking	Peaking	Peaking	Peaking	Peaking
	d) No. of hours of peaking	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.
	e) Overload capacity (MW) & period	5% for limited period(except Unit#5,6&7)	5% for limited period(except Unit#5,6&7)	5% for limited period(except Unit#5,6&7)	5% for limited period(except Unit#5,6&7)
5	Type of excitation				
	a) Rotaing exciters on generator				
	b) Static excitation	Unit 1, 2, 3, 4,5,6 & 7	Unit 1, 2, 3, 4,5,6 & 7	Unit 1, 2, 3, 4,5,6 & 7	Unit 1, 2, 3, 4,5,6 & 7
6	Design Energy (Annual) in Gwh	684	684	684	684
7	Auxiliary Consumption including transformation losses in %	1	1	1	1
8	Normative Annual Plant Availability Factor (NAPAF)	75	75	75	75
9.1	Maintenance Spares for WC in% of O&M	15	15	15	15
9.2	Receivables for WC in days	45	45	45	45
9.3	Rate of Return on Equity	15.5% post tax	15.5% post tax	15.5% post tax	16.5% post tax
9.4	Tax Rate	IT of 2020-21 reimbursable	IT of 2021-22 reimbursable	IT of 2022-23 reimbursable	IT of 2023-24 & unapproved IT of 2022-23 & 2021-22 reimbursable
9.5	Prime lending Rate of SBI as on April in %	SBI Base Rate (7.00%) + 300basis point	MCLR (7.00%) + 300basis point	MCLR (8.50%) + 300basis point	MCLR (8.65%) + 300basis point

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -2

Details of COD, Type of Hydro Station, Normative Annual Plant Availability Factor and other normative parameters considered for tariff calculation.

NAME OF THE COMPANY : Orissa Hydro Power Corporation Ltd.

NAME OF THE POWER STATION : Chipilima Hydro Electric Project

Sl. No.	Description	Year ending March			
		2022-23	2023-24	2024-25	2025-26
1	Installed Capacity	72MW (3x24)	72MW (3x24)	72MW (3x24)	72MW (3x24)
2	Free power to home state	0%	0%	0%	0%
3	Date of Commisioning / COD				
	Unit-1	15.7.62 / 29.07.98 (R&M)	15.7.62 / 29.07.98 (R&M)	15.7.62 / 29.07.98 (R&M)	15.7.62 / 29.07.98 (R&M)
	Unit-2	26.11.62/ 01.05.08(R&M)	26.11.62/ 01.05.08(R&M)	26.11.62/ 01.05.08(R&M)	26.11.62/ 01.05.08(R&M)
	Unit-3	01.02.64	01.02.64	01.02.64	01.02.64
4	Typer of Station				
	a) Surface/underground	Surface	Surface	Surface	Surface
	b) Purely ROR/ Pondage / Storage	ROR with 3 hrs Pondage	ROR with 3 hrs Pondage	ROR with 3 hrs Pondage	ROR with 3 hrs Pondage
	c) Peaking /non-peaking	Non-peaking	Non-peaking	Non-peaking	Non-peaking
	d) No. of hours of peaking	Not applicable	Not applicable	Not applicable	Not applicable
	e) Overload capacity (MW) & period	110% of the Rated capacity	110% of the Rated capacity	110% of the Rated capacity	110% of the Rated capacity
5	Type of excitation				
	a) Rotaing exciters on generator	Unit - 3	Unit - 3	Unit - 3	Unit - 3
	b) Static excitation	Unit 1 & 2	Unit 1 & 2	Unit 1 & 2	Unit 1 & 2
6	Design Energy (Annual) in Gwh	474.05	474.05	474.05	474.05
7	Auxiliary Consumption including transformation losses in %	1	1	1	1
8	Normative Annual Plant Availability Factor (NAPAF)	75	75	75	75
9.1	Maintenance Spares for WC in% of O&M	15	15	15	15
9.2	Receivables for WC in days	45	45	45	45
9.3	Rate of Return on Equity	15.5% post tax	15.5% post tax	15.5% post tax	16.5% post tax
9.4	Tax Rate	IT of 2020-21 reimbursable	IT of 2021-22 reimbursable	IT of 2022-23 reimbursable	IT of 2023-24 & unapproved IT of 2022-23 & 2021-22 reimbursable
9.5	Prime lending Rate of SBI as on April in %	SBI Base Rate (7.00%) + 300basis point	MCLR (7.00%) + 300basis point	MCLR (8.50%) + 300basis point	MCLR (8.65%) + 300basis point

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -2

Details of COD, Type of Hydro Station, Normative Annual Plant Availability Factor and other normative parameters considered for tariff calculation.

NAME OF THE COMPANY : Orissa Hydro Power Corporation Ltd.

NAME OF THE POWER STATION : Upper Indravati Hydro Electric Project

Sl. No.	Description	Year ending March			
		2022-23	2023-24	2024-25	2025-26
1	Installed Capacity	600MW (4 X 150)	600MW (4 X 150)	600MW (4 X 150)	600MW (4 X 150)
2	Free power to home state	0%	0%	0%	0%
3	Date of Commisioning / COD				
	Unit-1	19.09.99	19.09.99	19.09.99	19.09.99
	Unit-2	28.12.99	28.12.99	28.12.99	28.12.99
	Unit-3	04.10.00	04.10.00	04.10.00	04.10.00
	Unit-4	16.04.01	16.04.01	16.04.01	16.04.01
4	Typer of Station				
	a) Surface/underground	Surface	Surface	Surface	Surface
	b) Purely ROR/ Pondage / Storage	Storage	Storage	Storage	Storage
	c) Peaking /non-peaking	Peaking	Peaking	Peaking	Peaking
	d) No. of hours of peaking	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.	Not less than 3 Hrs.
	e) Overload capacity (MW) & period	110% of Rated capacity	110% of Rated capacity	110% of Rated capacity	110% of Rated capacity
5	Type of excitation				
	a) Rotaing exciters on generator				
	b) Static excitation	Static excitation	Static excitation	Static excitation	Static excitation
6	Design Energy (Annual) in Gwh	1962	1962	1962	1962
7	Auxiliary Consumption including transformation losses in %	1	1	1	1
8	Normative Annual Plant Availability Factor (NAPAF)	88	88	88	88
9.1	Maintenance Spares for WC in% of O&M	15	15	15	15
9.2	Receivables for WC in days	45	45	45	45
9.3	Rate of Return on Equity	16% post tax	16% post tax	16% post tax	16.5% post tax
9.4	Tax Rate	IT of 2020-21 reimbursable	IT of 2021-22 reimbursable	IT of 2022-23 reimbursable	IT of 2023-24 & unapproved IT of 2022-23 & 2021-22 reimbursable
9.5	Prime lending Rate of SBI as on April in %	SBI Base Rate (7.00%) + 300basis point	MCLR (7.00%) + 300basis point	MCLR (8.5%) + 300basis point	MCLR (8.65%) + 300basis point

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

Annexure-3

SALIENT FEATURES OF HYDRO ELECTRIC PROJECT. (FORM-3).

FORM -3

SALIENT FEATURES OF HYDROELECTRIC PROJECT

NAME OF COMPANY : Odisha Hydro Power Corporation Ltd.

NAME OF POWER STATION : Rengali H.E. Project.

1. Location	
State/Dist.	Orissa / Angul
River	Brahmani
2. Diversion Tunnel	NA
Size, Shape	
Length	
3. Dam	
Type	Gravity Masonary Type
Maximum dam height	70.5 Mtr.
4. Spillway	
Type	Radial (ogee type with ski jump bracket)
Crest level of spillway	110.20
5. Reservoir	
Full Reservior Level (FRL)	123.5 mtr.
Minimum Draw Down Level (MDDL)	109.72 mtr.
Live storage (MCM)	4400
6. Desilting Arrangement	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	NA
Size, type	
Length	
Design discharge (Cumecs)	
8. Surge Shaft	NA
Type	
Diameter	
Height	
9. Penstock / Pressure Shafts	
Type	
Diameter & Length	5.96 Mtr. & 50.25 Mtr. (Horizontal)
10. Power House	
Type	Surface
Installed capacity (No. of units x MW)	5x50
Peaking Capacity during lean period (MW)	
Type of turbine	Kaplan
Rated Head (M)	40 mtr.
Rated Discharge (Cumecs)	750
11. Tail Race Tunnel (channel)	
Diameter, shape	Cross-section : Trapizodal
Length	21 mtr. (from Central line of Turbine)
Minimum tail water level	76.60 Mtr.
12. Switchyard	
Type of Switch gear	Outdoor
No. of generator bays	5
No. of Bus coupler bays	1
No. of line bays	05 (including Station Transformer)

Note : Spcify limitation on generation during specific time period on account of restriction (s) on water use due to irrigation, drinking water, industrial, environmental considerations etc.

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -3

SALIENT FEATURES OF HYDROELECTRIC PROJECT

NAME OF COMPANY : Odisha Hydro Power Corporation Ltd.
NAME OF POWER STATION : Upper Kolab H.E. Project.

1. Location	
State/Dist.	Orissa / Koraput
River	Kolab
2. Diversion Tunnel	NA
Size, Shape	
Length	
3. Dam	
Type	Masonary Gravity Type
Maximum dam height	54.50 Mtr.
4. Spillway	
Type	Radial Gates
Crest level of spillway	60 mtr.
5. Reservoir	
Full Reservior Level (FRL)	858 mtr.
Minimum Draw Down Level (MDDL)	844 mtr.
Live storage (MCM)	935
6. Desilting Arrangement	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	
Size, type	Int. Dia -5.5 mtr. / Horse shoe type
Length	3924 mtr.
Design discharge (Cumecs)	120
8. Surge Shaft	
Type	Differential (Simple Type)
Diameter	15 mtr.
Height	145 mtr.
9. Penstock / Pressure Shafts	
Type	4 Nos.
Diameter & Length	3.5 mtr. & 537 mtr.
10. Power House	
Type	Surface
Installed capacity (No. of units x MW)	4 X 80
Peaking Capacity during lean period (MW)	
Type of turbine	Vertical Francis
Rated Head (M)	241.72 mtr.
Rated Discharge (Cumecs)	40.33
11. Tail Race Tunnel	
Diameter, shape	25 mtr. (Breadth), Channel
Length	900 mtr.
Minimum tall water level	587.65 mtr.
12. Switchyard	
Type of Switch gear	Outdoor
No. of generator bays	4
No. of Bus coupler bays	1
No. of line bays	3

Note : Spcify limitation on generation during specific time period on account of restriction (s) on water use due to irrigation, drinking water, industrial, environmental considerations etc.
Limitation is not in peaking, but in average generation, during lean periods this station should be used for peaking purpose so as to save water for irrigation during Rabi period

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -3

SALIENT FEATURES OF HYDROELECTRIC PROJECT

NAME OF COMPANY : Odisha Hydro Power Corporation Ltd.
NAME OF POWER STATION : Balimela H.E. Project.

1. Location	
State/Dist.	Orissa / Malkangiri
River	Machhkund / Sileru
2. Diversion Tunnel	
Size, Shape	Open channel
Length	2042 mtr
3. Dam	
Type	Earthfill Gravity
Maximum dam height	70 mtr.
4. Spillway	
Type	Ogee
Crest level of spillway	1476 ft.
5. Reservoir	
Full Reservior Level (FRL)	1516 ft.
Minimum Draw Down Level (MDDL)	1440 ft.
Live storage (MCM)	3610
6. Desilting Arrangement	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	
Size, type	Cross- Section:Circular (Int. dia . 7.62 mtr)
Length	4112 mtr.
Design discharge (Cumecs)	226.5
8. Surge Shaft	
Type	Circular
Diameter	20 mtr.
Height	79 mtr.
9. Penstock / Pressure Shafts	8 Nos. (6+2)
Type	
Diameter & Length	Int. dia (each) 2.591 mtr. to 2.362 mtr. Length 548 mtr
10. Power House	
Type	Surface
Installed capacity (No. of units x MW)	(6x60 + 2x75)
Peaking Capacity during lean period (MW)	62 MW
Type of turbine	Francis
Rated Head (M)	274 Mtr.
Rated Discharge (Cumecs)	28(for Unit#1to Unit#6) 31.7(for Unit#7 & 8)
11. Tall Race Tunnel	
Diameter, shape	Open Channel
Length	1.847 KM.
Minimum tail water level	162.549 Mtrs.
12. Switchyard	
Type of Switch gear	Outdoor
No. of generator bays	8 (6 + 2)
No. of Bus coupler bays	1 + 1 (By Pass)
No. of line bays	6 (220 KV) + 1 (33 KV)

Note : OHPC draw 50% share of water from Balimela Reservoir.

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -3

SALIENT FEATURES OF HYDROELECTRIC PROJECT

NAME OF COMPANY : Odisha Hydro Power Corporation Ltd.

NAME OF POWER STATION : Hirakud Hydro Electric Project

1. Location	
State/Dist.	Orissa / Sambalpur
River	Mohanadi
2. Diversion Tunnel	NA
Size, Shape	
Length	
3. Dam	
Type	Straight Edged Earth Dam
Maximum dam height	80.96. Mtr.
4. Spillway	
Type	
Crest level of spillway	185.92 mtr.
5. Reservoir	
Full Reservior Level (FRL)	630 ft.
Minimum Draw Down Level (MDDL)	590 ft.
Live storage (MCM)	7189
6. Desllting Arrangement	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	NA
Size, type	
Length	
Design discharge (Cumecs)	
8. Surge Shaft	NA
Type	
Diameter	
Height	
9. Penstock / Pressure Shafts	
Type	Tubular Steel (7 Nos.)
Diameter & Length	Internal Diameter : 7.6 mtr. (unit 1,2,5,6&7) & 7 mtr. (unit 3&4)
10. Power House	
Type	Surface
Installed capacity (No. of units x MW)	(2x49.5) + (2x32) + (3x37.5)
Peaking Capacity during lean period (MW)	
Type of turbine	Kaplan (unit-1,2,5,6&7) & Francis (unit-3 & 4)
Rated Head (M)	26.5 mtr (-do-) & 31.7 mtr. (-do-)
Rated Discharge (Cumecs)	
11. Tall Race Tunnel (channel)	
Diameter, shape	Open Channel
Length	26.72 Kms
Minimum tail water level	156.1 mtr.
12. Switchyard	
Type of Switch gear	outdoor
No. of generator bays	7
No. of Bus coupler bays	1
No. of line bays	7+2

Note : As per decission of 66 th Hirakud Coordination Committee Meeting, the MDDL of Hirakud Reservoir shall be 598 Ft. and hence the live storage shall be 3.467 Macft.

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM -3

SALIENT FEATURES OF HYDROELECTRIC PROJECT

NAME OF COMPANY : Odisha Hydro Power Corporation Ltd.

NAME OF POWER STATION : Chipilima Hydro Electric Project

1. Location	
State/Dist.	Orissa / Sambalpur
River	Mahanadi
2. Diversion Tunnel	NA
Size, Shape	
Length	
3. Dam / Fore bay	
Type	Masonary and Gravity Type
Maximum dam height	
4. Spillway	
Type	Masonary and Gravity Type
Crest level of spillway	
5. Reservoir / Fore bay	
Full Reservior Level (FRL)	509' 2"
Minimum Draw Down Level (MDDL)	
Live storage (MCM)	
6. Desilting Arrangement	NA
Type	
Number and Size	
Particle size to be removed (mm)	
7. Head Race Tunnel	NA
Size, type	
Length	
Design discharge (Cumecs)	
8. Surge Shaft	NA
Type	
Diameter	
Height	
9. Penstock / Pressure Shafts	
Type	Trapezoidal (3 nos.)
Diameter & Length	Internal Diameter : 9.4 Mtr.
10. Power House	
Type	Surface
Installed capacity (No. of units x MW)	3x24
Peaking Capacity during lean period (MW)	30 MU
Type of turbine	Vertical Kaplan with movable blades
Rated Head (M)	74.5 Ft. (22.71 mtr.)
Rated Discharge (Cumecs)	127.42581
11. Tail Race Tunnel (channel)	
Diameter, shape	Open Channel
Length	
Minimum tail water level	131.67 mtr.
12. Switchyard	
Type of Switch gear	outdoor
No. of generator bays	3
No. of Bus coupler bays	1
No. of line bays	3 + 2 (20 MVA TRANS. I & II)

Note : Spcify limitation on generation during specific time period on account of restriction (s) on water use due to irrigation, drinking water, industrial, environmental considerations etc.

PETITIONER

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

SALIENT FEATURES OF HYDROELECTRIC PROJECT NAME OF COMPANY : Orissa Hydro Power Corporation Ltd. NAME OF POWER STATION : Upper Indravati H.E. Project.	
1. Location	
State/Dist.	Orissa / Kalahandi
River	Indravati
2. Diversion Tunnel	NA
Size, Shape	
Length	
3. Dam	4 nos.
Type	Masonary Gravity Type / Homogeneous Earth Fill
Maximum dam height	45 Mtr./ 65 Mtr. / 64 Mtr. / 77.5 Mtr.
4. Spillway	
Type	Radial
Crest level of spillway	629.5 Mtr.
5. Reservoir	
Full Reservior Level (FRL)	642 Mtr.
Minimum Draw Down Level (MDDL)	625 Mtr.
Live storage (MCM)	1485.5
6. Desllting Arrangement	
Type	Silt Check Dam
Number and Size	01 No:
Particle size to be removed (mm)	75 Micron
7. Head Race Tunnel	
Size, type	Open cut type / Dia. - 7 Mtr.
Length	4320 Mtr.
Design discharge (Cumecs)	210
8. Surge Shaft	
Type	Restricted orifice Type
Diameter	20 Mtr.
Height	132 Mtr.
9. Penstock / Pressure Shafts	
Type	
Diameter & Length	Penstock (4nos.) 3.5 mtr. Dia. & 790 mtr. length
10. Power House	
Type	Surface
Installed capacity (No. of units x MW)	4x150 MW
Peaking Capacity during lean period (MW)	
Type of turbine	vertical, francis
Rated Head (M)	360 mtr.
Rated Discharge (Cumecs)	47.1
11. Tall Race Tunnel	
Diameter, shape	Channel
Length	9 Km.
Minimum tall water level	263 Mtr.
12. Switchyard	
Type of Switch gear	Outdoor
No. of generator bays	4
No. of Bus coupler bays	1
No. of line bays	6

Note : Spcify limitation on generation during specific time period on account of restriction (s) on water use due to irrigation, drinking water, industrial, environmental considerations etc.

PETITIONER
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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Annexure-4

STATEMENT OF DEPRECIATION. (FORM-12)

FORM - 12

Statement of Depreciation

Name of the Company : **Odisha Hydro Power Corporation Ltd.**
Name of the Power Station : **Rengali Hydro Electric Project**

(Rs. in Lakhs)

Financial Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8	9	10	11
Depreciation on Capital Cost										
Depreciation on Additional										
Capitalisation										
Amount Additional Capitalisation										
Depreciation Amount										
Detail of FERV										
Amount of FERV on which										
depreciation charged										
Depreciation amount										
Depreciation recovered during the year	381.3	381.7	382.5	389.5	386.4	392.0	396.6	398.5	73.0	143.0
Advance against Depreciation									344.0	316.0
recovered during the year										
Depreciation & Advance against	381.3	381.7	382.5	389.5	386.4	392.0	396.6	398.5	417.0	459.0
Depreciation recovered during the year										
Cumulative Depreciation & Advance against Depreciation recovered upto the year	8153.3	8535.0	8917.5	9307.0	9693.4	10085.4	10482.0	10880.5	11297.5	11756.5

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 12

Statement of Depreciation

Name of the Company : **Odisha Hydro Power Corporation Ltd.**
Name of the Power Station : **Upper Kolab Hydro Electric Project**

(Rs. in Lakhs)

Financial Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8	9	10	11
Depreciation on Capital Cost										
Depreciation on Additional										
Capitalisation										
Amount Additional Capitalisation										
Depreciation Amount										
Detail of FERV										
Amount of FERV on which										
depreciation charged										
Depreciation amount										
Depreciation recovered during the year	326.5	326.7	326.7	329.6	332.5	347.0	348.6	348.1	56.0	109.0
Advance against Depreciation									305.0	286.0
recovered during the year										
Depreciation & Advance against	326.5	326.7	326.7	329.6	332.5	347.0	348.6	348.1	361.0	395.0
Depreciation recovered during the year										
Cumulative Depreciation & Advance against Depreciation recovered upto the year	9416.5	9743.2	10069.9	10399.5	10732.0	11079.0	11427.6	11775.7	12136.7	12531.7

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 12

Statement of Depreciation

Name of the Company : **Odisha Hydro Power Corporation Ltd.**
Name of the Power Station : **Balimela Hydro Electric Project**

(Rs. in Lakhs)

Financial Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8	9	10	11
Depreciation on Capital Cost										
Depreciation on Additional										
Capitalisation										
Amount Additional Capitalisation										
Depreciation Amount										
Detail of FERV										
Amount of FERV on which										
depreciation charged										
Depreciation amount										
Depreciation recovered during the year	1556.0	849.7	850.5	863.7	866.7	872.2	877.3	1000.2	766.0	823.0
Advance against Depreciation									393.0	537.0
recovered during the year										
Depreciation & Advance against	1556.0	849.7	850.5	863.7	866.7	872.2	877.3	1000.2	1159.0	1360.0
Depreciation recovered during the year										
Cumulative Depreciation & Advance against Depreciation recovered upto the year	20308.0	21157.7	22008.2	22871.9	23738.6	24610.8	25488.1	26488.3	27647.3	29007.3

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 12

Statement of Depreciation

Name of the Company : **Odisha Hydro Power Corporation Ltd.**
Name of the Power Station : **Hirakud Hydro Electric Project**

(Rs. in Lakhs)

Financial Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8	9	10	11
Depreciation on Capital Cost										
Depreciation on Additional Capitalisation										
Amount Additional Capitalisation										
Depreciation Amount										
Detail of FERV										
Amount of FERV on which depreciation charged										
Depreciation amount										
Depreciation recovered during the year	703.1	728.2	735.2	831.5	834.6	841.0	886.9	1154.9	1026.0	793.0
Advance against Depreciation recovered during the year									189.0	502.0
Depreciation & Advance against Depreciation recovered during the year	703.1	728.2	735.2	831.5	834.6	841.0	886.9	1154.9	1215.0	1295.0
Cumulative Depreciation & Advance against Depreciation recovered upto the year	16280.1	17008.3	17743.5	18575.0	19409.6	20250.6	21137.5	22292.4	23507.4	24802.4

Upto 2009-10 it includes both HHEP & CHEP
Cumulative Depreciation of HHEP & CHEP upto FY2009-10 are shared in proportion to their Historic Cost & New Addition
Historic Cost+New Addition of HHEP Burla upto FY 2009-10=Rs 7275+Rs 19009= Rs 26284Lakhs
Historic Cost+New Addition of CHEP Chiplima upto FY 2009-10=Rs 9223+Rs 3602= Rs 12825Lakhs
Cumulative Depreciation of CHEP upto FY2009-10= (26284/ 39109)*16783=11279Lakhs

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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FORM - 12

Statement of Depreciation

Name of the Company : **Odisha Hydro Power Corporation Ltd.**
Name of the Power Station : **Chipilima Hydro Electric Project**

(Rs. in Lakhs)

Financial Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8	9	10	11
Depreciation on Capital Cost										
Depreciation on Additional										
Capitalisation										
Amount Additional Capitalisation										
Depreciation Amount										
Detail of FERV										
Amount of FERV on which										
depreciation charged										
Depreciation amount										
Depreciation recovered during the year	357.0	358.0	358.4	362.8	363.5	366.7	527.1	527.9	360.0	1040.0
Advance against Depreciation									180.0	
recovered during the year										
Depreciation & Advance against	357.0	358.0	358.4	362.8	363.5	366.7	527.1	527.9	540.0	1040.0
Depreciation recovered during the year										
Cumulative Depreciation & Advance against Depreciation recovered upto the year	7936.0	8294.0	8652.4	9015.2	9378.7	9745.4	10272.5	10800.4	11160.4	12200.4

Upto 2009-10 it includes both HHEP & CHEP
Cumulative Depreciation of HHEP & CHEP upto FY2009-10 are shared in proportion to their Historic Cost & New Addition
Historic Cost+New Addition of HHEP Burla upto FY 2009-10=Rs 7275+Rs 19009= Rs 26284Lakhs
Historic Cost+New Addition of CHEP Chiplima upto FY 2009-10=Rs 9223+Rs 3602= Rs 12825Lakhs
Cumulative Depreciation of CHEP upto FY2009-10= (12825/ 39109)*16783=5504Lakhs

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 12

Statement of Depreciation

Name of the Company : **Odisha Hydro Power Corporation Ltd.**
Name of the Power Station : **Upper Indravati Hydro Electric Project**

(Rs. in Lakhs)

Financial Year	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Depreciation on Capital Cost										
Depreciation on Additional Capitalisation										
Amount Additional Capitalisation										
Depreciation Amount										
Detail of FERV										
Amount of FERV on which depreciation charged										
Depreciation amount										
Depreciation recovered during the year	3078.0	3089.5	3100.9	3605.0	3586.6	3202.0	3203.5	3284.2	3322.0	3785.0
Advance against Depreciation recovered during the year										
Depreciation & Advance against Depreciation recovered during the year	3078.0	3089.5	3100.9	3605.0	3586.6	3202.0	3203.5	3284.2	3322.0	3785.0
Cumulative Depreciation & Advance against Depreciation recovered upto the year	53201.0	56290.5	59391.4	62996.4	66583.0	69785.0	72988.5	76272.7	79594.7	83379.7

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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Annexure-5

CALCULATION OF INTEREST ON WORKING CAPITAL. (FORM-13B)

FORM - 13B

Calculation of Interest on Working Capital

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **UPPER INDRAVATI HYDRO ELECTRIC PROJECT**

(Rs. in Crs.)

Sl. No.	Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8
1	O&M Expenses (one month)	7.20	7.59	6.53	6.43	5.68	6.24
2	Maintenance Spares for one year	12.95	13.66	11.76	11.57	10.23	11.22
3	Receivables	29.83	22.94	20.45	20.75	19.96	22.71
4	Total Working Capital	49.98	44.19	38.74	38.75	35.87	40.17
5	Rate of interest	11.55%	10.75%	10.00%	10.00%	10.10%	11.65%
6	Interest on Working Capital	**5.77**	**4.75**	**3.87**	**3.88**	**3.62**	**4.68**

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 13B

Calculation of Interest on Working Capital

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **HIRAKUD HYDRO ELECTRIC PROJECT**

(Rs. in Crs.)

Sl. No.	Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8
1	O&M Expenses (one month)	5.09	5.38	4.68	4.91	4.53	4.76
2	Maintenance Spares for one year	9.17	9.69	8.42	8.85	8.15	8.57
3	Receivables	14.6	11.17	10.19	12.11	11.75	12.56
4	Total Working Capital	28.86	26.24	23.29	25.87	24.43	25.89
5	Rate of interest	11.55%	10.75%	10.00%	10.00%	10.10%	11.65%
6	Interest on Working Capital	**3.33**	**2.82**	**2.33**	**2.59**	**2.47**	**3.02**

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 13B

Calculation of Interest on Working Capital

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**

Name of the Power Station : **RENGALI HYDRO ELECTRIC PROJECT**

(Rs. in Crs.)

Sl. No.	Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8
1	O&M Expenses (one month)	4.72	4.99	5.71	5.11	4.81	6.07
2	Maintenance Spares for one year	8.49	8.98	10.27	9.2	8.65	10.92
3	Receivables	11.2	8.68	9.68	8.74	8.4	10.69
4	Total Working Capital	24.41	22.65	25.66	23.05	21.90	27.68
5	Rate of interest	11.55%	10.75%	10.00%	10.00%	10.10%	11.65%
6	Interest on Working Capital	**2.82**	**2.43**	**2.57**	**2.31**	**2.21**	**3.23**

Petitioner

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 13B

Calculation of Interest on Working Capital

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**

Name of the Power Station : **UPPER KOLAB HYDRO ELECTRIC PROJECT**

(Rs. in Crs.)

Sl. No.	Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8
1	O&M Expenses (one month)	4.91	5.19	4.53	4.64	4.61	6.74
2	Maintenance Spares for one year	8.84	9.35	8.15	8.35	8.29	12.13
3	Receivables	11.05	8.67	7.6	7.74	7.77	11.38
4	Total Working Capital	24.80	23.21	20.28	20.73	20.67	30.26
5	Rate of interest	11.55%	10.75%	10.00%	10.00%	10.10%	11.65%
6	Interest on Working Capital	**2.86**	**2.50**	**2.03**	**2.07**	**2.09**	**3.53**

Petitioner

Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 13B

Calculation of Interest on Working Capital

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**

Name of the Power Station : **BALIMELA HYDRO ELECTRIC PROJECT**

(Rs. in Crs.)

Sl. No.	Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8
1	O&M Expenses (one month)	4.55	4.81	4.66	5.02	4.82	7.02
2	Maintenance Spares for one year	8.19	8.66	8.38	9.03	8.67	12.64
3	Receivables	12.87	9.92	9.6	11.06	11.84	16.57
4	Total Working Capital	25.61	23.39	22.64	25.11	25.33	36.24
5	Rate of interest	11.55%	10.75%	10.00%	10.00%	10.10%	11.65%
6	Interest on Working Capital	**2.96**	**2.51**	**2.26**	**2.51**	**2.56**	**4.22**

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

FORM - 13B

Calculation of Interest on Working Capital

Name of the Company : **ODISHA HYDRO POWER CORPORATION LTD**
Name of the Power Station : **CHIPILIMA HYDRO ELECTRIC PROJECT**

(Rs. in Crs.)

Sl. No.	Particulars	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
1	2	3	4	5	6	7	8
1	O&M Expenses (one month)	2.38	2.52	2.06	2.12	2.05	2.74
2	Maintenance Spares for one year	4.28	4.53	3.7	3.82	3.68	4.94
3	Receivables (two months)	6.04	4.68	5.04	5.04	4.97	8.83
4	Total Working Capital	12.7	11.73	10.8	10.98	10.71	16.51
5	Rate of interest	11.55%	10.75%	10.00%	10.00%	10.10%	11.65%
6	Interest on Working Capital	**1.47**	**1.26**	**1.08**	**1.10**	**1.08**	**1.92**

Petitioner
Director (Finance)
Odisha Hydro Power Corporation Ltd.
Bhubaneswar-751022

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Annexure-6

STATUS OF SECONDARY ENERGY FUND TILL 31.03.2024.

1999-00

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		OB	add during the year	CB
			AEC billed	Secondary fund			
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	25.800	25.876	25.800	0.076	0.000	0.076	0.076
BHEP	58.137	58.307	58.137	0.170	0.000	0.170	0.170
UKHEP	40.887	41.007	40.887	0.120	0.000	0.120	0.120
HPS	57.695	57.864	57.695	0.169	0.000	0.169	0.169
UIHEP	50.390	24.360	24.360		0.000	0.000	0.000

2000-01

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		OB	add during the year	CB
			AEC billed	Secondary fund			
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	25.998	34.979	34.979	0.000	0.076	0.000	0.076
BHEP	58.582	48.357	48.357	0.000	0.170	0.000	0.170
UKHEP	41.200	25.095	25.095	0.000	0.120	0.000	0.120
HPS	58.136	26.869	26.869	0.000	0.169	0.000	0.169
UIHEP	88.048	106.210	106.210	0.000	0.000	0.000	0.000

2001-02

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		OB	add during the year	CB
			AEC billed	Secondary fund			
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	19.297	19.297	19.297	0.000	0.076	0.000	0.076
BHEP	26.226	26.226	26.226	0.000	0.170	0.000	0.170
UKHEP	15.998	15.998	15.998	0.000	0.120	0.000	0.120
HPS	23.120	23.120	23.120	0.000	0.169	0.000	0.169
UIHEP	130.792	130.792	127.207	3.584	0.000	3.584	3.584

Orissa Hydro Power Corporation Ltd. Bhubaneswar

2002-03

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		OB	add during the year	CB
			AEC billed	Secondary fund			
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	15.357	15.357	15.357	0.000	0.076	0.000	0.076
BHEP	13.007	13.007	13.007	0.000	0.170	0.000	0.170
UKHEP	11.689	11.689	11.689	0.000	0.120	0.000	0.120
HPS	15.229	15.229	15.229	0.000	0.169	0.000	0.169
UIHEP	123.963	50.420	50.420	-73.543	3.584	-73.543	-69.959

2003-04

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		OB	add during the year	CB
			AEC billed	Secondary fund			
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	14.215	14.215	14.215	0.000	0.076	0.000	0.076
BHEP	32.031	32.031	32.031	0.000	0.170	0.000	0.170
UKHEP	22.528	22.528	22.528	0.000	0.120	0.000	0.120
HPS	31.788	31.788	31.788	0.000	0.169	0.000	0.169
UIHEP	126.177	129.761	126.177	0.000	-69.959	0.000	-69.959

2004-05

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		OB	add during the year	CB
			AEC billed	Secondary fund			
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	14.901	20.965	14.901	6.064	0.076	6.064	6.140
BHEP	33.577	42.865	33.577	9.288	0.170	9.288	9.458
UKHEP	23.615	24.848	23.615	1.233	0.120	1.233	1.353
HPS	33.322	23.038	33.322	-10.284	0.169	-10.284	-10.115
UIHEP	122.098	163.103	122.098	41.005	-69.959	41.005	-28.953

Odisha Hydro Power Corporation Ltd. Bhubaneswar

2005-06

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	16.330	20.992	16.330	4.662	6.140	4.662	10.802
BHEP	22.840	19.968	19.968	-2.872	9.458	-2.872	6.586
UKHEP	11.300	8.387	8.387	-2.913	1.353	-2.913	-1.560
HPS	61.550	45.479	45.479	-16.071	-10.115	-16.071	-26.186
UIHEP	90.088	81.222	81.222	-8.866	-28.953	-8.866	-37.819

2006-07

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	18.480	23.078	18.480	4.598	10.802	4.598	15.399
BHEP	25.550	34.666	25.550	9.116	6.586	9.116	15.703
UKHEP	13.470	16.395	13.470	2.925	-1.560	2.925	1.366
HPS	66.360	45.798	45.798	-20.562	-26.186	-20.562	-46.748
UIHEP	90.090	139.470	90.090	49.380	-37.819	49.380	11.560

2007-08

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	9.140	33.607	18.280	15.328	15.399	15.328	30.727
BHEP	31.340	74.625	48.773	25.851	15.703	25.851	41.554
UKHEP	8.750	22.727	17.495	5.232	1.366	5.232	6.598
HPS	47.770	38.588	38.588	-9.182	-46.748	-9.182	-55.930
UIHEP	65.230	121.179	79.832	41.348	11.560	41.348	52.908

Odisha Hydro Power Corporation Ltd. Bhubaneswar

2008-09

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	21.362	35.303	21.362	13.941	30.727	13.941	44.668
BHEP	48.135	42.577	42.577	-5.558	41.554	-5.558	35.996
UKHEP	21.267	14.731	14.731	-6.536	6.598	-6.536	0.062
HPS	47.769	37.587	37.587	-10.182	-55.930	-10.182	-66.112
UIHEP	79.832	91.275	79.832	11.443	52.908	11.443	64.351

2009-10

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	15.130	15.418	15.130	0.288	44.668	0.288	44.956
BHEP	33.180	21.734	21.734	-11.446	35.996	-11.446	24.550
UKHEP	10.375	5.029	5.029	-5.346	0.062	-5.346	-5.284
HPS	37.755	21.669	21.669	-16.086	-66.112	-16.086	-82.198
UIHEP	71.235	51.893	51.893	-19.342	64.351	-19.342	45.009

2010-11

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	17.955	8.744	8.744	-9.211	44.956	-9.211	35.745
BHEP	34.200	36.848	34.200	2.648	24.550	2.648	27.198
UKHEP	13.660	9.173	9.173	-4.487	-5.284	-4.487	-9.771
HHEP	30.320	29.349	29.349	-0.971	-82.198	-0.971	-83.169
CHEP	11.395	5.873	5.873	-5.522		-5.522	-5.522
UIHEP	73.41	61.697	61.697	-11.713	45.009	-11.713	33.296

Odisha Hydro Power Corporation Ltd. Bhubaneswar

2011-12

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	18.015	29.348	18.015	11.333	35.745	11.333	47.078
BHEP	42.040	36.650	36.650	-5.390	27.198	-5.390	21.808
UKHEP	13.740	9.895	9.895	-3.845	-9.771	-3.845	-13.616
HHEP	30.165	28.951	28.951	-1.214	-83.169	-1.214	-84.383
CHEP	12.145	8.184	8.184	-3.961	-5.522	-3.961	-9.483
UIHEP	74.985	53.389	53.389	-21.596	33.296	-21.596	11.700

2012-13

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	18.915	25.168	18.915	6.253	47.078	6.253	53.331
BHEP	43.225	19.506	19.506	-23.719	21.808	-23.719	-1.911
UKHEP	15.125	8.333	8.333	-6.792	-13.616	-6.792	-20.408
HHEP	31.445	30.840	30.840	-0.605	-84.383	-0.605	-84.988
CHEP	12.725	7.255	7.255	-5.470	-9.483	-5.470	-14.953
UIHEP	76.98	64.891	64.891	-12.089	11.700	-12.089	-0.389

2013-14

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	20.395	34.737	20.395	14.342	53.331	14.342	67.673
BHEP	41.655	58.036	41.655	16.381	-1.911	16.381	14.470
UKHEP	14.565	15.065	14.565	0.500	-20.408	0.500	-19.908
HHEP	31.330	30.985	30.985	-0.345	-84.988	-0.345	-85.333
CHEP	12.665	7.990	7.990	-4.675	-14.953	-4.675	-19.628
UIHEP	78.205	98.438	78.205	20.233	-0.389	20.233	19.844

Odisha Hydro Power Corporation Ltd. Bhubaneswar

2014-15

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	28.090	38.377	28.090	10.287	67.673	10.287	77.960
BHEP	51.655	54.731	51.655	3.076	14.470	3.076	17.546
UKHEP	20.525	17.510	17.510	-3.015	-19.908	-3.015	-22.923
HHEP	43.215	34.983	34.983	-8.232	-85.333	-8.232	-93.565
CHEP	11.655	6.657	6.657	-4.998	-19.628	-4.998	-24.626
UIHEP	78.1	104.429	78.100	26.329	19.844	26.329	46.173

2015-16

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	29.335	32.912	29.335	3.577	77.960	3.577	81.537
BHEP	52.415	25.868	25.868	-26.547	17.546	-26.547	-9.001
UKHEP	21.795	18.862	18.862	-2.933	-22.923	-2.933	-25.856
HHEP	44.875	28.330	28.330	-16.545	-93.565	-16.545	-110.110
CHEP	11.840	5.157	5.157	-6.683	-24.626	-6.683	-31.309
UIHEP	71.745	58.766	58.766	-12.979	46.173	-12.979	33.194

2016-17

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	30.167	30.881	30.167	0.714	81.537	0.714	82.251
BHEP	53.008	44.505	44.505	-8.503	-9.001	-8.503	-17.504
UKHEP	22.597	16.557	16.557	-6.040	-25.856	-6.040	-31.896
HHEP	47.410	35.421	35.421	-11.989	-110.110	-11.989	-122.099
CHEP	13.024	5.286	5.286	-7.738	-31.309	-7.738	-39.047
UIHEP	73.187	55.466	55.466	-17.721	33.194	-17.721	15.473

Odisha Hydro Power Corporation Ltd. Bhubaneswar

2017-18

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	30.718	43.623	30.718	12.905	82.251	12.905	95.156
BHEP	48.314	59.725	48.314	11.411	-17.504	11.411	-6.093
UKHEP	22.958	18.315	18.315	-4.643	-31.896	-4.643	-36.539
HHEP	48.999	42.289	42.289	-6.710	-122.099	-6.710	-128.809
CHEP	12.923	5.714	5.714	-7.208	-39.047	-7.208	-46.255
UIHEP	75.263	66.257	66.257	-9.006	15.473	-9.006	6.467

2018-19

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	31.920	44.501	31.920	12.581	95.156	12.581	107.737
BHEP	50.308	70.788	50.308	20.480	-6.093	20.480	14.387
UKHEP	24.020	26.336	24.020	2.316	-36.539	2.316	-34.223
HHEP	51.128	26.772	26.772	-24.355	-128.809	-24.355	-153.164
CHEP	13.388	4.275	4.275	-9.113	-46.255	-9.113	-55.368
UIHEP	78.042	84.311	78.042	6.269	6.467	6.269	12.737

2019-20

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	32.690	40.734	32.690	8.044	107.737	8.044	115.782
BHEP	35.545	44.979	35.545	9.434	14.387	9.434	23.821
UKHEP	31.495	31.082	31.082	-0.413	-34.223	-0.413	-34.636
HHEP	42.820	31.762	31.762	-11.058	-153.164	-11.058	-164.223
CHEP	17.963	8.468	8.468	-9.495	-55.368	-9.495	-64.864
UIHEP	85.970	96.850	85.970	10.880	12.737	10.880	23.617

Odisha Hydro Power Corporation Ltd. Bhubaneswar

2020-21

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	33.614	63.428	33.614	29.815	115.782	29.815	145.596
BHEP	38.621	52.574	38.621	13.953	23.821	13.953	37.775
UKHEP	33.148	31.039	31.039	-2.109	-34.636	-2.109	-36.745
HHEP	43.798	38.638	38.638	-5.160	-164.223	-5.160	-169.382
CHEP	18.117	12.040	12.040	-6.077	-64.864	-6.077	-70.941
UIHEP	89.488	78.924	78.924	-10.563	23.617	-10.563	13.054

2021-22

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	33.290	53.669	33.290	20.379	145.596	20.379	165.975
BHEP	37.995	32.504	32.504	-5.491	37.775	-5.491	32.283
UKHEP	33.325	17.803	17.803	-15.522	-36.745	-15.522	-52.267
HPS	42.760	43.212	42.760	0.452	-169.382	0.452	-168.930
CHEP	17.955	9.743	9.743	-8.212	-70.941	-8.212	-79.154
UIHEP	85.520	49.525	49.525	-35.995	13.054	-35.995	-22.942

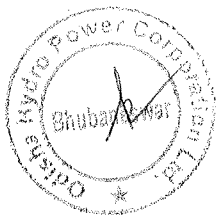
2022-23

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	39.210	55.270	39.210	16.060	165.975	16.060	182.035
BHEP	38.790	32.482	32.482	-6.308	32.283	-6.308	25.975
UKHEP	30.730	19.841	19.841	-10.889	-52.267	-10.889	-63.156
HHEP	38.730	51.011	38.730	12.281	-168.930	12.281	-156.648
CHEP	20.380	13.424	13.424	-6.956	-79.154	-6.956	-86.110
UIHEP	82.810	57.614	57.614	-25.196	-22.942	-25.196	-48.138

Odisha Hydro Power Corporation Ltd. Bhubaneswar

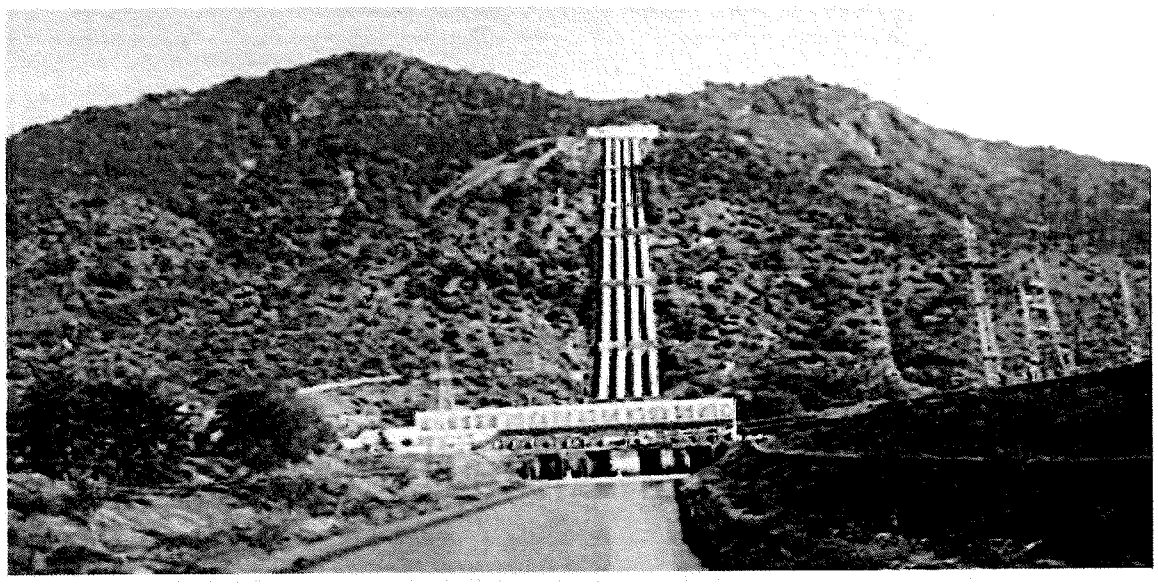
2023-24

Unit	Annual Energy charge approved by OERC	Billed Energy Charge	Bifurication of Billed Energy charge		Secondary fund		
			AEC billed	Secondary fund	OB	add during the year	CB
A	B	C	D	E =C-B	F	G=E	H=F+G
RHEP	35.249	51.190	35.249	15.941	182.035	15.941	197.976
BHEP	46.170	39.896	39.896	-6.274	25.975	-6.274	19.701
UKHEP	31.509	21.624	21.624	-9.885	-63.156	-9.885	-73.041
HHEP	46.116	58.211	46.116	12.095	-156.648	12.095	-144.553
CHEP	19.258	11.699	11.699	-7.559	-86.110	-7.559	-93.668
UIHEP	83.591	72.608	72.608	-10.983	-48.138	-10.983	-59.120
Total	**261.893**	**255.229**	**227.192**	**-6.664**	**-146.042**	**-6.664**	**-152.707**



ODISHA HYDRO POWER CORPORATION LIMITED

(A Government of Odisha Undertaking)
(A Gold Rated State PSU)



AUDITED STANDALONE FINANCIAL STATEMENT 2023-24

JANPATH, BHOINAGAR, BHUBANESWAR

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INDEPENDENT AUDITOR'S REPORT

To the Governor of Odisha / Members of Odisha Hydro Power Corporation Limited

Report on the Audit of the Standalone Financial Statements

Qualified Opinion

We have audited the accompanying standalone financial statements of **Odisha Hydro Power Corporation Limited** ("the Company"), which comprise the Balance Sheet as at March 31, 2024, and the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Changes in Equity and the Statement of Cash Flows for the year then ended and Notes to the financial statements, including a summary of the significant accounting policies and other explanatory information.

In our opinion and to the best of our information and according to the explanations given to us, except for the effects of the matter described in the Basis for Qualified Opinion section of our report, the aforesaid standalone financial statements give the information required by the Companies Act, 2013 in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2024, and its profit, changes in equity and its cash flows for the year ended on that date.

Basis for Qualified Opinion

The following are the basis for our qualified opinion:-

NON-CURRENT ASSETS: - **INR 2,07,185.34 Lakhs**

1. **IND AS 16 – Property, Plant & Equipment**

Refer Note No:-4	**PPE**	**INR 1,09,665.86 Lakhs**
	Land	**INR 10,832.32 Lakhs**

a. Out of 6.780 Acres of lease hold land held by Corporate Office, only 3.60 Acres is under physical possession of the company and rest of the leasehold land is not under the physical possession of the company. No provision has been made by the company in this respect. Accordingly, the current year profit is overstated by INR 884.43 Lakhs as well as Land under PPE is overstated to the extent of INR 884.43 Lakhs.

b. The lease hold land amounting to INR 1,329.42 Lakhs after adjusting the value of INR 884.43 Lakhs, is INR 444.99 Lakhs which is included in PPE instead of showing it under prepaid expenses under other Non-current Asset. Accordingly the adjustment needs to be made in respective heads.

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c. Note 2-: PPE is measured at cost less accumulated depreciation leaving apart the decommissioning or restoration cost. Due to non-availability of information in this regard, the effect due to the same is not quantifiable.

FINANCIAL ASSETS

2. Refer Note No.7:- TRADE RECEIVABLES (NON CURRENT):- INR 3,266.81 Lakhs

a. **Refer Note No. 49(d):-** It includes a sum of INR 1,135.41 Lakhs receivable from GRIDCO Ltd which is disputed and pending reconciliation. Energy sold to GRIDCO is reconciled both in quantity and value till 2022-23 and consequential adjustment required on such dispute and reconciliation of above "Trade Receivable" from GRIDCO Ltd and its impact over Trade Receivables as well as statement of profit & loss for the year is not ascertainable. Correspondence has been sent to GRIDCO for confirmation of Outstanding of Trade Receivable balance as on 31.03.2024, however, no response has been received from GRIDCO till date.

b. **Refer Note No.49(c):** Sale of energy of 16.481322 MU to CSPDCL @ INR 2.19674 per unit as provisionally approved by OERC as per the decision of joint meeting held on 28.10.2014 between OHPC and CSPDCL at Raipur, Chhattisgarh and the same may be revised in future. The effect of the same on financial statements is unascertainable.

c. Further an amount of INR 155.85 Lakhs receivable from Chhattisgarh State Power Distribution Company Limited (CSPDCL) on account of sale of energy relating to different past period continue in accounts without any recovery and again no confirmation is received from the party to be payable, but has been considered as good debts, without considering allowance for bad and doubtful debts and expected credit loss.

On account of such non-provision, for above "Trade Receivable" from (CSPDCL) shown under Non-Current Financial Assets as well as profit for the year is overstated by INR 155.85 Lakhs.

CURRENT ASSETS

3. Refer Note No.17:- OTHER CURRENT ASSETS: INR 20,256.40 Lakhs

(a) Refer Note No.17 (a) (iv) ADVANCE TO STAFF: INR 264.59 Lakhs

It includes following old balances given to staff either retired or left the company but shown as either recoverable or payable towards GPF advances and payroll deductions (GPF) continuing in accounts since past several years remaining un-reconciled, unpaid, unadjusted and unrecovered but neither written off/ nor written back. Necessary steps to be taken for identifying entries and accordingly the balances should be adjusted after reconciliation.

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(INR in Lakhs)

Name of the units	Heads of Account	Debit	Credit
(i)Corporate Office, Bhubaneswar	GPF Advances (Deputationist)	2.12	-
(ii)UKHEP,Bariniput	GPF Advance	0.10	-
(iii) RHEP, Rengali	GPF Advance	0.54	-
	Total	**2.76**	-

CURRENT FINANCIAL LIABILITIES:

4. OTHERS (TERMINAL BENEFITS)

In accordance with the practice being followed by the company in earlier years, terminal benefits of employees deputed to Machhkund has been erroneously taken as expenses of the company. The amount could not be provided by the management. Pending ascertainment the same its impact over current years' profit as well as accumulated Profit & Current Assets, Current Liabilities couldn't be ascertained

5. Balance of Loans (Security Deposits), Trade Receivables, Claim Receivables, Deposit with Others, Advances, Balances of different Trusts, Security Deposits, Earnest Money Deposits, Retention Money and liability to others are subject to confirmation and reconciliation and consequential adjustments required in accounts. The effect of the same on financial statements is unascertainable.

6. PROFIT & LOSS ACCOUNT

Ref. Note-31: Other Income **Rs.35,801.06 Lakhs**
Interest on Others **Rs.164.45 Lakhs**

This does not include a sum of Rs. 254.77 lakhs being balance accumulated interest up to 16.10.2023 receivable from GRIDCO on payment of Rs.27.42 crore for acquisition of additional capacity of Machkund Project..(@ 6% p.a.), though claimed for recovery vide Ltr. No.2005 dt.16.02.2024

7. IND AS-115- REVENUE RECOGNITION

Recognition of certain income disclosed under policy 3.1 is on realisation basis which is not in conformity with IND AS-115. Further, the claim receivable under Current Asset-others is under stated to the same extent. The effect of the other income items is not ascertainable.

In the absence of information, the effect of which can't be quantified, we are unable to comment on the possible impact of the item stated in the point Nos 1c, 2a, 2b, 3a, 4, 5 & 7 of our report on the Standalone IND AS financial statements of the Company for the year ended on 31st March 2024. We further state that without considering the impact of items stated in

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preceding paras, the effect of which could not be determined, Had the observations made by us in point Nos 1a, 1b, 2c & 6 been considered in the Standalone IND AS financial statements, profit before Tax for the year would have been INR 43,611.31 Lakhs as against the reported figure of INR 44,396.82 Lakhs in the Statement of Profit and Loss. Further, Total Assets reported in balance sheet as on 31st March, 2024 would have been INR 5,10,743.67 Lakhs as against the reported figure of INR 5,11,783.95 Lakhs. and Total Equity would have been INR 2,60,625.65 as against the reported figure of INR 2,61,411.16 Lakhs as under:-

Ref. in point no. covered in our above observation/ Qualification	Heads	Ref. of note no. financial statements	Reported figures	Increase/ (Decrease) in Assets	Increase / (Decrease) in Liabilities	Figures would have been in view of effects of qualification	Effect on Profit & (Loss) Account
	Non-Current Assets						
1.a	PPE-Land	4	10,832.32	(1,329.42)		9,502.90	(884.43)
1.b	Other Non-Current assets	10	3,130.20	444.99		3,575.19	
2c	Trade Receivable	7	3,266.81	(155.85)		3,110.96	(155.85)
6	Other Income	31	35,801.06	254.77		36,055.83	254.77
TOTAL			**17,229.33**	**(785.51)**		**16,189.05**	**(785.51)**

We conducted our audit in accordance with the Standards on Auditing (SAs) specified under section 143(10) of the Companies Act, 2013. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the financial statements under the provisions of the Companies Act, 2013 and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Reporting of key audit matters as per SA 701, Key Audit Matters are not applicable to the Company as it is an unlisted company.

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Information Other than the Standalone Financial Statements and Auditor's Report thereon

The Company's Board of Directors is responsible for the preparation of the other information. The other information comprises the information included in the Board's Report including Annexures to Board's Report, Corporate Governance and Shareholder's Information, but does not include the standalone financial statements and our auditor's report thereon. The said reports are expected to be made available to us after the date of this auditor's report.

Our opinion on the standalone financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the standalone financial statements, our responsibility is to read the other information when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the standalone financial statements or our knowledge obtained during the course of our audit or otherwise appears to be materially misstated.

When we read the reports stated above, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Standalone Financial Statements.

The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Companies Act, 2013 ("the Act") with respect to the preparation of these standalone financial statements that give a true and fair view of the financial position, financial performance including other comprehensive income, cash flows and changes in equity of the Company in accordance with the Indian Accounting Standards (Ind AS) prescribed under section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015, as amended, and other accounting principles generally accepted in India.

This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the Company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the standalone financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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Those Board of Directors are also responsible for overseeing the company's financial reporting process.

Auditor's Responsibilities for the Audit of the Standalone Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under section 143(3)(i) of the Companies Act, 2013, we are also responsible for expressing our opinion on whether the company has adequate internal financial controls system in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

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- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Report on Other Legal and Regulatory Requirements

1. As required by the Companies (Auditor's Report) Order, 2020 ("the Order") issued by the Central Government of India in terms of section 143(11) of the Act, we give in the Annexure "A" to this report, a statement on the matters specified in paragraphs 3 and 4 of the Order.

2. In compliance to directions of the Comptroller and Auditor General of India u/s. 143(5) of the Act, we give in Annexure "B" to this report a statement on the matters specified therein.

3. As required by Section 143(3) of the Act, based on our audit we report that:

   a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.

   b) In our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books.

   c) The Balance Sheet, the Statement of Profit and Loss including Other Comprehensive Income, Statement of Changes in Equity and the Statement of Cash Flow dealt with by this Report are in agreement with the books of account.

   d) In our opinion, the aforesaid standalone financial statements comply with the Indian Accounting Standards prescribed under section 133 of the Act read with Rule 7 of the Companies (Accounts) Rules 2014, except for the items specified in the Basis of Qualified Opinion para above.

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e) Section 164(2) of the Act regarding disqualification of directors is not applicable to the Company by virtue of Notification No. G.S.R. 463(E) dated 05.06.2015 issued by the Ministry of Corporate Affairs, Govt. of India.

f) With respect to the adequacy of the internal financial controls over financial reporting of the Company and the operating effectiveness of such controls, refer to our separate Report in Annexure "C". Our report expresses a qualified opinion on the adequacy and operating effectiveness of the Company's internal financial controls over financial reporting.

g) with respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, as amended, in our opinion and to the best of our information and according to the explanations given to us:

i) The Company has disclosed the impact of pending litigations on its financial position in its standalone financial statements. Refer Note no.45 to the Standalone financial statements.

ii) The Company has made provision, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts.

iii) There have been no amounts which were required to be transferred to the Investor Education and Protection Fund by the Company.

iv) a) The Management has represented that, to the best of its knowledge and belief, no funds (which are material either individually or in the aggregate) have been advanced or loaned or invested (either from borrowed funds or share premium or any other sources or kind of funds) by the Company to or in any other person or entity, including foreign entity ("Intermediaries"), with the understanding, whether recorded in writing or otherwise, that the Intermediary shall, whether, directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Company ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries;

(b) The Management has represented, that, to the best of its knowledge and belief, no funds (which are material either individually or in the aggregate) have been received by the Company from any person or entity, including foreign entity ("Funding Parties"), with the understanding, whether recorded in writing or otherwise, that the

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Company shall, whether, directly or indirectly, lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party ("Ultimate Beneficiaries") or provide any guarantee, security or the like on behalf of the Ultimate Beneficiaries;

(c) Based on the audit procedures that have been considered reasonable and appropriate in the circumstances, nothing has come to our notice that has caused us to believe that the representations under sub-clause (i) and (ii) of Rule 11(e), as provided under (a) and (b) above, contain any material misstatement.

v). a)The final dividend proposed for the previous year, declared and paid by the Company during the year is in accordance with Section 123 of the Act, as applicable.

b) As stated in note 44(B) to the financial statements, the Board of Directors of the Company has proposed final dividend for the year which is subject to the approval of the members at the ensuing Annual General Meeting. The amount of dividend proposed is in accordance with Section 123 of the Act to the extent it applies to declaration of dividend.

vi). Based on our examination, which included test checks, the Company has used accounting software for maintaining its books of account for the financial year ended March 31, 2024 which has a feature of recording audit trail (edit log) facility and the same has operated throughout the year for all relevant transactions recorded in the software. Further, during the course of our audit we did not come across any instance of the audit trail feature being tampered with.

As proviso to Rule 3(1) of the Companies (Accounts) Rules, 2014 is applicable from April 1, 2023, reporting under Rule 11(g) of the Companies (Audit and Auditors) Rules, 2014 on preservation of audit trail as per the statutory requirements for record retention is not applicable for the financial year ended March 31, 2024.

FOR S D R & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN No. 326522E

CA SUNIL KUMAR SAHOO
PARTNER
ICAI M. No. 056068
UDIN: 24056068BKCOAP3525

PLACE: BHUBANESWAR
DATE: 24.09.2024

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ANNEXURE-"A"

THE INDEPENDENT AUDITORS' REPORT ON STANDALONE FINANCIAL STATEMENTS OF THE ODISHA HYDRO POWER CORPORATION LIMITED

(Referred to in paragraph 1 under the heading of "Report on Other Legal and Regulatory Requirements" of our Report of even date)

Based on the audit procedures performed for the purpose of reporting a true and fair view on the financial statements of the Company and taking into consideration the information and explanations given to us and the books of account and other records examined by us in the normal course of audit, we report that:

i. In respect of Fixed Assets (Property, Plant & Equipment):

a) (i) The Company has maintained proper records showing full particulars, including quantitative details and situation of Property, Plant and Equipment.

(ii) The Company has maintained proper records showing full particulars of Intangible Assets.

b) The Company has a regular programme of physical verification of its property, plant and equipment. In accordance with this programme, major portion of property, plant and equipment were verified during the year and no material discrepancies were noticed on such verification. In our opinion, this periodicity of physical verification is reasonable having regard to the size of the company and nature of its property, plant and equipment.

c) On the basis of our examination of the records of the Company and various information and explanations given to us, the title deeds of most of the immovable properties recorded in the books of the company are not held in the name of the company except 94.59 Acres of free hold land held by UKHEP, Bariniput, 6.780 Acres of lease hold land held by Corporate Office, Bhubaneswar and 174.865 Acres of free hold land held by BHEP, Balimela. Out of 6.780 Acres of lease hold land held by Corporate Office 3.180 acres is not under the physical possession of the company. Title deeds of land (as detail below) are not available with the company as the Govt. of Odisha transferred such land without completing such formalities.

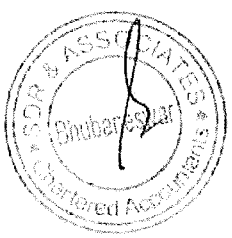
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Sl No.	Description of Property	Gross Carrying value	Held in name of	Whether promoter, director or their relative or employee	Period held- indicate range, where appropriate	Reason for not being held in name of company
1.	Land at BHEP, Balimela, Dist-Malkangiri, Odisha.	70,28,821.00	DoWR, Govt. of Odisha	-	Transferred to OHPC on 01.04.1996	Action is being taken to obtain RoR
2.	Land at CHEP, Chiplima, Dist-Sambalpur, Odisha	1,83,00,000.00	Dept. of Water Resources, Govt. of Odisha	-	Transferred to OHPC on 01.04.1996	Action is being taken to obtain RoR
3.	Land at HHEP, Burla, Dist-Sambalpur, Odisha	1,78,00,000.00	Dept. of Water Resources, Govt. of Odisha	-	Transferred to OHPC on 01.04.1996	Action is being taken to obtain RoR
4.	Land at RHEP, Rengali, Dist-Anugul, Odisha	1,56,00,000.00	Dept. of Water Resources, Govt. of Odisha	-	Transferred to OHPC on 01.04.1996	Action is being taken to obtain RoR
5.	Land at UIHEP, Khatiguda, Dist-Nabarangpur, Odisha	88,74,87,556.00	Dept. of Water Resources, Govt. of Odisha	-	Transferred to OHPC on 01.04.1996	Action is being taken to obtain RoR
6.	Land at UKHEP, Bariniput, Dist-	6,68,191.00	Dept. of Water Resources, Govt. of Odisha	-	Transferred to OHPC on 01.04.1996	Action is being taken to obtain RoR

d) According to the information and explanations given to us and on the basis of our examination of the records of the company, the Company has not revalued its Property, Plant and Equipment (including Right of Use assets) or intangible assets or both during the year.

e) According to the information and explanations given to us and on the basis of our examination of the records of the company as at March 31, 2024, no proceedings have been initiated or are pending against the company for holding any benami property under the Benami Transactions (Prohibition) Act, 1988 (45 of 1988) and rules made thereunder.



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ii. (a) The management has conducted physical verification of inventory at reasonable intervals during the year, in our opinion, the coverage and procedure of such verification by the management is appropriate. Discrepancies on physical verification noticed are not 10% or more in the aggregate in the each class of inventories.

Further, the units have an Inventory Management System (IMS) to record movement of stock, however, the software is unable to provide adequate information about inventory movement.

(b) According to the information and explanations given to us and on the basis of our examination of the records of the company, it is observed that company has not been sanctioned any working capital limits during any point of time of the year.

iii. The company has not invested any amount during the Financial year, provided any guarantees or security or granted any loan or advances in the nature of loans, secured or unsecured, to companies, firms, Limited Liability Partnerships or any other parties.

a) According to the information and explanations given to us, the company has not provided loans or provided advances in the nature of loans, or stood guarantee, or provided security to any other entity.

b) According to the information and explanations given to us, the investments made, guarantees provided, security given and the terms and conditions of the grant of all loans and advances in the nature of loans and guarantees provided are not prejudicial to the company's interest.

c) According to the information and explanations given to us, there is no schedule of repayment of the principal and payment of interest has been stipulated during the financial year 2023-24.

d) According to the information and explanations given to us, there is no overdue amount for more than ninety days in respect of loan given.

e) According to the information and explanations given to us, there is no loan or advance in the nature of loan granted which has fallen due during the year, none has been renewed or extended or fresh loans granted to settle the over dues of existing loans given to the same parties.

f) According to the information and explanations given to us, the Company has granted any loans or advances during the financial year 2023-24 in the nature of loans which was either repayable on demand or without specifying any terms or period of repayment.

iv. (A) Section 185 of the Act regarding loans to directors is not applicable to the Company by virtue of Notification No. G.S.R. 463(E) dated 05.06.2015 issued by the Ministry of Corporate Affairs, Govt. of India.

(B)In our opinion and according to the information and explanations given to us, the Company has complied with the provisions of Section 186 of the Act with respect to the loans, investments, guarantee and security made.

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v. The Company has not accepted any deposits or amounts which are deemed to be deposits. Therefore the directives of the Reserve Bank of India and the provisions of Sections 73 to 76 or any other relevant provisions of the Companies Act, 2013 and the rules framed thereunder, were not applicable to the company. Accordingly, the provisions of clause 3(v) of the Order are not applicable.

vi. The Central Government has specified for maintenance of cost records under Section 148(1) of the Act, read with Companies (Cost Records and Audit) Rules 2014. On the basis of limited review of the books of accounts maintained by the company, we are of the opinion that prima facie the relevant records are maintained. However, we have not carried out a detailed examination of the same to determine whether they are accurate or complete.

vii. (a) The Company is regular in depositing undisputed statutory dues including Goods and Services Tax, provident fund, employees' state insurance, income-tax, sales-tax, service tax, duty of customs, duty of excise, value added tax, cess and any other statutory dues, as applicable, with the appropriate authorities. Further, no undisputed amounts payable in respect thereof were outstanding as at 31st March 2024 for a period of more than six months from the date they became payable.

(b) According to the information and explanations given to us and on the basis of our examination of the records of the Company, following statutory dues have not been deposited on account of dispute.

Nature of the statue	Nature of Dues	Amount (INR In lakhs)	Year to which it pertains to	Forum at which case is pending
Odisha Entry Tax Act 1999	Entry Tax(BHEP)	0.74	2000-01	Commissioner of Commercial Tax, Cuttack
Income Tax Act 1961	Income Tax	178.4	2015-16	Income Tax Appellate Tribunal, Cuttack
Income Tax Act 1961	Income Tax	3261.77	2015-16	CIT, Appeal.
Income Tax Act 1961	Income Tax	50.77	2017-18	Income Tax Appellate Tribunal, Cuttack

viii. According to the information and explanation given to us, company has not made any transaction to record in the books of account have been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act, 1961 (43 of 1961);

ix. (a) In our opinion, the company has not defaulted in repayment of loans or other borrowings or in the payment of interest thereon to any lender during the year.



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(b) Company is not a declared wilful defaulter by any bank or financial institution or other lender.

(c) According to the information and explanation given to us, The Company has not availed any term loans during the year. Hence, provisions of Clause 3(ix)(c) are not applicable to the company.

(d) According to the information and explanation given to us, The Company has not raised any short term loan during the year. Hence, provisions of Clause 3(ix)(d) are not applicable to the company.

(e) According to the information and explanation given to us, the company has not taken any funds from any entity or person on account of or to meet the obligations of its subsidiaries, associates or joint ventures.

(f) According to the information and explanation given to us, the company has not raised loans during the year on the pledge of securities held in its subsidiaries, joint ventures or associate companies.

x. (a) The Company has not raised moneys by way of initial public offer or further public offer (including debt instruments) during the year. Accordingly provisions of clause 3(x)(a) are not applicable to the company.

(b) According to the information and explanations given to us, the Company has not made any preferential allotment or private placement of shares or convertible debentures (fully, partially or optionally convertible) during the year. Accordingly provisions of clause 3(x)(b) are not applicable to the company.

xi. (a) According to the information and explanations given to us, and as represented by the management and based on our examination of the books and records of the company in accordance with generally accepted auditing practices in India, no case of fraud by the Company or any fraud on the Company by its officers or employees has been noticed or reported during the year.

(b) During the course of our examination of the books and records of the company, carried out in accordance with generally accepted auditing practices in India, and according to the information and explanation given to us, a report under sub-section (12) of section 143 of the Companies Act, in Form ADT-4 as prescribed under rule 13 of Companies (Audit and Auditors) Rules, 2014 was not required to be filed with the Central Government. Accordingly, the reporting under clause 3(xi)(b) of the order is not applicable.

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(c) According to the information and explanations given to us, Whistle-blower compliance policy has not been adopted by the company.

xii. Company is not a Nidhi company, accordingly provisions of the Clause 3(xii) of the Order are not applicable to the company:

xiii. In our opinion and according to the information and explanations given to us, the transactions with the related parties are in compliance with Section 177 and 188 of Companies Act, 2013 where applicable and the details have been disclosed in the Financial Statements etc., as required by the applicable Accounting Standards.

xiv. (a) According to the information and explanations given to us, the company has an internal audit system commensurate with the size and nature of its business.

(b) We have considered the reports of the Internal Auditors for the period under audit issued to the Company during the year till date in determining the nature, timing and extent of our audit procedure.

xv. According to the information and explanations given to us, we are of the opinion that the company has not entered into any non-cash transactions with directors or persons connected with him and accordingly, the provisions of clause 3(xv) of the Order is not applicable to the company.

xvi. (a) According to the information and explanations given to us, we are of the opinion that the company is not required to be registered under section 45-IA of the Reserve Bank of India Act, 1934.

(b) According to the information and explanations given to us, the Company has not conducted any Non-Banking financial or Housing Finance activities during the year. Accordingly, clause 3(xvi)(b) of the Order are not applicable.

(c) According to the information and explanations given to us, the Company is not a Core Investment Company (CIC) as defined in the regulation made by the Reserve Bank of India.

(d) According to the information and explanation given to us, the Group does not have any CIC. Accordingly, the requirements of clause 3(xvi)(d) are not applicable.

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xvii. According to the information and explanations given to us and based on the audit procedures conducted we are of opinion that the company has not incurred any cash losses in the financial year and the immediately preceding financial year.

xviii. There has been no resignation of the statutory auditors during the year and accordingly, the provisions of clause 3(xviii) of the Order are not applicable to the company.

xix. On the basis of the financial ratios, ageing and expected dates of realization of financial assets and payment of financial liabilities, other information accompanying the financial statements, our knowledge of the Board of Directors and management plans and based on our examination of the evidence supporting the assumptions, nothing has come to our attention, which causes us to believe that any material uncertainty exists as on the date of the audit report indicating that company is incapable of meeting its liabilities existing at the date of balance sheet as and when they fall due within a period of one year from the balance sheet date. We, however, state that this is not an assurance as to the future viability of the company. We further state that our reporting is based on the facts up to the date of the audit report and we neither give any guarantee nor any assurance that all liabilities falling due within a period of one year from the balance sheet date, will get discharged by the company as and when they fall due.

xx. There are no unspent amounts towards Corporate Social Responsibility (CSR) in compliance with Section 135 of companies Act. Accordingly, reporting under clause 3(xx)(a) and 3(xx)(b) of the Order are not applicable for the year.

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ANNEXURE "B"

ANNEXURE TO THE INDEPENDENT AUDITOR'S REPORT OF EVEN DATE ON THE STANDALONE FINANCIAL STATEMENTS OF ODISHA HYDRO POWER CORPORATION LIMITED

(Referred to in paragraph 2 under the heading of "Report on Other Legal and Regulatory Requirements" of our Report of even date)

Report on the directions under section 143(5) of the Companies Act'2013 by C&AG

On the basis of our examination of books and records and according to the information and explanations given to us by the management of the Company, we report that:

<table>
<tr><th>SI NO.</th><th>PARTICULARS</th><th>OUR COMMENTS</th></tr>
<tr><td>1.</td><td>Whether the company has clear title/lease deeds for freehold and leasehold respectively? If not please state the area of freehold and lease hold and for which title/lease deeds are not available?</td><td>
<table>
<tr><th>Name of the Unit</th><th>Land Area (In Acre)</th><th>Lease Hold/ Free Hold</th><th>Availability of title deeds with Company</th></tr>
<tr><td rowspan="2">UKHEP, Bariniput</td><td>94.59</td><td>Free Hold</td><td>Title deed Available</td></tr>
<tr><td>51.00</td><td>-</td><td>Title deed not available</td></tr>
<tr><td rowspan="2">Corporate Office</td><td>4.78</td><td>Lease Hold</td><td>Title deed Available</td></tr>
<tr><td>2.00</td><td>Lease Hold</td><td>Title deed Available</td></tr>
<tr><td>RHEP, REngali</td><td>149.28</td><td>-</td><td>Title deed not available</td></tr>
<tr><td>HHEP, Burla</td><td>500</td><td>-</td><td>Title deed not available</td></tr>
<tr><td>CHEP, Chipilima</td><td>407</td><td>-</td><td>Title deed not available</td></tr>
<tr><td>UIHEP, Mukhiguda</td><td>207.40</td><td>-</td><td>Title deed not available</td></tr>
<tr><td rowspan="2">BHEP,Balimela</td><td>174.865</td><td>Free Hold</td><td>Title deed Available</td></tr>
<tr><td>23.585</td><td></td><td>Title deed not available</td></tr>
</table>
</td></tr>
<tr><td>2.</td><td>Whether there are any cases of waiver/ write off of debts/ loans/interest etc? If yes the reason there for and amount involved.</td><td>There is no case of waiver/ write off debts/ loans/ interest etc. made by a lender to the company during the current financial year.</td></tr>
<tr><td>3.</td><td>Whether proper records are maintained for inventories lying with third parties and assets received as gift/grants(s) from Government or other authorities.</td><td>a. There is no inventory lying with the third parties.
b. Proper records with respect to certain assets like building and equipment's including civil works, electrical work and Assets (Tools & Equipment's) received as Gift from DIFD for the purpose of Training Centre are maintained by the Company.</td></tr>
</table>

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Report on the sub-directions under section 143(5) of the Companies Act'2013 by C&AG

SI No.	PARTICULARS	OUR COMMENTS
1.	Adequacy of steps to prevent encroachment of idle land owned by Company may be examined. In case land of the Company is encroached, under litigation, not put to use or declared surplus, details may be provided.	According to information and explanations given to us GA Department , Govt. of Odisha has allotted 4.78 Acres of land to the company at a cost of Rs.1,434.00 lakhs, out of which 3.18 Acres of land is under encroachment and not available for use. The matter has been pursued with GA Dept. Govt. of Odisha and it is under process.
2.	Where land acquisition is involved in setting up new projects, report whether settlement of dues done expeditiously and a transparent manner in all cases. The cases of deviation may please be detailed.	As explained to us, the company is not involved in the land acquisition for setting up new projects.
3.	Whether the Company has an effective system for recovery of revenue as per contractual terms and the revenue is properly accounted for in the books of accounts in compliance with the applicable Accounting Standards?	Yes the company has an effective system for recovery of revenue as per contractual terms and the revenue is properly accounted for in the books of accounts in compliance with the applicable Accounting Standards except Recognition of certain income disclosed under Policy 3.1 is on realisation basis which is not in conformity with Ind AS 115. The effect of the same is unascertainable.
4.	How much cost has been incurred on abandoned projects and out of this how much cost has been written off?	To the best of our information and explanations given to us, no projects have been abandoned during course of our audit excepting. (i) In respects of Potteru Project, which has already been abandoned, total expenditure incurred and shown under Capital Work-in-Progress as at 31.03.2024 is INR 2,293.09 Lakhs not yet written off. However, Company has made provision for impairment for the same amount during the FY 2022-23. (ii) In respect of Sindol Project, which has already been abandoned, total cost incurred and booked under Capital Work-in-Progress, but not yet Written off is INR 28.78 Lakhs. However, Company had made provision for impairment for an amount of Rs.28.78 lakhs during the FY 2019-20.

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5.	In the cases of Thermal Power Projects, compliance of the various Pollution Control Acts and the impact thereof including utilization and disposal of ash and the policy of the company in this regards, may be checked and commented upon.	Not applicable as the company generates power through Hydro Electric Projects.
6.	Has the company entered into revenue sharing agreements with private parties for extraction of coal at pitheads and it adequately protects the financial interest of the company?	Not Applicable.
7.	Does the company have a project system for reconciliation of quantity/quality coal ordered and received and whether grade of coal moisture and demurrage etc. are properly recorded in the books of accounts?	Not Applicable.
8.	How much share of free power was due to the state government and whether the same was calculated as per the agreed terms and depicted in the accounts as per accepted accounting norms?	As explained to us, the company does not supply any free power from its existing Power Station to the State Government, so there is no free power due to State Government of Odisha.
9.	In the case of hydroelectric projects the water discharge is as per policy/guidelines issued by the state Government to maintain biodiversity. For not maintaining it penalty paid/payable may be reported.	Water discharge from the reservoirs are carried out directly by DOWR, Govt. of Odisha considering the need for flood control, irrigation, supply of drinking water and maintaining bio-diversity. The Company does not have any role in this regard.

FOR S D R & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN No. 326522E

CA SUNIL KUMAR SAHOO
PARTNER
ICAI M. No. 056068
UDIN: 24056068BKCOAP3525

PLACE: BHUBANESWAR
DATE: 24.09.2024

SDR & ASSOCIATES Chartered Accountants Bhubaneswar

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ANNEXURE "C"

ANNEXURE TO THE INDEPENDENT AUDITOR'S REPORT OF EVEN DATE ON THE STANDALONE FINANCIAL STATEMENTS OF ODISHA HYDRO POWER CORPORATION LIMITED

Report on the Internal Financial Controls under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")

We have audited the internal financial controls over financial reporting of **ODISHA HYDRO POWER CORPORATION LIMITED** ("the Company") as of March 31, 2024 in conjunction with our audit of the standalone financial statements of the Company for the year ended on that date.

Management's Responsibility for Internal Financial Controls

The Board of Directors of the Company is responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls over Financial Reporting issued by the Institute of Chartered Accountants of India. These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business including adherence to the companies policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013.

Auditor's Responsibility

Our responsibility is to express an opinion on the internal financial controls over financial reporting of the Company based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") issued by the Institute of Chartered Accountants of India and the Standards on Auditing prescribed under Section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial control system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based

SDR & ASSOCIATES Bhubaneswar Chartered Accountants

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on the assessed risk. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained, is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial control system over financial reporting.

Meaning of Internal Financial Controls Over Financial Reporting

A company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Limitations of Internal Financial Controls over Financial Reporting

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subject to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Qualified Opinion

According to the information and explanations given to us and based on our audit, the following material weaknesses have been identified in internal control as at March 31, 2024.

(a) The company did not have an appropriate internal control system to ensure that correct or adequate provisions are made pending receipt of bills/utilization certificates from Vendors/Contractors/Parties or Concerned Authorities at the year end. This could potentially result in non-accounting/booking of expenses or bills and non-adjustment of advances in time.

(b) The company did not have an adequate internal control system to obtain year-end balance confirmations in respect of Trade Receivable, Claim Receivable, Advances to Suppliers/Advances to Contractors/Advances to Others, Trade Payable, Liabilities to

SDR & ASSOCIATES * Bhubaneswar * Chartered Accountants

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CHARTERED ACCOUNTANTS
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Suppliers, Contractors and Others and reconciliation with respective balances with the books of the company. This could potentially result in inaccurate reporting of assets and liabilities and changes in financial statements.

(c) The company does not maintain its books of accounts in ERP system and uses Tally Prime software for all units separately. Considering the size of the company operating at different geographical locations, the company did not have an adequate internal control system to periodically consolidate the financials of the company. The consolidation of financials are done in Excel. Further, since the accounts are maintained in Tally and each year the financial data is segregated at unit level, it is difficult to generate various reports like age-wise analysis, old balances, etc. for taking appropriate timely steps to monitor various accounts which may lead to inaccurate reporting of assets and liabilities and material misstatement of the company's financial statements.

(d) The units have an Inventory Management System (IMS) to record movement of stock, however, the software is unable to provide adequate information about inventory movement.

A 'Material Weakness' is a deficiency or combination of deficiencies in internal financial control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's financial statements will not be prevented or detected on a timely basis.

In our opinion, except for the effects/possible effects of the material weaknesses described above on the achievement of the objective of the control criteria, the company has maintained, in all material respects, adequate internal financial controls over financial reporting and such internal financial controls over financial reporting were operating effectively as of March 31, 2024, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

We have considered the material weaknesses identified and reported above in determining the nature, timing and extent of audit test applied in our audit of the March 31, 2024 standalone financial statements of the Company, and these material weaknesses do not affect our opinion on the financial statements of the Company.

FOR S D R & ASSOCIATES
CHARTERED ACCOUNTANTS
FRN NO. 326522E

PLACE: BHUBANESWAR
DATE: 24.09.2024

CA SUNIL KUMAR SAHOO
PARTNER
ICAI M. No. 056068
UDIN: 24056068BKCOAP3525

SDR & ASSOCIATES Bhubaneswar Chartered Accountants

Odisha Hydro Power Corporation Limited

Standalone Balance Sheet as at 31st March 2024

(All amounts in Indian rupees, except share data and unless otherwise stated)

(INR IN LAKHS)

Sl No	Particulars	Note No.	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
	ASSETS :			
(1)	**Non-Current Assets**			
(a)	Property, Plant & Equipment	4	1,09,665.86	95,023.72
(b)	Capital Work-in-Progress	5(i)	14,258.22	13,135.20
(c)	Intangible Asset under Development	5(ii)	43.44	43.44
(d)	Financial Assets			
	(i) Investments	6	22,452.47	23,252.47
	(ii)Trade Receivables	7	3,266.81	3,472.17
	(iii) Loans	8	1,822.51	34.88
	(iv) Other Financial Assets	9	52,545.83	86,035.94
(e)	Other Non - Current Assets	10	3,130.20	2,840.54
	Total Non-Current Assets		**2,07,185.34**	**2,23,838.36**
(2)	**Current Assets**			
(a)	Inventories	11	8,148.04	6,795.41
(b)	Financial Assets			
	(i) Trade Receivables	12	3,731.64	6,250.21
	(ii) Cash & Cash Equivalents	13	4,137.56	3,024.31
	(iii) Bank Balance other than (ii) above	14	2,37,400.72	1,89,632.38
	(iv) Loans	15	684.97	3,468.55
	(v) Other Financial Assets	16	30,239.28	25,848.89
(c)	Other Current Assets	17	20,256.40	18,982.13
	Total Current Assets		**3,04,598.61**	**2,54,001.88**
	TOTAL ASSETS (1+2)		**5,11,783.95**	**4,77,840.24**
	EQUITY AND LIABILITIES :			
(1)	**Equity**			
(a)	Equity Share Capital	18	83,319.07	83,319.07
(b)	Other Equity	19	1,78,092.09	1,61,292.82
	Total Equity		**2,61,411.16**	**2,44,611.89**
(2)	**Liabilities**			
(A)	**Non-Current Liabilities :**			
(a)	Financial Liabilities			
	(i) Borrowings	20	83,536.90	86,559.90
	(ii) Other Financial Liabilities	21	103.94	9.06
(b)	Provisions	22	6,008.38	6,227.98
(c)	Deferred Tax Liabilities (Net)	23	4,817.19	4,217.03
(d)	Other Non-Current Liabilities	24	1,509.97	1,584.59
	Total Non-Current Liabilities		**95,976.38**	**98,598.56**
(B)	**Current Liabilities**			
(a)	Financial Liabilities			
	(i) Borrowings	25	4,453.00	4,453.00
	(ii) Trade Payables			
	1.Total Outstanding dues of Micro Enterprises and Small Enterprises			
	2.Total Outstanding dues of creditors other than Micro Enterprises and Small Enterprises.	26	2,486.17	1,939.30
	(iii) Other Financial Liabilities	27	1,44,142.82	1,26,050.59
(b)	Other Current Liabilities	28	85.02	87.72
(c)	Provisions	29	3,229.40	2,099.18
	Total Current Liabilities		**1,54,396.41**	**1,34,629.79**
	TOTAL EQUITY AND LIABILITIES (1+2)		**5,11,783.95**	**4,77,840.24**

The Accompanying Notes form an Integral part of the Standalone Financial Statements

As per our report of even date attached

For SDR & ASSOCIATES

Chartered Accountants

(CA Sunil Kumar Sahoo)	(J Panigrahi)	(Debalok Mohanty)	(P K Mohanty)	(A K Mohanty)
Partner	**Company Secretary**	**Chief Financial Officer**	**Director (Finance)**	**Director (Operation)**
ICAI M.No. 056068			**DIN:07902418**	**DIN:09323949**
Place: Bhubaneswar				
Date: 24.09.2024				
UDIN: 24056068BKCDAP3525				

Odisha Hydro Power Corporation Limited

Standalone Statement of Profit and Loss for the year ended 31st March 2024

(All amounts in Indian rupees, except share data and unless otherwise stated)

(INR IN LAKHS)

Sl No	Particulars	Note No	For the year ended 31st March 2024	For the year ended 31st March 2023
			Ind AS	Ind AS
I	Revenue from Operations	30	53,785.22	49,935.07
II	Other Income	31	35,801.06	18,590.58
III	**Total Income (I+II)**		**89,586.28**	**68,525.65**
IV	**Expenses :**			
	Repair & Maintenance Expenses	32	7,711.30	6,926.52
	Operation Expenses	33	2,258.56	1,721.83
	Employee Benefits Expenses	34	18,581.04	18,779.86
	Administrative & General Expenses	35	4,226.94	5,578.35
	Finance Costs	36	6,270.80	6,482.42
	Depreciation and Amortization Expenses	37	6,140.82	7,716.02
	Total Expenses (IV)		**45,189.46**	**47,205.00**
V	Profit before Exceptional Items & Tax (III-IV)		**44,396.82**	**21,320.65**
VI	Exceptional Items	38	-	**(24,840.68)**
VII	Profit before Tax (V-VI)		**44,396.82**	**46,161.33**
VIII	Tax Expenses:			
	(a) Current Tax		9,789.40	6,548.91
	(b) Deferred Tax		1,422.53	(356.26)
	Total Tax Expenses		**11,211.93**	**6,192.65**
IX	**Profit for the Year (VII - VIII)**		**33,184.89**	**39,968.68**
X	Other Comprehensive Income/ (Expenses)			
	(i) Items that will not be reclassified to Profit or Loss		(3,267.53)	(386.55)
	(ii) Income tax relating to items that will not be reclassified to Profit or Loss		822.37	97.29
XI	**Total Comprehensive Income for the Period (IX-X)**		**30,739.73**	**39,679.42**
	Earnings per Equity Share [Face Value of Rs 1000 /- each (Previous value of INR 1000 /- each)]			
	Basic and Diluted	41	398.29	479.71

The Accompanying Notes form an Integral part of the Standalone Financial Statements

As per our report of even date attached

For SDR & ASSOCIATES

Chartered Accountants

(CA Sunil Kumar Sahoo)	(J Panigrahi)	(Debalok Mohanty)	(P K Mohanty)	(A K Mohanty)
Partner	**Company Secretary**	**Chief Financial Officer**	**Director (Finance)**	**Director (Operation)**
ICAI M.No. 056068			**DIN:07902418**	**DIN:09323949**

Place: Bhubaneswar

Date: 24.09.2024

UDIN: 24056068BKCOAP3525

Odisha Hydro Power Corporation Limited

Standalone Statement of Cash Flow for the year ended 31st March 2024

(All amounts in Indian rupees, except share data and unless otherwise stated)

(INR IN LAKHS)

	As at 31st March 2024	As at 31st March 2023
Cash Flow from Operating Activities		
Profit for the year	44,396.82	46,161.33
Adjustments for :		
Depreciation & Amortization	6,140.82	7,716.02
Finance Costs	6,270.80	6,482.42
Finance Income	(33,319.67)	(9,317.42)
(Profit)/Loss on Sale of Property, Plant and Equipment	3.41	146.74
Amortization of -GRANT-IN-AID	(78.64)	(68.37)
Income/Expenses directly debited to reserve accounts	-	-
Operating Cash Flows before Working Capital changes	**23,413.54**	**51,120.72**
Changes in Operating Assets and Liabilities		
Inventories	**(1,352.63)**	**(1,448.98)**
Trade Receivables	**2,723.93**	**(35.22)**
Other Non-Current Assets		-
Other Assets	**31,469.99**	**(22,990.18)**
Trade Payables	546.87	587.97
Other Liabilities	**8,646.08**	**(46,674.13)**
Provisions - Current	1,130.22	(578.75)
Provisions - Non Current	(219.60)	(392.31)
Net Cash provided by Operating Activities before Taxes	**66,358.40**	**(20,410.88)**
Income Tax Adiustment	-	-
Income Taxes Paid	(11,372.10)	(5,888.89)
Net Cash provided by Operating Activities	**54,986.30**	**(26,299.77)**
Cash Flow from Investing Activities		
Purchase of Property, Plant and Equipment	(22,511.93)	(11,043.39)
Proceeds from Sale of Property, Plant and Equipment	602.54	970.01
Investment in Bank Deposits	(47,768.34)	(1,40,525.16)
Investment in Shares, Debentures and Other Securities	800.00	1,20,650.39
Finance Income Received	31,964.12	4,038.91
Net Cash Generated/(Used) in Investing Activities	**(36,913.61)**	**(25,909.24)**
Cash Flow from Financing Activities		
Increase in Share Capital	-	-
Dividend paid including DDT	(13,940.46)	(4,558.68)
Repayment of Long Term Loan	(3,023.00)	(3,023.00)
Finance Cost Paid	-	(0.01)
Govt- Grant Received	4.02	3.90
Net Cash Generated/(Used) in Financing Activities	**(16,959.44)**	**(7,577.79)**
Effect of Exchange differences on translation of Foreign Currency Cash and Cash Equivalents		-
Net Increase / (Decrease) in Cash and Cash Equivalents	1,113.25	(59,786.80)
Cash and Cash Equivalents at the Beginning of the Period	3,024.31	62,811.11
Cash and Cash Equivalents at the End of the Period (Note 13)	**4,137.56**	**3,024.31**

Explanatory Notes to Standalone Statement of Cash Flows

1. Cash and Cash equivalents consists of Cash in Hand, Cheques/Drafts in Hands, Postal Orders & Stamps, Remittance in Transit and Bank Balances including Short Term Deposits maturity of less than three months. However, the FD which is pledged in bank and maturity period less than 3 months are not considered as cash and cash equivalent. The details of Cash & Cash equivalents as per Note 13 of the Balance Sheet is as under:

Cash and Cash Equivalents	31st March 2024	31st March 2023
	4,137.56	3,024.31
Cash and Cash Equivalents Comprises of the following:		
Bank Fixed Deposits	-	0.13
Other Bank Balance	4,134.53	3,022.03
Cash in Hand	2.92	1.96
Postal Orders & Stamps	0.11	0.19

The Accompanying Notes form an Integral part of the Standalone Financial Statements

As per our report of even date attached

For SDR & ASSOCIATES
Chartered Accountants

(CA Sunil Kumar Sahoo)
Partner
ICAI M.No. 056068
Place: Bhubaneswar
Date: 24.09.2024
UDIN: 24056068BKCAAP3529

(J Panigrahi)
Company Secretary

(Debalok Mohanty)
Chief Financial Officer

(P K Mohanty)
Director (Finance)
DIN:07902418

(A K Mohanty)
Director (Operation)
DIN:09323949

Odisha Hydro Power Corporation Limited

Statement of changes in equity for the year as at 31st March 2024

(All amounts in Indian rupees, except share data and unless otherwise stated)

a. Equity Share Capital (INR IN LAKHS)

Particulars	Balance at the beginning of the reporting period 2023	Changes in Equity Share Capital during the year	Balance at the end of the reporting period 2024
Equity Share	83,319.07	-	83,319.07

b. Other Equity

(INR IN LAKHS)

Particulars	Capital Reserve	Deemed Equity	Retained Earnings	Remeasurements of the defined benefit plans	Total
Balance as at 1st April 2023	10,000.00	13,214.00	1,63,685.47	(25,606.65)	**1,61,292.82**
Changes in Accounting Policy/ Prior Period Errors	-	-	-	-	-
Restated balance at the beginning of the reporting period	10,000.00	13,214.00	1,63,685.47	(25,606.65)	**1,61,292.82**
Total Comprehensive Income for the year	-	-	33,184.89	(2,445.16)	**30,739.73**
Dividend Paid during the FY 2023-24	-	-	(13,940.46)	-	**(13,940.46)**
Balance as at 31st March 2024	**10,000.00**	**13,214.00**	**1,82,929.90**	**(28,051.81)**	**1,78,092.09**

As per the Order No. 3060 dtd. 31.03.2015 & subsequent DoE Notification No. 5843 dtd. 03.07.2015, a sum of INR 10,000.00 Lakhs has been shown under the head capital reserve towards dam share of UIHEP, Khatiguda.

Statement of changes in equity for the year as at 31st March 2023

a. Equity Share Capital (INR IN LAKHS)

Particulars	Balance at the beginning of the reporting period 2022	Changes in Equity Share Capital during the year	Balance at the end of the reporting period 2023
Equity Share	83,319.07	-	83,319.07

b. Other Equity

(INR IN LAKHS)

Particulars	Capital Reserve	Deemed Equity	Retained Earnings	Remeasurements of the defined benefit plans	Total
Balance as at 1st April 2022	10,000.00	13,214.00	1,28,275.47	(25,317.40)	**1,26,172.07**
Changes in Accounting Policy/ Prior Period Errors	-		-	-	-
Restated balance at the beginning of the reporting period	10,000.00	13,214.00	1,28,275.47	(25,317.40)	**1,26,172.07**
Total Comprehensive Income for the year			39,968.68	(289.25)	**39,679.43**
Dividend Paid during the FY 2022-23			(4,558.68)		**(4,558.68)**
Balance as at 31st March 2023	**10,000.00**	**13,214.00**	**1,63,685.47**	**(25,606.65)**	**1,61,292.82**

As per the Order No. 3060 dtd. 31.03.2015 & subsequent DoE Notification No. 5843 dtd. 03.07.2015, a sum of INR 10,000.00 Lakhs has been shown under the head capital reserve towards dam share of UIHEP, Khatiguda.

The Accompanying Notes form an Integral part of the Standalone Financial Statements
As per our report of even date attached
For SDR & ASSOCIATES
Chartered Accountants

(CA Sunil Kumar Sahoo)
Partner
ICAI M.No. 056068
Place: Bhubaneswar
Date: 24.09.2024
UDIN: 24056068BKCOAP3525

(J Panigrahi)
Company Secretary

(Debalok Mohanty)
Chief Financial Officer

(P K Mohanty)
Director (Finance)
DIN:07902418

(A K Mohanty)
Director (Operation)
DIN:09323949

Odisha Hydro Power Corporation Limited

Notes forming part of Standalone Financial Statements

1 Corporate Information

M/s. Odisha Hydro Power Corporation Ltd (in short 'OHPC') is a wholly owned Government of Odisha undertaking incorporated on 21.04.1995 as per the provision of erstwhile Companies Act 1956 (now 2013) (CIN: U40101OR1995SGC003963). The total paid up equity capital of OHPC is entirely held by Government of Odisha. OHPC is solely engaged in the business of generation of Hydro Power having installed capacity of 2099.80 MW and for that purpose operates and maintains Hydro Power Stations at Balimela, Burla, Upper Kolab, Mukhiguda, Rengali & Chiplima in the district of Malkanagiri, Sambalpur, Koraput, Kalahandi, Angul & Sambalpur respectively along with operating one Hydro Power Project as a Joint Venture i.e., Machhakund Joint Hydro Electric Project with APGENCO. Upon generation of the Hydro Power, the substantial powers generated are sold to GRIDCO as per Power Purchase Agreement (PPA) and 5 MW of Hydro power sold to Chhattisgarh State Power Distribution Company Limited (Known as CSPDCL) from Hirakud Bay, as per MoU between Govt. of Odisha & Chhattisgarh Government. OHPC prepares it's financial statements as per the requirement to the provisions of the Companies Act, 2013, so also the requirement of OERC. As per the guideline issued by the Department of Public Enterprises, Govt. of Odisha, OHPC is declared as a Gold Rated State PSU.

2 Statement of compliance, Basis of Preparation, Critical Accounting Estimates and Material Accounting Policies

2.1 Statement of compliance

The Standalone Financial Statements have been prepared in accordance with Indian Accounting Standards (Ind AS) as notified under the Companies (Indian Accounting Standards) Rules, 2015 read with section 133 of the Companies Act, 2013 and presentation requirements of Division II of schedule III to the Companies Act, 2013 (as amended from time to time).

2.2 Basis of Preparation and Presentation of Financial Statements

The Standalone Financial Statements have been prepared on a historical cost basis, except for the following assets and liabilities which have been measured at fair value.

(a) Certain financial assets and liabilities including derivative instruments measured at fair value

(b) Defined benefit plans - plan assets measured at fair value

Historical cost is the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire assets at the time of their acquisition or the amount of proceeds received in exchange for the obligation, or at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

2.3 Functional and Presentation Currency

These financial statements are presented in Indian Rupees (INR), which is the Company's functional currency. All financial information presented in INR has been rounded off to the nearest Lakhs (upto two decimal) for the Company.

2.4 Use of Estimates and Management Judgments

The preparation of financial statements in conformity with Ind AS requires management to make judgments, estimates and assumptions that may impact the application of accounting policies and the reported value of assets, liabilities, income, expenses and related disclosures including contingent assets and contingent liabilities at the Balance Sheet date. The estimates and management's judgments are based on previous experience and other factors considered reasonable and prudent in the circumstances. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected

In order to enhance understanding of the financial statements, information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that may have the most significant effect on the amounts recognised in the financial statements are included in the following notes:

3 Material Accounting Policies

The material accounting policies applied in the preparation of the Financial Statements are as given below.
These accounting policies have been applies consistently for all periods presented in the Financial Statements.

3.1 Revenue Recognition

Revenue is recognized on accrual basis as per provisional energy sale bills raised on GRIDCO subject to reconciliation with GRIDCO & in accordance with Odisha Electricity Regulatory Commission's tariff order. In case of energy sales to CSPDCL, Revenue is recognized as per bills raised on the basis of rates approved by OERC separately for HHEP, Burla. The energy bill is raised at the feeder point on net exchange basis. Rebates given to GRIDCO as early payment incentives are deducted from the amount of Revenue.

The share of Department of Water Resources, Government of Odisha towards 50% share of Operation & Maintenance Cost of the dam at Upper Indravati Hydro Electric Project, Khatiguda has been recognized as revenue.

SDR & ASSOCIATES Bhubaneswar Chartered Accountants

ODISHA HYDRO POWER CORPORATION LTD. BBSR

All other Revenues are accounted for on accrual basis except the following which are accounted for on cash / realization basis due to uncertainty in their collection.

(i) Interest on delayed payment on energy bills paid by GRIDCO.
(ii) Interest on medical advances.
(iii) Electricity charges billed other than Water Resources Department.
(iv) Recovery of compensation for loss of energy due to drawl of water by nearby Industrial Units.
(v) Sale of scrap.
(vi) Interest on security deposit with Discoms.
(vii) Insurance claim and interest on house building advance.
(viii) Recovery of house rent.
(ix) Interest receivable against additional 20% cost of acquisition of MHEP from GRIDCO

Ind AS 115 recognizes revenue on transfer of the control of the goods or services, either over a period of time or at a point of time, at an amount that the entity expects to be entitled in exchange for the goods or services. In order to align with Ind AS 115, the Accounting policy on revenue recognition was reviewed and revised where ever required.

Revenue Recognition and Other Income

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured, regardless of when the payment is being made. Revenue is measured at the fair value of the consideration received or receivable net of discounts, taking into account contractually defined terms and excluding taxes or duties collected on behalf of the government.

Sales of Goods

Revenue from contracts with customers is recognized when control of goods and services is transferred to the customers at an amount that reflects the consideration to which company expects to be entitled in exchange for those good and services.

All revenue from the sale of goods is recognized at a point in time and revenue from services is recognized over-time.

No revenue is recognized if there are significant uncertainties regarding recovery of the amount due, associated costs or the possible return of goods.

3.2 Other Income

Interest Income

For all debt instruments measured either at amortized cost or at fair value through other comprehensive income, interest income is recorded using the effective interest rate (EIR). EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the gross carrying amount of the financial asset or to the amortized cost of a financial liability.

Dividend Income

Dividend income is recognized when the Company's right to receive the payment is established, which is generally when shareholders approve the dividend.

3.3 Property, Plant and Equipment

i) Recognition and Measurement

An item of PPE is recognised as an asset if it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably.

The estimated useful life of property, plant and equipment and intangible assets are based on a number of factors including the effects of obsolescence, demand, competition and other economic factors (such as the stability of the industry and known technological advances) and the level of maintenance expenditures required to obtain the expected future cash flows from the asset.

Useful life of the assets used for generation of electricity is determined by the Central Electricity Regulatory Commission (CERC) Tariff Regulations as mentioned in part B of Schedule II of the Companies Act, 2013.

Items of property, plant and equipment are measured at cost less accumulated depreciation/ amortization and accumulated impairment losses. Cost includes expenditure that is directly attributable for bringing the asset to the location and condition necessary for its intended use.

Expenditure incurred on renovation and modernization of PPE on completion of the originally estimated useful life of the power station resulting in increased life and/or efficiency of an existing asset, is added to the cost of the related asset. PPE acquired as replacement of the existing assets are capitalized and its corresponding replaced assets removed/ retired from active use are derecognized.

Assets over which the Company has control, but created on land not belonging to the Company, are included under Property, Plant and Equipment.

Standby equipment and servicing equipment which meet the recognition criteria of Property, Plant and Equipment are capitalized.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use. Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment. These are included in profit or loss within other gains/ losses.

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The residual values, useful lives and methods of depreciation are reviewed at each financial year end and adjusted prospectively.

The recoverable amount of property, plant and equipment, capital work in progress and intangible assets are based on estimates and assumptions, in particular the expected market outlook and future cash flows associated with the power plants. Any changes in these assumptions may have a material impact on the measurement of the recoverable amount resulting in impairment.

Fixed assets, which were transferred by Government of Odisha on 01.04.1996 under Transfer Scheme, are stated at transfer price.

The value of Stores & Spares above INR 5.00 lakhs per item are considered as property, plant & equipment if their useful life is more than one year as per Ind AS-16.

ii) Depreciation

Depreciation has been provided based on life assigned to each asset in accordance with part B of Schedule II of the Companies Act, 2013 as notified by regulatory authorities, i.e. Central Electricity Regulatory Commission(CERC) for accounting purpose. Leased assets are amortized on a straight-line basis over the useful life of the asset or the remaining period of lease, whichever is earlier.

Up to financial Year 2002-03, the Corporation was providing depreciation at the rates prescribed by the Electricity (Supply) Act, 1948. However, consequent upon the enactment of the Electricity Act, 2003 and repeal of the Electricity (Supply) Act, 1948, depreciation was provided on straight line method as per the rates prescribed under schedule XIV of the Companies Act, 1956 up to the financial year 2013-14 and thereafter as per Electricity Act, 2003.

Temporary erections are depreciated fully (100%) in the year of acquisition /capitalization by retaining INR. 1/- as WDV.

Assets valuing INR0.05 Lakhs or less are fully depreciated during the year in which asset is made available for use with INR 1/- as WDV.

Leasehold Land is amortized over the period of lease.

Where the life and / or efficiency of an asset is increased due to renovation and modernization, the expenditure thereon along with its unamortized depreciable amount is charged prospectively over the revised / remaining useful life.

Spares parts procured along with the Plant & Machinery or subsequently which are capitalized and added in the carrying amount of such item are depreciated over the residual useful life of the related plant and machinery at the rates and methodology notified by CERC.

Software item on being capitalized are depreciated over 06 years, as the rates and methodology notified by Central Electricity Regulatory Commission (CERC).

iii) Subsequent Costs

Subsequent expenditure including cost of major overhaul and inspection is recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably.

The cost of replacing part of an item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Company and its cost can be measured reliably. The carrying amount of any component recognized as a separate component is derecognized when replaced. All other repairs and maintenance are recognized in profit or loss as incurred. Any written off / back relating to capital assets is added / deleted from the gross block of the concerned capital assets.

iv) Spare Parts

Spares parts (procured along with the Plant & Machinery or subsequently) which meet the recognition criteria are capitalized. The carrying amount of those spare parts that are replaced is derecognized when no future economic benefits are expected from their use or upon disposal. Other spare parts are treated as "stores & spares" forming part of inventory.

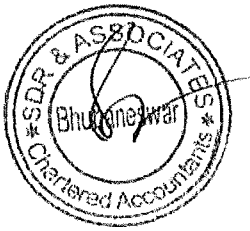
Items of spare parts, stand-by equipment and servicing equipment which meet the definition of property, plant and equipment and having value more than INR 5 Lakhs are capitalized and depreciated on straight line method on prorata basis at the rates specified therein. Other spare parts are carried as inventory and recognized in the income statement on consumption.

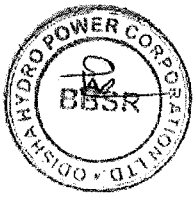
3.4 Investment Properties

Property that is held for capital appreciation or for earning rentals or both or whose future use is undetermined is classified as investment property. Items of investment properties are measured at cost less accumulated depreciation / amortization and accumulated impairment losses. Cost includes expenditure that is directly attributable for bringing the asset to the location and condition necessary for its intended use. Investment properties are depreciated on straight line method on prorata basis at the rates specified therein. Subsequent expenditure including cost of major overhaul and inspection is recognized as an increase in the carrying amount of the asset when it is probable that future economic benefits associated with the item will flow to the Company and the cost of the item can be measured reliably.

3.5 Intangible Assets and Intangible Assets under Development.

Intangible Assets are stated at cost of acquisition net of recoverable taxes less accumulated amortization /depletion and impairment loss, if any. The cost comprises purchase price, borrowing costs and any cost directly attributable for bringing the asset to its working condition for the intended use and net charges on foreign exchange contracts and adjustments arising from exchange rate variations attributable to the intangible assets.





3.6 **Capital Work in Progress**

Capital Work in Progress is stated at Cost.

Expenditure incurred on assets under construction (including a project) is carried at cost under Capital Work in Progress (CWIP). Such costs comprise purchase price of assets including import duties and non-refundable taxes (after deducting trade discounts and rebates), expenditure in relation to survey and investigation activities of projects, cost of site preparation, initial delivery and handling charges, installation and assembly costs, etc.

Costs including employee benefits, professional fees, expenditure on maintenance and up-gradation of common public facilities, depreciation on assets used in construction of project, interest during construction and other costs that are directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management are accumulated under "Expenditure Attributable to Construction (EAC)" and subsequently allocated on systematic basis over major immovable assets, other than land and infrastructure facilities on commissioning of projects. Net pre-commissioning income/expenditure is adjusted directly in the cost of related assets.

Capital Expenditure incurred for creation of facilities, over which the Company does not have control but the creation of which is essential principally for construction of the project is accumulated under "Expenditure Attributable to Construction" and carried under "Capital Work in Progress" and subsequently allocated on a systematic basis over major immovable assets, other than land and infrastructure facilities on commissioning of projects, keeping in view the "attributability" and the "Unit of Measure" concepts in Ind AS 16- "Property, Plant & Equipment". Expenditure of such nature incurred after completion of the project, is charged to the Statement of Profit and Loss.

3.7 **Leases**

The determination of whether an arrangement is (or contains) a lease is based on the substance of the arrangement at the inception of the lease. The arrangement is, or contains, a lease if fulfilment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset or assets, even if that right is not explicitly specified in an arrangement.

As a Lessee

A lease is classified on the inception date as a finance or an operating lease. Leases under which the Company assumes substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease's inception at the fair value of the leased property or if lower the present value of the minimum lease payments. Minimum lease payments made under finance leases are apportioned between the finance expense and the reduction of the outstanding liability.

The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Leases under which substantially all the risks and rewards of ownership are not transferred to the Company are classified as operating leases. Lease payments under operating leases are recognized as an expense on a straight line basis in the statement of profit and loss over the lease term except where the lease payments are structured to increase in line with expected general inflation.

As a Lessor

Lease payments under operating leases are recognized as an income on a straight line basis in the statement of profit and loss over the lease term except where the lease payments are structured to increase in line with expected general inflation. The respective leased assets are included in the balance sheet based on their nature.

3.8 **Inventories**

Inventories of stores, spares and consumables are valued on the basis of transfer price in respect of inventories transferred from Government on 01.04.1996 and at cost in case of inventories procured thereafter. The methodology for inventory consumption is made as per weighted average cost method.

Scrap is Valued at Net Realisable Value.

The amount of any write-down of inventories to net realisable value and all losses of inventories is recognized as an expense in the period in which write-down or loss occurs.

3.9 **Financial Instrument**

A financial instrument is a contract that gives rise to a financial asset of one entity and a financial liability or equity of another entity.

Financial Asset

i) Initial Measurement

All financial assets are recognized initially at fair value. Transaction costs that are attributable to the acquisition of the financial asset (other than financial assets recorded at fair value through profit or loss) are included in the fair value of the financial assets. Regular way purchase and sale of financial assets are recognized on trade date. Financial assets of the Company include investments in equity shares of subsidiaries, associates, joint ventures and other companies, trade and other receivables, loans and advances to employees and other parties, deposits etc.

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ii) Classification and Subsequent Measurement

For the purpose of subsequent measurement, financial assets of the Company are classified in the following categories:

1) Financial assets measured at amortized cost
2) Financial assets measured at fair value through other comprehensive income
3) Financial assets measured at fair value through profit and loss

The classification of financial assets depends on the objective of the business model. Management determines the classification of its financial assets at initial recognition.

Financial Instruments Measured at Amortized Cost:

A financial instrument is measured at amortized cost if both the following conditions are met:

(a) The asset is held within a business model whose objective is to hold assets for collecting contractual cash flows, and

(b) Contractual terms of the asset give rise on specified dates to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

This category is the most relevant to the Company. After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the profit or loss. The losses arising from impairment are recognized in the profit or loss. This category generally applies to trade and other receivables, bank deposits, security deposits, cash and cash equivalents, employee and other advances.

Financial Instruments measured at Fair Value through other Comprehensive Income (FVTOCI)

A financial instrument shall be measured at fair value through other comprehensive income if both of the following conditions are met:

(a) the objective of the business model is achieved by both collecting contractual cash flows and selling financial assets

(b) the asset's contractual cash flow represent SPPI.

Financial instruments included within FVTOCI category are measured initially as well as at each reporting period at fair value plus transaction costs. Fair value movements are recognized in other comprehensive income (OCI). However, the Company recognizes interest income, impairment losses & reversals and foreign exchange gain/ loss in statement of profit and loss. On derecognition of the asset, cumulative gain or loss previously recognized in OCI is reclassified from equity to profit and loss. Interest earned is recognized under the effective interest rate (EIR) model.

Financial Instruments measured at Fair Value through Profit and Loss (FVTPL)

Fair value through profit and loss is the residual category. Any financial instrument which does not meet the criteria for categorization as at amortized cost or fair value through other comprehensive income is classified at FVTPL.

Financial instruments included within FVTPL category are measured initially as well as at each reporting period at fair value plus transaction costs. Fair value movements are recorded in statement of profit and loss.

All equity investments in scope of Ind-AS 109 are measured at fair value. Equity instruments which are held for trading are classified as at FVTPL. For all other equity instruments, the Company decides to classify the same either as at FVTOCI or FVTPL. Such election is made on an instrument by instrument basis. The classification is made on initial recognition and is irrevocable.

iii) De-recognition of Financial Assets

A financial asset (or, where applicable, a part of a financial asset or part of a Company of similar financial assets) is primarily derecognized when:

- The rights to receive cash flows from the asset have been transferred, or
- The company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the company has transferred substantially all the risks and rewards of the asset, or (b) the company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Financial Liability

i) Initial Measurement

All financial liabilities are recognized initially at fair value net of directly attributable transaction costs. The Company's financial liabilities include loans and borrowings, trade and other payables etc.

ii) Classification and subsequent measurement

For the purpose of subsequent measurement, financial liabilities of the Company are classified in the following categories:

1) Financial liabilities measured at amortized cost
2) Financial liabilities measured at fair value through profit and loss

Financial Liabilities at Amortized Cost:

Financial liabilities at amortized cost are initially recognized at fair value, and subsequently carried at amortized cost using the effective interest method.

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3.10 Investments in Subsidiaries and Joint Ventures

Investment has been carried at cost and as per assessment by the company, there is no indication of impairment on such investments. Any changes in assumption may have a material impact on the measurement of the recoverable amount.

3.11 Trade Receivables

Trade receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest rate method, less provision for impairment using expected credit loss method.

Impairment of Trade Receivables:

Considering the historical credit loss experience for trade receivables, the Company does not envisage either impairment in the value of receivables from beneficiaries or loss due to time value of money owing to delay in realization of trade receivables, except to the extent already provided for.

3.12 Loans and Borrowings

Loans and borrowings are initially recognized at fair value net of transaction costs incurred. Subsequently, these are measured at amortized cost using the effective interest rate ('EIR') method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the statement of profit and loss.

3.13 Trade and Other Payables

These amount represent liabilities for goods and services provided to the Company prior to the end of the financial year which are unpaid. The amounts are unsecured. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the reporting period. They are recognized initially at their fair value and subsequently measured at amortized cost using the EIR model.

3.14 Dividends

Dividends and interim dividends payable to the Company's shareholders are recognised as change in equity in the period in which they are approved by the Company's shareholders and the Board of Directors respectively.

3.15 Impairment

a) Financial Assets

In accordance with Ind AS 109, the Company applies expected credit loss (ECL) model for measurement and recognition of impairment loss on the following financial assets:

a) Financial assets measured at amortized cost e.g. loans, deposits and trade receivables.

b) Financial assets measured at FVTOCI e.g. investments.

Expected credit losses are measured through a loss allowance at an amount equal to:

(i) the 12 months expected credit loss (expected credit losses that result from those defaults events on the financial instruments that are possible within 12 months after the reporting date) ;or

(ii) full time expected credit loss (expected credit loss that results from all possible defaults events over the life time of the financial instruments)

Loss allowance for trade receivable are always measured at an amount equal to life time expected credit losses.

ECL impairment loss allowance (or reversal) recognized during the period is recognized as income/expense in the statement of profit and loss.

As a practical expedient, the Company uses a provision matrix to determine the impairment loss on its trade receivables. The provision matrix is based on historically observed default rates and is adjusted for forward looking estimates. At every reporting date, the historically observed default rates are updated and changes in forward looking estimates are analysed.

b) Non-Financial Assets

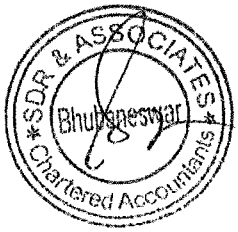
The Company assesses at each reporting date whether there is any objective evidence that a non financial asset or a group of non financial assets is impaired. If any such indication exists, the Company estimates the amount of impairment loss.

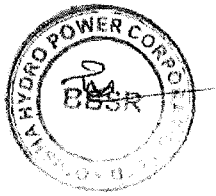
An impairment loss is calculated as the difference between an asset's carrying amount and recoverable amount. Losses are recognized in profit or loss. When the Company considers that there are no realistic prospects of recovery of the asset, the relevant amounts are written off. If the amount of impairment loss subsequently decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, then the previously recognized impairment loss is reversed through profit or loss.

In case of expenditure on survey & investigation of projects, if it is decided to abandon such a project, expenditure incurred thereon is charged to the Statement of Profit and Loss in the year in which such decision is taken.

In case a project under survey and Investigation remains in abeyance by the order of appropriate authority/ by injunction of court order, any expenditure incurred on such projects till the date of order/ injunction of court is provided in the books from the date of such order till the period project is kept in abeyance by such order/ injunction. Provision so made is however reversed on the revocation of aforesaid order/ injunction.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit").





3.16 Taxes

Income tax expense comprises current and deferred tax. Current tax expense is recognized in profit or loss except to the extent that it relates to items recognized directly in other comprehensive income or equity, in which case it is recognized in other comprehensive income or equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

Deferred tax is recognized in profit or loss except to the extent that it relates to items recognized directly in other comprehensive income or equity, in which case it is recognized in other comprehensive income or equity.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

3.17 Employee Benefits

The Company participates in various employee benefit plans. Post-employment benefits are classified as either defined contribution plans or defined benefit plans. Under a defined contribution plan, the Company's only obligation is to pay a fixed amount with no obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits. The related actuarial and investment risks fall on the employee. The expenditure for defined contribution plans is recognized as expense during the period when the employee provides service. Under a defined benefit plan, it is the Company's obligation to provide agreed benefits to the employees. The related actuarial and investment risks fall on the Company.

Actuarial gains or losses on gratuity, pension, unutilised leave salary and ex-gratia (6 month salary on superannuation) are recognized in other comprehensive income (OCI). Further, the profit or loss does not include an expected return on plan assets. Instead net interest recognized in profit or loss is calculated by applying the discount rate used to measure the defined benefit obligation to the net defined benefit liability or asset. The actual return on the plan assets above or below the discount rate is recognized as part of re-measurement of net defined liability or asset through other comprehensive income.

Remeasurements comprising actuarial gains or losses and return on plan assets (excluding amounts included in net interest on the net defined benefit liability) are not reclassified to profit and loss in subsequent periods.

Employee benefit obligations are measured on the basis of actuarial assumptions which include mortality and withdrawal rates as well as assumptions concerning future developments in discount rates, the rate of salary increase, the inflation rate and expected rate of return on plan assets. The Company considers that the assumptions used to measure its obligations are appropriate and documented. However, any changes in these assumptions may have an impact on the resulting calculations.

Liability towards Gratuity is made on the basis of actuarial valuation. For meeting the service gratuity liability, the Corporation has taken two group gratuity insurance policy with LIC of India.

The pension and service gratuity liabilities of ex-Hirakud Dam Project employees are accounted for on cash basis.

The pension & leave salary contribution in respect of employees under deputation to the Corporation are accounted for consistently in the year of payment on the basis of demand notice raised by A.G & other PSUs.

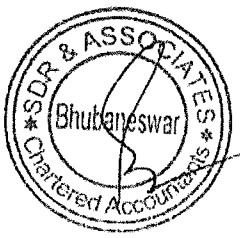
3.18 Provisions Contingent Liabilities & Contingent Assets

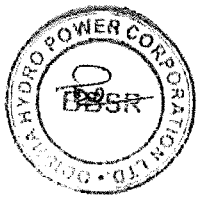
The assessments undertaken in recognising provisions and contingencies have been made in accordance with Ind AS 37, 'Provisions, Contingent Liabilities and Contingent Assets'. The evaluation of the likelihood of the contingent events has been made on the basis of best judgment by management regarding probable outflow of economic resources. Such estimation can change due to unforeseeable developments.

Provisions are recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognized as an asset, if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.





Contingent liabilities are possible obligations that arise from past events and whose existence will only be confirmed by the occurrence or non-occurrence of one or more future events not wholly within the control of the Company. Where it is not probable that an outflow of economic benefits will be required, or the amount cannot be estimated reliably, the obligation is disclosed as a contingent liability, unless the probability of outflow of economic benefits is remote. Contingent liabilities are disclosed on the basis of judgment of the management/independent experts. These are reviewed at each balance sheet date and are adjusted to reflect the current management estimate.

The liabilities, which could not be ascertained at the time of transfer of Assets & Liabilities by Government of Odisha on 01.04.1996 are accounted for as and when settled.

Contingent assets are possible assets that arise from past events and whose existence will be compared only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Corporation. Contingent assets are disclosed in the financial statements when inflow of economic benefits is probable on the basis of judgement of management. These are assessed continually to ensure that developments are appropriately reflected in the financial statements.

3.19 Cash and Cash Equivalents

Cash and cash equivalents in the Balance Sheet comprise cash at banks and on hand and short-term deposits with a maturity of three months or less, which are subject to an insignificant risk of changes in value. For the purposes of the cash flow statement, cash and cash equivalents include cash on hand, in banks and demand deposits with banks are considered part of the Company's cash management system.

3.20 Foreign Currency Transactions

The Company's financial statements are presented in INR which is also the functional currency of the Company.

Foreign currency transactions are recorded on initial recognition in the functional currency using the exchange rate at the date of the transaction. At each balance sheet date, foreign currency monetary items are reported using the closing exchange rate. Exchange differences that arise on settlement of monetary items or on reporting at each balance sheet date of the Company's monetary items at the closing rate are recognized as income or expenses in the period in which they arise.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

The Foreign Exchange fluctuation loss / gain in respect of the foreign currency loan relating to Projects after capitalisation is debited / credited to statement of profit & loss.

Recovery of foreign exchange fluctuation loss raised to GRIDCO is accounted for on the basis of actual realisation.

3.21 Borrowing Cost

Borrowing costs that are directly attributable to the acquisition, construction or erection of qualifying assets are capitalized as part of cost of such asset until such time that the assets are substantially ready for their intended use. Qualifying assets are assets which take a substantial period of time to get ready for their intended use or sale.

When the Company borrows funds specifically for the purpose of obtaining a qualifying asset, the borrowing costs incurred are capitalized. When Company borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the capitalization of the borrowing costs is computed based on the weighted average cost of general borrowing that are outstanding during the period and used for the acquisition of the qualifying asset.

Capitalization of borrowing costs ceases when substantially all the activities necessary to prepare the qualifying assets for their intended uses are complete. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds. Borrowing costs include exchange differences arising from foreign currency borrowings to the extent that they are regarded as an adjustment to interest costs.

All other borrowing costs are recognized as an expense in the year in which they are incurred.

3.22 Earnings Per Share (EPS)

Basic earnings per share is calculated by dividing the net profit attributable to equity share holders by the weighted average number of ordinary shares in issue during the year.

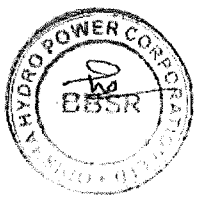
3.23 Statement of Cash Flow

Statement of cash flows is prepared in accordance with the indirect method prescribed in Ind AS -7 'Statement of cash flows'.

3.24 Government Grants

The benefits of a government loan at a below market rate of interest is treated as Government Grant. The loan is initially recognised and measured at fair value and the government grant is measured as the difference between the initially recognized amount of the loan and the proceeds received. The loan is subsequently measured as per the accounting policy applicable to financial liabilities and government grant is recognized initially as deferred income and subsequently in the Statement of Profit and Loss on a systematic basis over the useful life of the asset.





Monetary grants from the government for creation of assets are initially recognised as deferred income when there is reasonable assurance that the grant will be received and the company will comply with the conditions associated with the grant. The deferred income so recognised is subsequently amortised in the Statement of Profit and Loss over the useful life of the related assets.

Government grant related to income is recognised in the Statement of Profit and Loss on a systematic basis over the periods in which the entity recognises as expenses the related costs for which the grants are intended to compensate.

3.25 Compensation from Third Parties

Impairments or losses of items, related claims for payments of compensation from third parties including insurance companies and any subsequent purchase or construction of assets/inventory are separate economic events and are accounted for separately.

Compensation from third parties including from insurance companies for items of property, plant and equipment or for other items that were impaired, lost or given up is included in the Statement of Profit and Loss when the compensation becomes receivable. Insurance claims for loss of profit are accounted for based on certainty of realisation.

3.26 Prior Period Errors

Prior period errors are corrected retrospectively by restating the comparative amounts for the prior periods presented in which the error occurred. If the error occurred before the earliest period presented, the opening balances of assets, liabilities and equity for the earliest period presented, are restated unless it is impracticable, in which case, the comparative information is adjusted to apply the new accounting policy prospectively from the earliest date practicable.

Prior Period Expenses / income of items of INR 1000.00 Lakhs and below are debited / credited to respective heads of account.

3.27 Operating Cycle

Considering the nature of business activities, the operating cycle has been assumed to have a duration of 12 months. Accordingly, all assets and liabilities have been classified as current or non-current as per the Company's operating cycle and other criteria.

3.28 Current Versus Non-Current Classification

The Company presents assets and liabilities in the balance sheet based on current/ non-current classification.

(a) An asset is current when it is:

(i) Expected to be realised or intended to be sold or consumed in the normal operating cycle

(ii) Held primarily for the purpose of trading

(iii) Expected to be realised within twelve months after the reporting period, or

(iv) Cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current

(b) A liability is current when:

(i) It is expected to be settled in the normal operating cycle.

(ii) It is held primarily for the purpose of trading.

(iii) It is due to be settled within twelve months after the reporting period, or

(iv) There is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period.

All other liabilities are classified as non-current

(c) Deferred tax assets and liabilities are classified as non-current assets and liabilities.

3.29 Recent Accounting Development

Ministry of Corporate Affairs ('MCA') notifies new standards or amendments to the existing standards under Companies (Indian Accounting Standards) Rules as issued from time to time. For the year ended 31st March, 2024, MCA has not notified any new standards or amendments to the existing standards applicable to the Company.

3.30 Others

(i) Liabilities for Goods in transit / capital works executed but not certified are not provided for, pending inspection & acceptance by the Corporation.

(ii) Corporate Office income over expenditure is allocated among the generating units on the basis of sales turn over ratio.

(iii) Dam maintenance cost for the current year has been made based on the bills submitted by DOWR on provisional / actual basis followed by reconciliation.

(iv) Expenditures upto DPR for new projects are charged to P & L A/c (Survey and investigation) and thereafter where the new projects seems to be viable are capitalized.

(v) EMD/ SD of the suppliers/ contractors remained unclaimed beyond 3 years at the reporting date is written back after proper verification. However, if any contractor / supplier claims EMD / Security deposit in future shall be released after proper verification and booked to concerned expenditure in the year of refund.

(vi) The amount paid under CSR head shall be booked in the year of payment.

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ODISHA HYDRO POWER CORPORATION LTD. BBSR

3.31 Statutory Information

(i) The Company does not have any Benami property, where any proceeding has been initiated or pending against the Company for holding any Benami property.

(ii) The Company does not have any charges or satisfaction which is yet to be registered with ROC beyond the statutory period.

(iii) The Company has not traded or invested in Crypto currency or Virtual Currency during the financial year.

(iv) The Company have neither received nor given any fund from or to any person(s) or entity(ies), including foreign entities (Funding Party) with the understanding (whether recorded in writing or otherwise) that the Company shall:
(a) directly or indirectly lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Funding Party (Ultimate Beneficiaries) or
(b) provide any guarantee, security or the like to or on behalf of the Ultimate Beneficiaries.

(v) The Company is in compliance with the number of layers prescribed under clause (87) of section 2 of the Companies Act, 2013 read with the Companies (Restriction on number of Layers) Rules, 2017 (as amended).

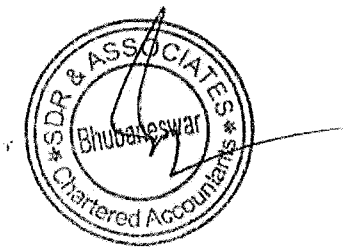
(vi) The Company does not have any transaction which is not recorded in the books of accounts that has been surrendered or disclosed as income during the year in the tax assessments under the Income-tax Act, 1961 (such as, search or survey or any other relevant provisions of the Income-tax Act, 1961.

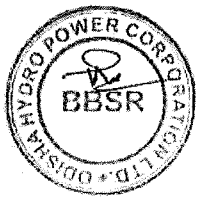
(vii) The Company has not been declared as wilful defaulter by any bank or financial institution or other lender.

3.32 Audit Trail

The Company has used accounting software for maintaining its books of account which has a feature of recording audit trail (edit log) facility and the same has operated throughout the year for all relevant transactions recorded in the software.

3.33 Previous year figures / opening balances have been regrouped or rearranged / re-casted wherever necessary.





Odisha Hydro Power Corporation Limited

Notes to Standalone Financial Statements for the year ended 31st March 2024

(All amounts in Indian rupees, except share data and unless otherwise stated)

4 Property, Plant & Equipment

(INR IN LAKHS)

SL No.	Description	Gross Block				Depreciation					Net Block	
		As to 01.04.2023	Additions	Transfer/ Adj	As at 31.03.2024	Upto 31.03.2023	For the Year	Adjustment	Deletion	Up to 31.03.2024	As at 31.03.2024	As at 31.03.2023
1	Land	10,980.25	5.51	-	10,985.76	136.39	17.05	-	-	153.44	10,832.32	10,843.86
2	Power House Civil Work	14,824.74	198.97	-	15,023.71	10,615.93	11.83	-	-	10,627.76	4,395.95	4,208.81
3	Power House Electric Mechanical Work	1,17,077.87	12,357.28	(584.04)	1,28,851.11	45,404.42	5,186.03	29.32	-	50,619.77	78,231.34	71,673.45
4	Civil Building/ Township	15,079.56	8,535.29	(19.49)	23,595.36	8,397.62	674.72	0.33	(17.54)	9,055.13	14,540.23	6,681.94
5	Vehicles	366.65	52.68	(25.33)	394.00	142.63	25.21	1.64	(6.87)	162.61	231.39	224.02
6	Furniture & Fixtures	213.14	44.90	-	258.04	78.31	20.23	(0.02)	-	98.52	159.52	134.83
7	Office Equipment	672.85	37.57	(2.39)	708.03	331.88	67.50	0.00	(1.30)	398.08	309.95	340.97
8	Misc. Assets	438.74	68.45	-	507.19	160.34	32.56	0.00	-	192.90	314.29	278.40
9	Electrical Installation	459.51	61.61	(0.43)	520.69	113.15	38.00	0.28	(0.02)	151.41	369.28	346.36
10	Water Supply Installation	546.38	26.37	-	572.75	274.58	34.54	-	-	309.12	263.63	271.80
11	Training Course Equipment	29.76	0.28	-	30.04	10.48	1.60	-	-	12.08	17.96	19.28
	Total	1,60,689.45	21,388.91	(631.68)	1,81,446.68	65,665.73	6,109.27	31.55	(25.73)	71,780.82	1,09,665.86	95,023.72

a. (i) Land consists of those transferred from the erstwhile OSEB / State Govt. to the Corporation with effect from 1st April 1996 and procurement of Industrial land from IDCO for construction of training centre and staff quarters. In case of UIHEP, land consists of transfer value of land and reservoir from State Govt. as on 01.04.1996 and subsequent additions at cost after 01.04.1996 to the date of Balance Sheet. Most of the title deeds of all the lands are yet to be registered in favour of the Company. The company is in the process of identifying leasehold and freehold land separately.

(ii) An amount of INR 17.05 Lakhs has been amortised during the year for leasehold land at Chandrasekharpur held by Corporate Office since 16.01.2012. Such amortisation has been made considering the lease period of 90 years.

(iii) Title deeds of the immovable properties consisting of 94.59 acres freehold land and 4.78 acres leasehold land of UKHEP, Bariniput and OHPC Corporate Office respectively are registered in the name of OHPC.

(iv) Apart from above, 2.00 acres of land has been acquired from Govt. of Odisha by OHPC Corporate Office at free of cost as gift.

(v) Energy generated during trail run of Unit -5 & 6 of HHEP, Burla till the completion of scheduled date of commercial operation was billed to GRIDCO and accordingly deducted from the Plant & Machinery and corresponding reduce from current year revenue from operation.

b. (i) The fixed assets registers are maintained on the basis of transfer price of the assets from State Govt. and at cost in respect of the assets procured after the date of transfer.

(ii) The value of fixed assets does not include the value of building and equipment gifted by DFID for the OHPC Training Centre.

(iii) The value of fixed assets includes cost of machinery & vehicles declared surplus / obsolete for which necessary verification and fixing of upset price is in process. Necessary accounting treatment will be made in the subsequent period after final disposal of the same.

(iv) As per the Accounting Policy No. 3.1.(v), Scrap Sale is recognised as Cash basis.

(v) PPE created on Shakti Bhawan for which, though the RoR is not in favour of OHPC but under the control and possession of the company is included in PPE and the said property has been leased out to OCAC for 03 years on monthly rent basis w.e.f 01.11.2023.

c. Additional disclosure to Property, Plant & Equipment (PPE): **Referred to Annexure-I (A &B)**

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ODISHA HYDRO POWER CORPORATION LTD. * BBSR

(INR IN LAKHS)

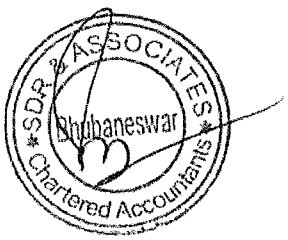
Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
5	**Capital Work-in-Progress**		
	(i) Capital Work-in-Progress- Tangible		
(a)	Building	528.21	205.64
(b)	Road, Bridge, Culvert & Other Civil Works	29.47	143.33
(c)	Plant & Machinery (Generation)	8,117.50	4,589.89
(d)	Hydr. Works, Dams, Tunnels & Pen Stock	2,142.39	182.97
(e)	Electrical Installations	-	0.23
(f)	Capital WIP- PSHEP	2,280.58	2,280.58
(g)	Sindol Project	28.78	28.78
(h)	Office Building	-	6,000.00
(i)	Staff Quarters	1,202.58	821.03
(j)	Kharag HEP	563.03	216.33
(k)	Pump Storage (Indravati)	574.15	430.55
(l)	Training Centre (Hostel)	1,085.96	545.23
(m)	Pump Storage - BHEP.	6.24	-
(n)	Pump Storage - UKHEP	8.69	-
		16,567.58	**15,444.56**
	Less: Provision for Loss on Impairment (Sindol-1 Project)	28.78	28.78
	Less: Provision for Loss on Impairment (PSHEP-Kalimela)	2,280.58	2,280.58
		14,258.22	**13,135.20**
	(ii) Intangible Asset under Development		
	ERP	43.44	43.44
		43.44	**43.44**
	Additional Disclosure to Capital Work-in-Progress (CWIP): **Refer Annexure-II (A to H)**		
	Non-Current Financial Asset		
6	**Non Current Investments**		
	Investments in Equity Instruments;		
A.	**Subsidiary Company - Unquoted**		
(a)	**Green Energy Development Corporation of Odisha Ltd. (GEDCOL)** (A 100% Subsidiary Company of OHPC) 503,200 fully paid Equity Shares of INR 1000/-each	5,032.00	5,032.00
B.	**In Joint Ventures**		
(a)	**Odisha Thermal Power Corporation Limited (OTPCL)** (A Joint Venture Company between OMC & OHPC with 50% each Share Holding) 17,22,047 shares of INR 1000/- each (Pervious year holding was 17,22,047 share of INR 1000 each)	17,220.47	17,220.47
(b)	**Baitarni West Coal Company Limited (BWCCL)** (A Joint Venture Company between OHPC, GPCL & KSEB with 1/3rd each share holding) 100,000 shares of INR 1000/- each was subscribed initially, as per NCLT order dated 29.11.2023 subscribed capital reduced to INR 600 lakhs, out of which OHPC hold 1/3rd share amounting to INR 200 Lakhs (1,00,000 Share of INR 200 each)	200.00	1,000.00
		22,452.47	**23,252.47**
	(a) Aggregate amount of quoted investments and market value thereof;		
	(b) Aggregate amount of unquoted investments;	**22,452.47**	**23,252.47**
	(c) Aggregate amount of impairment in value of investments.		
7	**TRADE RECEIVABLES - FINANCIAL ASSET**		
	Unsecured , considered good		
	Sundry Debtor for Sale of Power	3,266.81	3,472.17
	Sundry Debtor for Others	6.96	6.96
	Less : Provision for doubtful Trade Receivables > 1 Year	(6.96)	(6.96)
		3,266.81	**3,472.17**
	Additional Disclosure to Trade Receivable: **Refer to Annexure-III (A & B)**		

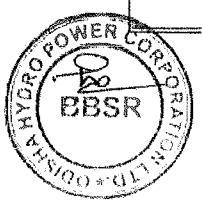
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ODISHA HYDRO POWER CORPORATION LTD. BBSR

(INR IN LAKHS)

Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
8	**Loans**		
	(a) Security Deposits		
	Unsecured , considered good	34.84	34.88
	(b) Loans to Related Parties		
	Unsecured, considered good		
	GEDCOL(100% Subsidiary Company) !	1,787.67	-
	! As per the Minutes of Meeting held on 11.09.2023, the inter Corporate loan shall be repaid by GEDCOL with interest @ 6% on monthly reducing balance method in 60 instalments.		
	Accordingly, the amount received after 01 operating cycle was classified as Non-Current and remaining amount was classified as Current and shown at Note No.- 15(b)		
		1,822.51	**34.88**
9	**Other Financial Assets**		
	(i) Debt Securitization of GRIDCO Dues	43,845.83	54,162.50
	(ii) Balance with Bank in deposit accounts (More than 12 months)	7,700.00	24,700.00
	(iii) Held as margin money in Fixed Deposit (More than 12 months)	1,000.00	7,173.44
	The principal amounting to INR 61,900.00 Lakhs along with interest shall be paid by GRIDCO in 72 equated monthly instalments from July 2023. Accordingly, GRIDCO repaid INR 7,737.50 Lakhs during FY 2023-24 & balance outstanding amounting to INR 54,162.50 Lakhs was classified as Non-Current & Current.		
	Out of total outstanding receivable from GRIDCO against Debt Securitization of INR 54,162.50 Lakhs, INR 43,845.83 Lakhs shown as Non-Current & balance amount classified as Current and shown at Note No.-16		
	OHPC has pledged (iii) Fixed deposit of INR 1,000 Lakhs with HDFC, Jharpada Branch towards margin money for opening of Letter of Credit in favour of M/s Voith Hydro Pvt. Limited towards R & M work of HHEP, Burla and CHEP, Chiplima.		
		52,545.83	**86,035.94**
10	**Other Non - Current Assets**		
(a)	**Capital Advances**		
	Unsecured, considered good	2,979.50	2,840.54
	PSHEP-Kalimela	12.52	12.52
	Less: Provision for PSHEP-Kalimela	(12.52)	(12.52)
(b)	**Advances Other than Capital Advances**		
	Unsecured, Considered good		
	(a) Advance to Supplier	100.10	-
	(b) Advance to Staff (Others)	18.64	-
	(c) Advance to Staff (EV)^	31.96	-
	^As per Circular No.-4897, dated 07.07.2023, OHPC implemented the Electric Vehicle Advance Policy, 2023 vide 171st Board of Directors meeting held on 28.03.2023. The advance will be interest free and will be granted to the eligible employees for purchase of Electrical Two-Wheeler & Electrical Four-Wheeler vehicles. Maximum advance amount will be 75% cost of the Electrical vehicle subject to repaying capacity, limited to INR 2 lakhs & INR 15 lakhs for Electrical Two-Wheeler & Electrical Four-Wheeler vehicles respectively.		
	The Electrical vehicle advance will be recovered in 100 (Maximum) consecutive monthly instalments.		
	The outstanding advances classified as Non-Current when the amount will be recovered after completion of 01 operating cycle and those advances are to be recovered within 01 operating cycle is classified as Current & shown at Note No.- 17(a) (v)		
		3,130.20	**2,840.54**





(INR IN LAKHS)

Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
11	**Inventories**		
(a)	Stores and Spares	8,347.80	6,939.31
(b)	Unserviceable inventory	124.13	124.17
(c)	Inventory in Transit	-	-
	-Stores & Spares	-	-
	Less : Provision for Loss of Inventory	(323.89)	(268.07)
		8,148.04	**6,795.41**
	Current Financial Asset		
12	**Trade Receivable**		
(a)	Outstanding for a period exceeding six months from due date of payment		
	Unsecured , considered good	-	-
	Unsecured, considered doubtful	-	-
	Less : Provision for doubtful Trade Receivables > 6 months	-	-
(b)	Outstanding for a period less than six months from due date of payment		
	Unsecured , considered good	3,731.64	6,250.21
	Additional Disclosure to Trade Receivable: **Refer to Annexure-III (A & B)**	**3,731.64**	**6,250.21**
13	**Cash and Cash Equivalents**		
(a)	Balances with Banks		
	(i) Balance with Bank in Deposit Accounts		0.13
	(ii) Other Bank Balance	4,134.53	3,022.03
(b)	Cash in Hand	2.92	1.96
(c)	Others		
	(i) Postal Orders & Stamps	0.11	0.19
		4,137.56	**3,024.31**
14	**Bank Balance Other than Cash and Cash Equivalents**		
	(i) Balance with Bank in deposit accounts (3 Month to 12 months)	2,34,754.80	1,85,098.42
	(ii) Held as margin money in Fixed Deposit (Upto 12 months)	2,645.92	4,533.96
		2,37,400.72	**1,89,632.38**
	OHPC has pledged (ii) (a) Fixed deposit of INR 2500.00 Lakhs with Punjab & Sind Bank, Ashok Nagar Branch, Bhubaneswar towards its 1/3rd share of margin for facilitating the JV company BWCCL to provide BG of INR 7,500.00 Lakhs in favour of Ministry of Coal, Govt. of India. (b) Fixed deposit of INR 145.92 Lakhs with AXIS Bank, Saripur Branch towards margin money for opening of Letter of Credit in favour of M/s Voith Hydro Pvt. Limited towards R & M work of UIHEP, Indravati.		
15	**Loans**		
(a)	**Security Deposits**		
	Deposit with Others	227.26	268.55
(b)	**Loans to Related Parties**		
	Unsecured, considered good		
	GEDCOL(100% Subsidiary Company)	457.71	3,200.00
		684.97	**3,468.55**
16	**Other Financial Assets**		
	Claims Receivables	2,652.57	2,692.52
	Receivable from GRIDCO on Machhakund	1,150.63	1,399.38
	Dam Share Receivable from W.R.Department on accounts of Indravati	6,444.77	6,201.80
	Interest Accrued but not due on Bank Deposit	9,161.75	5,712.60
	Interest Receivable from Others	10.27	2,103.87
	Other Receivable from Staff	0.85	1.22
	Sales Other Than Power	1.04	-
	Receivable on A/C of Rent (Shakti Bhawan) ##	265.75	-
	Debt Securitization of GRIDCO Dues	10,316.67	7,737.50
	Receivable from DoWR	234.98	
	## As per the Lease agreement between OHPC & Odisha Computer Application Centre (OCAC), OHPC let out 1,00,000 sq. ft. (approx.) space at Tower 'C" at Shakti Bhawan to OCAC on monthly rental INR 45.04 Lakhs from Nov' 2023.Accordingly, the rental income INR 225.21 Lakhs (excl. GST) shown at Note No.-31.		
		30,239.28	**25,848.89**

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ODISHA HYDRO POWER CORPORATION LTD. BBSR

(INR IN LAKHS)

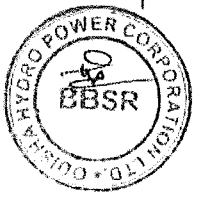
Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
17	**Other Current Assets**		
	Capital Advances		
	Unsecured, considered good	-	941.67
	Advances Other than Capital Advances		
(a)	**Other Advances**		
	(i) Advance to Suppliers	708.98	789.42
	(ii) Advance to Contractors	5,045.25	3,487.01
	(iii) Advance to Others	311.03	1,299.61
	(iv) Advance to Staffs (Others)	264.59	266.71
	(v) Advance to Staffs (EV)#	5.63	-
	#The outstanding advances classified as Current when the amount will be recovered within 01 operating cycle.		
(b)	**Other Advances**		
	(i) Advance Income Tax (TDS)	13,008.00	11,425.64
	(ii) Advance Income Tax (TCS)	11.17	10.83
	Others		
	(i) OHPC Rehabilitation Assistance Trust Fund	0.10	0.10
	(ii) Pre-paid Expenses	331.70	292.66
	(iii) Other Misc. Asset	9.99	64.62
	(iv) OHPC Gratuity Fund	207.98	51.88
	(v) Unserviceable Goods/ Obsolete Assets	351.98	351.98
		20,256.40	**18,982.13**
18	**Equity Share Capital**		
(a)	**Authorized Share Capital**		
	Equity Shares of INR 1000/- each (Nos)	200.00	200.00
	Equity Shares of INR 1000/- each (INR)	2,00,000.00	2,00,000.00
(b)	**Issued, Subscribed and Fully Paid up**		
	Equity Shares of INR 1000/- each (Nos)	83.32	83.32
	Equity Shares of INR 1000/- each (INR)	83,319.07	83,319.07
		83,319.07	**83,319.07**
(c)	**Reconciliation of Shares at the beginning and at the end of reporting period (Issued)**		
	Equity Shares		
	At the beginning of the year in Nos	83.32	83.32
	Issued during the year in Nos	-	-
	Outstanding at the end of the year in Nos	**83.32**	**83.32**
	Equity Shares		
	At the beginning of the year in INR	83,319.07	83,319.07
	Issued during the year in INR	-	-
	Outstanding at the end of the year in INR	**83,319.07**	**83,319.07**
(d)	**Shares held by each share holder holding more than 5 % shares**		
	Governor of Odisha represented by DoE (Nos)		
	% of holding	**99.9999%**	**99.9999%**
(e)	**Shares issued for consideration other than cash (last five years)**		
(f)	**Terms / Rights attached to equity shares**		
	The company has only one class of Equity Shares having par value of INR 1,000 per share. 99.9999% of the shares are held by Government of Odisha represented by DoE.		
(g)	**Share holding of Promoters as at 31st March 2024**		

Promotor Name	No of shares	% of Total share	% Changed During the year
Governor of Odisha	8331901	99.9999%	Nil

Share holding of Promoters as at 31st March 2023

Promotor Name	No of shares	% of Total share	% Changed During the year
Governor of Odisha	8331901	99.9999%	Nil





(INR IN LAKHS)

Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
19	**Other Equity**		
(i)	**Other Reserves**		
	(a) Capital Reserve		
	Balance as per last financial statements-Dam sharing reserve	10,000.00	10,000.00
	Add: Transfer from surplus balance in Profit & Loss	-	-
	Closing balance	**10,000.00**	**10,000.00**
	Reserves Representing Unrealized Gains / Losses		
	(a) Equity instruments through Other Comprehensive Income	-	-
	Less: Deferred Tax	-	-
	(b) Remeasurements of the net defined benefit plans	(25,606.65)	(25,317.40)
	Add: During the year	(3,267.53)	(386.54)
	Less: Deferred Tax (OCI)	822.37	97.29
	Closing Balance	**(28,051.81)**	**(25,606.65)**
(ii)	Retained Earnings		
(a)	Surplus at the beginning of the year	1,76,899.47	1,41,489.47
	Add : Profit for the Year	33,184.89	39,968.68
	Less : Transfer to General Reserve	-	-
	Less : Dividend Paid	(13,940.46)	(4,558.68)
		1,96,143.90	**1,76,899.47**
	Total	**1,78,092.09**	**1,61,292.82**
	Non - Current : Financial Liabilities		
20	**Borrowings**		
	Term Loans		
	From Other Parties - Unsecured		
(a)	**Indian rupee loan from Government of Odisha**		
	UIHEP- TL (1)	6,916.90	9,939.90
	As per Dept. of Energy, Govt. of Odisha order No.3060 dtd.31.03.2015 and subsequent DoE Notification No.5843 dtd.03.07.2015 the total loan of INR 82,146.90 Lakhs is divided into two parts i.e. INR 29,885.00 Lakhs as equity included in Note-18 and balance of INR 52,261.90 Lakhs as loan with 7% interest payable w.e.f. 01.04.2006. This loan is payable in 15 equal annual instalments w.e.f. 2010-11 with 4 years moratorium. In compliance to OERC tariff order dated 20.03.20213, OHPC, out of the said loan amount of INR 52,261.90 Lakhs, repaid INR 42,322.00 Lakhs i.e @ INR 3,023 Lakhs per annum till 31.03.2024 & balance loan amount of INR 6,916.90 Lakhs is shown as above and balance loan amount of INR 3,023.00 Lakhs is shown in Note 25 under borrowings from other parties.		
	There is no default as on balance sheet date in repayment of borrowings and interest will be paid after repayment of principal is over as approved by Hon'ble OERC in tariff order dtd.20.03.2013.		
(b)	**Loan for Old Project**	76,620.00	76,620.00
	As per Dept. of Energy. Govt. of Odisha order No. 3060 dtd.31.03.2015 and subsequent DoE Notification No.5843 dtd.03.07.2015, the total bond amount of INR 76,620.00 Lakhs issued as per original Notification No.SRO250 dtd.01.04.1996, is now treated as loan @ 7% interest which is payable from the Financial Year 2015-16 & shown accordingly i.e.INR 76,620.00 Lakhs loan as above and INR 48,270.60 Lakhs as interest payable to State Govt. of Odisha is shown at current-other financial liabilities in Note-27(k).		
	Government notification is silent regarding term of repayment of loan, OHPC considers 15 years equal instalment as repayment of loan in line with UIHEP loan.		
		83,536.90	**86,559.90**

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(INR IN LAKHS)

Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
21	**Other Financial Liabilities**		
	Security Deposits from Contractors/ Suppliers	103.94	9.06
		103.94	**9.06**
22	**Provisions**		
	(a) Provision for Leave Salary	5,493.96	5,762.91
	(b) Provision for Ex-Gratia (06 Month Salary) (Retirement Benefit)	514.42	465.07
		6,008.38	**6,227.98**
23	**Deferred Tax Liabilities (Net)**		
	Deferred Tax Liabilities		
	Deferred Tax Liabilities / (Assets) at the beginning of the year	4,217.03	4,670.57
	Deferred tax Liabilities / (Assets) during the year on account of temporary difference	600.16	(453.54)
	Deferred Tax Liabilities / Assets at the end of the year	**4,817.19**	**4,217.03**
24	**Other Non-Current Liabilities**		
	Grants in aid-from Government-Deferred Income *	1,509.97	1,584.59
		1,509.97	**1,584.59**
	GRANTS IN AID-FROM GOVERNMENT-DEFERRED INCOME		
	As at the beginning of the year	1,584.59	1,649.06
	Add: Received during the year	4.02	3.90
	Less: Related to Statement of Profit and Loss	78.64	68.37
	Balance as at the year end	1,509.97	1,584.59
	*** Grant includes:-**		
	(a) PSDF Grant received during the year was Nil, However interest earned on PSDF deposits upto 31st March, 2024 was INR 4.02 Lakhs.		
25	**Borrowings**		
	From Other Parties		
	Loans repayable on demand (unsecured)-from Government of Odisha PSHEP*	1,430.00	1,430.00
	Current maturities of long term debt	3,023.00	3,023.00
		4,453.00	**4,453.00**
	*No interest is payable on PSHEP loan since 01.04.2001 as per the decision of Govt. vide DoE Notification dt.29.01.2003 & DoE Letter No. 2404 dt. 21.03.2011.		
26	**Trade Payables**		
	Trade Payables - Due to Others		
	Sundry Creditors for Supply of Materials	1,464.55	1,411.34
	Sundry Creditors for Works	904.65	491.44
	Sundry Creditors for Others	116.97	36.52
		2,486.17	**1,939.30**
	Additional Disclosure to Trade Payable: **Refer to Annexure-IV (A & B)**		
	Current : Financial Liabilities		
27	**Other Financial Liabilities**		
(a)	Employees Liabilities	17,571.47	17,538.47
(b)	OHPC PF Trust	111.98	59.26
(c)	Liability to Others	22,982.66	13,842.91
(d)	Security Deposit from Contractors / Suppliers	740.37	580.63
(e)	EMD from Contractors / Suppliers	25.33	25.01
(f)	Other Security Deposit	8.20	7.94
(g)	Retention Money / withheld A/C	4,573.94	3,260.59
(h)	Payable to APGENCO on Machhakund A/C *	1,144.09	21.84
(i)	Security Deposit from Employees	4.60	4.56
(j)	Interest Payable on UIHEP Govt. Loan	48,709.58	47,802.18
(k)	Interest on State Government Loan (Old Projects)	48,270.60	42,907.20
		1,44,142.82	**1,26,050.59**

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(INR IN LAKHS)

Note	Particulars	As at 31st March 2024 Ind AS	As at 31st March 2023 Ind AS
	*OHPC received an amount of INR 4,310.09 Lakhs in 2023-24 from GRIDCO on account of O&M charges, Advance against working capital and additional 20% share towards Machhkund . So the amount shown as payable to APGENCO comes to INR 1,144.09 Lakhs as on 31.03.2024. As the Odisha share of assets and liabilities have not been quantified and transferred to OHPC, the receipts and payments on account of Machhakund Project are not shown in the statement of Profit and Loss account of OHPC. FY 2023-24 / FY 2022-23 O & M Cost: INR 3,179.94 Lakhs / INR 2,856.18 Lakhs		
28	**Other Current Liabilities**		
	Advance against Sale of Scrap	85.02	87.72
		85.02	**87.72**
29	**Provisions**		
(a)	Provision for Employee Benefits		
	(i) Provision for Arrear Salary	6.77	158.35
	(ii) Provision for Bonus	0.15	0.16
	(iii) Provision for Leave Encashment	1,213.31	1,028.14
	(iv) Provision for Ex-Gratia (06 Month Salary) (Retirement Benefit)	63.98	37.39
(b)	Other Provisions		
	(i) Provision for others	1,935.04	864.99
	(ii) Provision for Loss of Asset	10.15	10.15
		3,229.40	**2,099.18**

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ODISHA HYDRO POWER CORPORATION LTD. * BBSR

(INR IN LAKHS)

Note No.	Particulars	For the year ended 31st March 2024 Ind AS	For the year ended 31st March 2023 Ind AS
30	**Revenue from Operations**		
	Revenue from Sale of Electricity	53,269.25	49,641.89
	Total (A)	**53,269.25**	**49,641.89**
	Other Operating Revenue	515.97	293.18
	Total (B)	515.97	293.18
		53,785.22	**49,935.07**
	Sales Reconciliation		
	Gross Sales	54,148.98	49,957.15
	Revised Sales for the FY 2021-22	-	(15.45)
	Rebate Allowed	(879.73)	(299.81)
	Net Sale - As per Note No. 30 Total (A)	**53,269.25**	**49,641.89**
31	**Other Income**		
	Interest on Employees Advances	-	0.02
	Interest on Bank Deposits	18,904.88	8,750.85
	Interest on Others	164.45	566.55
	Interest on Advance to Contractors	97.78	-
	Interest on Debt Securitization	14,250.34	-
	Sale of Tender Paper	60.75	54.86
	House Rent Recovery	36.56	37.78
	Vehicle Charges Recovery	1.09	1.35
	Electricity Charges Recovery – Employees	4.22	4.99
	Electricity Charges Recovery – Contractors / Others	23.42	11.32
	Guest House Charges Recovery	5.05	3.98
	Sale of Scrap	66.17	180.58
	Amortization of -GRANT-IN-AID	78.64	68.37
	Other Miscellaneous Receipt	94.58	358.72
	Dividend From Subsidiary /JV / Associates	-	7,044.01
	Recovery from Penalties	548.02	35.55
	Receipt from RTI	0.00	0.05
	Insurance Claim Received	124.79	29.00
	Forfeiture of EMD/SD	84.10	62.79
	Dam Share from DOWR	242.97	1,080.05
	Profit On sale of Inventory	-	0.01
	Provisions Written Back	59.01	-
	Profit on Sale of Asset	-	93.75
	Reimbursement from GRIDCO on A/C of Income Tax	729.03	206.00
	Rent (Shakti Bhawan)*	225.21	
	*Refer Note No.- 16		
		35,801.06	**18,590.58**
32	**Repair & Maintenance Expenses**		
	R&M to Plant and Machinery	1,855.39	1,537.30
	R&M to Building	1,087.95	1,197.95
	R&M to Civil Works	806.10	700.14

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(INR IN LAKHS)

Note No.	Particulars	For the year ended 31st March 2024 Ind AS	For the year ended 31st March 2023 Ind AS
	R&M to Hydraulic Works	17.28	65.47
	R&M to Line Cables Networks	54.36	74.67
	R&M to Vehicles	10.19	18.27
	R&M to Furniture & Fixtures	1.98	1.08
	R&M to Office Equipments	15.96	8.87
	R&M to Electrical Installation	213.84	166.24
	R&M to Water Supply Installation	131.32	108.58
	R&M to Misc. Assets	0.21	-
	R&M to Substation Equipments	135.78	36.73
	R&M to Dam Maintenance	3,380.94	3,011.22
		7,711.30	**6,926.52**
33	**Operation Expenses**		
	Power and Fuel	455.69	298.86
	Insurance Charges	414.62	283.40
	Oil, Lubricant & Consumables	131.97	135.22
	Transportation Charges	-	0.03
	Hire Charges of Vehicles/ Machineries	283.77	257.18
	Refreshment(Operation)	3.07	2.48
	Other Operational Expenses	0.95	30.81
	Watch & Ward of Power House	968.49	713.85
		2,258.56	**1,721.83**
34	**Employee Benefits Expenses**		
	Salaries & Allowances	5,060.78	5,324.37
	Wages & Allowances	5,248.61	5,655.25
	Bonus	0.65	0.16
	Payment to Apprentices & Trainees	645.33	127.48
	Contribution to Provident Fund & Charges	856.17	826.87
	Terminal Liability Expenses	5,166.78	5,270.92
	Employees Welfare Expenses	381.78	513.23
	Other Employee Cost	1,220.94	1,061.58
		18,581.04	**18,779.86**
35	**Administrative & General Expenses**		
	Rent	124.85	114.69
	Rates and Taxes	85.77	11.85
	License & Regn. Expenses	0.60	0.11
	Fees & Subscriptions	22.04	19.00
	Insurance Charges	4.37	8.30
	Communication Expenses	41.17	74.68
	Travelling & Conveyance Expenses	314.43	274.27
	Printing & Stationery	76.72	78.56
	Bank Charges	0.15	0.14
	Electricity & Water Charges	63.71	159.01
	Legal Expenses	56.37	92.08
	Professional & Consultancy Charges	27.03	27.03

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HYDRO POWER CORPORATION BBSR

(INR IN LAKHS)

Note No.	Particulars	For the year ended 31st March 2024 Ind AS	For the year ended 31st March 2023 Ind AS
	Audit Fees & Expenses	58.68	55.56
	Advertisement & Publicity	129.32	173.77
	Training, Seminar & Conference	140.18	90.33
	Office Upkeep & Maintenance	32.01	30.41
	Watch & Ward Charges	407.52	287.47
	Repair & Maintenance Others	-	0.18
	Recruitment Expenses	179.45	231.52
	Meeting Expenses	26.63	23.27
	Transit House Expenses	25.13	27.87
	Electrical Accessories	0.03	0.38
	Loss of Assets	3.41	240.49
	Survey & Inspection Exp. for Pump Storage Project	10.99	3.26
	Loss on Inventories	55.82	256.01
	Loss of Asset on fire/ Others	-	0.50
	Corporate Social Responsibility Expenses	88.54	119.20
	Other Administrative & General expenses	1,058.02	885.32
	Loss on Impairment	-	2,293.09
	Income Tax Reimbursement to GRIDCO	1,194.00	-
		4,226.94	**5,578.35**
36	**Finance Costs**		
	Interest on Govt. Loan (UIHEP)	907.40	1,119.02
	Interest on Govt. Loan - Old Power House	5,363.40	5,363.40
		6,270.80	**6,482.42**
37	**Depreciation and Amortization Expenses**		
	Depreciation of Tangible Assets	6,140.82	7,716.02
		6,140.82	**7,716.02**
38	**Exceptional Items**		
	Profit on Sale of Investment (OPGC &OCPL)	-	(24,840.68)
		-	**(24,840.68)**
	Other Comprehensive Income	(3,267.53)	(386.55)
		(3,267.53)	**(386.55)**
39	**Payments to Auditor**		
	Statutory Audit Fees (Excl. of GST)	7.50	7.50
	Statutory Audit Expenses	4.62	2.85
	Tax Audit Fees (Excl. of GST)	2.00	2.00
	Other Audit Fees	35.11	34.30
	Other Audit Expenses	9.45	8.91
		58.68	**55.56**

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40 Income Tax Expense

i) Income Tax recognised in Profit or Loss

(INR IN LAKHS)

a)

Current Tax Expenses	**31st March 2024**	**31st March 2023**
Current Year	9,789.40	6,548.91
Deferred Tax Expenses		
Origination and reversal of Temporary differences	**1,422.53**	**(356.26)**
Total Income Tax Expenses	**11,211.93**	**6,192.65**

ii) Income Tax recognised in OCI

	31st March 2024	**31st March 2023**
Remeasurements of defined benefit Plans	(822.37)	(97.29)
Total Income Tax Expense relating to OCI items	**(822.37)**	**(97.29)**

b) **Reconciliation of Tax Expense and Accounting Profit**

	31st March 2024	**31st March 2023**
Accounting Profit before Tax from continuing operations	**44,396.82**	**46,161.33**
Accounting Profit before tax from discontinued operations		-
Accounting Profit before Tax	**44,396.82**	**46,161.33**
Rate of Income Tax applicable to OHPC (Opting Sec.115BAA)	25.168%	25.168%
Tax using the Company's domestic Tax Rate	11,173.79	11,617.88
Income from capital gain tax separately	-	(24,518.97)
Utilization of previously unrecognized Tax losses		-
Exceptional item not considered for Tax purpose		-
Income not considered for Tax purpose(Deduction allowed)	(67.56)	(7,044.01)
Expenses not allowed for Tax purpose	88.54	119.20
Carried forward Tax Losses Utilized		-
Other Temporary Differences	(5,521.58)	1,579.25
At the effective Income Tax Rate of 25.168%	(1,384.39)	(7,516.30)
Long-term Capital Gain	-	2,447.33
Income Tax reported in the statement of Profit and Loss	9,789.40	6,548.91
Income Tax attributed to discontinued Operations	-	-
Total	9,789.40	6,548.91

c) **Deferred Tax Assets and Liabilities**

Deferred Tax relates to the following:

	31st March 2024	**31st March 2023**
Fixed Asset	606.07	128.46
Leave	61.42	92.42
Pension	755.04	
On OCI Component	(822.37)	(97.29)
Provision for Impairment	-	(577.13)
Total	**600.16**	**(453.54)**

d) **Reconciliation of Deferred Tax Assets / Liabilities**

	31st March 2024	**31st March 2023**
Opening Balance	4,217.03	4,670.57
Deferred Tax recognized for the first time		
Tax Income/Expense during the period recognised in Profit or Loss	600.16	(453.54)
Tax Income/Expense during the period recognised in Profit or Loss from discontinued operations		-
Closing Balance	4,817.19	4,217.03

41 Earnings Per Share:

The Earnings Per Share (Basic and Diluted) are as under:		
Particulars	**31st March 2024**	**31st March 2023**
Opening Balance (A)	83.32	83.32
Weighted Average Number of Equity Shares Issued during the year (B)	-	-
Weighted Average Number of Equity Shares Outstanding for the Year (C=A+B)	83.32	83.32
Profit for the year attributable to Equity Shareholders (D)	**33,184.89**	**39,968.68**
EPS (E=D/C)	**398.29**	**479.71**

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ODISHA HYDRO POWER CORPORATION LTD. BBSR

42 1. Financial Instruments

A. Accounting Classification and Fair Values

(INR IN LAKHS)

31st March 2024 INR	Carrying Amount FVTPL	FVTOCI	Amortized Cost*	Total	Fair Value Level 1	Level 2	Level 3	Total
Financial Assets								
Cash and Cash Equivalents	-	-	4,137.56	4,137.56	-	-	-	4,137.56
Bank Balance other than above	-	-	2,37,400.72	2,37,400.72				2,37,400.72
Non- Current Financial Asset: Loans	-	-	1,822.51	1,822.51	-	-	-	1,822.51
Current Financial Assets: Loans	-	-	684.97	684.97	-	-	-	684.97
Trade and Other Receivables	-	-	6,998.44	6,998.44	-	-	-	6,998.44
Other Non Current Financial Asset	-	-	52,545.83	52,545.83	-	-	-	52,545.83
Other Current Financial Asset	-	-	30,239.28	30,239.28	-	-	-	30,239.28
	-	**-**	**3,33,829.31**	**3,33,829.31**	**-**	**-**	**-**	**3,33,829.31**
Financial liabilities								
Long Term Borrowings	-	-	83,536.90	83,536.90	-	-	-	83,536.90
Short Term Borrowings	-	-	4,453.00	4,453.00	-	-	-	4,453.00
Trade and Other Payables	-	-	2,486.17	2,486.17	-	-	-	2,486.17
Other Non-Current Financial Liabilities	-	-	103.94	103.94	-	-	-	103.94
Other Current Financial Liabilities	-	-	1,44,142.82	1,44,142.82	-	-	-	1,44,142.82
	-	**-**	**2,34,722.83**	**2,34,722.83**	**-**	**-**	**-**	**2,34,722.83**

31st March 2023 INR	Carrying Amount FVTPL	FVTOCI	Amortized Cost*	Total	Fair Value Level 1	Level 2	Level 3	Total
Financial Assets								
Cash and Cash Equivalents	-	-	3,024.31	3,024.31	-	-	-	3,024.31
Bank Balance other than above	-	-	1,89,632.38	1,89,632.38	-	-	-	1,89,632.38
Non- Current Financial Asset: Loans	-	-	34.88	34.88	-	-	-	34.88
Current Financial Assets: Loans	-	-	3,468.55	3,468.55	-	-	-	3,468.55
Trade and Other Receivables	-	-	9,722.38	9,722.38	-	-	-	9,722.38
Other Non Current Financial Asset	-	-	86,035.94	86,035.94	-	-	-	86,035.94
Other Current Financial Asset	-	-	25,848.89	25,848.89	-	-	-	25,848.89
	-	**-**	**3,17,767.33**	**3,17,767.33**	**-**	**-**	**-**	**3,17,767.33**
Financial Liabilities								
Long Term Borrowings	-	-	86,559.90	86,559.90	-	-	-	86,559.90
Short Term Borrowings	-	-	4,453.00	4,453.00	-	-	-	4,453.00
Trade and Other Payables	-	-	1,939.30	1,939.30	-	-	-	1,939.30
Other Non-Current Financial Liabilities	-	-	9.06	9.06	-	-	-	9.06
Other Current Financial Liabilities	-	-	1,26,050.59	1,26,050.59	-	-	-	1,26,050.59
	-	**-**	**2,19,011.85**	**2,19,011.85**	**-**	**-**	**-**	**2,19,011.85**

** All the Financial Assets and Liabilities has been measured at amortized Cost at Balance Sheet date. The carrying value approximates the Fair Value.*

B. Measurement of Fair Values

The table shown above analyses financial instruments carried at fair value, by valuation method. The different levels have been defined below:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices).

- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

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43 Financial Risk Management Objective and Policies

The Company's principal financial liabilities comprise loans and borrowings in domestic currency, trade payables and other payables. The main purpose of these financial liabilities is to finance the Company's operations. The Company's principal financial assets include investments, loans, trade and other receivables, and cash and short-term deposits that derive directly from its operations.

The Company is exposed to the following risks from its use of financial instruments:
- Credit risk
- Liquidity risk
- Interest rate risk
- Market risk

The Company's board of directors has overall responsibility for the establishment and oversight of the Group's risk management framework. This note presents information about the risks associated with its financial instruments, the Company's objectives, policies and processes for measuring and managing risk, and the Company's management of capital.

Credit Risk

The Company is exposed to credit risk as a result of the risk of counterparties defaulting on their obligations. The Company's exposure to credit risk primarily relates to investments, accounts receivable and cash and cash equivalents. The Company monitors and limits its exposure to credit risk on a continuous basis. The Company's credit risk associated with accounts receivable is primarily related to party not able to settle their obligation as agreed. To manage this the Company periodically reviews the financial reliability of its customers, taking into account the financial condition, current economic trends and analysis of historical bad debts and ageing of accounts receivables.

Trade Receivables

Trade receivables represent the most significant exposure to credit risk. The Company extends credit to customer in normal course of business. The Company monitors the payment track record of the customer. Outstanding customer receivables are regularly monitored. The Company evaluates the concentration of risk with respect to trade receivables as low, as its customers are mainly state government authorities and operate in largely independent markets. The tariff allows the company to raise bills on beneficiaries for late-payment surcharge, which adequately compensates the Company for time value of money arising due to delay in payment. Further, the fact that beneficiaries are primarily State Governments/ State Discoms and considering the historical credit loss experience for trade receivables, the Company does not envisage either impairment in the value of receivables from beneficiaries or loss due to time value of money due to delay in realization of trade receivables. However, the Company assesses outstanding trade receivables on an ongoing basis considering changes in operating results and payment behaviour and provides for expected credit loss on case-to-case basis. As at the reporting date, company does not envisage any default risk on account of non-realization of trade receivables. Accordingly, the Company has not applied the practical expedient of calculation of expected credit losses on trade receivables using a provision matrix.

Investment

Investments primarily includes investments in group companies and are subject to limited risk of changes in value of credit risk.

Cash and Cash Equivalents

Cash and cash equivalents comprise cash in hand and deposits which are readily convertible to cash. These are subject to insignificant risk of change in value or credit risk.

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

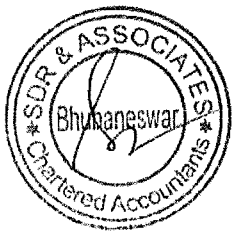
	(INR IN LAKHS)	
	31st March 2024	31st March 2023
Trade and Other Receivables	6,998.45	9,722.38
Investments	22,452.47	23,252.47
Cash and Cash Equivalents	4,137.56	3,024.31

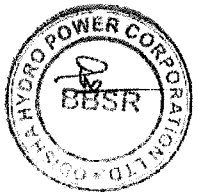
Ageing Analysis (Trade Receivables)	(INR IN LAKHS)	
	31st March 2024	31st March 2023
Upto 3 months	3,731.64	6,250.21
3-6 months	-	-
More than 6 months	3,266.81	3,472.17
	6,998.45	**9,722.38**

No significant changes in estimation techniques or assumptions were made during the reporting period.

Liquidity Risk

The Company is exposed to liquidity risk related to its ability to fund its obligations as they become due. The Company monitors and manages its liquidity risk to ensure access to sufficient funds to meet operational and financial requirements. The Company has access to credit facilities and monitors cash balances daily. In relation to the Company's liquidity risk, the Company's policy is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions as they fall due while minimizing finance costs, without incurring unacceptable losses or risking damage to the Company's reputation.





Financing Arrangements

The Company has access to following undrawn borrowing facilities at the end of the reporting period:

	31st March 2024	31st March 2023
At Fixed Rate	-	-

Maturities of Financial Liabilities

The contractual undiscounted cash flows of financial liabilities are as follows:

(INR IN LAKHS)

As at 31 March 2024	Less than 1 year	1-5 years	>5 years	Total
Long Term Borrowings	3,023.00	12,092.00	71,444.90	86,559.90
Short Term Borrowings	1,430.00			1,430.00
Trade and Other Payables	2,486.17			2,486.17
Other Non Current Financial Liabilities		103.94		103.94
Other Current Financial Liabilities	1,44,142.82			1,44,142.82
	1,51,081.99	**12,195.94**	**71,444.90**	**2,34,722.83**

As at 31 March 2023	Less than 1 year	1-5 years	>5 years	Total
Long Term Borrowings	3,023.00	12,092.00	74,467.90	89,582.90
Short Term Borrowings	1,430.00			1,430.00
Trade and Other Payables	1,939.30			1,939.30
Other Non Current Financial Liabilities		9.06		9.06
Other Current Financial Liabilities	1,26,050.59			1,26,050.59
	1,32,442.89	**12,101.06**	**74,467.90**	**2,19,011.85**

Market Risk

Market risk is the risk that changes in market prices – such as foreign exchange rates, interest rates and equity prices – will affect the Company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

The company operates in a regulated environment. Tariff of the company is fixed by the Odisha Electricity Regulatory Commission (OERC) through Annual Revenue Requirement (ARR) comprising the following five components: 1. Return on Equity (RoE), 2. Depreciation, 3. Interest on Loans, 4. Operation & Maintenance Expenses and 5. Interest on Working Capital Loans. In addition to the above Foreign Currency Exchange variations and Taxes are also recoverable from Beneficiaries in terms of the Tariff Regulations. Hence variation in interest rate, currency exchange rate variations and other price risk variations are recoverable though tariff and do not impact the profitability of the company.

Foreign Currency Risk

The Company is compensated for variability in foreign currency exchange rate through recovery by way of tariff adjustments under the OERC Tariff Regulations.

(a) Foreign Currency Risk Exposure:

The Company's exposure to foreign currency risk at the end of the reporting period expressed in INR are as follows :

	31st March 2024	31st March 2023
Financial Liabilities		
Foreign Currency Loan from PFC	Nil	Nil
Other Financial Liability	Nil	Nil
Net Exposure to Foreign Currency Risk (Liabilities)		

b) Sensitivity Analysis

There is no impact of foreign currency fluctuations on the profit of the company as these are either adjusted to the carrying cost of respective fixed asset/Capital Work-in-Progress or recovered as Regulatory Deferral Account Balances as per OERC Tariff Regulation.

Interest Rate Risk

Interest rate risk is the risk that an upward movement in the interest rate would adversely effect the borrowing cost of the company. The Company is exposed to long term and short-term borrowings. The Company manages interest rate risk by monitoring its fixed rate instruments, and taking action as necessary to maintain an appropriate balance.

The exposure of the Company's borrowings to interest rate changes at the end of the reporting period are as follows:

a) Interest Rate Risk Exposure

(INR IN LAKHS)

	31st March 2024	31st March 2023
Fixed Rate Borrowings	86,559.90	89,582.90

b) Sensitivity Analysis

Since the Company does not have any floating rate borrowings, it is not subject any risk associated with the change in the rate of interest.

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44 A) Capital Management

The primary objective of the Company's capital management is to maximize the shareholder value. OERC Tariff Regulations prescribe Debt : Equity ratio of 70:30 for the purpose of fixation of tariff of Power Projects. Accordingly the company manages its capital structure to maintain the normative capital structure prescribed by the OERC.

The Board of Directors has the primary responsibility to maintain a strong capital base and reduce the cost of capital through prudent management of deployed funds and leveraging opportunities in domestic and international financial markets so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Company monitors capital using Debt : Equity ratio, which is net debt divided by total capital.

For the purpose of Company's capital management, capital includes issued capital and all other equity reserves. The Company manages its capital structure in light of changes in the economic and regulatory environment and the requirements of the financial covenants.

The Company manages its capital on the basis of net debt to equity ratio which is net debt (total borrowings net of cash and cash equivalents) divided by total Equity. The Debt : Equity ratio are as follows:

(INR IN LAKHS)

	31st March 2024	31st March 2023
Total Borrowings	87,989.90	91,012.90
Less : Cash and Cash Equivalent	(4,137.56)	(3,024.31)
Adjusted Net Debt	**83,852.34**	**87,988.59**
Total Equity	2,61,411.16	2,44,611.89
Net Debt to Equity Ratio	**0.32**	**0.36**

The Company has complied with the covenants as per the terms of the major borrowing facilities throughout the reporting period.

B) Dividends

	31st March 2024	31st March 2023
Equity Shares		
Final dividend for the year ended 31st March 2023 of INR 142.8703 (31st March 2022 - INR 24.4438) per fully paid Shares	11,903.82	2,036.64

Dividends not recognized at the end of the reporting period	**31st March 2024**	**31st March 2023**
In addition to the above, since year end the directors have recommended the payment of final dividend of INR 110.6819737 per fully paid Equity Shares. This proposed Dividend is subject to the approval of Shareholder's in the ensuing Annual General Meetings.	9,221.92	11,903.82

45 Other Explanatory Notes to Accounts

(I) Commitment & Contingent Liabilities

(INR IN LAKHS)

		31st March 2024	31st March 2023
(A)	(i) Estimated amount of contracts to be executed on capital account (net of advances and LCs opened) UIHEP, Mukhiguda , HHEP, Burla, CHEP, BHEP, UKHEP, Corporate Office and Other New Project.	941290.51	898110.38
	(ii) Uncalled Liability on shares and other investment partly paid	0.00	0.00
	(iii) Other Commitment.	0.00	0.00
(B)	(a)Claims against the Company not acknowledged as debt:		
(i)	Stamp duty on bonds of INR 76620.00 Lakhs issued to GoO on account of up- valuation of assets which has been kept in abeyance.	574.65	574.65
(ii)	EPF, Gratuity & Sales Tax liability of UIHEP, Khatiguda & Mukhiguda	118.37	117.52
(iii)	Claims of the contractor M/s Trafalgar House Construction (T) Satyam Sankaranarayan Joint Venture of UIHEP, Khatiguda	7500.00	7500.00
(iv)	Claim of Dam Division, Rengali Dam site under water Resources Department towards water rent in respect of residential & non-residential building of OHPC (RHEP)	15.47	15.47
(v)	Entry Tax, appeal before the Commissioner of Commercial Taxes, Cuttack (BHEP).	0.74	0.74
(vi)	Wrong assessment of water cess by Department of Water Resources and interest charged thereon.	1.00	1.00
(vii)	50% of the Fixed deposit of INR 2500.00 Lakhs pledged for the BG of BWCCL in favour MOC, GoI.	1250.00	1250.00

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(viii)	Pending cases on account of Income Tax demand raised by AO with different appellate authority for the Assessment Year 2015-16 and 2017-18 amounting to INR 3,440.17 Lakhs and INR 50.77 Lakhs respectively.	3490.94	3490.94
(ix)	Pending cases at High Court on account of refund of Income Tax for RM & U of Unit-I & II, HHEP, Burla.	282.46	282.46
(x)	Disputed Dam Maintenance Cost with DoWR for the FY 2013-14 & 2014-15 for an amount of INR 927.00 Lakhs .	927.00	927.00
(xi)	Forfeiture of EMD M/S Mahavir Metalic	63.87	63.87
(xii)	OHPC has filed the case before the EPF Appellate Tribunal	19.74	19.74
(xiii)	Interest on Ways & Means Advances	242.77	242.77
(xiv)	Claiming for compensation by Sunita Rout	20.00	20.00
(xv)	Claiming for Refund by M/s Allin Security & Intelligence Services	1.04	1.04
(xvi)	Claiming for recovery of 03 months pay plus DA & allowances from the terminal benefit of the petitioner,i.e. Sh.Biseswar Tudu, Ex-Manager (Ele.), BHEP, OHPC	3.17	3.17
	Grand Total	**955801.73**	**912620.75**

- OHPC has lodged a claim of INR 13,587.00 Lakhs on M/s TSS. Against the same, M/s TSS has lodged a claim of INR 7,500.00 Lakhs against OHPC stated at B (iii).
- BHEP, Balimela unit has deposited INR 0.40 Lakhs under protest during the year against the assessed entry Tax of INR 1.14 Lakhs for the year 2000-01 stated at (B) (V) above. Against this demand, the unit has filed an appeal before the Commissioner of Commercial Taxes, Cuttack.
- The Baitarni West Coal Block allotted to M/s Baitarni West Coal Company Limited, a joint venture company of OHPC was de-allocated vide the letter dated 10th December 2012 of Ministry of Coal, Government of India. OHPC on behalf of the partners filed a petition in the Hon'ble High Court of Odisha vide W.P.(C)No.4011/2013 with Miscellaneous case No.3942 of 2013. The Hon'ble High Court vide order dt.19.03.2013 held that "as an interim measure, it is directed that the bank guarantee furnished by the petitioner-Company may not be encashed and the Coal Block allocated to it may not be allocated to any 3rd party without leave of this Court ". Accordingly 50% of FD i.e. INR 1250.00 Lakhs has been shown as Contingent Liability as above under (B) (vii).
- The Tax Recovery Officer, Income Tax Department, Sambalpur had raised a demand of INR 448.00 Lakhs towards TDS in respect of supply and erection of plant & machinery of RM&U of Unit 1&2, Burla which was disputed by OHPC. Pending settlement of the dispute now in appeal before Hon'ble High Court of Odisha, Cuttack, the above amount has been deposited with Income Tax Authorities in the year 1996-97 to 2003-04. As per the order of the CIT (A), Sambalpur dtd. 08.11.2005 and 04.04.2006, the ITO, Sambalpur rectified the mistake for INR 33.00 Lakhs and issued refund order of INR 58.00 Lakhs. After adjustment of the said amount, the balance amount of INR 357.00 Lakhs has been shown under the head advance income tax (TDS).

46 The value of inventory of RHEP, Rengali includes INR 20.68 Lakhs towards shortage due to theft & shortage amounting to INR 5.47 Lakhs and unserviceable stores amounting to INR 15.21 Lakhs which has been provided & charged to P & L account in the year 2015-16. The same shall be written off after approval of Competent Authority.

47 The following Revenues have not been recognized in books of account as it is not probable that economic benefits associated with the transaction will flow to the entity in accordance with In IAS-115.

The outstanding Energy Charges of INR 0.25 Lakhs of UIHEP, Mukhiguda are pending with BSNL.

48 Operating Segment

The Board of Directors of the company has been identified as the Chief Operating Decision Maker (CODM) as defined by Ind AS 108, Operating Segments. The company operates in only one business segment i.e. 'Generation of Power" .

The CODM evaluates the Company's performance and allocates resources based on the single segment as explained above and hence detailed disclosures as required under segment reporting is not required.

49

A) The Sale of Energy compared to the Design Energy for Sale during the year 2023-24 are as under:

Power stations	Actual Sale of Energy (in MU)	Design Energy for Sale (in MU)
UIHEP, Mukhiguda	1686.998	1942.38
RHEP, Rengali	754.789	519.75
BHEP, Balimela	1012.069	1171.17
UKHEP, Upper Kolab	565.327	823.68
HHEP, Burla	850.217	660.52
CHEP, Chiplima	294.696	485.10
Total	**5164.096**	**5602.60**

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B) As per the OERC tariff order dt. 23.03.2023, the tariff for the year 2023-24 for Energy Sold to GRIDCO is as follows.

Name of Power Station	Energy Charge Rate (Paisa Per Unit)	Capacity Charges (INR in Crs.)
RHEP	67.82	35.25
UKHEP	38.25	31.51
BHEP	39.42	46.17
HHEP	69.82	46.12
UIHEP	43.04	83.59
CHEP	39.70	19.26
TOTAL		**261.90**

C) The Sale of Energy includes 16.481322 MU to CSPDCL @ INR 2.19674 per unit (For the FY 2023-24) as provisionally approved by OERC which has been decided in a joint meeting held on 28.10.2014 between OHPC & CSPDCL at Raipur, Chhattisgarh.

D) The energy sold to GRIDCO has been reconciled both in quantity & value till 2022-23. Necessary rectification entries relating to sale of energy have been passed by the respective units in the year of reconciliation.

50 Expenses in respect of employees who are in receipt of remuneration of not less than INR 102.00 Lakhs per annum and employed throughout the year of INR 8.50 Lakhs per month and employed for part of the year is as follows: **Nil**

51 The Corporation has not received any information from suppliers regarding their status under Micro, Small & Medium Enterprises Development Act 2006. Resultantly disclosure if any relating to amount unpaid as at the year end together with interest paid/payable as required under the said Act have not been given.

52 The details of installed capacity, generation and sale of power during the year are as under.

Power Stations	Installed Capacity	Gross Generation	Sale of Power	Transformation Loss	Colony Consumption	Auxiliary Consumption
CHEP	72.000	300.256	294.696	4.347	0.000	1.213
HHEP	287.800	866.556	850.217	13.221	0.000	3.118
RHEP	250.000	779.470	754.789	13.193	10.171	1.317
UKHEP	320.000	581.628	565.327	11.477	1.580	3.244
BHEP	510.000	1035.239	1012.069	11.575	4.664	6.931
UIHEP	600.000	1727.782	1686.998	31.723	5.021	4.040
Total	**2039.800**	**5290.931**	**5164.096**	**85.536**	**21.436**	**19.863**
Previous Year	**2039.800**	**4917.500**	**4802.559**	**74.813**	**20.969**	**19.159**

53 The Consolidated Financial Statement has been prepared separately taking the Audited Financial Statement of OHPC, GEDCOL, GSPCL and Un-Audited Financial Statement of OTPCL & BWCCL as per Companies Act 2013. Inadvertent omissions or errors, if any will be rectified in the accounts of year of identification.

54 The Company spent INR 88.54 Lakhs towards CSR i.e. INR 88.54 Lakhs towards promoting rural development projects under schedule (vii) of Section 135 of Companies Act 2013.:

(a) **(INR IN LAKHS)**

Year	2020-21	2021-22	2022-23	2023-24
Net profit before tax as per Section 198	20,143.71	12,283.16	46,161.33	
Average profit for last 3 years	-	-	-	26,196.07
2% of average profit	-	-	-	523.92
Expenditure made during the year	-	-	-	88.54

(b) Amount spent during the year on: **(INR IN LAKHS)**

	In Cash\ Cheque	Yet to be Paid in Cash	Total
(i) Construction/acquisition of any asset.	-	-	-
(ii) On purposes other than (i) above	88.54	-	88.54

(c) Details of Excess Amount for set-off are as follows: **(INR IN LAKHS)**

Sl No.	Particulars	Amount
(i)	2% of Average Net Profit of the Company as per Section 135(5)	523.92
(ii)	Total Amount spent for the Financial Year	88.54
(iii)	Excess/(Shortage) Amount spent for the Financial Year [(ii) - (i)]	(435.38)
(iv)	Surplus arising out of the CSR Projects of programs or activities of the previous financial years, if any	1,620.98
(v)	Lapses of unadjusted CSR Projects of programs or activities of the previous financial years, if any	(355.84)
(vi)	Amount available for set-off in succeeding financial years [(iii) + (iv)+(v)]	829.76

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55 Foreign Currency Transactions:

(INR IN LAKHS)

Particulars	2023-24	2022-23
(a) Value of Imports calculated on CIF basis in respect of components and spare parts through LC.	-	-
(b) Value of Imports calculated on CIF basis in respect of capital goods		1,244.74
Total Expenses	-	**1,244.74**

56 Changes in Accounitng Policy:-

Electricity Charges recovered from DoWR, which was earlier accounted on cash basis, now from the FY 2023-24 has to be accounted on accrual basis as per IND AS 8. The changes in Accounting Policy results in to Changes in Profitability & shows as below:

(INR IN LAKHS)

Particulars	2023-24
Energy Charges billed to DoWR	234.98

57 Disclosures as per IND AS 115 'Revenue from contracts with customers':

(A) Nature of Goods and Services

Majority of Revenue: The revenue of the Company comprises of income from electricity sales. The following is a description of the principal activities.

Revenue from sale of electricity-: The major revenue of the Company comes from sale of electricity. The Company sells electricity to bulk supplier Licensee (GRIDCO), owned by State Governments. Sale of electricity is generally made pursuant to Power Purchase Agreements (PPAs) entered into with GRIDCO. The details of nature, timing of satisfaction of performance obligations and significant payment terms under contracts for electricity sales are as under:

Product/ Service	Nature, Timing of Satisfaction of performance obligations and Significant Payment Terms
Sale of Electricity	The Company recognises revenue from contracts for electricity sales on the basis of Power Purchase Agreements entered into with GRIDCO.Revenue from sale of electricity is accounted for based on tariff rates approved by the OERC. Revenue from sale of electricity is recognised once the electricity has been delivered to GRIDCO at the interface point between OHPC & OPTCL and the same is is billed on a periodic and regular basis.

58 Social Security Code

The Code on Social Security 2020 has been notified in the Official Gazette on 29th September, 2020. The effective date from which the changes are applicable is yet to be notified and the rules are yet to be framed. Impact if any of the change will be assessed and accounted in the period in which said Code becomes effective and the rules framed thereunder are notified.

59 Relationship with Struck off Companies

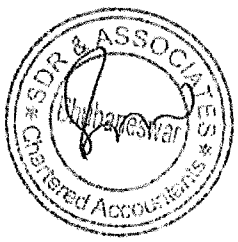
The Company does not have any transactions with companies struck off under section 248 of the Companies Act, 2013 (as amended) or section 560 of Companies Act, 1956.

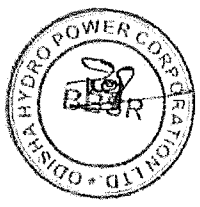
60 Details of Crypto Currency or Virtual Currency

The Company has not traded or invested in Crypto currency or Virtual Currency during the financial year.

61 Details of Benami Property held

There is no proceeding has been initiated or pending against the company for holding any benami property under the Benami Transactions (Prohibition) Act, 1988 (45 of 1988) and rules made thereunder.





62 Related Party Disclosures are given below:

(a) Interest in Subsidiaries:

Name of Companies	Principal place of operation	Principal activities	Proportion of Ownership interest as at 31-03-2024	31-03-2023
Green Energy Development Corporation LTD	India	Solar Power Generation	100%	100%

(b) Interest in Joint Ventures:

Name of Companies	Principal place of operation	Principal activities	Proportion of Ownership interest as at 31-03-2024	31-03-2023
Odisha Thermal Power Corporation LTD	India	Thermal Power Generation	50%	50%
Baitarni West Coal Company LTD	India	To own, acquire, develop, operate and carry on the business of coal mining and coal washeries etc.	33.33%	33.33%

(c) List of Other Related Parties:

Name of Related Parties	Principal place of operation	Nature of Relationship
OHPC PF Trust Fund	India	Post-Employment Benefit Plan of OHPC
OHPC Pension Trust Fund	India	Post-Employment Benefit Plan of OHPC
OHPC Gratuity Trust Fund	India	Post-Employment Benefit Plan of OHPC
OHPC Rehabilitation Trust	India	In Service Death Benefit Plan of OHPC

(d) Key Management Personnel & Directors:

S.No	Name	Position Held
1	Sh Saswat Mishra, IAS (From 07.08.2024 & onwards)	Chairman-cum-Managing Director
2	Sh Suresh Chandra Mahapatra, Retd. IAS (From 20.11.2023 to 14.06.2024)	Ex-Chairman
3	Sh Vishal Kumar Dev, IAS (From 10.06.2023 to 17.11.2023)	Ex-Chairman
4	Sh Bishnupada Sethi, IAS (Upto 09.06.2023)	Ex-Chairman
5	Sh Amresh Kumar (Upto 30.06.2024)	Ex-Managing Director
6	Sh Trilochan Panda (From 02.09.2023 to 22.02.2024)	Ex-Director
7	Dr. Satya Priya Rath, IAS	Govt. Nominee Director
8	Sh Yudhisthir Nayak(Up to 30.06.2024)	Govt. Nominee Director
9	Sh Nihar Ranjan Dash	Govt. Nominee Director
10	Sh Sambit Parija (From 02.09.2023 & onwards)	Govt. Nominee Director
11	Sh Bhakta Ranjan Mohanty (Up to 03.09.2024)	Govt. Nominee Director
12	Sh Chandra Sekhar Padhi (From 03.09.2024 & onwards)	Govt. Nominee Director
13	Sh Ramesh Chandra Tripathy (Up to 31.03.2024)	Independent Director
14	Mrs. Saveeta Mohanty	Independent Woman Director
15	Sh Dronadeb Rath	Independent Director
16	Sh Debraj Biswal	Independent Director
17	Dr. Prabodha Kumar Mohanty (Up to 30.06.2023)	Ex-Director (HR)
18	Sh Ashis Kumar Mohanty	Director (Operation)
19	Sh Pranab Kumar Mohanty (From 04.11.2023)	Director (Finance)
20	Sh Debalok Mohanty	Chief General Manager (Finance) & CFO

(e) Name and Nature of Relationship with Government:

S.No	Name of the Government	Nature of Relationship with OHPC
1	Government of Odisha	Shareholder having control over Company

The Company is a State Public Sector Undertakings (SPSU) controlled by State Government by holding of shares. Pursuant to Paragraph 25 & 26 of Ind AS 24, entities over which the same government has control or joint control of, or significant influence, shall be regarded as related parties. The Company has applied the exemptions available for government related entities and have made limited disclosures in the financial Statements in accordance with Ind AS 24.

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The Company has business transactions with the state governments and entities controlled by the Govt. of India. Transactions with these entities are carried out at market terms on arms- length basis through a transparent price discovery process against open tenders, except in a few cases of procurement of spares/services from Original Equipment Manufacturers (OEMs) for proprietary items on single tender basis due to urgency, compatibility or other reasons. Such single tender procurements are also done through a process of negotiation with prices benchmarked against available price data of same/similar items. Therefore, party-wise details of such transactions have not been given since such transactions are carried out in the ordinary course of business at normal commercial terms and are not considered to be significant.

(INR IN LAKHS)

(f) Key Management Personnel (KMP) compensation:		
Particulars	**For the Year ended 31.03.2024**	**For the Year ended 31.03.2023**
i) Short Term Employee Benefits	150.12	169.99
ii)Post-Employment Benefits	95.59	119.73
Other Transactions with KMP	**For the Year ended 31.03.2024**	**For the Year ended 31.03.2023**
Sitting Fees and other reimbursements to Non-Executive/ Independent Directors	6.27	5.61

(g) Transactions with Related Parties-Following transactions occurred with related parties:		
Particulars	**For the Year ended 31.03.2024**	**For the Year ended 31.03.2023**
(I) Transaction with Government that has control over company (OHPC)- State Govt.		
Interest on State Government Loan (Old Projects)	6,270.80	6,482.42
Loan Repaid	3,023.00	3,023.00
Loan Outstanding	87,989.90	91,012.90
Grant Received from State Govt	-	-
(II) Transaction with Entities controlled by the same Government that has control over company (OHPC)	**During the FY 2023-24**	**During the FY 2022-23**
Sale of Goods (Electricity)	53,826.62	49,657.03
Service Received by the Company (SLDC)	153.12	142.52
Service Received by the Company (Rent)	119.90	109.29
Debtors Receivable	6,998.44	9,541.05
Debt Securitisation Receivable	54,162.50	61,900.00
(III) Transaction with Subsidiaries	**During the FY 2023-24**	**During the FY 2022-23**
Loan Given To GEDCOL	-	-
Loan amount Receivable from GEDCOL	2,245.38	3,200.00
Interest Receivable for the year	10.27	241.49
Interest Receivable as on reporting date	10.27	1,992.82
Advance to others (Salary & Other Expenses paid for GEDCOL)	120.88	111.28
Receivable from GEDCOL on account of Advance to Others	120.88	1,147.18
Advance to others (Salary & Other Expenses paid for GSPCL)	45.43	37.72
Receivable from GSPCL on account of Advance to Others	106.02	60.60
(IV)Transaction with Joint Ventures		
Fixed deposit pledged with Punjab and Sind Bank towards margin money on behalf of BWCCL	2,500.00	2,711.32
(V) Transaction with Trust created for Post employment Benefit plans of OHPC		
1. PF Trust	**During the FY 2023-24**	**During the FY 2022-23**
Contribution to Trusts	700.00	831.00
2. Gratuity Trust		
Contribution to Trusts	335.99	346.46
Payable to Trust	-	-
3. Rehabilitation Trust		
Contribution to Trusts	119.50	50.00
4.Employees Pension Trust		
Contribution to Trusts	7,147.79	3,391.61
Payable to Trust	16,648.81	16,670.69
Total of Transactions with above Trusts	**8,303.28**	**4,619.07**

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63 Ratios:

The Following are analytical ratios for the year ended March 31, 2024 and March 31, 2023

Sl No	Ratios	Numerator	Denominator	As at March' 2024	As at March' 2023	% of Variance	Reason of Variance
1	Current ratio (in times)	Total Current Assets	Total Current Liabilities	1.97	1.89	4.57	This is mainly due to increase in Current Assets as compared to previous year. During FY 2023-24, OHPC recovered INR 7,737.50 Lakhs towards Interest & Principal against GRIDCO Securitization bond. Further, GEDCOL also reimbursed INR 2,507.68 Lakhs towards interest, Principal & one time settlement of expenditure made by OHPC.
2	Debt-Equity ratio (in times)	Debt consists of borrowings and lease liabilities.	Total Equity	0.34	0.37	(9.53)	Decrease is on account of repayment of debt.
3	Debt service coverage ratio (in times)	Earning for Debt Service = Net Profit after taxes + Non-cash operating expenses + Interest +Other non-cash adjustments	Debt Service = Interest and lease payments (to be made in subsequent financial year) + Principal repayments	15.08	17.92	(15.82)	Comparing to previous year, the profit has been decreased due to profit on sale of investment in OPGC & OCPL of INR 24,840.68 Lakhs and receipt of Dividend of Rs.7044.01 lakhs from OCPL during FY 2022-23 only.
4	Return on equity ratio (in %)	Profit for the year less Preference dividend (if any)	Average Total Equity	39.83	47.97	(16.97)	As compared to previous year, Profit has been decreased.
5	Trade receivables turnover ratio (in times)	Revenue from operations	Average Trade Receivables	6.43	5.15	25.03	Increased due to increase in sale of energy.
6	Trade payables turnover ratio (in times)	Net Purchase= Purchase of Stock in trade	Average Trade Payables	-	-	-	
7	Net capital turnover ratio (in times)	Revenue from Operations	Average working capital (i.e. Total current assets less Total current liabilities)	0.40	0.95	(58.00)	There is an impact of substantial increase in working capital in accordance with increase in Current Assets due to recovery of GRIDCO Securitization dues & reimbursement of one time settlement of expenditure from GEDCOL.
8	Net profit ratio (in %)	Profit for the year	Revenue from Operations	61.70	80.04	(22.92)	As compared to previous year, Profit has been decreased.
9	Return on capital employed (in %)	Profit before tax and finance costs	Capital employed = Net worth + Borrowings+Deferred tax liabilities	14.49	15.70	(7.71)	Decreases due to increase in Other income during FY 2022-23 as compared to FY 2023-24.
10	Return on investment (in %)	Income generated from invested funds	Average invested funds in treasury investments	-	-		

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64 **Defined Benefit Plans :- Corporation has following defined post-employment obligation.**

(a) **Description of plans**

(i) Provident Fund

Ø The employees from Govt. of Odisha and erstwhile OSEB related to generation undertaking have been permanently absorbed in OHPC consequent upon the formation of OHPC. In addition, OHPC also recruited its own employees.

Ø The employees transferred from erstwhile OSEB & pensionable employees of Govt. joined with OHPC PF Trust and contributed to Provident Fund which is being invested as per guidelines issued by MOC from time to time. In case of non-pensionable employees of Govt. absorbed in OHPC and own recruited employees, OHPC contributes matching employer contribution of 12% of Pay + DA is deposited with RPFC and charged to P & L account.

(ii) Pension :

The employees of the corporation who have been permanently absorbed in OHPC from Govt. / erstwhile OSEB and also the employees opted for uniform pension scheme rendering continuing service of 10 years are eligible to get pension at the rate of total emoluments divided by two X each half yearly qualifying service subject to maximum fifty half yearly qualifying service. The liability for the same is recognised on the basis of actuarial valuation. The scheme is being managed by a separate trust created for the purpose and obligation of the corporation is to make contribution to the Trust based on actuarial valuation.

(iii) Gratuity

The Corporation has taken three group Gratuity Insurance Policies with LIC of India w.e.f. 01.01.2005, 01.04.2014 and 01.06.2020. The Corporation has a defined benefit gratuity plan. The ceiling limit of Gratuity is fixed as per payment of Gratuity Act 1972 for the employees covered under EPF Act. As per this, an employee rendering service of five years or more are entitled to get gratuity at 15 days salary (15 / 26 X last drawn basic salary plus DA) for each completed year of service or part thereof in excess of 6(six) months subject to maximum of INR 20.00 lakhs on superannuation, resignation, termination, disablement or on death. Further the ceiling limit of Gratuity for the employees transferred from Govt. / erstwhile OSEB covered under pension scheme and rendered continuous service of ten years or more are entitled to get gratuity equal to ¼ th of his last salary (Basic Salary) for each completed six monthly period of qualifying services subject to maximum of 16 ½ times of the emoluments or INR 15.00 lakhs whichever is lower on superannuation. But in case of death, the ceiling limit of gratuity is fixed depending upon the length of service corresponding to rate of gratuity as given below:

	Length of Service	Rate of Gratuity
(i)	Less than one year	2 Times of emoluments
(ii)	One year or more but less than 5 years	6 Times of emoluments
(iii)	5 years or more but less than 20 years	12 times of emoluments
(iv)	20 years or more	Half of emoluments for every completed six monthly period of qualifying service subject to a maximum of 33 times emoluments provided that the amount of Death Gratuity shall in no case, exceed seven lakh fifty thousand.

The liability for the same is recognised on the basis of actuarial valuation and is being managed by LIC through a separate Trust created for the purpose and obligation of the corporation is to make contribution to the Trust based on actuarial valuation.

(iv) Other Long Term Employee Benefits (Leave Benefit)

The Corporation provides for earned leave and half-pay leave to the employees which accrue annually @ 30 days and 20 days respectively. The maximum ceiling of encashment of earned leave at the time of retirement is limited to 300 days. The maximum accumulated half pay leave is limited to 480 days. The liability for the earned leave is recognised on the basis of actuarial valuation.

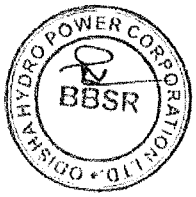
(v) Allowances on Retirement / Death :

Actual cost of shifting from place of duty at which employee is posted at the time of retirement to his / her native place as recorded in Service Book where he / she may settle after retirement is paid as per the rules of the corporation. In case of death, family of deceased employee can also avail this facility. The liability for the same is recognised on the basis of actual payment. In addition, the Corporation has a policy to pay INR 0.15 Lakhs to the family of the deceased employee towards transportation of dead body and obsequies expenses and also has a policy to pay INR 5 Lakhs to the family of the deceased employee towards Rehabilitation Scheme.

(vi) Memento to employees on attaining the age of superannuation:

The Corporation has a policy of providing Memento valuing INR 0.04 Lakhs to employee on superannuation. The liability for the same is recognised on the basis of actual payment.





(vii) Financial benefit to the employees of OHPC joined on or after 01.01.2005 those who are not covered under the pension scheme as well as the new Pension Scheme:

As per the decisions of the 159th Board held on 18.09.2020, the Corporation provides a one time financial benefit of 06 (Six) month's salary to the employees (Joined on or after 01.01.2005) who are not covered under the Pension scheme/ New Pension Scheme of OHPC, towards pension at the time of their retirement. This is in line with the directions issued by Dept. of PE, Govt. of Odisha vide its letter no.936 dtd 23.03.2017 & subsequent clarification vide letter no. 1992 dtd 17.08.2020.

(b) Disclosure of Balance Sheet amounts and sensitivity analysis of plans

(i) Gratuity: The amount recognised in the Balance Sheet as at 31.03.2023 & 31.03.2024 along with the movements in the net defined benefit obligation during the years 2022-23 and 2023-24 are as follows:

(INR IN LAKHS)

Particulars	Present Value of Obligation	Fair value of Plan Assets	Net Amount
	(i)	(ii)	iii=(i)-(ii)
	2022-23		
Opening Balance as at 01.04.2022	**9,481.68**	**9,847.98**	**(366.30)**
Current Service Cost	290.54		290.54
Past Service Cost			-
Interest Expenses/ (Income)	661.82	687.39	(25.57)
Total Amount recognised in Profit or Loss	**952.36**	**687.39**	**264.97**
Remeasurements			
Return on Plan Asset, excluding amount included in interest expenses/ (Income)	-	8.62	8.62
(Gain)/loss from change in demographic assumptions		-	-
(Gain)/loss from change in financial assumptions	(191.38)	-	(191.38)
Experience (gains)/Losses	(163.73)	-	(163.73)
Total Amount recognised in Other Comprehensive Income	**(355.11)**	**8.62**	**(346.49)**
Contributions:-	-	-	-
-Employers		441.35	441.35
-Plan Participants	-	-	-
Benefit Payments	(1,530.55)	(1,530.55)	-
Closing Balance as at 31.03.2023	**8,548.38**	**9,437.55**	**(889.17)**

Particulars	Present Value of Obligation	Fair value of Plan Assets	Net Amount
	(i)	(ii)	iii=(i)-(ii)
	2023-24		
Opening Balance as at 01.04.2023	**8,548.38**	**9,437.55**	**(889.17)**
Current Service Cost	257.15		257.15
Past Service Cost			-
Interest Expenses/ (Income)	638.56	704.98	(66.42)
Total Amount recognised in Profit or Loss	**895.71**	**704.98**	**190.73**
Remeasurements			
Return on Plan Asset, excluding amount included in interest expenses/ (Income)	-	39.82	39.82
(Gain)/loss from change in demographic assumptions	-	-	-
(Gain)/loss from change in financial assumptions	94.81	-	94.81
Experience (gains)/Losses	(150.68)	-	(150.68)
Total Amount recognised in Other Comprehensive Income	**(55.87)**	**39.82**	**(16.05)**

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Contributions:-	-	-	-
-Employers		78.24	78.24
-Plan Participants	-	-	-
Benefit Payments	(1,534.18)	(1,534.18)	-
Closing Balance as at 31.03.2024	**7,854.04**	**8,646.77**	**(792.73)**

The Net Liability disclosed above related to funded and Unfunded Plans are as follows:

(INR IN LAKHS)

Particulars	**31st March 2024**	**31st March 2023**
Present Value of funded obligations	7,854.04	8,548.38
Fair value of Plan Assets	8,646.77	9,437.55
Deficit/(Surplus) of funded plans	**(792.73)**	**(889.17)**
Unfunded Plans	-	-
Deficit/(Surplus) before asset ceiling	**(792.73)**	**(889.17)**

Sensitivity Analysis – The sensitivity of the defined benefit obligations to changes in the weighted principal assumptions is:

(INR IN LAKHS)

a) Impact of the change in discount rate		**31st March 2024**	**31st March 2023**
	Present Value of Obligation at the end of the period	**7,854.04**	**8,548.38**
i)	Impact due to increase of 0.50%	(179.43)	(183.28)
ii)	Impact due to decrease of 0.50%	192.19	195.42
b) Impact of the change in salary increase			
	Present Value of Obligation at the end of the period	**7,854.04**	**8,548.38**
i)	Impact due to increase of 0.50%	71.00	91.62
ii)	Impact due to decrease of 0.50%	(79.77)	(95.22)

(ii) Pension: The amount recognised in the Balance Sheet as at 31.03.2023 & 31.03.2024 along with the movements in the net defined benefit obligation during the years 2022-23 and 2023-24 are as follows:

(INR IN LAKHS)

Particulars	**Present Value of Obligation**	**Fair value of Plan Assets**	**Net Amount**
	(i)	**(ii)**	**iii=(i)-(ii)**
	2022-23		
Opening Balance as at 01.04.2022	**48,007.48**	**32,979.66**	**15,027.82**
Current Service Cost	798.72		798.72
Past Service Cost	2,300.13		2,300.13
Interest Expenses/ (Income)	3,350.92	2,301.98	1,048.94
Total Amount recognised in Profit or Loss	**6,449.77**	**2,301.98**	**4,147.79**
Remeasurements			
Return on Plan Asset, excluding amount included in interest expenses/ (Income)	-	(286.80)	(286.80)
(Gain)/loss from change in demographic assumptions	-	-	-
(Gain)/loss from change in financial assumptions	(2,987.77)	-	(2,987.77)
Experience (gains)/Losses	4,161.26	-	4,161.26
Total Amount recognised in Other Comprehensive Income	**1,173.49**	**(286.80)**	**886.69**
Contributions:-			
-Employers		3,391.61	3,391.61
-Plan Participants			
Benefit Payments	(11,294.51)	(11,294.51)	
Closing Balance as at 31.03.2023	**44,336.23**	**27,665.54**	**16,670.69**

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Particulars	Present Value of Obligation	Fair value of Plan Assets	Net Amount
	(i)	(ii)	iii=(i)-(ii)
	2023-24		
Opening Balance as at 01.04.2023	**44,336.23**	**27,665.54**	**16,670.69**
Current Service Cost	535.19	-	535.19
Past Service Cost	2,077.86	-	2,077.86
Interest Expenses/ (Income)	3,311.92	2,066.62	1,245.30
Total Amount recognised in Profit or Loss	**5,924.97**	**2,066.62**	**3,858.35**
Remeasurements			
Return on Plan Asset, excluding amount included in interest expenses/ (Income)	-	(259.77)	(259.77)
(Gain)/ Loss from change in demographic assumptions	-	-	-
(Gain)/ Loss from change in financial assumptions	1,457.25		1,457.25
Experience (Gains)/Losses	2,070.08	-	2,070.08
Total Amount recognised in Other Comprehensive Income	**3,527.33**	**(259.77)**	**3,267.56**
Contributions:-	-	-	
-Employers		7,147.79	7,147.79
-Plan Participants	-	-	-
Benefit Payments	(11,362.79)	(11,362.79)	-
Closing Balance as at 31.03.2024	**42,425.74**	**25,776.93**	**16,648.81**

The Net Liability disclosed above related to Funded and Un-Funded Plans are as follows:

Particulars	31st March 2024	31st March 2023
Present Value of funded obligations	42,425.74	44,336.23
Fair value of Plan Assets	25,776.93	27,665.54
Deficit/(Surplus) of Funded Plans	**16,648.81**	**16,670.69**
Unfunded Plans	-	-
Deficit/(Surplus) before Asset Ceiling	**16,648.81**	**16,670.69**

Sensitivity Analysis – The sensitivity of the defined benefit obligations to changes in the weighted principal assumptions is:

a) Impact of the change in discount rate		**31st March 2024**	**31st March 2023**
	Present Value of Obligation at the end of the period	**42,425.74**	**44,336.23**
i)	Impact due to increase of 0.50%	(2,548.29)	(2,731.63)
ii)	Impact due to decrease of 0.50%	2,616.88	2,802.41
b) Impact of the change in salary increase			
	Present Value of Obligation at the end of the period	**42,425.74**	**44,336.23**
i)	Impact due to increase of 0.50%	2,621.24	2,809.82
ii)	Impact due to decrease of 0.50%	(2,541.81)	(2,722.03)

(iii) Earned Leave : The amount recognised in the Balance Sheet as at 31.03.2023 & 31.03.2024 along with the movements in the net defined benefit obligation during the years 2022-23 and 2023-24 are as follows:

(INR IN LAKHS)

Particulars	Present Value of Obligation	
	31st March 2024	31st March 2023
Opening Balance as at 01.04.2023	**6,791.05**	**7,151.36**
Current Service Cost	533.87	198.20
Past Service Cost	-	-
Interest Expenses/ (Income)	507.29	499.16
(Gain)/loss from change in Demographic assumptions	-	-
(Gain)/loss from change in financial assumptions	114.48	(212.01)
Experience (gains)/Losses	(122.96)	80.56
Total Amount recognised in Profit or Loss	**1,032.68**	**565.91**

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Contributions:-		
-Employers	-	-
-Plan Participants	-	-
Benefit Payments	(1,116.47)	(926.22)
Closing Balance as at 31.03.2024	**6,707.26**	**6,791.05**

Sensitivity Analysis – The sensitivity of the defined benefit obligations to changes in the weighted principal assumptions is:

a) Impact of the change in Discount Rate		**31st March 2024**	**31st March 2023**
	Present Value of Obligation at the end of the period	**6,707.26**	**6,791.05**
i)	Impact due to increase of 0.50%	(216.11)	(200.96)
ii)	Impact due to decrease of 0.50%	233.87	216.51
b) Impact of the change in Salary Increase			
	Present Value of Obligation at the end of the period	**6,707.26**	**6,791.05**
i)	Impact due to increase of 0.50%	233.22	216.45
ii)	Impact due to decrease of 0.50%	(217.50)	(202.73)

(iii) Ex-Gratia Liability (Financial Benefit) : The amount recognised in the Balance Sheet as at 31.03.2023 & 31.03.2024 along with the movements in the net defined benefit obligation during the years 2022-23 and 2023-24 are as follows:

(INR IN LAKHS)

Particulars	**Present Value of Obligation**	
	31st March 2024	**31st March 2023**
Opening Balance as at 01.04.2023	**502.46**	**420.24**
Current Service Cost	58.13	55.20
Past Service Cost	-	54.12
Interest Expenses/ (Income)	37.53	29.33
(Gain)/loss from change in Demographic assumptions	-	-
(Gain)/loss from change in financial assumptions	22.62	(35.17)
Experience (gains)/Losses	1.86	12.96
Total Amount recognised in Profit or Loss	**120.14**	**116.44**
Contributions:-		
-Employers	-	-
-Plan Participants	-	-
Benefit Payments	(44.20)	(34.22)
Closing Balance as at 31.03.2024	**578.40**	**502.46**

Sensitivity Analysis – The sensitivity of the defined benefit obligations to changes in the weighted principal assumptions is:

a) Impact of the change in Discount Rate		**31st March 2024**	**31st March 2023**
	Present Value of Obligation at the end of the period	**578.40**	**502.46**
i)	Impact due to increase of 0.50%	(43.76)	(38.01)
ii)	Impact due to decrease of 0.50%	46.05	40.01
b) Impact of the change in Salary Increase			
	Present Value of Obligation at the end of the period	**578.40**	**502.46**
i)	Impact due to increase of 0.50%	44.83	38.94
ii)	Impact due to decrease of 0.50%	(42.87)	(37.24)

The Accompanying Notes form an Integral part of the Standalone Financial Statements
As per our report of even date attached
For SDR & ASSOCIATES
Chartered Accountants

(CA Sunil Kumar Sahoo)
Partner
ICAI M.No. 056068
Place: Bhubaneswar
Date: 24.09.2024
UDIN: 24056068BKCOAP3525

(J Panigrahi)
Company Secretary

(Debalok Mohanty)
Chief Financial Officer

(P K Mohanty)
Director (Finance)
DIN:07902418

(A K Mohanty)
Director (Operation)
DIN:09323949

Annexure-I (A) to Note-4: Title deeds of immovable property not held in the name of the Company as on 31st March 2024

(INR IN LAKHS)

Relevant line item in the Balance Sheet	Description of item of property	Gross carrying value	Title deeds held in the name of	Whether title deed holder is a promoter, director or relative# of promoter*/director or emplyee of promoter/director	Property held since which date	Reason for not being held in the name of the company**
Property, Plant & Equipment	Land at BHEP, Balimela, Dist-Malkangiri, Odisha.	70.29	Dept. of Water Resources, Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	The land has been transferred from govt. on as is where is basis but the title deeds are not in the name of OHPC. As such the details of idle land, land encroached under litigation, not put to use, declared surplus is not ascertainable. Some of the land building like office of Sr. General Manager(EL). Building of power house, valve house and staff colony, Erector hostel were in possession of OHPC.
	Land at Chiplima, Dist- Sambalpur	183.00	Dept. of Water Resources, Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	Process of change of RoR is pending
	Land at HHEP, Burla, Dist-Sambalpur, Odisha	178.00	Dept. of Water Resources, Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	Process of change of RoR is pending.
	Land at RHEP, Rengali, Dist-Anugul, Odisha	156.00	Erstwhile I & P Deptt., Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	It is being persued with DoWR, Govt. of Odisha for transfer of RoR in the name of OHPC, Rengali Dam Site
	Land at UIHEP, Khatiguda, Dist-Nabarangpur, Odisha	8874.88	Erstwhile I & P Deptt., Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	Process of change of RoR is pending
	Land at UKHEP, Bariniput, Dist-Koraput	668191.00	Dept. of Water Resources, Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	Process of change of RoR is pending

Relative here means relative as defined in the Companies Act, 2013

* Promoter here means promoter as defined in the Companies Act, 2013.

Annexure-I (B) to Note-4: Title deeds of immovable property not held in the name of the Company as on 31st March 2023

Relevant line item in the Balance Sheet	Description of item of property	Gross carrying value	Title deeds held in the name of	Whether title deed holder is a promoter, director or relative# of promoter*/director or emplyee of promoter/director	Property held since which date	Reason for not being held in the name of the company**
Property, Plant & Equipment	Land at BHEP, Balimela, Dist-Malkangiri, Odisha.	70.29	Dept. of Water Resources, Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	The land has been transferred from govt. on as is where is basis but the title deeds are not in the name of OHPC. As such the details of idle land, land encroached under litigation, not put to use, declared surplus is not ascertainable. Some of the land building like office of Sr. General Manager(EL). Building of power house, valve house and staff colony, Erector hostel were in possession of OHPC.
	Land at Chiplima, Dist- Sambalpur	183.00	Dept. of Water Resources, Govt. of Odisha	-	Transfered to OHPC on 01.04.1996	Process of change of RoR is pending
	Land at HHEP, Burla, Dist-Sambalpur, Odisha	178.00	Dept. of Water Resources, Govt. of Odisha		Transfered to OHPC on 01.04.1996	Process of change of RoR is pending

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	Land at RHEP, Rengali, Dist-Anugul, Odisha	156.00	Erstwhile I & P Deptt., Govt. of Odisha		Transfered to OHPC on 01.04.1996	It is being persued with DoWR, Govt. of Odisha for transfer of RoR in the name of OHPC, Rengali Dam Site
	Land at UIHEP, Khatiguda, Dist-Nabarangpur, Odisha	8869.37	Erstwhile I & P Deptt., Govt. of Odisha		Transfered to OHPC on 01.04.1996	Process of change of RoR is pending
	Land at UKHEP, Bariniput, Dist-Koraput	6.68	Dept. of Water Resources, Govt. of Odisha		Transfered to OHPC on 01.04.1996	Process of change of RoR is pending

Relative here means relative as defined in the Companies Act, 2013
* Promoter here means promoter as defined in the Companies Act, 2013.

Annexure-II (A) to Note-5 (i) -Capital Work-in-Progress (Tangible) ageing Schedule as on 31st March 2024

(INR IN LAKHS)

CWIP	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	10,070.07	2,720.80	636.72	830.63	14,258.22
Project temporarily suspended	-	-	-	-	-

Annexure-II (B) to Note-5 (i) -Capital Work-in-Progress (Tangible) Completion Schedule as on 31st March 2024

(INR IN LAKHS)

CWIP	To be completed in			
	Less than 1	1-2 years	2-3 years	More than 3
Project in Progress	9,564.85	3,266.02	95.60	1,331.75
Project 2"	-	-	-	-

Annexure-II (C) to Note-5 (i) -Capital Work-in-Progress (Tangible) ageing Schedule as on 31st March 2023

(INR IN LAKHS)

CWIP	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress	6,200.02	108.65	178.87	6,647.66	13,135.20
Project temporarily suspended	-	-	-	-	-

Annexure-II (D) to Note-5 (i) -Capital Work-in-Progress (Tangible) Completion Schedule as on 31st March 2023

(INR IN LAKHS)

CWIP	To be completed in			
	Less than 1 year	1-2 years	2-3 years	More than 3 years
Project in Progress	6,200.02	108.65	178.87	6,647.66
Project 2"	-	-	-	-

Annexure-II (E) to Note-5 (ii) -Capital Work-in-Progress (In-Tangible Assets under Deveolpment) ageing Schedule as on 31st March 2024

(INR IN LAKHS)

Instangible assets under development	Amount in CWIP for a period of				Total
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in progress - ERP	-	-	-	43.44	43.44
Project temporarily suspended	-	-	-	-	-

Annexure-II (F) to Note-5 (ii) -Capital Work-in-Progress (In-Tangible Assets under Development) Completion Schedule as on 31st March 2024

(INR IN LAKHS)

Instangible assets under development	To be completed in			
	Less than 1 year	1-2 years	2-3 years	More than 3 years
Project 1	-	-	-	43.44
Project 2	-	-	-	-

Annexure-II (G) to Note-5 (ii) -Capital Work-in-Progress (In-Tangible Assets under Development) ageing Schedule as on 31st March 2023

(INR IN LAKHS)

Instangible assets under development	Amount in CWIP for a period of				Total*
	Less than 1 year	1-2 years	2-3 years	More than 3 years	
Projects in Progress - ERP	-	-	1.60	41.84	43.44
Project Temporarily Suspended	-	-	-	-	-

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Annexure-II (H) to Note-5 (ii) -Capital Work-in-Progress (In-Tangible Assets under Development) Completion Schedule as on 31st March 2023

(INR IN LAKHS)

Instangible assets under development	To be completed in			
	Less than 1 year	1-2 years	2-3 years	More than 3 years
Project in Progress- ERP	-	-	-	43.44
Project 2	-	-	-	-

Annexure-III (A) to Note-7 & 12: Trade Receivable ageing Schedule as on 31st March 2024

(INR IN LAKHS)

Particulars	Outstanding for the following periods from due date of payment#					Total
	Less than 6 moths	6 months-1 year	1-2 Years	2-3 Years	More than 3 years	
(i) Undisputed Trade receivables- Considered good	3,731.64	-	-	-	3,266.81	6,998.45
(ii) Undisputed Trade Receivables - which have significant increase in credit risk	-	-	-	-	-	-
(iii) Disputed Trade Receivables- credit impaired	-	-	-	-	-	-
(iv) Disputed Trade Receivable- considered good	-	-	-	-	-	-
(v) Disputed Trade Receivable- which have significant increase in credit risk.	-	-	-	-	-	-
(vi) Disputed Trade Receivable- credit impared	-	-	-	-	-	-

similar information shall be given where no due date of payment is specified in that case disclosure shall be from the date of the transaction.

Unbilled dues shall be disclosed separately

Annexure-III (B) to Note-7 & 12: Trade Receivable ageing Schedule as on 31st March 2023

Trade Receivable ageing schedule for the year ended March 31, 2023 is as follows:

(INR IN LAKHS)

Particulars	Outstanding for the following periods from due date of payment#					Total
	Less than 6 months	6 months-1 year	1-2 Years	2-3 Years	More than 3 years	
(i) Undisputed Trade receivables- Considered good	6,250.21	-	-	-	3,472.17	9,722.38
(ii) Undisputed Trade Receivables - which have significant increase in credit risk	-	-	-	-	-	-

(iii) Undisputed Trade Receivables credit impaired	-	-	-	-	-	-
(iv) Disputed Trade Receivable considered doubtful	-	-	-	-	-	-
(v) Disputed Trade Receivable- which have significant increase in credit risk.	-	-	-	-	-	-
(vi) Disputed Trade Receivable- credit impared	-	-	-	-	-	-

Annexure-IV (A) to Note-26: Trade Payable ageing Schedule as on 31st March 2024

(INR IN LAKHS)

Particurls	Outstanding for following periods from due date of payment # (As at March 31, 2024)				Total
	Less than 1 Year	1-2 years	2-3 years	More than 3 years	
(i) MSME					
(ii) Others	1,551.88	3.36	-	930.93	2,486.17
(iii) Disputed dues- MSME	-	-	-	-	-
(iv) Disputed dues- Others	-	-	-	-	-

Similar information shall be given where no due date of payment is specified in that case disclosure shall be from the date of the transaction.

Annexure-IV (B) to Note-26: Trade Payable ageing Schedule as on 31st March 2023

(INR IN LAKHS)

Particurls	Outstanding for following periods from due date of payment # (As at March 31, 2023)				Total
	Less than 1 Year	1-2 years	2-3 years	More than 3 years	
(i) MSME					
(ii) Others	991.37	1.02	946.91	-	1,939.30
(iii) Disputed dues- MSME	-	-	-	-	-
(iv) Disputed dues- Others	-	-	-	-	-

Similar information shall be given where no due date of payment is specified in that case disclosure shall be from the date of the transaction.

SDR & ASSOCIATES Bhubaneswar Chartered Accountants

ODISHA HYDRO POWER CORPORATION LTD. BBSR

Annexure- 8

Together, Let us light up our lives

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ODISHA ELECTRICITY REGULATORY COMMISSION

BIDYUT NIYAMAK BHAWAN
PLOT NO.4, CHUNOKOLI, SHAILASHREE VIHAR, BHUBANESWAR -751021
TEL. No. 2721048, 2721049
E-MAIL: oerc@odisha.gov.in / orierc@gmail.com
WEBSITE: www.orierc.org

No. DIR (T) – 378/2010/ 1190 Dated: 15 .10.2024

To

The Director (Finance),
Odisha Hydro Power Corporation Ltd. (OHPC),
Odisha State Police Housing & Welfare Corporation Building,
Vani Vihar Chouk,
Janpath, Bhubaneswar - 751022

Sub: Clarification regarding Tariff order for FY 2024-25

Ref: Your Lr. No. OHPC-AC-HQ-FW-98 (Vol-X)-4276, dated 26.04.2024

Sir,

With reference to your letter above, issues such as less approval of O&M, less approval of interest on working capital and less approval of reimbursement of income tax cannot be considered through a clarification from the Commission since this will amount to review of OERC order in Case No. 111 of 2023 dated 13.02.2024 (ARR & Generation tariff of OHPC). Therefore, you are advised to raise the matter in the Truing up petition for the relevant control period.

Yours sincerely,

SECRETARY 16.10.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍ ODISHA NEW OPPORTUNITIE

(ଓଡ଼ିଶା ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)

ଓଡ଼ିଶା ରାଜ୍ୟ ଆରକ୍ଷୀ ଗୃହନିର୍ମାଣ ଏବଂ ସମାଜମଙ୍ଗଳ ନିଗମ ଭବନ, ବାଣୀବିହାର ଛକ, ଜନପଥ, ଭୁବନେଶ୍ୱର-୭୭

ଫୋନ: ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ: ୨୫୪୨୧୦୨

ODISHA HYDRO POWER CORPORATION LTD.

(A GOVT. OF ODISHA UNDERTAKING)

CIN: U40101OR1995SGC003963

REGD. OFFICE : ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING, VANIVIHAR CHOUK, JANPATH, BHUBANESWAR-751 022

PHONE : 91-0674-2542983, 2542802, 2545526, 2542826, FAX : 2542102

E-mail: ohpc.co@gmail.com / info@ohpcltd.com, Website : www.ohpcltd.com

No. OHPC- AC-HQ-FW-98(Vol-X) - **4276** Dated **26.04.2024**

To

The Secretary,
Orissa Electric Regulatory Commission,
Plot No.4, Chunokoli, Shailashree Vihar,
Chandrasekharpur, Bhubaneswar-751021.

Sub:- Clarification sought regarding tariff order passed by Hon'ble OERC for FY 2024-25 (Case No. 111/2023).

Sir,

In inviting a reference to the tariff order passed by Hon'ble OERC for FY 2024-25 on 13.02.2024, OHPC submits the following before Hon'ble OERC for kind consideration:-

Issue-(i):-Less approval of O&M

For computation of O&M Expense of different power stations of OHPC for the FY 2024-25, OHPC escalated the average audited O&M expenses for FY 2021-22 & FY2022-23 @ 5.72% for FY2023-24 & FY2024-25 as per the principle adopted by the Hon'ble Commission in the tariff orders of OHPC for the FY2022-23 & FY2023-24 and accordingly proposed for approval of Rs 346.034Crs.

Hon'ble OERC in para no 57(d)(ii) of its order for FY 2024-25 after observing the following & approved Rs 317.89 Cr. towards O&M for FY 2024-25 ARR.

Quote

"The Commission analysed the audited O&M expenses of OHPC for FY 2021-22 and FY 2022-23 and observed that certain audited expenditure cannot be treated as purely O&M expenses i.e. loss of asset, loss of inventory, CSR, Rebate on sale of scrap and Donation. The Commission, after due scrutiny, is not inclined to allow the above audited expenditures booked under O&M expense."

Unquote

It is to submit that after deducting loss of asset, loss of inventory, CSR, Rebate on sale of scrap and Donation (as observed by Hon'ble OERC), the audited O&M expense for the FY 2021-22 & 2022-23 works out to Rs 278.646 Cr & Rs 316.973 Cr respectively. Accordingly O&M expense for FY 2024-25 becomes Rs 332.854 Cr as against Rs 317.89 Cr as approved by Hon'ble OERC. Hence, there seems computational error which may please be considered.

Moreover, OHPC is entitled to get the benefit of Rs13.18 Cr (i.e. Rs 346.034 Cr minus Rs 332.854 Cr) towards loss of inventory, Rebate on sale of scrap, Donation, etc. since the same are arising out of operational activities of the Corporation. Thus, the differential amount of Rs 13.18 Cr , which was deducted by Hon'ble OERC towards loss of asset, loss of inventory, CSR, Rebate on sale of scrap, donation etc. may kindly be reconsidered as a pass through.

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ଫୋନ: ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ: ୨୫୪୨୧୦୨

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E-mail: ohpc.co@gmail.com / info@ohpcltd.com, Website : www.ohpcltd.com

For the sake of brevity, the clarification sought as explained at above paragraph is depicted below.

Components of tariff	Proposed for FY 2024-25 (Rs in Cr.) (1)	Approved by Hon'ble OERC for FY 2024-25 (Rs in Cr.) (2)	Difference (Rs in Cr.)(3)= (1)-(2)	Remarks
O&M	346.034	317.89	28.144	There is a computational error of Rs 14.964 Cr which needs clarification.
				Rs 13.18 Cr (i.e. Rs 346.034 Cr minus Rs 332.854 Cr), which has been deducted by Hon'ble OERC towards loss of asset, loss of inventory, CSR, Rebate on sale of scrap, donation etc., may kindly be allowed to OHPC as a pass through since, these expenditures are arising out of operational activities of the Corporation.

Issue-(ii):- Less approval of interest on working capital

OHPC had followed the same principles as adopted by Hon'ble OERC for approval of interest on working capital during previous years and proposed for approval of interest on working capital amounting to Rs 17.079 Cr considering the MCLR rate of SBI as on 01.04.2023 i.e. 8.5% plus 300 basis point.

Hon'ble Commission approved Rs 14.030 Cr towards interest on working capital considering 10.10% (7.10% interest rate as on 01.04.2020 + 300 basis point) as the rate of interest as per clause 24(3) of the Regulations for calculation of working capital for FY 2024- 25.

As per Clause 24(3) of the OERC Generation Tariff Regulation, 2020 cited as follows:-

"Rate of interest on working capital shall be on normative basis and shall be equal to the Bank Rate as on 01.04.2020 or on 1st April of the year in which the generating station or a unit thereof, is declared under commercial operation, whichever is later."

As per Clause 3(1)(h) of the OERC Generation Tariff Regulation, 2020 cited as follows:-

"Bank Rate means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 300 basis points"

Hon'ble OERC in the previous tariff orders had also allowed interest on working capital considering MCLR rate as on the 1st April of the immediately preceding financial year of the tariff year for which ARR is proposed to be approved. This seems to be logically correct as Hon'ble OERC is approving tariff of OHPC annually but not Multiyear Tariff basis.

Therefore, interest on working capital may kindly be reconsidered considering interest rate of 11.5% instead of 10.10%.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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ଫୋନ: ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ: ୨୫୪୨୧୦୨

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For the sake of brevity, the clarification sought as explained at above paragraph is depicted below.

Components of tariff	Proposed for FY 2024-25 (Rs in Cr.) (1)	Approved by Hon'ble OERC for FY 2024-25 (Rs in Cr.) (2)	Difference (Rs in Cr.) (3)=(1)-(2)	Remarks
Interest on working capital	17.07	14.03	3.04	Interest on WC may be approved @ 11.50% instead of 10.10%. Further in case, any additional O&M is allowed by Hon'ble OERC as proposed at issue (i), additional amount towards interest on working capital may also be considered as a pass through.

Issue-(iii):-Less approval of Reimbursement of Income Tax based on the Audited Account of FY 2021-22 & 2022-23

Hon'ble OERC had specified the procedure for approval of income tax reimbursement in case no 65/2021 regarding review of Tariff order for FY 2021-22.OHPC adopted the same procedure and claimed IT reimbursement of Rs 21.95 Cr for FY 2023-24 in its original application for approval of ARR for FY 2023-24. However Hon'ble OERC in tariff order for FY 2023-24, had approved only Rs20.62Crs towards IT reimbursement for FY 2023-24 instead of Rs21.95Crs as claimed by OHPC. Thereafter OHPC prayed for review of approval of IT reimbursement for FY 2023-24 and Hon'ble OERC in its order (case no 52 of 2023) observed that OHPC may submit details of reimbursement in the next tariff proceeding i.e. ARR application for FY 2024-25 which can be considered then. Accordingly OHPC in its tariff application for FY 2024-25 proposed for approval of differential amount of Rs1.3 Cr (i.e. Rs 21.95 Cr less Rs 20.62 Cr) towards IT reimbursement for FY 2023-24. However surprisingly Hon'ble OERC reduced its previous approval of Rs 20.46 Cr to Rs 6.62 Cr which had already reached its finality.

Also following the same procedure as adopted by Hon'ble OERC in case no 65/2021 in respect of approval of IT reimbursement, OHPC claimed IT reimbursement of Rs 17.02 Cr for FY 2024-25 in its original tariff application for FY 2024-25 whereas Hon'ble OERC allowed Rs 7.29 Cr for FY 2024-25. As observed from the order, it is found that Hon'ble OERC has considered the Gross Profit as per Audited Account which has been prepared as per the companies Act, 2013 for computation of IT reimbursement from core income. However, Gross Profit as per the income Tax Act and as per the Audited accounts are different and prepared under two different laws in different manner. Hence, Gross profit as per the Income Tax Act should be considered for computation of IT Reimbursement.

Further, while considering the other income for computation of IT reimbursement, Hon'ble OERC has not deducted some items like Dam share from DoWR, exempted income etc.

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ODISHA HYDRO POWER CORPORATION LTD.

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In view of above the differential amount of Rs 15.33 Cr (i.e. Rs 21.95 Cr less Rs 6.62 Cr) & Rs 9.73 Cr (i.e. Rs 17.02 Cr less Rs 7.29 Cr) for the FY 2023-24 & 2024-25 respectively towards IT reimbursement may please be reconsidered.

For the sake of brevity, the clarification sought as explained at above paragraph is depicted below.

Components of tariff	FY	Proposed (Rs in Cr.) (1)	Approved by Hon'ble OERC (Rs in Cr.) (2)	Difference (Rs in Cr.) (3)=(1)-(2)	Remarks
Reimbursement of Income Tax	2023-24	21.95	6.62	15.33*	Hon'ble OERC in tariff order for FY 2023-24, had approved only Rs20.62Crs towards IT reimbursement for FY 2023-24 instead of Rs21.95Crs as claimed by OHPC. Thereafter Hon'ble OERC observed in its review order dated 16.08.2023 (case no 52/2023) that OHPC may submit details of its claim of balance of Rs 1.3 Cr in the next tariff proceeding i.e. ARR application for FY 2024-25 which can be considered . Accordingly OHPC, in its Tariff application for FY 2024-25, has claimed balance of Rs 1.3 Cr towards IT reimbursement. However in the Tariff order for FY 2024-25 Hon'ble OERC reduced its approval to Rs 6.62 Cr without citing any reason. Therefore Rs 15.33 Cr may kindly be reconsidered for pass through.
	2024-25	17.02	7.29	9.73*	*For computation of IT reimbursement from core income for both FY 2023-24 & 2024-25 Hon'ble OERC had considered the Gross Profit as per Audited Account which has been prepared as per the companies Act, 2013 instead of profit as per the Income Tax Act,1961. Therefore, Rs 9.73 Cr may kindly be reconsidered for pass through towards income Tax reimbursement.

Therefore, it is requested to kindly consider the above issues & a suitable clarificatory order to this effect may kindly be arranged to be issued at the earliest.

Thanking you.

Yours faithfully,

Director (Finance)

Odisha Hydro Power Corporation Ltd. Bhubaneswar

The Odisha Gazette

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ODISHA ELECTRICITY REGULATORY COMMISSION

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NOTIFICATION

The 6th November 2024

No. 1285—OERC/RA/GEN. REG./41/2024—In exercise of powers conferred under section 181 read with Section 61, 62 & 86 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in that behalf, the Odisha Electricity Regulatory Commission hereby makes the following Regulations, namely:

CHAPTER - 1

PRELIMINARY

1. SHORT TITLE AND COMMENCEMENT

(1) These Regulations shall be called "Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024".

(2) These Regulations shall be applicable in the State of Odisha.

(3) The Commission in specifying these Regulations shall be guided by the principles contained in Sections 61 and 62 of the Act to encourage competition, efficiency, economical use of resources, good performance and optimum investments.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

(b) For Selective Catalytic Reduction (SCR) System: The specific ammonia consumption of the SCR system shall be 0.6 g per kWh at 100% purity of ammonia.

50. NORMS OF OPERATION FOR HYDRO GENERATING STATION

The norms of operation as given hereunder shall apply to hydro generating stations:

(a) Normative annual plant availability factor (NAPAF) for hydro generating stations:

(i) Storage and Pondage type plants with head variation between Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of up to 8%, and where plant availability is not affected by silt - 90%;

(ii) Storage and Pondage type plants with head variation between FRL and MDDL of more than 8%, where plant availability is not affected by silt: the month wise peaking capability as provided by the project authorities in the DPR (approved by CEA or the State Government) shall form basis of fixation of NAPAF;

(iii) Pondage type plants where plant availability is significantly affected by silt - 85%;

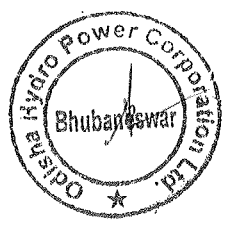
(iv) Run-of-river type plants: NAPAF to be determined plant-wise, based on 10-day design energy data, moderated by past experience where available/relevant.

(b) A further allowance may be made by the Commission in NAPAF determination under special circumstances, e.g. abnormal silt problem or other operating conditions, and known plant limitations.

(c) The Normative Annual Plant Availability Factor (NAPAF) for existing Hydro Generating Stations of OHPC Ltd will be as determined by the Commission from time to time.

(d) In the case of pumped storage hydro generating stations, the quantum of electricity required for pumping water from the down-stream reservoir to the up-stream reservoir shall be arranged by the beneficiaries duly taking into account the transmission and distribution losses up to the bus bar of the generating station. In return, beneficiaries shall be entitled to an equivalent energy of 75% of the energy utilized in pumping the water from the lower elevation reservoir to the higher elevation reservoir from the generating station during peak hours, and the generating station shall be under obligation to supply such quantum of electricity during peak hours:

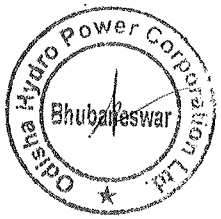
Provided that in the event of the beneficiaries failing to supply the desired level of energy during off-peak hours, there will be a pro-rata reduction in their energy entitlement from the station during peak hours:



Provided further that the beneficiaries may assign or surrender their share of capacity in the generating station, in part or in full, or the capacity may be reallocated by the Central Government, and in that event, the owner or assignee of the capacity share shall be responsible for arranging the equivalent energy to the generating station in off-peak hours, and be entitled to corresponding energy during peak hours in the same way as the original beneficiary was entitled.

(e) Auxiliary Energy Consumption (AEC) for Hydro generating stations:

Type of Hydro Generating Station	**AEC**	
	Installed Capacity above 200MW	**Installed Capacity upto 200MW**
Surface hydro generating stations		
Rotating Excitation System (Mounted on generator shaft)	0.7%	0.7%
Static Excitation System	1.0%	1.2%
Underground hydro generating stations		
Rotating Excitation System (Mounted on generator shaft)	0.9%	0.9%
Static Excitation System	1.2%	1.3%



Annexure- 10

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EXTRAORDINARY

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ODISHA ELECTRICITY REGULATORY COMMISSION

BIDYUT NIYAMAK BHAWAN

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NOTIFICATION

The 6th November 2024

No. 1285—OERC/RA/GEN. REG./41/2024—In exercise of powers conferred under section 181 read with Section 61, 62 & 86 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in that behalf, the Odisha Electricity Regulatory Commission hereby makes the following Regulations, namely:

CHAPTER - 1

PRELIMINARY

1. SHORT TITLE AND COMMENCEMENT

(1) These Regulations shall be called "Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024".

(2) These Regulations shall be applicable in the State of Odisha.

(3) The Commission in specifying these Regulations shall be guided by the principles contained in Sections 61 and 62 of the Act to encourage competition, efficiency, economical use of resources, good performance and optimum investments.

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-A122-

Energy Charges = (Energy charge rate in Rs. / kWh) x {Scheduled energy (ex-bus) for the month in kWh} x (100 – FEHS) / 100.

(6) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis, for a hydro generating station, shall be determined up to three (3) decimal places based on the following formula, subject to the provisions of Clause (9) of this Regulation:

ECR = AFC x 0.5 x 10 / {DE x (100 – AUX) x (100 – FEHS)}

Where,

DE = Annual design energy specified for the hydro generating station, in MWh, subject to the provision in Clause (7) below.

FEHS = Free energy for home State (in percent), if any, as per Note in Regulation 53 of these Regulations.

(7) In case the saleable scheduled energy (ex-bus) of a hydro generating station during a year is less than the saleable design energy (ex-bus) for reasons beyond the control of the generating station, the generating station may directly recover the shortfall in energy charges in six equal interest-free monthly instalments after adjusting for DSM Energy in the immediately following year and shall be subject to truing up at the end of the tariff period.

Provided that in case actual generation from a hydro generating station is less than the design energy for a continuous period of four (4) years on account of hydrology factor, the generating station shall approach the Central Electricity Authority with relevant hydrology data for revision of design energy of the station.

(8) Any shortfall in the energy charges on account of saleable scheduled energy (ex-bus) being less than the saleable design energy (ex-bus) during the tariff period 2020-2024 which was beyond the control of the generating station and which could not be recovered during the said tariff period shall be recovered in accordance with clause (7) of this Regulation.

(9) In case the energy charge rate (ECR) for a hydro generating station, computed as per clause (6) of this Regulation exceeds eighty paise per kWh (80p/kWh), and the actual saleable energy in a year exceeds {DE x (100 – AUX) x (100 – FEHS) / 10000} MWh, the Energy charge for the energy in excess of the above shall be billed at eighty paise per kWh (80p/kWh) only;

(10) In addition to the above, an incentive shall be payable to a ROR Hydro generating station @ 50 paise/ kWh corresponding to the saleable scheduled energy during peak hours of the day in excess of average saleable scheduled energy during the day (24 hours).

(11) The SLDC shall finalise the schedules for the hydro generating stations, in consultation with the beneficiaries, for optimal utilization of all the energy

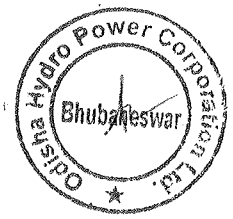
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Annexure- 11

Statement of Energy Compensation received From FY 2014-15 to FY 2023-24				
HHEP, Burla				
	For FY-2014-15			
Sl No.	Name of the Firm	Bill for the Month	Amount received (in Rs.)	Date of Received
1	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda		40,99,765.00	21.11.2014
2	M/s Action Ispat & Energy Pvt. Ltd., Jharsuguda		6,00,000.00	28.11.2014
3	M/S Bhusan Steel & Power Ltd., Sambalpur		60,00,000.00	04.12.2014
4	M/S SMC Power Generation Ltd., Jharsuguda		7,00,000.00	16.12.2014
5	M/S SMC Power Generation Ltd., Jharsuguda		7,00,000.00	01.01.2015
6	M/S Vedanta Aluminium Ltd., Jharsuguda		1,10,85,945.00	02.02.2015
7	M/S Vedanta Aluminium Ltd., Jharsuguda		1,10,85,945.00	12.02.2015
8	Sterlite Energy Ltd, Bhubaneswar		29,13,698.00	02.02.2015
9	Sterlite Energy Ltd, Bhubaneswar		29,13,698.00	12.02.2015
10	M/S Indian Aluminium Company Ltd., hirakud (HINDALCO)		26,00,000.00	10.02.2015
11	M/S Indian Aluminium Company Ltd., hirakud (HINDALCO)		26,00,000.00	11.02.2015
	Total		**4,52,99,051.00**	
	For FY-2019-20			
1	**M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda**	**April-19 to July-19**	**20,94,479.36**	**15.10.2019**
	For FY-2020-21			
1	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	FY-2012-13 to 2018-19	2,48,98,187.99	30.04.2020
2	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Aug-19 to January-2020	24,30,387.59	30.04.2020
3	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Feb-20	5,73,018.21	02.06.2020
4	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Mar-20	6,12,536.71	19.06.2020
5	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Apr-20	5,92,777.46	19.06.2020
6	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	May-20	6,12,536.71	12.08.2020
7	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	April-2020(Differential Amount)	59,277.70	10.11.2020
8	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	May-2020 (Differential Amount)	61,253.62	10.11.2020
9	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jun-20	6,52,055.16	10.11.2020

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10	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jul-20	3,26,027.58	10.11.2020
11	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Oct-20	6,73,790.33	24.12.2020
12	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Nov-20	6,52,055.16	29.01.2021
13	Hindalco Industries Limited, Lapanga, Sambalpur-768212	From FY-2005-06 to Nov-2020	6,32,24,950.00	25.02.2021
14	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	From FY-2005-06 to Jan-2021	2,65,46,725.00	25.02.2021
15	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Dec-20	6,73,790.33	26.03.2021
16	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jan-21	6,73,790.33	26.03.2021
17	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Feb-21	6,08,584.81	26.03.2021
18	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Feb-21	1,86,557.00	22.03.2021
	Total		**12,40,58,301.69**	
	For FY-2021-22			
1	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Mar-21	2,06,545.00	15.05.2021
2	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Mar-21	6,73,790.33	10.05.2021
3	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Apr-21	7,17,260.88	28.05.2021
4	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Apr-21	2,21,581.00	01.06.2021
5	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	May-21	7,41,169.58	25.06.2021
6	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	May-21	2,28,967.00	07.07.2021
7	Hindalco Industries Limited, Lapanga, Sambalpur-768212		70,25,448.00	02.09.2021
8	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jul-21	3,58,630.44	31.08.2021
9	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jun-21	7,17,642.31	30.09.2021
10	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Jun-21	1,10,790.00	12.11.2021
11	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Oct-21	7,41,169.58	04.12.2021
12	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Nov-21	7,17,260.88	31.12.2021
13	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Nov-21	8,54,541.00	05.01.2022
14	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Dec-21	7,41,169.58	29.01.2022
15	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Dec-21	8,83,025.00	01.02.2022



16	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Nov-21	2,21,581.00	23.02.2022
17	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jan-22	7,41,169.58	28.02.2022
18	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Jan-22	8,83,025.00	02.03.2022
19	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Feb-22	6,69,443.49	31.03.2022
	Total		**1,74,54,209.65**	
	For FY-2022-23			
1	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Mar-22	8,83,025.00	28.04.2022
2	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Dec-21 & Jan-22	4,57,934.00	04.04.2022
3	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Feb-22	7,97,571.00	04.04.2022
4	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Feb-22 & Mar-22	4,35,775.00	07.05.2022
5	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Mar-22	7,41,169.58	07.05.2022
6	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Apr-22	8,54,541.00	21.06.2022
7	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Apr-22	7,88,986.76	30.05.2022
8	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Apr-22	2,21,581.00	17.06.2022
9	Hindalco Industries Limited, Lapanga, Sambalpur-768212	May-22	8,83,025.00	24.06.2022
10	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	May-22	8,15,286.32	28.07.2022
11	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jun-22	7,88,986.76	28.07.2022
12	Hindalco Industries Limited, Lapanga, Sambalpur-768212	Jun-22	4,27,270.00	27.07.2022
13	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	May-22	2,28,967.00	30.07.2022
14	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jul-22	3,94,493.38	30.08.2022
15	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Jul-22	2,44,594.00	13.09.2022
16	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	April-22 to June-22 (Differential Amount)	45,872.00	13.09.2022
17	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Aug-22	2,44,594.00	14.10.2022
18	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Sep-22	2,36,703.00	04.11.2022
19	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Oct-22	8,15,286.32	17.12.2022
20	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Nov-22	7,88,986.76	28.12.2022

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21	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Nov-22	9,39,995.00	04.01.2023
22	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Dec-22	8,15,286.32	25.01.2023
23	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Dec-22	9,71,328.00	31.01.2023
24	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Jan-23	9,18,692.00	16.02.2023
25	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jan-23	8,15,286.32	22.02.2023
26	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Feb-23	7,36,387.64	23.03.2023
27	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Feb-23	8,52,005.00	27.03.2023
	Total		**1,71,43,628.16**	

For FY-2023-24

Sl No.	Name of the Firm	Bill for the Month	Amount received (in Rs.)	Date of Received
1	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Feb-23	2,20,923.00	10-04-2023
2	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Mar-23	10,63,424.00	02-05-2023
3	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Mar-23	2,44,593.00	04-05-2023
4	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Apr-23	9,12,862.00	25-05-2023
5	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Mar-23	8,15,286.32	25-05-2023
6	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Apr-23	2,56,429.00	03-06-2023
7	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Apr-23	8,67,885.28	02-06-2023
8	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	May-23	10,97,971.00	27-06-2023
9	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	May-23	2,64,976.00	05-07-2023
10	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	May-23	8,96,814.79	05-07-2023
11	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jun-23	8,67,885.28	27.07.2023
12	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Jun-23	4,94,468.00	26-07-2023
13	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Jun-23	1,28,214.00	01-08-2023
14	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jul-23	4,33,942.64	28-08--2023
15	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Oct-23	8,96,814.79	22-11-2023

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16	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Nov-23	9,88,932.00	01.01.2024
17	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Nov-23	8,67,885.28	04.01.2024
18	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Nov-23	2,56,427.00	10.01.2024
19	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Dec-23	8,96,814.79	31.01.2024
20	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Dec-23	10,21,899.00	06.02.2024
21	Hindalco Industries Limited, Hirakud Complex, Hirakud-768016	Dec-23	2,64,976.00	15.02.2024
22	M/S Belpahar Integrated Township (BIT), Bandhabhal, MCL, Jharsuguda	Jan-24	8,96,814.79	19.02.2024
23	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Jan-24	2,64,976.00	21.02.2024
24	M/S Aditya Alluminium (S&P), A Division of Hindalco Ind. Ltd., Lapanga, Sambalpur	Jan-24	10,21,899.00	04.03.2024
	Total		**1,59,43,112.96**	
	Gross Total		**22,19,92,782.82**	

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Energy Compensation Charges Received from Various Organisations (CHEP, Chiplima) upto September- 2024

Organisation name	Rathi Steel		BAIF		East Coast Railway		Total	
F.Y.	Due	Receipt	Due	Receipt	Due	Receipt	Due	Receipt
2005-06	1500000						1500000	0
2006-07	1650000						1650000	0
2007-08	1815000						1815000	0
2008-09	1996500	1500000					1996500	1500000
2009-10	2196150	1500000					2196150	1500000
2010-11	2415765						2415765	0
2011-12	2657341						2657341	0
2012-13	2923075		139260	139260			3062335	139260
2013-14	3215383		155974				3371357	0
2014-15			171491	155974			171491	155974
Total arrear from 2005-06 to 2014-15					440464		440464	0
2015-16			189265	171491	71963	506302	261228	677793
2016-17			207625	189265	78897	78247	286522	267512
2017-18			228383	207625	87280	86692	315663	294317
2018-19				228383	95435	94699	95435	323082
2019-20					105203	96041	105203	96041
2020-21					116194	94555	116194	94555
2021-22					127323	155443	127323	155443
2022-23					140768	139690	140768	139690
2023-24					152855	126423	152855	126423
2024-25					85375	123665	85375	123665
Total	20369214	3000000	1091998	1091998	1501757	1501757	22962969	5593755

Note: Balance due from Rathi Steel is Rs. 17369214/-

Odisha Hydro Power Corporation Ltd.
22-11
The Dhenkanal
CHEP,Chiplima

East Coast Railway

Month	Due	Receipt	Remarks
2021-22			
Apr-21		38900	
	10830	10830	
May-21	10780	10780	
Jun-21	10432	10432	
Jul-21	10780	10780	
Aug-21	10780	10780	
Sep-21	10432	10432	
Oct-21	10780	10780	
Nov-21	10432	10432	
Dec-21	10780	10780	
Jan-22	10780	10780	
Feb-22	9737	9737	
Mar-22	10780		Received in April-2022
Total	127323	155443	
2022-23			
Apr-22		10780	
	11476	11476	
May-22	11858	11858	
Jun-22	11476	11476	
Jul-22	11858	11858	
Aug-22	11858	11858	
Sep-22	11476	11476	
Oct-22	11858	11858	
Nov-22	11476	11476	
Dec-22	11858	11858	
Jan-23	11858	11858	
Feb-23	11858	11858	
Mar-23	11858		Received in April-2023
Total	**140768**	**139690**	

2023-24			
Apr-23		11858	
	12623	12623	
May-23	11897	11897	
Jun-23	12623	12623	
Jul-23	13044	13044	
Aug-23	13044	13044	
Sep-23	12623	12623	
Oct-23	13044	13044	
Nov-23	12623	12623	
Dec-23	13044	13044	
Jan-24	13044		Received in April 2024
Feb-24	13044		
Mar-24	12202		
Total	**152855**	**126423**	

2024-25			
Apr-24		38290	
	14559	14559	
May-24	14348	14348	
Jun-24	13886	13886	
Jul-24	14348	14348	
Aug-24	14348	14348	
Sep-24	13886	13886	
Total	**85375**	**123665**	

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True Up Petition for the Period FY 2020-21 to FY 2023-24 including Gross Fixed Assets of different power stations of OHPC

Odisha Hydro Power Corporation Ltd.

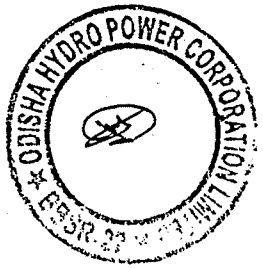
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Capital Cost proposed for the Truing up for FY 2023-24

(Rs. in Crs.)

		Asset reduction (in Crs.)			New Addition (in Crs.)				Project Cost (in Crs.)			
Sl. No.	Name of the Power Stations	Asset reduction during the FY 2011-12 to FY 2022-23	Asset reduction during the FY 2023-24	Total Asset reduction during the FY 2011-12 to FY 2023-24	Total New additions from 01.04.1996 to 31.03.2023 considered for truing up for2022-23	New additions for FY 2023-24 (Audited)	Less PSDF Grant for FY 2023-24	Total New additions from 01.04.1996 to 31.03.2024 considered for truing up for2023-24	Historic cost of assets as on 01.04.96 & Original Project Cost of UIHEP	Total New additions from 01.04.1996 to 31.03.2024 considered for Tariff 2023-24	Total Asset reduction during the FY 2011-12 to FY 2023-24	Project cost considered for Tariff Calculationn based on Historic Cost
1	2	3	4	5=3+4	6	7	8	9=6+7-8	10	11=9	12=5	13=10+11-12
1	RHEP	1.721	0.002	**1.723**	67.581	21.752		89.333	91.090	89.333	1.723	**178.700**
2	UKHEP	3.306	0.203	**3.509**	29.655	13.104		42.759	108.310	42.759	3.509	**147.560**
3	BHEP	3.200	0.005	**3.205**	341.264	75.678		416.943	115.420	416.943	3.205	**529.158**
4	HHEP	19.842	5.843	**25.685**	424.761	27.384		452.144	72.750	452.144	25.685	**499.209**
5	CHEP	2.816	0.002	**2.818**	122.008	30.944		152.952	92.230	152.952	2.818	**242.364**
	Sub Total	**30.885**	**6.055**	**36.940**	**985.269**	**168.862**	**0.000**	**1154.131**	**479.800**	**1154.131**	**36.940**	**1596.990**
6	UIHEP	5.564	0.261	**5.825**	150.904	45.028		195.932	1194.790	195.932	5.825	**1384.896**
	Total	**36.449**	**6.316**	**42.765**	**1136.173**	**213.890**	**0.000**	**1350.063**	**1674.590**	**1350.063**	**42.765**	**2981.886**



ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO. 4, CHUNUKOLI, SHAILASHREE VIHAR,
BHUBANESWAR-751021
****

Present: **Shri U. N. Behera, Chairperson**
Shri S. K. Parhi, Member

Case No. 56/2019

OHPC Ltd. ..... Petitioner

-Vrs. -

Sri Ananda Kumar Mohapatra & others ..... Respondents

In the matter of: **Application for approval of Capital Maintenance of Unit-2 and 4 of UIHEP, Unit-1 of HHEP, Burla; approval of Capital civil works and procurement of Capital spares and Implementation of ERP System of OHPC for FY 2019-20 as per Para No. 133 of the Tariff Order of OHPC for FY 2019-20.**

For Petitioner: Sri P P Sahu, CGM (Finance), OHPC Ltd.
Sri G R Das, CGM, OHPC Ltd.
Sri A K Das, Manager (Elect.), OHPC Ltd.

For Respondent: Sri S S Nayak, CGM (PP), GRIDCO Ltd.
Sri R P Mohapatra

ORDER

Date of hearing: 05.11.2019 **Date of order:11.06.2020**

The OHPC Ltd., has filed the present petition basing on the Commission's direction at para 133 of Tariff order of OHPC for FY 2019-20 wherein it was observed that "the proposal submitted by OHPC at para 130-132 need to be studied in detail and OHPC should file a separate petition with justification for approval of those projects."

2. Accordingly, OHPC has resubmitted the revised proposal of capital maintenance of generating units and procurement of capital spares of different generating stations of OHPC in this petition as detailed below:

Sl. No.	Generating Unit	Name of the Work/ Critical Spares	Tentative Period of Shut Down	Estimated Cost (in Rs)
1.	UIHEP	Capital Maintenance of Unit-II of UIHEP, Mukhiguda for replacement of underwater parts such as guide vanes along with bushes, facing plates and stationary & rotating labyrinth seal etc.	181 days	26,81,65,947/-

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2.		Capital Maintenance of Unit-IV of UIHEP, Mukhiguda for Design, Manufacturing and Supply of new stator and replacement of old Stator of Unit No – 4 and & replacement of critical Spare parts along with service.	220 days	50,28,81,883/-
3.	**HHEP**	Capital maintenance of Unit I of HHEP, Burla for correction of turbine shaft journal, TGB shell and shaft seal, dismantling and reassembly of turbine and generators, testing and commissioning of units.	4 months	7,42,00,000/-
4.	**UKHEP**	Construction of 220/33 KV Sub-Station with Station Transformer of 7.5 MVA and Control Panel with accessories along with extension of existing 220 KV Bay of UKHEP Bay.	60 days	3,82,38,553/-
5.	**CHEP, UKHEP, RHEP, HHEP**	Procurement of One No. of generator transformer under capital spare for each Power Station.	50 days each	CHEP: 2,14,76,000/- UKHEP: 5,44,86,500/- RHEP: 4,57,25,000/- HHEP: 3,92,32,761/-
6.	**CHEP**	Repair & Rehabitation of Chiplima fore bay, Spillway and Surplus escape including survey, geotechnical and geological investigations, Design, Drawing, Vetting, Tendering, Execution, Supervision, Quality Control etc. on deposit work basis.	180 days (45 days each in May/June and November/ December)	99,62,73,544/-

Hence, OHPC prays to approve capital maintenance proposal of different generating units of OHPC and procurement and replacement of one number each of Generator Transformer for CHEP, UKHEP, RHEP and HHEP as mentioned above.

3. OHPC has also proposed the following capital civil works along with implementation of ERP system as shown in the table below:

Sl.No.	**Name of the work.**	**Amount (Rs. in Crores)**
1.	Construction of 12 nos. of 'D' type qrs., at CHEP, Chiplima	4.43
2.	Construction of office building, at UIHEP, Mukhiguda	5.31
3.	Construction of 2-0 nos. of 'D' type qrs., at BHEP, Balimela	6.11
4.	Construction of multi storied office/commercial complex at OHPC Training Center, Bhubaneswar	136.03
5.	Construction of Shakti Bhawan (OHPC's shares for its office space)	80.00
6.	Construction of multi storied commercial complex on plot No.324(Pt.) Khata No.-619, Chandrasekharpur, BBSR	136.03
7.	Construction of New Officers' Club at BHEP, Balimela	0.61
8.	Implementation of ERP system in OHPC	48.96

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4. The respondent GRIDCO has observed that OHPC has claimed a total amount of Rs.621.552 crs. to be capitalized in the project cost of different hydro power stations as detailed below:

(a) Capital maintenance Rs.84.52 crs.
(b) Capital civil works Rs.471.97 crs.
(c) Capital spares Rs.16.09 crs.
(d) Miscellaneous Rs.48.96 crs.

5. GRIDCO has further submitted that at present the following units of OHPC stations are under R&M work.

Power Stations	Units	Zero Data	Tentative Date of Commercial Operation	Total duration of shutdown for R & M works
CHEP, Chiplima	3	15.10.2015	15.06.2017	20 months
BHEP Balimela	1	05.08.2016	05.02.2019	30 months
	2	21.11.2017	20.05.2019	18 months
	3	05.08.2018	05.02.2020	30 months
	4	05.08.2018	05.02.2020	18 months
	5	05.08.2019	05.02.2021	18 months
	6	05.08.2019	05.02.2021	18 months
HHEP, Burla	5	25.10.2016	24.04.2018	16 months
	6	16.10.2015	16.02.2018	28 months

GRIDCO further submitted that till date none of the above units have been brought back to operation although OHPC have realized its full Capacity Charge for the Units under R&M for approved period of shut down by the Commission. The present status of R & M work as submitted by OHPC in petition No.69/2018 is as follows:

Power Stations	Units	Zero Date	Approved period of shutdown	Scheduled date of completion	Tentative date of commercial operation	Remarks
CHEP, Chiplima	3	15.10.2015	20 months	14.06.2017	30.09.2019	Will be synchronized shortly
HHEP, Burla	5	25.10.2016	21 months	25.07.2018	23.06.2020	Project delayed
	6	16.10.2015	18 months	15.04.2017	01.04.2020	Project delayed
BHEP, Balimela	1	05.08.2016	30 months	05.02.2019	31.12.2019	Project delayed
	2	21.11.2017	18 months	20.05.2019	31.12.2019	Project delayed
	3	01.01.2020 (Tentative)	18 months	30.06.2021	30.06.2021	R&M not started
	4	01.01.2020 (Tentative	18 months	30.06.2021	30.06.2021	R&M not started
	5	01.01.2021 (Tentative)	18 months	30.06.2022	30.06.2022	R&M not started
	6	01.01.2021 (Tentative)	18 months	30.06.2022	30.06.2022	R&M not started

6. It is observed from the above table that the state is deprived of availing cheap hydro power of around 208 MW from CHEP, HHEP and BHEP since 2015-16 till date. Again in the present petition, OHPC prays for capital maintenance of one number of

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generating unit of 49.5 MW capacity in HHEP and two numbers of generating units of 300 MW capacity of UIHEP which comes together to around 350 MW. Since the reservoir level of various hydro stations are in comfortable position OHPC may be directed to bring back the Units under R&M into operation for greater interest of the state and GRIDCO is of the view that capital maintenance of HHEP and unit 2 & 4 of UIHEP may be allowed by the Commission after the Units under R&M are brought back to operation.

7. GRIDCO further submitted that as per OERC Generation Tariff Regulations, 2014, clause 3.4 "the Capital Expenditure incurred or projected to be incurred under following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check":

x x x x x

(d) Any additional works/services which have become necessary for efficient and successful operation of a generating station but not included in the original capital cost.

(e) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation.

8. As per agreed clause-4 of PPA executed between GRIDCO & OHPC regarding Adjustments on Renovation & Additional Capital Expenditure the following has been mentioned:

"4.1.1 The Approved Capital Cost shall be :

(a) Increased by the cost incurred by OHPC in OHPC's complying with its obligations pursuant to and in accordance with clause 2.1(e) & also any additional capital expenditure on case to case basis duly approved by OERC can only be passed through tariff.

4.3 Any expenditure for maintenance, major overhaul of equipment to operate & maintain the Power Station during the term of agreement shall be met out of O & M and Insurance charges included in the tariff.

4.4 Any expenditure on replacement of old assets shall be considered for additional capitalization after writing off the gross value of the original assets from the original capital cost."

9. In OERC Generation Tariff Regulation 2014 the definition of Operation & Maintenance Expenses (O&M expenses) stipulates that:

"O&M expenses means the expenditure incurred on operation & maintenance of the project, or part thereof, and includes the expenditure on manpower, repairs, maintenance, spares, consumables, insurance and overheads but excludes fuel expenses & water charges."

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From the above stipulations, it may be observed that it is the jurisdiction of the Commission to increase the project cost/capital cost of a Generating company by allowing additional capitalization in the process of determination of tariff.

10. GRIDCO is of the view that capital civil work claim of OHPC amounting to Rs.510.54 crs. may be met from miscellaneous earnings of OHPC otherwise there will be huge burden on the consumers of the state. Further, the proposal for civil constructions which are not incidental to the hydro generation may not be allowed to be passed on into tariff. There will be an average increase of 24 paise per unit in the 1st year tariff due to the additional capitalization as proposed by OHPC. Hence, GRIDCO has submitted as follows:

(i) to allow and approve the claim of OHPC towards capital maintenance of various units, implementation of ERP system in OHPC, procurement of capital spares as well as capital civil works through prudence check and to decide whether the claimed items and amount will be capitalized or the expenditure will be shown under O&M expenses as per prevailing norms and regulations.

(ii) to ensure that the units under R&M as well as capital maintenance should be brought back into operation within the approved period of shut down.

(iii) to pass on the impact of tariff due to allowance of such additional capitalization as well as O&M expenses to the BSP tariff for greater interest of general consumer of the state.

11. Sri R P Mohapatra has submitted that OHPC has not carried out the capital maintenance of the generating units of different hydro power stations for a very long period and is proposing such capital maintenance after serious damage and break down of the units. Further, replacement of complete stator or all the underwater components of the turbine cannot be treated as part of capital maintenance. Therefore, OHPC may be directed to submit the following information before its proposal is considered.

(i) Extracts from the Manufacturer's Instruction Manual regarding the interval period and the maintenance works to be carried out for Capital Maintenance of the generating units in operation in the different power stations of OHPC.

(ii) The period when such Capital Maintenance was carried out by OHPC as per the instructions of the Manufacturers.

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(iii) The reasons as to why the Capital Maintenance as per Manufacturer's guidelines was not carried out, in spite of specific orders of the Commission.

Further, the Commission had accorded in principle approval to carry out the renovation and modernization work of Unit-3 of CHEP, Chiplima, Unit 1-6 of BHEP, Balimela and Unit 5& 6 of HHEP, Burla in its order dated 31.3.2014 in case Nos. 62/2013, 67/2013 and 68/2013. All the works projected under capital maintenance of different power stations should rightly come under R&M activities. Additional works for life extension should also be included in the R&M activities. The impact on tariff is to be determined based on the life extension of the project. OHPC may submit as to why R&M proposal for the units which have already operated for long years have not been submitted instead is being submitted for approval under capital maintenance. OHPC has submitted a proposal for installation of a 7.5 MVA 220/33 KV transformer for general auxiliary supply of UKHEP after a period of 31 years since the 1st unit was commissioned on 15.3.1988. This should be included under R&M scheme. OHPC while submitting its proposal for procurement of 1 No. of Generator Transformer for stations like RHEP, CHEP, UKHEP and HHEP has not submitted the condition of the existing transformers. Residual life assessment can be carried out through specialized agencies like CPRI to determine the condition of the existing transformer. The construction of office building, staff quarters and officers club are to be constructed as a part of additional capitalization or R&M instead of capital maintenance. Further, the construction of Shakti Bhawan, multistoried commercial complex at OHPC Training Centre, Bhubaneswar and Chandrasekharpur may be considered as "other activities" and should not come under capital investment. He prays the Commission to direct OHPC to submit the clarifications to the points as summarized above.

12. OHPC, in compliance to the above objections submitted that the preventive maintenance like annual maintenance, quarterly maintenance & monthly maintenance have been carried out regularly as per the guidelines of OERC for smooth operation of generating units. Further, when the situation of capital maintenance had arisen, the same had also been taken up under Annual Maintenance with prior planning. OHPC is doing condition monitoring and testing periodically as per the guidelines of OEM. The Capital Maintenance regarding replacement of Stator of Unit No.4 of UIHEP is carried out in a planned manner on the instruction of the OEM when the machine is in operating condition & R & M of the unit is not due. As per the prevailing Regulation, the Renovation and Modernization of a Unit is usually considered at the fag end of

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useful life. However, OHPC is carrying out need based R&M of its Units after due approval of the Commission.

OHPC has taken up the R&M works of its generating units in a phased manner starting from the inception of OHPC, hence the objection of Sri Mahapatra is not correct. Further, the expenditure made by OHPC on account of Capital Maintenance is considered as additional capitalisation as per the provisions made by the OERC in the Generation Tariff Regulations, 2014. The audited expenditure towards the Capital Maintenance is segregated into a Debt: Equity ratio of 70:30. Debt is treated as normative loan as OHPC invest that from its own fund to provide necessary relief to the consumers. The repayment period is considered as 5 to 10 years depending upon the amount of capitalisation. The interest on loan, RoE & interest on working capital is calculated as per OERC Generation tariff Regulation.

13. As regards to the proposal for installation of 7.5 MVA, 220/33 KV transformer at Upper Kolab Power Station, OHPC submitted that due to non-availability of own 220/33 KV transformer, the auxiliary system is getting 33 KV supply from Jayanagar substation of SOUTHCO. Due to break down of the 33 KV feeders, the station common power supply is getting interrupted which in turn is affecting the reliable operation of the power station. It is standard technical practice to avail reliable and consistent station as well as start-up power supply from the power house own substation. Accordingly, it is proposed for construction of 220/33 KV sub-station with provision of a station transformer of 7.5 MVA capacity with control panel and accessories alongwith extension of existing 220 KV bay for UKHEP with an sanctioned estimate of Rs.6,94,30,543/- only. Out of this Rs. 311.92 lakh has already been sanctioned by PSDF (Power System Development Fund) as grant, which is not having any tariff impact. Since the proposal is partly funded by PSDF, it will have less tariff impact. Further, the proposal may not be considered under R&M scheme since there is no proposal of R&M of Generating Units of UKHEP at present.

14. As regards to procurement of Generation transformer, OHPC submitted that most of the Generator Transformers have outlived their useful life and no spare GTs are available in above units of OHPC. Hence, OHPC Board in its 145th meeting advised to make provision for procurement of one Generator Transformer (GT) for each power station as back up arrangement since a considerable time (more than a year) may be required for procurement of a new GT in case of breakdown. As per the recent experience, CHEP, Chiplima is not being able to procure the spare GT as the

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manufacturers are not showing any interest for a project specific design of GT. The main purpose of the proposal is to increase the reliability of the power generation. As proposed by the objector, OHPC shall carry out the RLA study of the GTs when such situation arises. OHPC justifying the requirement of one no. of new spare GT for each power station, submitted that after procurement/installation of the new GTs, the replaced old GTs shall be kept as backup.

15. Further, the office building & staff quarter of different units of OHPC are in dilapidated condition and need immediate attention. In addition to that OHPC does not possess its own Corporate Office building till date and is functioning in the rental premises of Odisha State Police Housing and Welfare Corporation building, Vani Vihar. The rented building is also lacking adequate space for proper official functioning of employees. Since, many such Government of Odisha undertakings does not have their own office building, Department of Energy, Government of Odisha decided to construct an Energy Complex in the premises of OPTCL where Department of Energy, GRIDCO, OPTCL, OHPC, OPGC and the subsidiaries, joint venture companies of OHPC shall be the occupants. Further, as per standard practice a well-equipped Training Center for imparting value based training to its employees is required for OHPC. Also as per the MoU signed with Government, OHPC has to impart 5000 training-days during a year. The present training center at Chandaka Industrial Area is very small and in damaged condition. Training center lacks office area, hostel for trainers and trainees, dining area, service floor etc. OHPC is planning to construct a multi storied office complex in place of present training center.

16. OHPC in response to objections raised by GRIDCO submitted that OHPC had not earlier taken up any complete replacement programme of its old generating units by new generator & turbine sets. This involves reverse engineering and a lot of professionalism. Further, due to various site constraints the scheduled date of commissioning is delayed. However, OHPC has taken care to keep the IDC (interest during construction) under control by phasing out the expenditure in appropriate time. The R&M work of Unit No.3 of CHEP, Chiplima is near completion and is expected to be synchronized shortly. Renovation and modernization is a continuous process and OHPC has proposed to take R&M work of its machines in a phased manner to increase the reliability in operation. Since, R&M of unit-3 of CHEP, Unit-5 & 6 of HHEP and Unit-1 to Unit-6 of BHEP were due and these units were remaining under forced outage frequently, OERC had approved the R&M proposals of these units. In spite of

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the above units under R&M, OHPC has managed to generate more than 6000 MU of cheap hydro generation in the FY 2018-19 against the design generation of 5676 MU and provided necessary relief to the consumers. Further, during the FY 2019-20 OHPC has also generated almost 4000 MU upto October, 2019. However, GRIDCO in coordination with DoWR & SLDC should have proper planning to maximize generation by proper utilization of available water in the Reservoirs of OHPC with the machine available at different units. Efforts also should be made by GRIDCO to utilize the water in the reservoir upto MDDL at the end of each water year. In addition to that, the capital works proposed after due approval may be initiated but its capitalisation will be in different years depending upon the period of completion, therefore the net impact may be within 10 to 15 paise and after 3 to 4 years the tariff impact will be reduced through depreciation.

17. The present status of R&M works and Generator Transformers are as follows :

Power station	Unit	Zero date	Approved period of shutdown by OERC	Scheduled date of completion	Tentative date of commercial operation
CHEP, Chiplima	3	15.10.2015	20 months	14.06.2017	31.01.2020
HHEP, Burla	5	25.10.2016	21 months	25.07.2018	19.06.2020
	6	16.10.2015	18 months	15.04.2017	28.03.2020
BHEP Balimela	1	05.08.2016	30 months	04.02.2019	24.06.2020
	2	21.11.2017	18 months	20.05.2019	30.04.2020

Status of Generator Transformers

Name of the Power Station	Generating Unit No.	Year of commissioning of the GT	Period of service rendered by the GT	Particular GT proposed for replacement at first.
HHEP, Burla	Unit-1	1998	21 years	
	Unit-2	1998	21 years	Unit-2
	Unit-3	2005	14 years	
	Unit-4	2005	14 years	
	Unit-5	Will be replaced in R&M		
	Unit-6	Will be replaced in R&M		
	Unit-7	2014	5 years	
CHEP, Chiplima	Unit-1	1957	62	Unit-1
	Unit-2	1957	62	
	Unit-3	Will be replaced in R&M		
RHEP, Rengali	Unit-1	1985	34	Unit-1
	Unit-2	1986	33	
	Unit-3	1989	30	
	Unit-4	1990	29	
	Unit-5	1992	27	
UKHEP, Baraniput	Unit-1	1988	31	Unit-1
	Unit-2	1998	31	
	Unit-3	1990	29	
	Unit-4	1993	26	

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18. Sri R. P. Mohapatra has submitted his observations to the compliance of OHPC and prayed the Commission to direct OHPC.

a. To submit R&M schemes, in place of capital maintenance, with due justification.

b. To submit data on the RLA of the Generator Transformers and include the same for procurement, if required, along with the R&M scheme of the generating units.

c. Direct OHPC to submit reasons for unusual delay in completion of the "Capital Maintenance" & "R & M" Works already approved by the Commission and

d. Reject the submission regarding commercial complexes as it comes sunder "other activities" of the petitioner, and the investment of 80.00 cr. in Shakti Bhawan, if found remunerative, be recovered in 50 years.

e. Reject the submission to implement ERP at a huge initial and recurring cost.

19. In compliance to queries raised during the hearing on 05.11.2019, OHPC submitted that the RLA studies of the existing GTs are not done. But, the maintenance and condition monitoring tests of the existing GTs are done at site as per the prescribed maintenance schedule and accordingly OHPC has taken the required corrective measures. During the proposal for Renovation & Modernisation of old Units, the RLA study of GTs are done along with the complete Generating units. Further, OHPC submitted that a detailed revised proposal for the proposed Training Complex at Chandaka and a fresh proposal for construction of staff quarters along with recreational and other essential facilities will be submitted after due approval of their Board for consideration by the Commission. As regards to investment in "Shakti Bhawan", OHPC submitted that the investment has been made as per the direction of Department of Energy, Government of Odisha since their Corporate Office is functioning in a rented building and the intention of the Government for construction of Energy Complex is to house Department of Energy, GRIDCO, OPTCL, OHPC, OPGC and subsidiaries, joint venture companies of OHPC etc. in one building. Further, the space in the existing rented building is inadequate to accommodate various Departments and their employees. Since, OHPC has invested in this project with an intention to have an own asset for Corporate Office, hence no cost benefit analysis has been done and an amount of Rs.20 crore has been released for this purpose and the construction of the building is in progress.

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20. We heard the parties and perused the case record. Let us now examine the provision in PPA between OHPC and GRIDCO regarding renovation and modernization and incidental capitalization. As per agreed clause-4 of PPA executed between GRIDCO & OHPC Adjustments on Renovation & Additional Capital Expenditure shall be guided as follows:

4.1.1 The Approved Capital Cost shall be:

(a) Increased by the cost incurred by OHPC in OHPC's complying with its obligations pursuant to and in accordance with clause 2.1(e) & also any additional capital expenditure on case to case basis duly approved by OERC can only be passed through tariff.

4.3 Any expenditure for maintenance, major overhaul of equipment to operate & maintain the Power Station during the term of agreement shall be met out of O & M and Insurance charges included in the tariff.

4.4 Any expenditure on replacement of old assets shall be considered for additional capitalization after writing off the gross value of the original assets from the original capital cost.

Similarly, as per Generation Regulation, 2014, where the generating company makes an application for approval of its proposal for renovation and modernization, the approval shall be granted after due consideration of reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission.

21. From conjoint reading of the above provisions, we find that additional capitalization can be permitted for renovation and modernization work after prudence check by the Commission. OHPC is to take up the capital maintenance of generating units as per the operating manual/manufactures guidelines since the units are in operation for a very long period. The following units are approved to be taken up under capital maintenance as proposed by OHPC. This will extend the life of the generating units.

Sl No.	Generating Unit	Name of the Work/ Critical Spares	Tentative Period of Shut Down	Estimated Cost (Rs. In Cr.)
1.	**UIHEP**	Capital Maintenance of Unit-II of UIHEP, Mukhiguda for replacement of underwater parts such as guide vanes along with bushes, facing plates and stationary & rotating labyrinth seal etc.	181 days	26,81,65,947/-

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2.		Capital Maintenance of Unit-IV of UIHEP, Mukhiguda for Design, Manufacturing and Supply of new stator and replacement of old Stator of Unit No – 4 and & replacement of critical Spare parts along with service.	220 days	50,28,81,883/-
3.	**HHEP**	Capital maintenance of Unit I of HHEP, Burla for correction of turbine shaft journal, TGB shell and shaft seal, dismantling and reassembly of turbine and generators, testing and commissioning of units.	4 months	7,42,00,000/-
4.	**UKHEP**	Construction of 220/33 KV Sub-Station with Station Transformer of 7.5 MVA and Control Panel with accessories along with extension of existing 220 KV Bay of UKHEP Bay.	60 days	3,82,38,553/-
5.	**CHEP, UKHEP, RHEP, HHEP**	Procurement of One No. of generator transformer under capital spare for each Power Station.	50 days each	CHEP: 2,14,76,000/- UKHEP: 5,44,86,500/- RHEP: 4,57,25,000/- HHEP: 3,92,32,761/-
6.	**CHEP**	Repair & Rehabitation of Chiplima fore bay, Spillway and Surplus escape including survey, geotechnical and geological investigations, Design, Drawing, Vetting, Tendering, Execution, Supervision, Quality Control etc. on deposit work basis.	180 days (45 days each in May/June and November/ December)	99,62,73,544/-

22. The zero date for undertaking capital maintenance work shall be as per the date in consultation with SLDC. However, OHPC considering the exigency of work has already placed orders on M/s. G.E. Power India Ltd., Vadodara vide work order no.2816 dt.10.05.2019 for capital maintenance of Unit-I of HHEP, Burla with zero date of 10.05.2019 and we accept the same. However, the capacity of generating units under renovation and modernization shall not be considered in installed capacity while computing the plant availability, the capacity of generating units under capital maintenance requiring maintenance period of more than 45 days shall be deducted from installed capacity after due approval of OERC. However, the capital maintenance of the generating units shall not be taken during rainy season where there is possibility of spillage of water from the reservoirs.

23. The Commission after due scrutiny of the proposal for construction of quarters at CHEP, Chiplima and BHEP, Balimela, office building at UIHEP, new officers club at BHEP, Balimela agrees to the proposal of OHPC and hereby approves the following civil works of OHPC along with the investment on account of construction of Shakti

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Bhawan. However, OHPC has not justified huge expenditure for implementation of ERP which they may do during the ensuing tariff hearing. Therefore, we are not approving the ERP implementation proposal now.

Sl. No.	Name of the work.	Amount (Rs. in Crores)
1.	Construction of 12 nos. of 'D' type qrs., at CHEP, Chiplima	4.43
2.	Construction of office building, at UIHEP, Mukhiguda	5.31
3.	Construction of 2-0 nos. of 'D' type qrs., at BHEP, Balimela	6.12
4.	Construction of Shakti Bhawan (OHPC's shares for its office space)	80.00
5.	Construction of New Officers' Club at BHEP, Balimela	0.61

The above work shall be carried out by normal investment procedure of OHPC as per the Regulation. The repayment period of loan is to be considered as 10 years. The investment shall be made on the principle of debt equity ratio of 70:30. The interest on loan, RoE & interest on working capital is to be calculated as per OERC Generation tariff Regulation/PPA provision. The construction of 220/33 kV substation at UKHEP shall be met from PSDF as grant partially as suggested by OHPC.

24. In reply to the Commissions query regarding construction of multi storied office/commercial complexes at (i) OHPC Training Centre, Bhubaneswar and (ii) Plot No.324 (Pt.) Khata No.-619, Chandrasekharpur, Bhubaneswar, OHPC submitted that they are planning to bring fresh proposals for (i) construction of training centre with R&D facilities and (ii) staff quarters along with recreational & other essential facilities for the employees of OHPC. In this regard, revised proposals will be submitted before the Commission in due course of time after approval of OHPC Board. Therefore, the Commission do not consider the above proposal of OHPC at present.

25. With the above observation the case is disposed of.

Sd/-

(S. K. Parhi)
Member

Sd/-

(U. N. Behera)
Chairperson

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO.-4, CHUNUKOLI, SHAILASHREE VIHAR
BHUBANESWAR - 751 021

****

Present: **Shri G. Mohapatra, Officiating Chairperson**
Shri S. K. Ray Mohapatra, Member

Case No. 78/2021

OHPC ..... Petitioner
Vrs.
GRIDCO Ltd. ..... Respondent

In the matter of: **Application for approval of Capital Maintenance of Unit 1 & 2 of CHEP, Chiplima and the capital civil works of different power stations of OHPC for the FY 2021-22 as per para 12(1)(g) of the OERC (Terms and Conditions for Determination of Generation Tariff) Regulations,2020 and in compliance to Para 15 of the Order passed in Case No.52 of 2019 by the Commission.**

For Petitioner: Shri A. K. Mohanty, Director (Operation) and Shri D. N. Patra, (GM).

Respondent: Representative of GRIDCO

ORDER

Date of hearing: 17.05.2022 **Date of order:13.06.2022**

The petitioner-OHPC has filed the present application for approval of capital maintenance of the generating Units 1 & 2 of CHEP, Chiplima (Rs.57.36 Crore) and capital expenditure towards civil works at its different power stations (Rs.224.00 Crore) for the FY 2021-22.

2. OHPC has submitted that the Units 1 & 2 of Chiplima Power House were commissioned in the year 1962 and again brought into service in the year 1998 and 2008 respectively after Renovation & Modernisation (R&M). These units have already served for almost 22 years and 13 years respectively after R&M works and during this period no major maintenance has been carried out. However, due to normal wear and tear of various mechanical components, obsolescence of electrical protection & control systems and non-availability of spares, a major overhauling /capital maintenance is required for smooth operation of these units. As per the decision of OHPC Board in its 159th meeting, the OEM M/s. Voith Hydro India Pvt. was asked for inspection and assessment of the conditions of these units. After inspection, the OEM suggested for carrying out capital maintenance of both the units simultaneously in order to minimise

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the cost and overall shut down period. After deliberation on techno-commercial aspect of the work and price negotiation with the OEM, the TCC had recommended to place the order on the OEM at the negotiated price of Rs.57.36 crore (Rs.38.93 crore for supply and Rs.18.43 crore for service) for both the units excluding applicable taxes against the offered price of Rs.65.45 crore. The TCC also suggested for shut down of the units one after another as per schedule and to adhere to the timeline for minimum possible outage of the units for the said work. Accordingly, the period of capital maintenance for each machine will be around 200 days as per the recommendation of OEM. OHPC submitted that if the proposed capital maintenance is not taken up, there may be prolonged forced outage of these units resulting in a huge loss to the State being deprived of availing cheap power from these units.

3. OHPC has submitted that the Commission in its Orders passed in Case No. 65 of 2010 and in Case No. 52 of 2019 on the matter relating to approval of Normative Annual Plant Availability Factor (NAPAF) of Hydro Power Stations under OHPC for the control period 2009-14 (from 01.04.2009 to 31.03.2014) and 20019-24 (from 01.04.2019 to 31.03.2024) respectively had made following observation:

"However, the capacity of the generating units under Renovation and Modernization shall not be considered in installed capacity while computing the plant availability factor. Further, while computing the plant availability, the capacity of the generating units under capital maintenance requiring maintenance period of more than 45 days may also be deducted from installed capacity after due approval of the Commission."

4. Further, the Commission in its order dated 01.05.2012 in Case No. 5 of 2012 has clarified that, *"a generator should not suffer from non- recovery of capacity charges due to capital maintenance of a generating unit which takes around three months and normally taken in each 3 or 5 Years as per the manufactures guidelines."*

Further, the Commission while approving the Capital Maintenance proposal of different power stations of OHPC at para-152 of ARR & Tariff Orders for FY 2015-16 has made the following clarifications:

- *OHPC should take up the Capital Maintenance of the generating units which are due for capital maintenance as per the operating manual/manufactures guidelines*
- *Due approval of OHPC Board is required.*
- *The zero date for taking up the capital maintenance of the generating units should be fixed in consultation with SLDC.*

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- *The capital maintenance of the generating units shall not be taken during rainy season where there is a possibility of spillage of water from the reservoir.*"

5. OHPC has submitted that regarding the additional capitalisation, Regulation 12(1) (g) of OERC Generation Tariff Regulations, 2020 states as follows:

"Additional Capitalization

Para 12(1): The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

x x x x x

Para12(1)(g): Any additional works/services, which have become necessary for efficient and successful operation of a generating station but not included in the original capital cost."

OHPC has stated that the Commission vide its order in Case No. 59 of 2020 has approved the Capital works for Implementation of ERP System at different Power Stations and Corporate office of OHPC basing on the above Regulations. In view of the above OHPC has prayed to the Commission to accord in-principle approval to carry out capital maintenance of Units 1 & 2 of Chiplima Power House at a capital expenditure of approximately Rs.57.36 crore exclusive of applicable taxes. OHPC has further prayed to approve the tentative shut down period of 200 days for each unit and accordingly to compute the PAFM during the shutdown period in line with the earlier orders of the Commission.

6. OHPC has submitted that the power channel from HHEP, Burla to CHEP, Chiplima on its way connects Pond-1, Pond-2, Surplus escape, Head Regulator and Cross Regulator. The power channel was constructed in early sixties and no major maintenance work has been carried since then. At present the power channel including its hydro-mechanical component at surplus escape, head regulator and cross regulator are in heavily distressed condition and need immediate repair. In addition the bank top of the channel from head regulator to Chiplima needs widening, the inspection road along the channel from Burla to Chiplima needs renovation and the stone pitching lining at certain places needs to be replaced with concrete line to avoid further damage. OHPC Board in its 163rd meeting on 25.06.2021 had approved the execution of the work of repair and renovation of the power channel through NBCC at an estimated cost of Rs.153.55 crore (Rs.69.91 crore for RD 0.00 to 16,000 ft and Rs.83.64 crore for RD 30,000 to 83,480 ft), which is inclusive of GST, NBCC charges and contingencies. OHPC has estimated a period of 46 days for each work and propose to take up the work during the normal

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shut down period of 46 days each in May/June and November/December of two consecutive years. During this period of shut down the generation of CHEP and HHEP will be Nil. OHPC has submitted that after repair and renovation of power channel, the water carrying capacity of the channel will be improved and the water level at the forebay can be maintained at its highest capacity level. Consequently the generation of Chiplima power house is likely to be increased. Further it will also prevent the high annual maintenance cost of the power channel. OHPC submitted that work order has been issued in favour of M/s NBCC for initiating tendering process of these works. OHPC has prayed the Commission to approve the aforesaid work along with approval of shut down period of 184 days (4x46 days) in two consecutive years in order to compute the PAFM during the period of shut down in line with the earlier order of the Commission.

7. OHPC has further sought approval for construction of 42 nos. of 2 BHK quarters, 24 nos. of 3 BHK quarters, 6 nos. of 4 BHK quarters, a 40 bedded Training Hostel and new water supply system at BHEP, Balimela with the estimated cost as given in the table below:

Sl. No.	**Name of the Work**	**Preliminary estimated cost(inclusive of GST & exclusive of consultancy charges**
i)	Construction of 42 nos. of 2 BHK Qtrs. at BHEP, Balimela	Rs.28.20 Crores
ii)	Construction of 24 nos. of 3 BHK Qtrs. & 06 nos. of 4 BHK Qtrs. at BHEP, Balimela	Rs.14.00 Crores
iii)	Construction of 40 bedded Training Hostel at BHEP, Balimela	Rs.05.00 Crores
iv)	Construction of new Water Supply System at BHEP, Balimela	Rs.06.00 Crores
	Total:	**Rs.53.20 Crores**

8. OHPC has submitted that the existing 2 BHK and 3 BHK quarters were constructed in the sixties and are in dilapidated condition and not repairable economically. The quarters lack basic infrastructure facility such as water tank, tile flooring, water pipe connections, kitchen platform and the vehicle parking space etc. The present strength of executives (AM to DGM) at Balimela is 55 and total number of 3R quarters is 36, out of which 33 nos. are habitable now. OHPC further submitted that the existing erectors' hostel at Balimela is having total 10 rooms, which are being used for the officials from BHEL, WAPCOS, BSF, AG Audit, Diving teams, special teams from GoI/GoO such as

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Dam safety, IB, Vigilance etc. and other Govt. officials (police, health, revenue etc.) and OHPC executives on transfer/tour to Balimela. Sometimes it becomes inadequate to meet the requirement. OHPC further submitted that the existing water supply system to Balimela Colony from valve house is very old and proper water purification is not achieved. Further, it is also not possible to supply adequate water to most of the quarters with this old system. In view of the above, OHPC Board in its 163rd meeting has accorded in-principle approval to take up the above works through M/s NBCC on deposit work basis as stated above.

9. Further, OHPC has sought approval for construction of 12 nos. of D type quarters at RHEP, Rengali and extension of water supply to RHEP Colony at Rengali Dam Site. OHPC has submitted that out of total 9 nos. of C type quarters, 4 nos. are at habitable condition and out of total 39 nos. of D type quarter, 28 nos. are at habitable condition, whereas the present strength of executives at RHEP is 72. OHPC submitted that earlier water supply to RHEP colony was looked after by DoWR which has been discontinued and the existing water supply from bore well is grossly inadequate. The Principal Secretary, DoE has directed to ensure proper drinking water supply in the power house area as the employees are forced to purchase drinking water from outside due to non-availability of adequate drinking water. In view of the above, OHPC Board in its 163rd meeting has approved Rs.4.53 crore (approx.) towards construction of 12 nos. of D type quarters and Rs.6.72 crore (approx.) towards extension of water supply system at RHEP, Rengali which is to be carried out through M/s. NBCC. This estimated cost is inclusive of GST and exclusive of consultancy charges.

10. Further, OHPC has sought in-principle approval for construction of a training hostel at OHPC Training Centre, Bhubaneswar at an approximate cost of Rs.6.00 core (exclusive of GST). OHPC has submitted that earlier they had approached the Commission with the proposal for construction of multi-storied office/commercial complex on the land of OHPC Training Centre, Bhubaneswar, which was not considered and the Commission had opined to submit revised proposal in due course after approval of OHPC Board. Now OHPC Board in its 163rd meeting on 25.06.2021 had decided to modify the earlier proposal and approve to undertake work for construction of Training Hostel at OHPC Training Centre, Bhubaneswar in G+4 floor configuration (as per the approved plan of BDA) by NBCC on deposit work basis with an approximate cost of Rs.6.00 crore. OHPC has stated that the present Training Centre does not have Conference Room,

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Reading Rooms, Library, Dormitory etc. for meeting the requirements of the trainees coming from various units. Further, there is no accommodation facility in OHPC Training Centre. It has been proposed to render accommodation facilities to the trainees and the employees of OHPC coming from various units for official activities.

11. OHPC has submitted that the present proposal of Capital Works has become necessary for efficient and successful operation of the generating station of OHPC after the cut-off date and thus, comply with the provisions of OERC Tariff Regulation, 2020 and different Orders passed by the Commission. OHPC submits that the above proposals of Capital Works are to be taken up by different power stations of OHPC from FY 2021-22 onwards in a phased manner. In view of the above, OHPC has prayed the Commission to accord in-principle approval of the proposed capital maintenance of units-1 & 2 of CHEP, Chiplima and the proposal of capital civil works at different OHPC power stations as given in the table below:

Sl. No.	PARTICULARS	Tentative Project Cost (Rs. in Cr.)	Shut down Period of the Generating Units	Remarks
1	Capital Maintenance of Unit-1 of CHEP, Chiplima.	29.4378	200days	PAFM to be computed as per earlier orders of the Commission.
2	Capital Maintenance of Unit-2 of CHEP, Chiplima.	27.9202	200 days	
3	Repair and renovation of power channel from RD 0.00 to RD 16000 ft.	69.91	184days (46 day each in May/June and November/December.)	
4	Repair and renovation of power channel from RD 30000 ft. to RD 83480 ft.	83.64	184days (46 day each in May/June and November/December.)	
5	Construction of 42 nos. of 2BHK Qtrs at BHEP, Balimela	28.20 (approx.)		
6	Construction of 24nos. of 3BHK Qtrs & 06 nos. of 4BHK Qtrs at BHEP, Balimela	14.00 (approx.)		
7	Construction of 40 beded Training Hostel at BHEP, Balimela	5.00 (approx.)		
8	Construction of new Water Supply System at BHEP, Balimela	6.00 (approx.)		
9	Construction of Training Hostel at OHPC Training Center	6.00 (approx.)		
10	Construction of 12nos. of 'D' type quarters at RHEP,	4.53 (approx.)		

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Sl. No.	PARTICULARS	Tentative Project Cost (Rs. in Cr.)	Shut down Period of the Generating Units	Remarks
	Rengali Dam site.			
11	Extension of water supply to Rengali Hydro Electric Project Colony, Rengali Dam site.	6.72 (approx.)		

12. The Respondent-GRIDCO has submitted that OHPC has proposed for approval of additional capitalization amounting to Rs.281.358 Crore towards Capital Maintenance of Unit-1& 2 of CHEP, Chiplima and Capital Civil Works of its different Hydro Power Stations as per earlier order of the Commission passed in Case No. 52 of 2019 and as per the provisions of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. GRIDCO has stated that Regulation 12 (1) of above Regulations on Additional Capitalisation reads as follows:

"The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check ……."

Further, Regulation 3 (1) (n) of above Regulations, 2020 stipulates Cut-off Date as:

"Cut-off Date" means the last day of the calendar month after thirty six (36) months from the date of commercial operation of the project."

Further, Regulation 12 (1)(g) of above Regulations, 2020 states that:

"Any additional works/services, which have become necessary for efficient and successful operation of a generating station but not included in the original capital cost."

13. GRIDCO submitted that in accordance with sub-clause (g), read with Clause (1) of Regulation 12 and Regulation 3 (1) (n) of above Regulations, 2020, there is provision of "any additional works/services, which becomes necessary for efficient and successful operation of a generating station" within the last day of the calendar month after thirty six (36) months from the date of commercial operation of the project. Since the period of 36 months from the date of COD of the aforesaid OHPC Generating Stations has already been over since long time, therefore, Regulation 12 (1) (g) of above Regulations, 2020 is not applicable to the proposed maintenance work for Unit-I & II of Chiplima Generating Station. Further, "any additional works/services, which becomes necessary for efficient and successful operation of a generating station" also does not come under purview of Regulation 12 (2) of OERC Generation Tariff Regulation, 2020, which reads as hereunder:

*"The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, **after the cut-off date** may, in its discretion, be admitted by the Commission, subject to prudence check:*

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;

(b) Change in law or compliance of any existing law;

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) Liability for works executed prior to the cut-off date;

(e) Force Majeure events;

(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

(g) Raising of ash dyke as a part of ash disposal system."

14. GRIDCO stated that, there is no such provision of 'Capital Maintenance Work', 'Repair and Renovation' or 'Capital Civil Works' in any of the Regulation of OERC Generation Tariff Regulations, 2020, as proposed by OHPC in the present Petition. Therefore, in absence of any provision for the above works in the Regulations; the present application of OHPC is liable for rejection.

15. Without prejudice to the stand that the petition is liable for dismissal at the admission stage, GRIDCO further submitted that Clause 4 (Adjustments on Renovation & Additional Capital Expenditure) of the PPA, executed between GRIDCO & OHPC on 20th November, 2009 inter-alia stipulates as here under;

"4.1.1 The Approved Capital Cost shall be:

(a) Increased by the cost incurred by OHPC in OHPC's complying with its obligations pursuant to and in accordance with clause 2.1(e) & also any capital expenditure on case to case basis duly approved by OERC can only be passed through tariff.

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*4.3 Any expenditure for maintenance, **major overhaul of equipment** to operate & maintain the Power Station during the term of agreement shall be met out of O & M and Insurance charges included in the tariff.*

4.4 Any expenditure on replacement of old assets shall be considered for additional capitalisation after writing off the gross value of the original assets from the original capital cost."

16. GRIDCO stated that as per above mutually agreed terms and conditions of the said PPA, any major overhaul of the equipment shall be met out of O & M and insurance charges included in the tariff for which there is provision in OERC Generation Tariff Regulations, 2020. As submitted by OHPC the Units-1 & 2 of Chiplima Power House

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had undergone need-based Renovation & Modernisation (R&M) work in the year 1998 and 2008 respectively and most of the mechanical components were used after refurbishment. But no supporting documents have been submitted by OHPC on such R&M work including date of completion of work and life extension after R&M etc.. OHPC has also not submitted the copy of operating manual/manufacturer's guidelines as provided by the OEM during supply/installation and commissioning of these Units to ascertain whether there is provision for such capital maintenance along with the scope of such work and duration etc. OHPC has not brought out the impact of such investment on tariff, which will be passed on to the consumers ultimately. OHPC has also neither quantified the reduction in O & M expenses nor the increase in generation of electricity after such huge investment.

17. GRIDCO further stated that, the proposal of OHPC to incur huge expenditure of more than Rs.57 Crore for so-called capital maintenance of Units- 1 & 2 of Chiplima is without any life extension of the units. GRIDCO prays that in case the Commission allow such huge expenditure it may be treated as R & M work with life extension for further period of 25 years in addition to the life extension after completion of R & M in 1998 and 2008 for unit 1&2 respectively.

18. GRIDCO has further submitted that, there is no provision in OERC Generation Tariff Regulations, 2020 for the proposed Rs.153.55 Crore towards Repair and Renovation of Power Channel of Chiplima. Such expenditure may be met by OHPC from its O&M cost/own earnings. However, GRIDCO submits that in case the Commission decides to pass on the above cost in generation tariff then:

a) OHPC is to guarantee the healthy condition of the power channel for a minimum period of 50 years.

b) Saving in annual maintenance cost needs to be quantified by OHPC.

c) Increase in generation of electricity also needs quantification.

d) OHPC is required to quantify the impact of such huge investment on generation tariff, which will be ultimately passed on to the consumers.

19. GRIDCO has further submitted that there is no provision in OERC Generation Tariff Regulations, 2020 for capitalization of the proposed capital civil works for construction of Quarters, Training Hostel and water supply system etc. OHPC in addition to earning from sale of power inter-alia return on equity have also other sources of earnings like

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interest from fixed deposit etc. So, GRIDCO is of the view that the proposed capital civil work amounting to Rs.70.45 Cr. which includes construction of Qtrs. at Balimela & Rengali, construction of Training Hostel at OHPC Training Center, Bhubaneswar & construction of water supply system at Balimela and Rengali etc. may be met out from miscellaneous earnings of OHPC i.e. from its own investment to avoid further tariff burden on the consumers of the State. The proposed civil constructions, which are not incidental to the hydro generation may not be allowed and passed on to the tariff.

20. In its reply to the objections raised by GRIDCO, the petitioner-OHPC in its rejoinder has submitted that they have filed the proposal for taking up Capital Works as per the existing Regulations, agreed PPA and previous Orders of the Commission. The relevant provisions are summarized below:

(i) **Clause No. 12(3) of OERC(Terms & Conditions for Determination of Generation Tariff) Regulations, 2020** :

"In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) *The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*

(b) *The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*

(c) *The replacement of such asset or equipment is necessary on account of Obsolescence of technology; and*

(d) *The replacement of such asset or equipment has otherwise been allowed by the Commission.*

ii) **Relevant portion of Approved PPA:**

4.1.1 The Approved Capital Cost shall be:

(a) Increased by the cost incurred by OHPC in OHPC's complying with its obligations pursuant to and in accordance with clause 2.1(e) & also any additional capital expenditure on case to case basis duly approved by OERC can only be passed through tariff.

iii) **Relevant portion of Order dtd. 11.06.2020 in Case No. 56 of 2019:**

Para-21: From conjoint reading of the above provisions, we find that additional capitalization can be permitted for renovation and modernization work after prudence check by the Commission. OHPC is to take up the capital maintenance of generating units as per the operating manual/manufactures guidelines since the units are in operation for a very long period. The following units are

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approved to be taken up under capital maintenance as proposed by OHPC. This will extend the life of the generating units."

iv) **Relevant portion of Order dtd. 01.05.2012 in Case No. 05 of 2012:**

"a generator should not suffer from non-recovery of capacity charges due to capital maintenance of a generating unit which takes around three months and normally taken in each 3 or 5 Years as per the manufactures guidelines."

21. OHPC stated that as per the above provisions, they are taking up the need based Capital Maintenance of its Power Stations basing on the manufacturer's guideline after due approval of the Commission. Accordingly, OHPC has filed the present petition for approval of different Capital Works by the Commission. Periodic capital maintenance is required on regular basis to increase the availability & reliability of machines. However, due to exigency of work & to avoid immediate outage of machine, OHPC sought the assistance of the OEM, M/s. Voith Hydro Pvt. Ltd and based on the OEM's recommendation after site inspection, OHPC has issued the work order for execution of Capital Maintenance of work of Unit-1 & 2 of CHEP, Chiplima. The major maintenance work to be taken in this Capital Maintenance as per work order are as follows:

i) Replacement of generator brake assembly.
ii) Replacement of generator lubrication system
iii) Replacement of Turbine Guide bearing.
iv) Replacement of shaft seal assembly.
v) Replacement of drainage & dewatering system.
vi) Replacement of cooling water system.
vii) Replacement of OPU governing system.
viii) Replacement of digital governing panels & cabling.
ix) Replacement of control system panels & cabling.
x) Replacement of protection system panels & cabling.
xi) Replacement of Unit Auxiliary Board.
xii) Replacement of current transformer at generator phase & neutral side.

22. OHPC has submitted that as per the above scope of work there is no replacement of major components viz: Turbine, Generator & Transformer, which may be done during R&M programme at a later date, after conducting Residual Life Assessment (RLA) study. However, the present capital maintenance work would be taken up for replacement auxiliary equipment / systems associated with Generator –Turbine set as per recommendation of OEM. The availability of spares of such auxiliary systems have

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become difficult due to technological obsolenece. The present capital maintenance work will increase the reliability and availability of machines for another 10 years or so and reduce the outage hours. Thereby GRIDCO can source the cheap hydro generation from these units. Since the present requirement of Capital works is well accommodated under the above mentioned regulatory provisions, GRIDCO's objection for non-admissibility of the petition in absence any regulations is not correct.

23. OHPC has stated that the purpose of Capital Maintenance and Renovation & Modernization works are different from each other and therefore, has been addressed separately. Accordingly, whether a particular generating unit requires R&M or Capital Maintenance are determined and decided in consultation with the OEM, as they are authorized for such recommendation. Since the generating units have not yet completed their useful life after their 1st phase R&M works, it may be further considered for the proposed Capital Works for healthy and smooth running of another 10 years. OHPC has submitted a comparative study of Units undergoing Renovation & Modernization and Capital Maintenance as given in the table below:

Sl. No.	Particulars	Unit undergoing R&M	Unit undergoing Capital Maintenance
1	Capital Required	Rs70Crs per Unit (approx.)	Rs.28 Crs per Unit (approx.)
2	Rise in average cost of CHEP	10.55 paise per Unit	4.22 paise per Unit
3	Tentative period of Shutdown	24 months (more time is required for Tendering, dismantling of Unit, Approval of drawing & design, Reverse engineering, transportation of critical parts from abroad etc)	6 months (less as few part are to be replaced)
4	Depreciation	Depreciation fully recovered	Depreciation partly recovered
5	Life Extension	Life is extended as provided by the OEM and approved by OERC	• Reliability & availability of machine is increased for an approximate period of 10 years. • The outage of the machine is reduced thereby increasing availability of machines. • Breakdown of auxiliary systems & subsequent machine outage are avoided.
6	Loss of water	Since outage period is more there is continuous loss of water.	Less water is lost in spillway or auto siphon.
7	Technology Upgradation	One time Technology Upgradation is possible only at the time of R&M.	Reliability & Efficiency is maintained due to intermittent technology upgradation during Capital Maintenance

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8	Spare Management	Spare management is smooth for initial year till upgradation of technology.	Spare management is always easy as technology is upgraded timely.
9	Outage Hour	Outage hour increases after 10 to 15 years due to wear and tear of movable parts	Timely Capital Maintenance brings down the outage hour.
10	Recommendation	R&M is recommended after RL&A study of Unit.	Capital Maintenance is recommended as per OEM guidelines.

OHPC has stated that from the above analysis it shall be wise and cost effective to take Capital Maintenance of Unit I & II of CHEP at this stage to increase the reliability & maintain efficiency of these units for a longer period.

24. OHPC has further submitted that the power channel including its Hydro- Mechanical components at surplus escape, head regulator & cross regulator are in heavily distressed and damaged condition causing widespread water loss due to seepage and hence the following repairs are urgently required to maintain the healthy condition of the power channel for years to come.

i) The repair of the linings at different locations of power is urgently required to restrict further damage and further breach of the power Channel. As understood from project authorities, the bed repair of the power Channel is also urgently required as per the site conditions and requirements.

ii) The bank top of the channel from head regulator to CHEP to be increased suitably for providing additional safety and also to prevent overtopping.

iii) The inspection road along the channel from HHEP to CHEP to be renovated with CC pavements for better longevity and ease in inspection & communication.

iv) Keeping in view the alarming condition of the bed etc., the repair of entire power channel from HHEP to be taken up which will help in keeping the power channel in healthy condition for another 50 years and more.

v) The stone pitching lining wherever present are to be replaced with concrete lining to avoid further damage and frequent repair.

vi) The head regulator, cross regulator and other mechanical components are to be repaired and renovated as per the standard practice.

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OHPC has stated that the above works shall be undertaken through M/s NBCC Ltd. on deposit work basis and appropriate care shall be taken to ensure the quality so as to maintain a healthy condition of the power channel for another minimum 50 years. The repair of concrete lining and bed concrete of the entire power channel has been envisaged with state-of-art technology. Further the present proposal also includes installation of sewage treatment plant at requisite locations in order to prevent entry of organic waste to power channel that is contributing to weed growth. This will save the expenditure of OHPC in cutting, clearing and disposal of aquatic weeds during regular powerhouse shutdown period. Further, cost incurred by OHPC in frequent repair & maintenance of power channel is amounting to Rs.25.00 lakhs (approx.)/ annum which will be saved after completion of the proposed work. In addition the following major saving and advantages of the work are:

- The water carrying capacity of the power channel will be improved resulting in increase in generation which is a major benefit of this work.
- There will be no need for shutdown of the generating unit during May/June and Nov/Dec each year during repair and maintenance work of power channel.

25. In view of the above, OHPC has prayed the Commission to approve the repair and renovation of the power channel from HHEP, Burla to CHEP, Chiplima at an estimated cost of Rs.153.55 Cr (Rs.69.91Cr from RD 0.00 to 16000 ft and Rs.83.54 Crs from RD 30000 to 83480 ft) along with approval of the shutdown period of 184 days in order to compute the PAFM during the approved period of shutdown in line with the earlier orders of the Commission mentioned in earlier paragraphs.

26. OHPC has further submitted that –

(a) In case the proposed capital maintenance of units of CHEP is not taken up, there may be prolonged forced outage of the Units and as a result state of Odisha shall be deprived of availing cheap power @ 74.02 p/unit (for FY 2021-22) and peaking support to the State Grid. In addition CHEP will lose Rs.1,63,927 per machine per day on account of capacity charge besides loss of energy charges.

(b) The impact of capitalization of Rs.57.358 Crs will increase the first year average tariff of CHEP by about 8.69 p/unit and average tariff of OHPC will increase marginally by about 0.75 p/unit. The above impact is calculated considering repayment period of loan for 10 years and approved norms of the Commission.

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(c) The impact of capitalization of Repair and Maintenance of Power Channel from RD 0.00 to RD 16000 at the cost of Rs.69.91 Crore will increase the 1st year average tariff of CHEP by about 10.59 p/unit and average tariff of OHPC will increase marginally by about 0.91 p/unit. Similarly, the impact of capitalization of Repair & Maintenance of Power Channel from RD 30000 to RD 83480 at the cost of Rs.83.64 Crore will further increase the 1st year average tariff of CHEP by about 12.68 p/unit and average tariff of OHPC marginally by about 1.10 p/unit. The above impact is calculated considering repayment period of loan for 10 years and approved norms of the Commission. This may further reduce if the loan repayment period is considered for 12 years or 15 years.

(d) The Unit 1&2 of CHEP may generate upto 350 MU.

(e) There will be no considerable change in O&M expenditure as regular daily, quarterly and annual maintenance are required for up keeping of the machines as per manufacturer's guide lines and 70% of the approved O&M expenditure goes towards manpower expenditure.

27. Heard the Petitioner and the Respondents on virtual mode. OHPC has sought approval for execution of the following works and capitalisation of the cost thereof which are discussed below:

(a) Capital maintenance of Units 1 & 2 of Chiplima Power House.

The Units-1&2 of CHEP, Chiplima had undergone R&M works in the year 1998 and 2008 respectively. As per the submission of OHPC, during the above need based R&M works most of the mechanical components were used after refurbishment. Moreover, the protection and control system have now become obsolete and availability of spares have become difficult. Further, OHPC has not carried out capital maintenance of these units after the above R&M works. Therefore, OHPC has proposed for capital maintenance of these generating units with an estimated cost of Rs.57.36 Crore excluding applicable taxes (Unit-1 Rs.29.4378 Crore and Unit-2 Rs.27.9202 Crore) with the maintenance period of 200 days for each unit. The TCC has recommended to place the order on the OEM at the above negotiated price.

The Commission further observed that the capital maintenance of the generating units are normally undertaken with an interval of 3 to 5 years as per the

Odisha Hydro Power Corporation Ltd. Bhubaneswar

manufacture's guidelines for smooth and efficient running of the generating units. Chiplima power house is a base load power plant which runs with the tail race water from Burla power house available through the power channel. Hence, the generating units of the Chiplima power house must be ready for operation to avoid wastage of water after generation at Burla. We observe that Clause 12 (3) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2020 and Clause 2.1 (e) of PPA provides for additional capitalization for such capital maintenance. Further, the Commission vide its earlier orders in Case No. 56 of 2009 and Case No. 5 of 2012 have allowed for such capital maintenance to OHPC even after the cut-off date. In view of the above, the Commission now accord in principle approval to carry out the capital maintenance of Units-1&2 of Chiplima power house at the negotiated price of Rs.57.36 Crore as proposed by OHPC since this capital maintenance is based on the recommendation of the OEM. As prayed for by OHPC, during the proposed period of the above capital maintenance, the PAFM of Chiplima power House shall be computed as per the Commission's order in Case No. 52/2019 and beyond the proposed period the PAFM shall be computed as per the Generation Tariff Regulations. However, OHPC should take care that there would not be any cost and time over-run while carrying out the proposed capital maintenance. Efforts should be made to minimize the shut down period of machines by reducing the time period for site activity.

(b) Repair and renovation of power channel from Burla Power House to Chiplima Power House.

OHPC has proposed for repair and renovation of power channel from Burla Power House to Chiplima Power House including its hydro mechanical components at surplus escape head regulator and cross regulator through NBCC at an estimated cost of Rs.153.55 Crore (Rs.69.91 crore for RD 0.00 to 16,000 ft and Rs.83.64 crore for RD 30,000 to 83,480 ft) inclusive of GST, NBCC charges and contingencies. OHPC has proposed to take up the work during the normal shut down period of 46 days each in May/June and November/December of two consecutive years. Total shutdown period shall be 184 days (4 x 46 days) in two consecutive years. The Commission feels that Repair and Maintenance of Power Channel from HHEP to CHEP is essential so that its water carrying

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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capacity is not affected and optimum generation is possible at Chiplima Power House. As per submission of OHPC in this regard the work order has been issued to NBCC who shall carry out this work on deposit work basis following tendering process.

The Commission agrees in principle with this proposal of OHPC for refurbishment of power channel. The estimated cost of Rs.153.55 Crore for this work will have impact on tariff of consumers. Hence, OHPC must ensure that cost of executed work is optimised and tender for this work is carried out in a transparent manner by NBCC with details specification having stringent norms and technical parameters. The representative of OHPC shall participate in the tender evaluation process. The actual cost discovered through this tendering process shall be allowed for capitalisation once the work is over. OHPC shall approach the Commission for actual capitalisation of this work in its future tariff petition after such work is completed.

(c) Other Civil Works

i. Construction Quarters at BHEP, Balimela and RHEP, Rengali.

ii. Construction of new water supply system at BHEP, Balimela and extension of water supply system to RHEP colony at Rengali Dam site.

iii. Construction of 40 beded Training Hostel at BHEP, Balimela.

iv. Construction of Training Hostel at OHPC Training Centre at Bhubaneswar.

OHPC has proposed for approval of a total estimated amount of Rs.70.45 crore for other civil works as mentioned above and to undertake the civil works through M/s. NBCC ltd. on deposit work basis. OHPC proposes for construction of 42 nos. of 2 BHK, 24 nos. of 3 BHK and 6 nos. 4 BHK quarters at BHEP, Balimela at an estimated cost of Rs.47.20 Crore and construction of 12 nos. of D type quarters at RHEP, Rengali at an estimated cost of Rs.4.53 crore.

OHPC has further proposed for construction of new water supply system at BHEP, Balimela at an estimated cost of Rs.6.00 Crore and for extension of water supply system to RHEP colony at Rengali Dam site at an estimated cost of Rs.6.72 Crore. OHPC has further proposed for construction of a 40 beded Training Hostel at BHEP, Balimela at an estimated cost of Rs.5.00 Crore and

Odisha Hydro Power Corporation Ltd. Bhubaneswar

construction of Training Hostel at OHPC Training Centre at Bhubaneswar at an estimated cost of Rs. 6.00 Crore.

The Commission feels that there is need for construction of quarters along with other basic facilities like drinking water supply system at BHEP & RHEP, which were constructed during the years 1960s & 1980s respectively, to provide better living condition to employees staying in such remote areas. Similarly, proposed construction of training hostel at Balimela and Bhubaneswar is also considered essential for capacity building of employees. Therefore, the Commission agrees for construction of the proposed civil works in respect of construction of quarters & water supply system at BHEP & RHEP, construction of Training Hostel at OHPC Training Centre, Bhubaneswar. However, the Commission observed that the expenditure on the above civil works, if passed on in the ARR of OHPC, will cause hike in OHPC Tariff which consequently exerts burden on the State consumers. In order to avoid such burden on the consumers, the Commission is not inclined to pass on the expenditure of Rs.70.45 Crore proposed by OHPC for the above mentioned civil works as OHPC is in a comfortable position to meet such expenses from its earnings for which huge amount of income tax is being paid by it. Hence, the Commission suggests that OHPC may meet the said expenditure from its miscellaneous earnings in a segregated manner spanning over some years and should not be capitalised.

28. With the above observations and directions, the case is disposed of.

Sd/-
(S. K. Ray Mohapatra)
Member

Sd/-
(G. Mohapatra)
Officiating Chairperson

Odisha Hydro Power Corporation Ltd. Bhubaneswar

EXTRACTS TAKEN FROM THE MINUTES OF THE 159TH MEETING OF THE BOARD OF DIRECTORS OF ODISHA HYDRO POWER CORPORATION LTD HELD ON FRIDAY, THE 4TH SEPTEMBER, 2020 AT 3:00 P.M AND CONCLUDED AT 5:00 P.M THROUGH VIDEO CONFERENCING.

Item No.159/24

Repair and Rehabilitation of Chiplima Forebay, Spillway and Surplus Escape including survey, geotechnical and geological investigations, design, vetting, tendering, execution, supervision, quality control etc. on deposit work basis.

The Board perused the memorandum and after discussion approved and ratified the action taken in acceptance of DPR cost for Rs.87.77 crores towards repair and rehabilitation of Chiplima Forebay, Spillway and Surplus Escape including survey, geotechnical and geological investigations, design, vetting, tendering, execution, supervision, quality control etc. on deposit work basis and advised Director (Operation) that WAPCOS may proceed further as per the terms of the work order.

CERTIFIED TRUE COPY
FOR & ON BEHALF OF
OHPC LTD

COMPANY SECRETARY

24.9.20

N.S.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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(ଓଡ଼ିଶା ସରକାରଙ୍କ ଅଧିନ)
Regd. Office
ଓଡ଼ିଶା ରାଜ୍ୟ ଆରକ୍ଷୀ ଗୃହନିର୍ମାଣ ଏବଂ ସମାଜମଙ୍ଗଳ ନିଗମ ଭବନ, ବାଣୀବିହାର ଛକ, ଜନପଥ, ଭୁବନେଶ୍ୱର-୨୨
ଫୋନ୍ : ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ : ୨୫୪୨୧୦୨

ISO : 9001,14001, 13001 Certified

ODISHA HYDRO POWER CORPORATION LTD.
(A Government of Odisha Undertaking)
ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING, VANIVIHAR CHOUK, JANPATH, BHUBANESWAR-22
Tel. : 91-06/4-2542983, 2542802, 2545526, 2542826, Fax. : 2542102
E-MAIL : ohpc.co@gmail.com / md@ohpcltd.com, WEB : www.ohpcltd.com

CIN: U40101OR1995SGC003963

No. OHPC/HQ/TECH/CW/24/2017/ 11186 /Dated. 06.11.2018

To,

The Project Manager.
WAPCOS Ltd.
N-3/200, IRC village,
Nayapalli, Bhubaneswar.
E-mail- wapcos_odisha@yahoo.com

Sub: Taking up of the work, **"Providing Consultancy service for topographical survey, geotechnical and geological investigations, design, drawing, vetting, preparation of cost estimate tender documents, tender finalization and supervision for "Repair and rehabilitation of Chiplima forebay, spillway and surplus escape.""**

Ref: (1) This office letter no.9687 (WE) dated.24.09.2018.
(2) MoU signed between WAPCOS and OHPC Ltd. on 22.09.2018.

Sir,

With reference to the above, it is requested to take up the work, **"Providing Consultancy service for Topographical Survey Geotechnical and geological investigations, design, drawing, vetting, preparation of cost estimate tender documents, tender finalization and supervision for "Repair and rehabilitation of Chiplima forebay, spillway and surplus escape"""** as per terms & conditions of the MoU.

The detail scope of work etc. are as per the following.

1. <u>Scope of work:-</u>

i) **Reconnaisance / preliminary survey, detail survey of the area of forebay, spillway, surplus escape etc. of CHEP, Chiplima.**

ii) **<u>Preparation of DPR Drawing, designing, tendering, execution, supervision</u>:** - The following topics will be included.

(a) **<u>Survey and Mapping</u>:-**

Location of damages of Chiplima forebay, spillway, surplus escape.
Topographical survey of Longitudinal section along the alignments.
Cross sections along the above alignments at 5m intervals or as per requirement depending upon the ground conditions.
Contour survey of the entire area of forebay, spillway, surplus escape etc. with 5m grids or as per requirement fixing location of the above structures and other project infrastructure.
Enumeration of trees to be cut for which clearance from forest department is necessary. Surveys to be conducted with reference to the nearest bench mark by using total stations and digital auto levels. Contour maps will be prepared with 1m contour intervals. CS and LS will be prepared in the scale horizontal 1:1000 and vertical 1:100.
Survey maps will be prepared and submitted in hard copies and digital forms with colour coding of features.

(b) **<u>Geological and Geotechnical Investigation</u>** :-

Drilling of boreholes at the appropriate locations of forebay, spillway, surplus escape requirement for geological and geotechnical investigation.
Collection of soil, rock and ground water samples for testing

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Testing of permeability, groutability, soil bearing capacity and other necessary investigation for geological and Geotechnical mapping of the area, required for repair and rehabilitation of forebay, spillway, surplus escape etc.

Survey for construction materials and collection of samples for investigation.

(c) **Hydrological Investigation :-**
Hydro logical investigation required for design, estimate, execution of the project.

(d) **Rehabilitation and repair work of hydro mechanical structures :-**
Design and estimation for repair and rehabilitation of hydro mechanical structures at forebay, spillway, surplus escape etc.

(e) **Project Planning and Design Engineering :-**
Civil Engineering design of the repair works of forebay, spillway, surplus escape and other hydro mechanical structures for approval of OHPC.
Design of hydro mechanical structures such as head surplus escape gates etc.,
All the above designs should be done as per the latest CBIP / CWC / CEA guide lines and following relevant IS standards.
All the designs / DPR are to be approved by OHPC for subsequent activities.
All the designs / drawings for the work are to be vetted by CWC / DOWR as per the rules.

(f) Description of infrastructural facilities to be provided for the project as a whole.

(g) Working out of construction plan, equipment planning, ecological and environmental studies. Impact on environment due to project activities, its management and mitigation measures and clearances required to be obtained for the project.

(h) Preparation of BOQ, estimated project costs, phasing of expenditure and financial analysis. Based on the approved DPR/ design.
Estimate will be prepared as per CWC/CEA/CBIP/GOI guide lines and relevant schedule of rates of the Govt..

(i) Preparation of project implementation time schedule backed by Gantt. Chart.

(j) Drawings, project layout, plan and section forebay, spillway, surplus escape and other hydro mechanical components.

(k) Preparation of tender documents for the works as per the scope for approval of OHPC Ltd..

(l) Tendering the works on behalf of OHPC including pre-bid meeting, tender evaluation, award of work etc.

(m) Project monitoring, supervision of the works as per tender specification, preparation of working drawings, alternate designs / drawing and obtaining approval thereof from CWC/DOWR as applicable.
Preparation of completion report of the work undertaken.

(n)

2. Fee structure :-

a. It is agreed that WAPCOS Centage Charges shall be 5% of the estimated cost or the final work order /executed cost of the Projects payable to the implementing agency whichever is lower, plus GST & other taxes (if any) as applicable. The split up of the above centage charges is as per the following.

(i) Charges for Survey & Investigations, Design, Drawings, cost estimates, vetting, approval from BDA/local authority etc. – 1.5%

(ii) Charges for tendering action, Project Management Consultancy – 3.5%

3. Payment Terms :-

a. **For Consultancy services (on the basis of @ 1.5% of estimated cost)**

- Initial Deposit – 20% on submission of Bank Guarantee for equivalent amount.
- Submission of Design, Drawings and Draft DPR – 20%
- Submission of approved drawings – 30%
- Submission of detailed estimate – 30%

b **For Project Execution consultancy, (on the basis of @ 3.5% of estimated cost / executed project cost whichever is lower).**

- 10% on issue of NIT for works
- 10% on Award of Work to Contractor
- 80% for Quarterly payments to the Contractor as per the project duration on Pro-rata basis.
- 5% will be deducted from each bill towards performance security

c. **For physical project execution on deposit work basis.**

- OHPC shall provide an initial deposit of 20% of the project cost for the mobilization charges during the start of construction.
- WAPCOS shall provide monthly and physical financial progress report along with details of fund available with it duly certified by its authorized officer.
- WAPCOS shall provide quarterly fund requirements for the project in advance based on the progress of the work and fund availability with it.
- The payment will be released by OHPC after receipt of fund requisition and utilization certificate of the previous funds by WAPCOS before release of next fund.
- 1st quarter shall start after one month of payment of mobilization charges.
- WAPCOS has to submit the bills after adjustment of 20% pro-rata from each bill.
- Applicable taxes as per rule will be deducted from the bill / fund remitted.

4. **Time line & deliverables:-**

Sl. No.	Activity.	Time period.
1.	Submission of factual layout and status of the repair works of forebay, spillway, surplus escape hydro mechanical structures of CHEP, Chiplima.	**within 120 days** of placement of work order.
2.	Submission of detailed survey, mapping, geological investigation report, Geotechnical studies & tests, hydrological report for the design	**within 120 days** of placement of work order
3.	Draft DPR on (i) Repair and rehabilitation of forebay of CHEP, Chiplima. (ii) Repair & rehabilitation of Chiplima Spillway. (iii) Repair & rehabilitation of surplus escape and other hydro mechanical components to be prepared as per CBIP/CEA/CWC guidelines covering all the items of the scope of work as given above arranged in a chapter / volume wise orderly manner with a presentation for comments of OHPC Ltd..	**within 120 days** of placement of work order
4.	Final DPR (6 hard copies + 2 soft copies) for approval of OHPC Ltd..	**within 180 days** of placement of wor order
5.	Preparation of tender specification	**within 210 days** of placement of wo order
6.	Tendering action, pre-bid meeting, finalization of tender, award of work	**within 300 days** of placement of wo order.
7.	Execution, Project monitoring and supervision services for the work including completion report.	**within 2 years** of placement of awa of work to the contractor

Other terms & conditions will be as per the clauses of the **MoU** under reference (2) above.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

06/11/2018

Asst. General Manager (Civil)

Memo No. 11187 /Dated. 06.11.2018

Copy submitted to the Unit Head, CHEP, Chiplima / HHEP, Burla for information and necessary action.

06/11/2018

Asst. General Manager (Civil)

C.C : Sr. P.S. to the CMD, OHPC Ltd. for kind information of CMD, OHPC Ltd. — A167 —

Chief (HRD) /Company Secretary, OHPC Ltd. for information.

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ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍

(ଓଡ଼ିଶା ସରକାରଙ୍କ ଅଧିନ)

ଓଡ଼ିଶା ରାଜ୍ୟ ଆରକ୍ଷୀ ଗୃହନିର୍ମାଣ ଏବଂ ସମାଜମଙ୍ଗଳ ନିଗମ ଭବନ, ବାଣୀବିହାର ଛକ, ଜନପଥ, ଭୁବନେଶ୍ୱର-୨୨

ଫୋନ୍ : ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ : ୨୫୪୨୧୦୨

ODISHA HYDRO POWER CORPORATION LTD.

(A Government of Odisha Undertaking)

ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING, VANIVIHAR CHOUK, JANPATH, BHUBANESWAR-22

Tel. : 91-0674-2542983, 2542802, 2545526, 2542826, Fax. : 2542102

E-MAIL : ohpc.co@gmail.com / md@ohpcltd.com, WEB : www.ohpcltd.com

OHPC/HQ/TECH/CW/24/2017/ 546 /Dated. 16.01.2019

To,

Mr. D.V.S.N. Raju,
Sr. Executive Director (Power),
WAPCOS Ltd.
2nd floor, SKV House, Plot-57,
Sector 18, Gurgaon, Haryana,
E-mail- ccelectrical@wapcosindia.com

Sub:- Taking up of the work, "Providing Consultancy service for topographical survey, geotechnical and geological investigations, design, drawing, vetting, preparation of cost estimate tender documents, tender finalization and supervision for "Repair and rehabilitation of Chiplima forebay, spillway and surplus escape.""

Ref:- 1) Work order no.11186 dated.06.11.2018.
2) Your office letter no. WAP/POW/Odisha/Chiplima/2018/02 dtd.05.12.2018.

Sir,

The following amendments have been made to the work order no.OHPC/HQ/TECH/CW/24/2017/ 11186 Dated.06.11.2018 for the work, "Providing Consultancy service for topographical survey, geotechnical and geological investigations, design, drawing, vetting, preparation of cost estimate tender documents, tender finalization and supervision for "Repair and rehabilitation of Chiplima forebay, spillway and surplus escape."" awarded in favour of WAPCOS.

Sl.No.	Clause No.	Original Clause.	Amended Clause.	Remarks.
1.	Address.	The Project Manager. WAPCOS Ltd. N-3/300, IRC village, Nayapalli, Bhubaneswar. E-mail- wapcos_odisha@yahoo.com	Mr. D.V.S.N. Raju, Sr. Executive Director (Power), WAPCOS Ltd. 2nd floor, SKV House, Plot-57, Sector 18, Gurgaon, Haryana, E-mail- ccelectrical@wapcosindia.com	

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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2.	Name of the work. (Subject).	"Providing Consultancy service for topographical survey, geotechnical and geological investigations, design, drawing, vetting, preparation of cost estimate tender documents, tender finalization and supervision for "Repair and rehabilitation of Chiplima forebay, spillway and surplus escape.""	"Repair and Rehabilitation of Chiplima forebay, spillway and surplus escape" including Survey, geotechnical and geological investigations, design, drawing, vetting, tendering, execution, supervision, quality control etc. on deposit work basis".	Remark.
3.	(1)	Scope of work :-	Scope of work :- "Subsequent to this work order, WAPCOS shall prepare estimated cost of various items of the work as required by OHPC based on CEA/ CWC/ CBIP/ GOI/ OPWD/ CPWD guidelines. Incase at detailed design / execution stage, if there is an increase / decrease in this estimated cost, WAPCOS shall submit the details of the same with the supporting documents and technical / administrative justification for acceptance of OHPC".	Other claus of scope work rema unaltered.
4.	I(ii)	Preparation of DPR Drawing, designing, tendering, execution, supervision: - The following will be included.	"Preparation of DPR drawings / designs, tendering, execution including quality control & supervision. The following topics will be included.	
5.	I(ii) (f)	All the design/ drawings for the work are to be vetted by CWC /DOWR as per the rules.	All the detailed designs / drawings for the work are to be vetted / concurred by WAPCOS or as per MoU before approval by OHPC. WAPCOS shall get the Structural drawings vetted from IIT/NIT/ Reputed Govt. Engineering colleges as per MoU.	

Odisha Hydro Power Corporation Ltd. Bhubaneswar

6	1(ii) (n)	Project monitoring, supervision of the works as per tender specification, preparation of working drawings, alternate design / drawing and obtaining approval thereof from CWC/DOWR as applicable. Preparation of completion report of the work undertaken.	Project monitoring, supervision of the works as per approved construction drawings and alternate designs/ drawings after obtaining approval as per MoU. Preparation of completion report of the work undertaken	
8.	1 (ii) (o)		**Client's Obligations:** a) OHPC shall extend all the necessary support to WAPCOS required for acquiring all approvals for the works related to this project. b) OHPC shall extend all the support to WAPCOS for acquiring the hydrological data from concerned authorities. c) Handing over of hindrance free land for survey and investigation and project execution.	Addition clause.
9.	2.(a) (i)	Charges for Survey & Investigations, Design, Drawings, cost estimates, vetting, approval from BDA / local authority etc. – 1.5%	Charges for Survey & Investigations, Design, Drawings, cost estimates, vetting, approval from OHPC Ltd.,etc. – 1.5%	
10	3 (a)	**For Consultancy services (on the basis of @ 1.5% of estimated cost)** Initial Deposit – 20% on submission of Bank Guarantee for equivalent amount. Submission of Design, Drawings and Draft DPR – 20% Submission of approved drawings – 30% Submission of detailed estimate – 30%	**For Consultancy services (on the basis of @ 1.5% of estimated cost)** Initial Deposit – 20% on submission of Bank Guarantee for equivalent amount. Submission of Design, Drawings and Draft DPR – 20% Submission of approved drawings – 30% Submission of detailed estimate & Final DPR – 30%	
11	3(c)	**For physical project execution on deposit work basis.** • OHPC shall provide an initial deposit of 20% of the project cost for the mobilization charges during the start of construction. • WAPCOS shall provide	**For physical project execution on deposit work basis.** • OHPC shall provide an initial deposit of 20% of the project cost for the mobilization charges during the start of construction. • WAPCOS shall provide monthly	

Odisha Hydro Power Corporation Ltd. Bhubaneswar

	monthly and physical financial progress report along with details of fund available with it duly certified by its authorized officer. • WAPCOS shall provide quarterly fund requirements for the project in advance based on the progress of the work and fund availability with it. • The payment will be released by OHPC after receipt of fund requisition and utilization certificate of the previous funds by WAPCOS before release of next fund. • 1st quarter shall start after one month of payment of mobilization charges. • WAPCOS has to submit the bills after adjustment of 20% pro-rata from each bill. • Applicable taxes as per rule will be deducted from the bill / fund remitted.	and physical financial progress report along with details of fund available with it duly certified by its authorized officer. • WAPCOS shall provide quarterly fund requirements for the project in advance based on the progress of the work and fund availability with it. • The payment will be released by OHPC after receipt of fund requisition and utilization certificate of the previous funds by WAPCOS before release of next fund. • 1st quarter shall start after one month of payment of mobilization charges. • WAPCOS has to submit the bills after adjustment of 20% pro-rata from each bill. • Applicable taxes as per rule will be deducted from the bill / fund remitted. • OHPC will ensure adequate fund flow to WAPCOS commensurate with the physical progress and financial progress of previously released funds / last disbursements. OHPC will ensure release of funds within 21 (twenty one) days of demand subject to fulfilling the precondition of fund release, in line with MoU.	
12	Time line & deliverables:-		The effective date / zero date of this project shall commence after 10 days from : (a) Date of approval of estimated cost from client etc. or (b) The date of release of initial deposit under consultancy. or (c) Handing over of hindrance free land for survey and investigation including all clearances from concerned authorities. whichever is earlier.	Addition clauses.
		1) Submission of factual layout and status of the repair works of forebay, spillway, surplus escape hydro mechanical structures of CHEP, Chiplima. – **within 120 days of placement of work order.**	1) Submission of inception report including factual layout and status of the repair works of forebay, spillway, surplus escape hydro mechanical structures of CHEP, Chiplima. – **within 45 days from effective date / Zero date.**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

		2) Submission of detailed survey, mapping, geological investigation report, Geotechnical studies & tests, hydrological report for the design. – **within 120 days of placement of work order.**	2) Submission of detailed survey, mapping, geological investigation report, Geotechnical studies & tests hydrological report for the design.-**within 120 days from effective date.**	
		3) Draft DPR on (i) Repair and rehabilitation of forebay of CHEP, Chiplima. (ii) Repair and rehabilitation of Chiplima Spillway. (iii) Repair and rehabilitation of surplus escape, and other hydro mechanical components to be prepared as per CBIP/CEA/CWC guidelines covering – all the items of the scope of work as given above arranged in a chapter / volume wise orderly manner with a presentation for comments of OHPC Ltd.. – **within 120 days of placement of work order.**	3) Draft DPR on (i) Repair and rehabilitation of forebay of CHEP, Chiplima. (ii) Repair & rehabilitation of Chiplima spillway. (iii) Repair & rehabilitation of surplus escape and other hydro mechanical components to be prepared as per CBIP/CEA/CWC guidelines covering all the items of the scope of work as given above arranged in a chapter / volume wise orderly manner with a presentation for comments of OHPC Ltd.- **within 180 days from effective date.**	
		4) Final DPR (6 hard copies + 2 soft copies) for approval of OHPC Ltd.. – **within 180 days of placement of work order.**	4) Final DPR (6 hard copies + 2 soft copies) for approval of OHPC Ltd. – **within 15 days from receipt of OHPC comments on draft DPR i.e.(within 195 days) from effective date.**	
		5) Preparation of tender specification. – **within 210 days of placement of work order.**	5) Preparation of tender specification. – **within 45 days from approved DPR (within 240 days from effective date).**	
		6) Tendering action, per-bid meeting, finalization of tender, award of work. – **within 300 days of placement of work order.**	6) Tendering action, pre-bid meeting, finalization of tender award of work. – **within 90 days from approval of tender documents by OHPC.**	
		7) Execution, Project monitoring and supervision services for the work including completion report. – **within 2 years of placement of award of work to the contractor.**	7) Execution, project monitoring and supervision services for the work including completion report. – **within 2 years of placement of work order to the contractor / time period as approved by OHPC in DPR.**	

All other terms & conditions of the work order remain unaltered.

Yours faithfully,

Sd/-
DIRECTOR (OPERATION)

C.C.: Director (Finance) / Director (HRD) OHPC Ltd., BBSR for information and necessary action.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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Memo.No. 547 /Dated. 16.01.2019

Copy to the Gen. Manager (F&A), OHPC Ltd., Bhubaneswar for information and necessary action.

16.01.2019

Asst. Gen. Manager (Civil)

Memo.No. 548 /Dated. 16.01.2019

Copy to the Project Manager. WAPCOS Ltd., N-3/200, IRC Village, Nayapalli, Bhubaneswar, E-mail-wapcos_odisha@yahoo.com for information and necessary action.

16.01.2019

Asst. Gen. Manager (Civil)

Memo.No. 549 /Dated. 16.01.2019.

Copy to the Unit Head, CHEP, Chiplima / HHEP, Burla for information and necessary action.

16.01.2

Asst. Gen. Manager (Civil)

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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ODISHA HYDRO POWER CORPORATION LTD.,

O/o Sr. GENERAL MANAGER, HIRAKUD HYDRO ELECTRIC PROJECT,
POST BOX. NO. 5, BURLA – 768017, DISTRICT: SAMBALPUR (ODISHA), INDIA
PHONE: 0663-2950721(O), 2950765(R), E-Mail: srgmhps_burla@yahoo.co.in
CIN : U40101OR1995SGC003963

No. HHEP/Tech-WK-82,Vol-III/ 4411 (WE) Date : 09. 09. 2024

To

M/s Apurba Transcon Pvt Ltd,
Sadaipali New Colony,
Burla, Dist- Sambalpur-768017
Email Id: pksvss@gmail.com

By Speed Post/ Email

Sub:- Work order for "Dismantling and Dragging of 60MVA, 11/132KV BHEL make GT from GT-2 bay to infront of ingate of BPH and dragging and shifting of 60MVA, 11/132KV BBL make new GT from ingate of Power House to GT-2 bay and erection, testing and commissioning of the same at GT-2 bay of Burla Power House".

Ref:- 1)This office limited tender call notice No. HHEP-24/2024 dt 20.07.2024
2)Your Technical bid opened on dtd 29.07.2024 & Price Bid opened on dtd 06.08.2024

Dear Sir,

With reference to above, work order is hereby placed on your firm to execute the work **"Dismantling and Dragging of 60MVA, 11/132KV BHEL make GT from GT-2 bay to infront of ingate of BPH and dragging and shifting of 60MVA, 11/132KV BBL make new GT from ingate of Power House to GT-2 bay and erection, testing and commissioning of the same at GT-2 bay of Burla Power House" at the following rates, terms and conditions detailed given below.**

Price schedule:

Part-A: Dismantling of 60MVA, 11/132KV BHEL make GT from Unit-2 GT Bay of Burla Power House

Sl No	Description of work	Unit	Qty	Price/ Unit in Rs	Amount in Rs
1	Dismantling of existing 60MVA , 11/132KV BHEL Make GT at Unit-2 GT bay including disconnecting from the bus, drainage of oil, dismantling of all other fittings.	No	1	66000	66000

PART-B:Dragging of 60MVA BHEL make GT from Unit-2 GT bay and Shifting the same to infront of ingate of Power House

Sl No	Description of Work	Weight of Transformer (MT)	Total distance to be dragged & shifted (Mtr)	Price / Mtr / MT in Rs	Amount in Rs
1	Dragging of 60MVA BHEL make GT from Unit-2 GT bay and Shifting the same to infront of ingate of Power House	86	90.2	69	535246.8

PART-C:Dragging of 60MVA, 11/132KV BBL make New GT from ingate of Power House to Unit-2 GT Bay

Sl No	Description of Work	Weight of Transformer (MT)	Total distance to be dragged & shifted (Mtr)	Price / mtr / MT in Rs	Amount in Rs
1	Dragging of new 60MVA GT of BBL make from ingate of Power House to Unit-2 GT Bay	70	79.7	79.5	443530.500

PART-D:Erection, testing & commissioning of 60MVA BBL make new GT at Unit-2 GT Bay of BPH					
Sl No	Description of Work	Unit	Qty	Price/ Unit in Rs	Amount in Rs
1	Erection, testing and commissioning of 60MVA BBL make GT at Unit-2 GT Bay of Burla Power House	No	1	199000	199000
2	Grand total for the work "Dismantling and Dragging of 60MVA, 11/132KV BHEL make GT from GT-2 bay to infront of ingate of BPH and dragging and shifting of 60MVA, 11/132KV BBL make new GT from ingate of Power House to GT-2 bay and erection, testing and commissioning of the same at GT-2 bay of Burla Power House (PART-A+ PART-B + PART-C + PART-D)				1243777.300
3	Grand total in Rs (R/Off)				1243777.00

(Rupees Twelve lakhs forty three thousand seven hundred seventy seven) only

Terms & Conditions

1) SCOPE OF WORK. The scope of work for the above work is given below.

   a) Dismantling of existing 60MVA, 11/132KV BHEL make GT at Unit-2 GT bay including disconnecting from the bus, drainage of oil, dismantling of all other fittings.

   b) Dragging of old 60MVA BHEL make GT from Unit-2 GT bay and shifting the same to infront of ingate of Power House.

   c) Dragging of new 60MVA , 11/132KV BBL make GT from ingate of power house to Unit-2 GT Bay.

   d) Erection & Assembly of new 60MVA BBL GT at GT bay, testing and commissioning of new 60MVA, 11/132KV BBL make GT at Unit-2 GT bay of Burla Power House.

   e) The firm is responsible for supply of man power, with all other required associated tools & tackles for successful completion of above work..

   f) All other works which are not mentioned in the scope of work, but required for completion of work will also be carried out as per the instruction of the Engineer-In-Charge without any financial liability to OHPC.

2) PRICE:- Above price is FIRM and FOR Burla Power House & inclusive of all charges but exclusive of GST. The GST as applicable shall be paid extra as the case may be.

3) TAXES & DUTIES:-

   a) Only GST as applicable shall be paid extra

   b) TDS as per rule shall be deducted from the invoice while making payment to the party.

   c) OHPC GST No.: 21AAACO2575P1Z9

4) PERIOD OF COMPLETION: - The entire work as stated above under SCOPE OF WORK shall be completed in all respect within **25 days** from the date of getting clearance from the Engineer-In-Charge after availing shut-down permission from the competent authority. Certification of successful completion of work by Engineer-In-Charge will be treated as the date of completion. However, early completion is preferred.

5) AGREEMENT: The Contractor has to execute an agreement with the Engineer-In-Charge in a non-judicial stamp paper worth as applicable as per the Odisha Stamp duty Act before execution of work within 15days of issue of order and on submission of proof of deposit of Performance Security.

6) FACILITIES TO BE MADE AVAILABLE BY THE CONTRACTOR:

   a) All the scaffolding , tools and tackles required for execution of works are to be arranged by the Contractor and will be kept in their custody.

b) Any machinery such as Crane and Hydra if required is to be arranged by the Contractor.

c) Arrangement of gatepass from the Competent Authority for the working persons to BPH will be done by the Contractor/Firm

7) FACILITIES TO BE PROVIDED BY OHPC:

a) Power Supply free of cost inside power house

b) Recommendation for obtaining gate pass

c) Transformer Oil Filtration Machine without operator.

8) INSURANCE: The work place is situated in the vicinity of extra high voltage and risk profile zone. Risk profile varies from ordinary accidents to even accident of fatal injury. The Contractor is entirely responsible for insuring the personnel and equipments working/ deployed at the site for carrying out the job inside BPH against all risk of sustaining minor injury to fatal accidents and / against any damage occurred to the Personnel and Machinery of other organization including OHPC due to activities of Contractor within BPH premises while performing the contractual obligation. Any damage or loss to OHPC property will have to be repaired/ replaced by the Contractor at no extra cost to OHPC.

9) PAYMENT:- 100% payment along with full taxes and duties shall be made towards work executed as per actual measurement after successful completion of work subject to submission of Original Bill in triplicate, Warrantee certificate and work completion certificate.

10) WARANTEE SUPPORT:- The work executed by the firm shall be guaranteed for satisfactory performance against workmanship for a period of six months from the date of completion. Any defect noticed during this period should be attended by the Contractor free of cost to OHPC provided, such defects are due to poor quality of workmanship upon written notice from OHPC.

11) PERFORMANCE SECURITY:- The firm has to deposit 5% of the ordered value amounting to Rs 62,189.00 (Rupees Sixty two thousand one hundred eighty nine) Only towards security deposit for Performance within **15(Fifteen)** days of placement of order by OHPC in shape of Bank draft/Bankers Cheque drawn in favour of "**HHEP,Burla, OHPC Ltd.**" Payable at Burla. In case of non-fulfillment of contract conditions, the performance security will be forfeited without assigning any reason thereof. The performance security shall not carry any interest. OHPC is entitled to adjust the whole or any portion of the performance security towards recovery of any amount due to OHPC from the successful bidder. The performance security or such portions thereof that has not been adjusted towards recovery of the amount/penalty due from the successful bidder shall be refunded within 30(Thirty) days of satisfactory completion of the contract.

12) ENGINEER-IN-CHARGE:- Divisional Head, P&C Division ,HHEP,Burla

13) PAYING OFFICER:- Finance Wing Head, HHEP,Burla.

14) LIQUIDATED DAMAGE (LD):- LD at the rate of 0.5% of order value per week or part thereof of delay in completion of work shall be recovered from the bill of the contractor subject to a maximum of 05 % of the contract price if the delay is attributable to the firm. The work order will

be liable for termination if work is not completed within stipulated period or further extended period allowed by the purchaser.

15) JURISDICTION OF COURT:-Suits, if any arising out of the contract shall be filed by the either party in a court of law to which the jurisdiction of the Hon'ble High Court of Orissa extends

16) SETTLEMENT OF DISPUTE: - Any dispute that may arise, shall be settled by the Unit Head, Hirakud Hydro Electric Project, Burla or his authorized representative.

17) ACCEPTANCE OF WORK ORDER : The firm shall acknowledge the acceptance of work order immediately after receipt of work order . The contractor shall submit the copy of work order to this office with signature, date and seal on each page as a token of acceptance of work order

Yours faithfully,

Encl: Extra copy of order.

Memo. No. 4414 Date : 04. 09. 2024

C&P Head, HHEP,Burla

Copy submitted to the Director(Operation), OHPC Ltd., Bhubaneswar for favour of kind information.

Memo. No. 4413 Date : 04. 09. 2024

C&P Head, HHEP,Burla

Copy to the Divisional Head, P&C Division, Burla for information and necessary action.

C&P Head, HHEP,Burla

CC: 1) Finance Wing Head, HHEP, Burla
2) Work order guard file

Odisha Hydro Power Corporation Ltd. Bhubaneswar

(96)

28 APR 2023

ODISHA HYDRO POWER CORPORATION LTD.
(A Government of Odisha Undertaking)
Regd. Office: ODISHA STATE POLICE HOUSING & WELFARE
CORPORATION BUILDING
VANIVIHAR CHOUK, JANPATH, BHOINAGAR, BHUBANESWAR – 751022
Tel: 91 -0674-2542983, 2542802, 2545526, Fax- 2542102, e-mail –
ohpc.co@gmail.com CIN : U40101OR1995SGC003960

OHPC: TECH:C&P:10/2022-23/ 3062 Dated 24/01/2023

To

M/s Bharat Bijlee Ltd.
Siddha Fifth Avenue Space, N
No. 38, 3rd Floor, 179 Anandapur.
Kolkata-70107.
Email:- kamalakanta.dey@bharatbijlee.com

Sub:- Work order for **"Design, Manufacturing, Supply Including Supervision of Installation, Testing & Commissioning of 01 No of 11/132 KV, 60 MVA Generator Transformer for Hirakud Hydro Electric Project, Burla"**- Regarding

Ref: i) Tender Call Notice no 11/2022-33. Dated. 04.11.2022.
i) Your offer no. ENQ/10155178/KKD/01 dated 12.12.2022
ii) This office letter no. 859 dated 03.02.2023 for opening of price bid.

Sir.

With reference to above, OHPC is pleased to place the Work Order on your firm for **Design, Manufacturing, Supply Including Supervision of Installation, Testing & Commissioning of 01 No of 11/132 KV, 60 MVA Generator Transformer for Hirakud Hydro Electric Project, Burla complete with all fittings, accessories, associated equipment, transformer oil and spares** as per the following price, terms and conditions. The order together with tender specification bearing no 11/2022-23 dated 04.11.2022 shall constitute the contract document between OHPC & M/s Bharat Bijlee Ltd. In case of any dispute/contradicting terms of conditions as laid down in the tender specification and this work order, the terms as specified in the work order shall prevail.

1. SCOPE OF WORK:

The scope of supply & services covers Design, Manufacturing, Supply including Supervision of installation, Testing & Commissioning of 1 No. 60 MVA, 11/132 KV Generator Transformer at HHEP, Burla as per details mentioned in the Technical Specifications vide TCN No. 11/2022-23 along with transformer oil of requisite quantity with 10% extra as well as supply of mandatory spares as detailed in the Price Schedule hereunder. The scope also includes tests, inspection, loading at factory, transportation to and unloading at site with guaranteed obligation. Required road permit for transportation shall also be

Memo No 4959/(2) Dated 31.05.2023
Copy communicated to Shri Divisional Head, Generation / Asst Director

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arranged by the Supplier. Further, the supplier shall supply the other O&M spares as per Schedule-3 required if any, on intimation by OHPC as per the rates & terms as detailed hereunder.

2. PRICE SCHEDULE:-

Sl. No.	PARTICULARS	Price in Rupees
	(A) Plant & Equipment	
1.	Unit Ex-factory price including oil and other accessories as per specification plus extra 10% reserve oil	4,15,80,000.00
2.	Lump sum charges towards packing, forwarding, freight, transit insurance, loading & unloading inclusive of all taxes & duties	19,70,000.00
	Sub- Total (A): FORD Burla HEP price (1+2) in figures	4,35,50,000.00
(B)	Supervision of installation, testing & commissioning charges at HHEP site (Lump sum)	2,50,000.00
(A) + (B)	**Total FORD HHEP price including supervision of installation, testing, commissioning charges**	4,38,00,000.00
	(C) Mandatory Spares as per Part- II, Schedule- 2	
	Base FORD HHEP price drawn from Part- II, Schedule- 2	13,10,000.00
Grand Total Price [Sub-Total (A)+(B)+(C)]		4,51,10,000.00
(Grand Total of (A)+(B)+(C) in words: Rupees Four crores, Fifty One lakhs, Ten thousand only, GST shall be paid extra as applicable on (A)-1, (B) & (C) only.		

Part-II, (SCHEDULE- 2)
Details of Mandatory Spares

Sl. No.	Description of Mandatory Spares	Quantity	FORD FIRM PRICE (Rs.)
1	H.V. Bushing with metal parts and Gaskets (with/without CT)	1No.	4,00,000.00
2	L.V. Bushing with metal parts and gaskets	1No.	4,00,000.00
3	HV Neutral Bushing (with/without CT)	1 No.	95,000.00
4	Complete set of gaskets for GT	1No.	1,00,000.00
5	Magnetic oil level gauge	1 No	20,000.00
6	Buchholz relay	1 No	20,000.00
7	Pressure relief device.	1No.	20,000.00
8	Magnetic oil level gauge with low oil level alarm contacts	1No.	20,000.00
9	Oil flow indicator with contacts	1 No	25,000.00

Odisha Hydro Power Corporation Ltd. Bhubaneswar

10	Set of starter. contactor relays and switches (1 No. of each type and size).	1Set	1.00.000.00
11	Expansion Joints (Complete replacement for transformer)	1 Set	60.000.00
12	Tap position Indicator (Local and remote)	1 No.	Not applicable
13	MCB/MCCB Fuses (control) (complete replacement for transformer)	100%	2,08,400.00
14	Lamps (indicative) (complete replacement for transformer)	100%	50,000.00
15	Total Price		13.10,000.00
16	Total FORD HHEP, Burla Price exclusive GST in words- (Rupees Thirteen Lakhs, Ten Thousand) only & GST shall be paid extra as applicable.		

PART-II
PRICE BID (SCHEDULE-3)

SCHEDULE OF SPARE PARTS REQUIRED FOR FIVE YEARS OF NORMAL O&M

Sl. No.	Particulars	Qty	Unit FORD Rate (Rs.)	Total FORD FIRM Price (Rs.)
1	HV Bushing with metal parts and Gaskets (without CT)	1No.	Not Recommended by the Firm	
2	LV Bushing with metal parts and Gaskets	1No.		
3	HV Neutral Bushing with (with/without CT)	1No.		
4	Complete Set of Gaskets	1No.		
5	Magnetic oil level gauge	1No.		
6	Buchholz relay	1No.		
7	Pressure Relief Device	1No.		
8	Magnetic oil level gauge with low oil level alarm contacts	1No.		
9	Oil flow indicator with contacts	1No.		
10	Set of starter, contactor relays & switches (1 No. each type)	1Set		
11	Total			

N.B:-

1. The validity of the rates quoted shall be 1 year from the date of quotation.
2. GST shall be paid extra as applicable.
3. OHPCL at its own discretion may or may not decide to procure/place order for O & M spares separately at a later date depending on site requirement. The quoted O & M spares & prices are only for future reference.

3. MANNER OF EXECUTION:

All equipment supplied under the contract shall be manufactured in the manner, set out in the Specification or where not set out, as per relevant standards and to the reasonable satisfaction of the Purchaser's representative.

4. DESTINATION: Central Store under Divisional Head. Generation Division or directly at Power House. Transformer Bay of HHEP, Burla as per the instruction of site authority.

5. NATURE OF PRICE, TAXES & BASIS OF PRICE VARIATION:

5.1 Taxable base value of main generator transformer including oil is variable strictly as per IEEMA PV Regulations bearing Circular No. 140/PVC/DT-PT/05, dated 10th November 2021. The base value of the GT is exclusively of the transformer with oil only, charges towards freight & insurance, loading & unloading, packing & forwarding etc. are excluded from PV formula.

5.2 The prices for mandatory spares & supervision charges for installation, testing & commissioning of 11/132KV, 60MVA GT at site and inspection charges, if any, shall be FIRM and strictly non-variable throughout the pendency of the contract between OHPC & M/s Bharat Bijlee Ltd.

5.3 For the purpose of calculation of PV, the base date shall be reckoned as date of issuance of this NIT (i.e. 04.11.2022) and various indices given in the IEEMA Circular for voltage level above 33 KV up to 400 kV shall be calculated as per stipulated provisions therein. The end date for calculation shall be reckoned as date of dispatch of the GT along with all its accessories, oil & spares. The values of various indices for the end date shall be calculated in the manner as described in the IEEMA Circular for voltage level above 33 kV up to 400 kV.

5.4 GST for the entire contract price shall be paid extra at the time of invoicing as per the applicable rate & rules prevailing on the date of invoicing. Income tax as applicable as per CBDT Rules shall be deducted from the invoices of the firm and TDS certificate, if so desired, shall be issued to that extent. Any other taxes and duties such as local taxes beyond GST, entry taxes, electrical inspection fee (if so required) shall have to be borne by the firm. Any claims for reimbursement of such local taxes and/or inspection fees by the firm shall not be entertained under any circumstances. Firm shall keep OHPC at all the time harmless from any levy of local taxes /fees arising out of this contract, except for those provided under GST Rules.

Any tax and /or levies /fees payable by the firm to its sub-contractors /channel partners, if any, in respect of transactions between them and their vendors/sub-suppliers while procuring any input materials and/or services shall be to the account of M/s Bharat Bijlee Ltd.

6. SECURITY FOR PERFORMANCE: The firm shall have to deposit 3% of the ordered

Odisha Hydro Power Corporation Ltd. Bhubaneswar

amount towards security for performance in shape of Bank draft/ Bankers Cheque from any Nationalized Bank/ Scheduled Bank drawn in favour of "OHPC Limited", payable at Bhubaneswar or in shape of Composite Bank Guarantee executed in a non-judicial stamp paper worth **Rs.100/- (Rupees One Hundred) only** strictly as per proforma given in **Annexure-III** within 21 days of issuance of LOI / Purchase Order. The confirmation letter of the concerned Bank should be sent along with Bank Guarantee to the Unit Head, HHEP, Burla. In the event of any breach or default in all or any of the conditions set forth and provided in the purchase order, OHPC may forfeit the whole amount of Security deposit.

i) The Security B.G. should remain valid up to the end of the guarantee period.

ii) The BG should be revalidated as and when intimated to cover the entire Guarantee Period.

iii) No interest is payable on the security amount. In case of non-fulfillment of contractual obligation as required in the detailed purchase order, the security deposit shall be forfeited.

iv) Security deposit shall be released after 30 days from the date of completion of the Guarantee Period.

7. <u>DELIVERY/ COMPLETION SCHEDULE:-</u>

7.1 The zero date of the contract shall be treated as date of issue of purchase order by OHPC Ltd. Bhubaneswar, on receipt of Advance Payment Bank Guarantee in the prescribed format attached at Annexure-II for required value & validity verification by HHEP site authorities and receipt of Performance Bank Guarantee in the prescribed format attached as Annexure-III for required value and validity as described in the "Terms of Payment" by HHEP Site authorities. all conditions satisfied.

7.2 The firm will submit advance payment and performance BG to HHEP site authorities within 21 days of issuance of the purchase order by OHPC Ltd. Bhubaneswar.

7.3 The firm will submit the requisite drawings as described in the tender specification to HHEP within 45 days of release of advance payment, seeking approval of HHEP site authorities.

7.4 Within 15 days from receipt of drawings from the firm, HHEP site authorities will communicate drawing approval, with or without any comments, as the case may be as per technical requirements /analysis commensurate with site conditions written /corrected on the body of the drawings of the firm. The firm shall have to

Hydro Power Corporation Ltd. Bhubaneswar

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acknowledge receipt of the corrected & approved drawings from HHEP site authorities and make necessary changes to the design and accordingly submit the as-built drawings to the HHEP site authorities in the manner & number of copies described in the in tender specification.

7.5 All other assignments including invitation for factory tests as described in the tender specification strictly in accordance with IS: 2026/2011 Part-I, II & III, IS: 335 and IEC: 60076. Part-3 and other relevant standards. conditions of routine /special tests at factory & other tests at site, approval of test reports. issuance of dispatch instruction. transportation of the new Generator Transformer along with oil and all other accessories & spares to the HHEP site, receipt of the materials /equipment at site in good condition, conduction of site tests, supervision of installation, testing and successful commissioning of the Generator Transformer, will be completed in all respect within 09 (Nine) months from the date of issuance of approved drawings by HHEP site authorities to the firm.

7.6 A tentative bar chart showing different activities from commencement of schedule till successful commissioning will be submitted by the firm to HHEP site authorities for monitoring purposes.

8. DISPATCH INSTRUCTIONS: After approval of Inspection & Test reports, the dispatch instruction shall be issued. After issue of dispatch instruction, the materials should be securely packed and dispatched duly insured directly to the destination i.e. Power House under Divisional Head, Generation Division, HHEP, Burla by the firm at their own arrangement.

9. PACKING FORWARDING, FREIGHT, TRANSIT INSURANCE, LOADING & UNLOADING OFORDERED MATERIALS:-

It will be the sole responsibility of the firm for packing & forwarding, freight, transit insurance, loading and unloading of materials both at the factory site and at the destination site/store. OHPC shall have no responsibility on this account.

10. E-WAY BILL: E-Way Bill (if required) will have to be arranged by the firm.

11. EXTENSION OF TIME: If the delivery of equipment/material is delayed due to reasons beyond the control of the firm, the firm shall give notice to HHEP in writing for an extension of time within 7 days of occurrence of such force majeure events. OHPC on receipt of such notice may agree to extend the contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

12. TERMS OF PAYMENT:

12.1 10% of the contract price (Excluding GST) for supply part only shall be released as advance payment within 21 days of placement of purchase order against an advance payment bank guarantee of 110% of the advance payment (e.g. if the absolute figure of advance payment is Rs.50 Lakh, then the successful bidder shall have to submit an advance payment BG amounting to a value of Rs.55 Lakh) with validity till successful commissioning of the Generator Transformer at HHEP site and certification thereof.

Release of advance payment is further subject to submission of Performance Bank Guarantee (PBG) for an amount equal to 3%(Three percent) of the contract price valid up to two years from the date of commissioning or 30 months from the date of receipt of GT at site, whichever is earlier.

12.2 70% payment of the supply contract price along with 100% GST as applicable shall be released against satisfactory receipt of all the materials (GT along with accessories) at site and on submission of relevant /required documents.

12.3 Balance 30 % of the contract price (excluding GST) for supply part & 100% of contract price of supervision charges along with GST as applicable for supervision charges shall be released after successful commissioning of the Generator Transformer (GT) at HHEP site and certification thereof by E.I.C.

12.4 The prescribed formats for advance payment BG and performance BG are attached herewith this Work order as Annexure-II & Annexure-III respectively.

12.5 No interest is payable on any of the Bank Guarantee by OHPC Ltd.

12.6 The bank guarantee should be executed on non-judicial stamp paper of worth not less than Rs. 100/- (Rupees one hundred) only drawn on any of the nationalized or scheduled bank.

12.7 The advance payment shall be adjusted proportionately against the subsequent bills. In case of delay in delivery / completion period, interest @12% shall be charged by OHPC on the advance payment for the delayed period provided that the delay is attributable to the supplier without prejudice to other terms of the contract.

12.8 All payments shall be made through RTGS/NEFT and procedures of the instruments shall be followed as per banking rules.

13. TDS: TDS as applicable (As per various Acts & Rules) will be deducted from the invoices of the firm.

14. TAXES:

a) Only GST as applicable as per the Act shall be paid as specified in the Price schedule.

b) The GST and entry tax if any, and any other levies, payable by the firm in respect of transaction between the firm and their vendors/sub-suppliers while procuring any component, sub-assemblies, raw materials and equipment shall be included in the bid price and no claim on this behalf will be entertained by OHPC.

15. GUARANTEE PERIOD:

Odisha Hydro Power Corporation Ltd.

The transformer along with all its accessories and spares, covered under this work order is guaranteed for satisfactory operation and against defects in design, materials and workmanship for a period of 30(thirty) months from the date of delivery or 24(twenty-four) months from the date of commissioning, whichever is earlier. The date of commissioning shall be the date from which the equipment is in satisfactory operation. The last date of delivery shall be the date on which the transformer along with all its accessories and spares are received at HHEP stores / site in complete shape and good conditions, substantiated with verification certificate by site authorities.

The above guarantee certificate shall be furnished in triplicate to HHEP site authorities for approval. Any defect noticed during this period should be rectified by the firm free of cost to OHPC provided such defects are due to faulty design, bad workmanship or bad materials used, within one month upon written notice from HHEP, failing which provision of Clause-16 shall apply.

Equipment along with all its accessories and spares failed or found defective during guarantee period shall have to be guaranteed after repair/replacement for a further period of 24 months from the date of commissioning or 30 months from the date of delivery at HHEP, Burla stores/ site in complete shape and good conditions, after such repair/replacement, whichever is earlier. Date of receipt as used in this clause shall mean the date on which the transformer along with all its accessories and spares are received at HHEP, Burla stores / site in complete shape and good conditions.

16. LIQUIDATED DAMAGE:

If the firm fails to deliver the materials/equipment within the delivery schedule, specified in the contract including delivery time extension, if any, granted thereto, HHEP shall recover liquidated damages for a sum of half percent (0.5 percent) of the contract price of the transformer, excluding GST for each calendar week of delay or part thereof subject to a maximum deduction of five percent (5%) of the contract price. Equipment will be deemed to have been delivered only when the equipment along with all its components, accessories and spares as per technical specification are also delivered. If certain components, accessories and spares are not delivered in time, the equipment will be considered delayed until such time as the missing parts are delivered. The application of LD is subject to force majeure conditions as facts justify.

17. FORCE MAJEURE: The firm shall not be liable for any penalty for any delay or for failure to perform the contract for reasons of force majeure such as act of God, acts of

Odisha Hydro Power Corporation Ltd. Bhubaneswar

public enemy, fire, flood, epidemic, quarantine restrictions, strikes, freight embargoes and provided that the firm shall within 7days from the beginning of such delay, notify HHEP authorities in writing of the cause of delay. HHEP shall verify the facts and grant such extension, if justified without any financial obligation on OHPC.

18. INSPECTION AND TESTING:

The HHEP representative shall be entitled at all reasonable times during manufacture to inspect, examine and test at the firm's premises, the materials and workmanship of all equipment to be supplied under this contract and if part of the said equipment is being manufactured in other premises, the firm shall obtain for the HHEP representative's permission to inspect, examine and test as if the equipment were being manufactured in the firm's premises. Such inspection, examination and testing shall not relieve the firm from his obligations under the contract.

The firm shall give to HHEP 30days notice in writing for inspection of materials indicating the place at which the equipment is ready for testing and inspection and shall have calibration certificates of testing instruments, calibrated in Govt. approved laboratory with authenticity letter of that laboratory, along with offer for inspection to HHEP. A packing list along with the offer indicating the quantity which can be delivered through suitable rail/road transport to facilitate issue of dispatch instruction shall also be furnished.

Where the contract provides for test at the premises of the firm or any of his sub-vendors, the firm shall provide such assistance, labour, materials, electricity, fuel and instruments, as may be required or as may be reasonably demanded by the HHEP representative to carry out such tests efficiently. The firm is required to produce routine test Certificate, calibration certificates of Testing Instruments before offering their equipment for inspection and testing. The test house/ laboratory where tests are to be carried out should be approved by the Govt. A letter pertaining to Govt. approved laboratory should be furnished to the OHPC along with the offer for inspection.

After completion of the tests, the OHPC/HHEP's representative shall forward the test results to the OHPC approving authority. If the test results conform to the specific standard and specification, the OHPC shall approve the test results and communicate the same to the firm in writing. The firm shall provide at least FOUR copies of the test certificates to HHEP.

Orissa Hydro Power Corporation Ltd. Bhubaneswar

The firm has the right to have the tests carried out at his own cost by an independent agency whenever there is dispute regarding the quality of supply.

In case, the transformer is not presented for inspection (stage or final) on the date of inspection, offered by the firm due to any reason(s), the firm shall be required to bear the actual expenses, incurred in the visit of the Inspector(s). Any cost, incurred towards repetition of tests and Inspection shall be to the account of the firm.

19. TRAINING FACITIES:

The firm shall provide all possible facilities for training of OHPC's Technical personnel, when deputed by the OHPC for acquiring firsthand knowledge in assembly of the equipment, inter section, commissioning and for its proper operation and maintenance in service, wherein it is thought necessary by the OHPC.

20. REJECTION OF MATERIALS:

In the event, any of the equipment supplied by the firm is found defective due to faulty design, bad workmanship, bad materials used or otherwise not in conformity with the requirements of the Specification, OHPC shall either reject the equipment/ material or ask the firm in writing to rectify or replace the defective equipment free of cost to OHPC. The firm on receipt of such notification shall either rectify or replace the defective equipment/material free of cost to the purchaser within 30days of the date of such notification by OHPC. If the firm fails to do so, OHPC may: -

At its option replace or rectify such defective equipment / materials and recover the extra costs so involved from you plus fifteen percent and /or terminate the contract for balance work/supplies, with enforcement of penalty clause as per contract for the un-delivered goods and with forfeiture of Performance Guarantee/Composite Bank guarantee. Acquire the defective equipment /materials at reduced price, considered equitable under the circumstances.

21. TENDERER'S DEFAULT LIABILITY: OHPC shall write notice of default to the firm and shall terminate the contract in circumstances as mentioned below.

a) If the firm fails to make delivery of the material in complete shape within the time specified.

b) If the firm fails to comply with any of the provisions of this contract.

c) If any additional cost incurred by OHPC for the complete supply, the firm will be liable for payment of such cost and penalty for delay.

22. FIRM'S RESPONSIBILITY: Not-withstanding anything mentioned in the

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specification or subsequent approval or acceptance by OHPC, the ultimate responsibility for design, manufacturing, materials used and satisfactory performance shall rest with the firm. The firm shall be responsible for any discrepancy noticed in the documents, submitted by them along with the bid(s).

23. PAYMENT DUE FROM THE FIRM:- All costs and damages, for which the firm is liable to OHPC, will be deducted by the OHPC from any money, due to the firm under any of the contract(s), executed with OHPC Ltd.

24. INSURANCE:

Insurance of the materials / equipment covered by this work order shall be done by the firm with his insurance company unless otherwise stated. The responsibility of delivery of materials / equipment at destination, stores / site in good condition rests with the firm. Any claim of the insurance company or Transport Agency arising due to loss of damage in transit has to be settled by firm. The firm shall undertake free replacement of materials / equipment damaged or lost which will be reported by the consignee within 30 days of receipt of materials / equipment at destination without awaiting settlement of their claims with the carriers & underwriters.

25. CONSIGNEE:- Divisional Head, Generation Division, Hirakud Hydro Electric Project, At/PO-Burla, Dist.-Sambalpur (Odisha). If the material supplied by the firm is found defective / not suitable for use, the consignee shall either reject the material or request the supplier in writing to replace the same.

26. Supervision of Erection, Testing & Commissioning:

i. The erection, testing and commissioning of GT shall be supervised by trained personnel (Engineer) of the firm. The Engineer shall direct the sequence of ET&C.

ii. However, it is decided to do the erection of the above equipment departmentally and the firm shall furnish full and detailed instructions complete with drawings and leaflets to enable the satisfactory erection and commissioning of the equipment by HHEP. Such instructions shall reach the EIC well in advance so that there is no delay in commencement of erection. The firm shall supply any special tools necessary for erection. Details of such tools and the prices thereof shall be included in the work order.

27. SITE AUTHORITY:- Unit Head, HHEP Burla.

28. ENGINEERING-IN-CHARGE:- Divisional Head, P&C Division, HHEP, Burla is the Engineer-in-charge for the purpose. The supplied materials will be verified by the EIC or his authorized representative after delivery in all respect at Power House/Store, HHEP, Burla.

29. PAYING OFFICER:- Finance Wing Head, HHEP, Burla.

30. JURISDICTION OF THE HIGH COURT OF ODISHA: Suits if any, arising out of this contract shall be filed by either party in a Court of Law within the jurisdiction of Hon'ble High Court of Odisha only. It shall be expressly agreed that neither party shall be competent to bring suit in this regard at any place outside the State of Odisha.

31. ACCEPTANCE:-

The duplicate copy of work order duly signed by the firm may be returned as a token

of acceptance of the terms and conditions laid down by OHPC.

Encl:- Extra copy of work order, Annexure-1 to IV.

26.04.2023

C & P Head

Contract & Procurement Cell
C.O., OHPC Ltd., BBSR

Memo No. 3063 **Dated** 26.04.23

Copy to the Unit Head, HHEP, Burla for information and necessary action.

26.04.2023

Contract & Procurement Head,

Memo No. 3064 **Dated** 26.04.23

Copy submitted to SGM (Ele), Corporate Office for information & necessary action.

26.04.2023

Contract & Procurement Head,

Memo No. 3065 **Dated.** 26.04.23

Copy to Finance Head, HHEP Burla, for information and necessary action.

26.04.2023

Contract & Procurement Head,

C.C. to

PS to Director (Operation)/ Director (HR) / Director (Fin)/ for kind information of respective Directors.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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ODISHA HYDRO POWER CORPORATION LTD.
(A Government of Odisha Undertaking)
Regd. Office: ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING
VANIVIHAR CHOUK, JANPATH, BHOINAGAR, BHUBANESWAR – 751022
Tel: 91 -0674-2542983, 2542802, 2545526, Fax- 2542102, e-mail – ohpc.co@gmail.com
CIN : U40101OR1995SGC003963

No. OHPC: TECH:C&P: 10 /2022-23/ 3723 /Dated 29.05.2023

To

M/s Bharat Bijlee Ltd,
Siddha Fifth Avenue Space,
No. 3B, 3rd Floor, 179
Anandapur Kolkata-700107.
Email:- kamalakanta.dey@bharatbijlee.com / pratik.basu@bharatbijlee.com

2234
29 MAY
HIRAKUD HYDRO ELECTRIC PROJECT

Sub:- 1st Amendment to Work Order no. 3062 dated 26.04.2023 for **"Design, manufacturing, supply including supervision of installation, testing & commissioning of 01 no of 11/132 KV, 60 MVA generator transformer for Hirakud Hydro Electric Project, Burla"**- Regarding.

Ref: i) Tender Call Notice no 11/2022 33, Dated. 04.11.2022.
ii) This office Work order No. 3062 dated 26.04.2023.
iii) Your letter no. dated BBL/OD/5968/OHPC/60MVA/01 dated 16.05.2023.

Sir,

With reference to above. the following amendments in the Work order under reference (ii) are made without any financial implication to OHPC.

1. Page 3 of WO. Details of Mandatory Spares, Sl No.-13 & 14 may be read as follows:

Sl. No.	Description of Mandatory Spares	Quantity	FORD FIRM PRICE (Rs.)
13	MCB/MCCB Fuses (control) (complete replacement for transformer)	100%	50,000.00
14	Lamps (indicative) (complete replacement for transformer)	100%	Not applicable

2. Page 13, Guaranteed Technical Particulars, Annexure-I: Address of Bharat Bijlee Ltd may be read as
Bharat Bijlee Ltd,
Siddha Fifth Avenue Space,
No. 3B, 3rd Floor, 179
Anandapur Kolkata-700107.

All other terms and conditions of the WO remain unaltered.

This is for favour of information and necessary action.

Yours faithfully.

29.05.2023
C&P Head, CO, OHPC Ltd,
Bhubaneswar.

Memo No 9592 Dated 31.05.2023
Copy forwarded to the Divisional Head, P&C Division for information & necessary action.

31/5/23
Tech. Wing Head, HHEP

Memo No. 3724 Dated 29.05.2023

Copy to the Unit Head, HHEP, Burla for information and necessary action.

29.05.2023

Contract & Procurement Head,

Memo No. 3725 Dated 29.05.23

Copy to SGM (Ele), Corporate Office for information & necessary action.

29.05.2023

Contract & Procurement Head,

Memo No. 3726 Dated. 29.05.23

Copy to Finance Head, HHEP Burla, for information and necessary action.

29.05.2023

Contract & Procurement Head,

C.C. to

PS to Director (Operation) / Director (Fin)/ for kind information of respective Directors.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍
(ଓଡ଼ିଶା ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)
ODISHA HYDRO POWER CORPORATION LTD.
(A Gold Rated State PSU of Govt. of Odisha)
CIN : U40101OR1995SGC003963
OHPC
Powering Odisha with Clean & Green Energy

No. OHPC: TECH:C&P: 10 /2022-23/ 8717 /Dated 4th October'2024

To

M/s Bharat Bijlee Ltd,
Siddha Fifth Avenue Space,
No. 3B, 3rd Floor, 179 Anandapur,
Kolkata-700107. kamalakanta.dey@bharatbijlee.com / pratik.basu@bharatbijlee.com

Sub: -**Design, manufacturing, supply including supervision of installation, testing & commissioning of one set of 11/132 KV, 60 MVA generator transformer for Hirakud Hydro Electric Project, Burla- Second Amendment.**

Ref: (i) This office Work Order No. 3062, Dated 26th April'2023.
(ii) This office 1st Amendment Letter No. 3723, Dated 29th May'2023
(iii) This office Clarification Letter No. 4335, Dated 17th June'2023
(iv) Your Letter No BBL/OD/5968/OHPC/60MVA/10, Dated 9th July'2024.

Dear Sirs,

With reference to the captioned subject, afore- mentioned correspondences & in consideration to your request, the Schedule-1 of Price Schedule at Clause No. 2 and Terms of Payment at Clause No. 12.3 of OHPC Work Order bearing No. 3062, Dated 26th April'2023 read with its subsequent amendment & clarification are replaced and amended to the extent as depicted hereunder.

CLAUSE 2. PRICE SCHEDULE – SCHEDULE-1

Sl. No.	PARTICULARS	Price in Rupees
	(A) Plant & Equipment	
1.	Unit Ex-factory price including oil and other accessories as per specification plus extra 10% reserve oil	4,15,80,000.00
2.	Lump sum charges towards packing, forwarding, freight, transit insurance, loading & unloading inclusive of taxes & duties (such as custom duty, excise duty on imported items) excluding GST	19,70,000.00
	Sub- Total (A): FORD Burla HEP price (1+2)	4,35,50,000.00
(B)	Supervision of installation, testing & commissioning charges at HHEP site (Lump sum)	2,50,000.00
(A) + (B)	Total FORD HHEP price including supervision of installation, testing, commissioning charges excluding GST	4,38,00,000.00
	(C) Mandatory Spares as per Part- II, Schedule- 2	
	Base FORD HHEP price drawn from Part- II, Schedule- 2	13,10,000.00
Grand Total Price [Sub-Total (A)+(B)+(C)]		**4,51,10,000.00**
Grand Total of (A)+(B)+(C) in words: Rupees Four crores, fifty- one lakhs, ten thousand only, excluding GST. GST as applicable shall be paid extra as per rules prevailing at the time of release of payment.		

Contd....P/2
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CLAUSE 12.3 OF TERMS OF PAYMENT

"15% of the contract price for supply part excluding GST shall be released on or after issuance of this second amendment letter but before commissioning of the generator transformer at HHEP site.

Balance 15% of the contract price for supply part excluding GST along with 100% of the contract price towards supervision charges shall be released after successful commissioning of the Generator Transformer (GT) at HHEP site and certification thereof by E.I.C.

GST, as applicable, shall be paid extra as per rules prevailing at the time of release of each payment milestone."

All other terms and conditions of the OHPC Work Order bearing No. 3062, Dated 26th April'2023 read with subsequent amendment and clarification shall remain unaltered.

Yours faithfully,

04/X/24

C&P Head, CO, OHPC Ltd,
Bhubaneswar.

Memo No. 8718 **Dated** 04.10.24

Copy forwarded to the Unit Head, HHEP, Burla for information and necessary action. He is requested to adhere to the time schedule for handing over the site to the firm for the purpose of supervision of commissioning of the transformer by December'2024 positively as per HHEP Letter No.4189, Dated 17th August'2024.

04/X/24

Contract & Procurement Head

Memo No. 8719 **Dated.** 04.10.24

Copy forwarded to Sr. General Manager (Finance) for information and necessary action.

04/X/24

Contract & Procurement Head

C.C. to

PS to Director (Operation) / Director (Fin), OHPC Ltd., Bhubaneswar for kind information of respective Directors.

Memo No. 5199 Date 4.10.2024

Copy forwarded to the Divisional Head, P&C Division for information and necessary action.

22/X/2024

for Technical Wing Head
HHEP, Burla.

ODISHA HYDRO POWER CORPORATION LTD.

(A Government of Odisha Undertaking)

Regd. Office: ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING VANIVIHAR CHOUK, JANPATH, BHOINAGAR, BHUBANESWAR-751022

Tel: 91 -0674-2542983, 2542802, 2545526, Fax- 2542102, e-mail – ohpc.co@gmail.com

CIN : U40101OR1995SGC003963

OHPC: TECH:C&P:01/2023-24/ 11553 **Dated.15.11.2023**

To

M/s Bharat Bijlee Ltd,
Siddha Fifth Avenue Space,
No. 3B, 3rd Floor, 179 Anandapur.
Kolkata-700107.
E-mail: kamalkanta.dey@bharatbijlee.com / Pratik.basu@bharatbijlee.com

Sub:- Work order **"For Design, Manufacturing, Supply Including Supervision of Installation, Testing & Commissioning of one set of 11/230 KV, 102 MVA Generator Transformer For Upper Kolab Hydro Electric Project, Bariniput** - Regarding

Ref: i) Tender Call Notice no 11/2023-24, Dated. 22.08.2023.

ii) Your offer document bearing No. ENQ/10167075/KKD/01, dated 22.09.2023.

iii) This office letter No. 10177 dated 04.11.2023.

iv) Your letter No. BBL/OD/2023-24/OHPC/102MVA/03 dated 10.11.2023.

Sir,

With reference to above, OHPC is pleased to place the Work Order on your firm for **Design, Manufacturing, Supply Including Supervision of Installation, Testing & Commissioning of one set of 11/230 KV, 102 MVA Generator Transformer For Upper Kolab Hydro Electric Project, Bariniput complete with all fittings, accessories, associated equipment, transformer oil and spares** as per the following price, terms and conditions. The order together with tender specification bearing TCN No. 11/2023-24, dated 22.08.2023 & subsequent correspondances shall constitute the contract document between OHPC & M/s Bharat Bijlee Ltd. In case of any dispute/contradiction in terms & conditions as laid down in the tender specification and this work order, the terms as specified in the work order shall prevail.

1. SCOPE OF WORK:

The scope of supply & services covers Design, Manufacturing, Supply including Supervision of installation, Testing & Commissioning of one set of 11/230 KV, 102 MVA Generator Transformer For Upper Kolab Hydro Electric Project, Bariniput as per details mentioned in the Technical Specifications vide TCN No. 11/2023-24 along with transformer

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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oil of requisite quantity with 10% extra as well as supply of mandatory spares as detailed in the Price Schedule hereunder. The scope also includes tests, inspection, loading at factory, transportation to and unloading at site with guaranteed obligation. Required road permit for transportation shall also be arranged by the Supplier. Further, the supplier shall supply the other O&M spares as per Schedule-3 required if any, on intimation by OHPC as per the rates & terms as detailed hereunder.

2. PRICE SCHEDULE:-

Sl. No.	PARTICULARS OF SCHEDULE-1	Price in Rupees
	(A) Plant & Equipment	
1.	Unit Ex-factory price including oil and other accessories as per specification plus extra 10% reserve oil	**5,44,50,000.00**
2.	Lump sum charges towards packing, forwarding, freight, transit insurance, loading & unloading inclusive of all taxes & duties	**33,60,000.00**
	Sub- Total (A): FORD Upper Kolab HEP price (1+2) in figures	**5,78,10,000.00**
(B)	Supervision of installation, testing & commissioning charges at UKHEP site (Lump sum)	**3,00,000.00**
(A) + (B)	**Total FORD UKHEP price including supervision of installation, testing, commissioning charges**	**5,81,10,000.00**
	(C) Mandatory Spares as per Part- II, Schedule- 2	
	Base FORD UKHEP price drawn from Part- II, Schedule- 2	**13,10,000.00**
Grand Total Price [Sub-Total (A)+(B)+(C)]		**5,94,20,000.00**
(Grand Total of (A)+(B)+(C) in words: Rupees Five crores, Ninety Four lakhs, Twenty thousand only excluding GST. GST shall be paid extra as applicable on (A)-1, (B) & (C) only as per prevailing rates & rules at the time of invoicing.		

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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SCHEDULE-2

Details of Mandatory Spares

Sl. No.	Description of Mandatory Spares	Quantity	FORD FIRM PRICE (Rs.)
1	H.V. Bushing with metal parts and Gaskets (with CT)	1No.	4,00,000.00
2	L.V. Bushing with metal parts and gaskets	1No.	4,00,000.00
3	HV Neutral Bushing (with CT)	1 No.	95,000.00
4	Complete set of gaskets for GT	1No.	1,00,000.00
5	Magnetic oil level gauge	1 No	20,000.00
6	Buchholz relay	1 No	20,000.00
7	Pressure relief device.	1No.	20,000.00
8	Magnetic oil level gauge with low oil level alarm contacts	1No.	20,000.00
9	Oil flow indicator with contacts	1 No	25,000.00
10	Set of starter, contactor relays and switches (1 No. of each type and size).	1Set	1,00,000.00
11	Expansion Joints (Complete replacement for transformer)	1 Set	60,000.00
12	Tap position Indicator (Local and remote)	1 No.	Not applicable
13	MCB/MCCB Fuses (control) (complete replacement for transformer)	100%	50,000.00
14	Lamps (indicative) (complete replacement for transformer)	100%	Not applicable
15	Total Price		13,10,000.00
16	Total FORD UKHEP, Bariniput Price exclusive GST in words- (Rupees Thirteen Lakhs, Ten Thousand) only & GST shall be paid extra as applicable.		

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SCHEDULE-3

SCHEDULE OF SPARE PARTS REQUIRED FOR FIVE YEARS OF NORMAL O&M

Sl. No.	Particulars	Qty	Unit FORD Rate (Rs.)	Total FORD FIRM Price (Rs.)
1	HV Bushing with metal parts and Gaskets (without CT)	1No.	Not Recommended by the Firm	
2	LV Bushing with metal parts and Gaskets	1No.		
3	HV Neutral Bushing with (with/without CT)	1No.		
4	Complete Set of Gaskets	1No.		
5	Magnetic oil level gauge	1No.		
6	Buchholz relay	1No.		
7	Pressure Relief Device	1No.		
8	Magnetic oil level gauge with low oil level alarm contacts	1No.		
9	Oil flow indicator with contacts	1No.		
10	Set of starter, contactor relays & switches (1 No. each type)	1Set		
11	Total			

N.B:-

1. The validity of the rates quoted shall be 1 year from the date of quotation.
2. GST shall be paid extra as applicable.
3. OHPCL at its own discretion may or may not decide to procure/place order for O & M spares separately at a later date depending on site requirement. The quoted O & M spares & prices are only for future reference.

3. **MANNER OF EXECUTION:**

All equipment supplied under the contract shall be manufactured in the manner, set out in the Specification or where not set out, as per relevant standards and to the reasonable satisfaction of the Purchaser's representative.

4. **DESTINATION**: Central Store under Divisional Head, Generation Division or directly at Power House, Transformer Bay of UKHEP, Bariniput as per the instruction of site

Orissa Hydro Power Corporation Ltd. Bhubaneswar

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authority.

5. **NATURE OF PRICE, TAXES & BASIS OF PRICE VARIATION:**

5.1 Taxable base value of main generator transformer including oil is variable strictly as per IEEMA PV Regulations bearing Circular No. 140/PVC/DT-PT/05, dated 10th November'2021. The base value of the GT is exclusively of the transformer with oil only, charges towards freight & insurance, loading & unloading, packing & forwarding etc. are excluded from PV formula.

5.2 The prices for mandatory spares & supervision charges for installation, testing & commissioning of 11/230KV, 102MVA GT at site and inspection charges, if any, shall be FIRM and strictly non-variable throughout the pendency of the contract between OHPC & M/s Bharat Bijlee Ltd.

5.3 For the purpose of calculation of PV, the base date shall be reckoned as date of issuance of this NIT (i.e. 22.08.2023) and various indices given in the IEEMA Circular for voltage level above 33 KV up to 400 kV shall be calculated as per stipulated provisions therein. The end date for calculation shall be reckoned as date of dispatch of the GT along with all its accessories, oil & spares. The values of various indices for the end date shall be calculated in the manner as described in the IEEMA Circular for voltage level above 33 kV up to 400 kV.

5.4 GST for the entire contract period shall be paid extra at the time of invoicing as per then applicable rate & rules prevailing. TDS as applicable shall be deducted from the invoices of the firm as per various acts & rules & TDS certificate, if so desired, shall be issued to that extent. Any other taxes and duties such as local taxes beyond GST, entry taxes, electrical inspection fee (if so required) shall have to be borne by the firm. Any claims for reimbursement of such local taxes and/or inspection fees by the firm shall not be entertained under any circumstances. Firm shall keep OHPC at all the time harmless from any levy of local taxes /fees arising out of this contract, except for those provided under GST Rules.

Any tax and /or levies /fees payable by the firm to its sub-contractors /channel partners, if any, in respect of transactions between them and their vendors/sub-suppliers while procuring any input materials and/or services shall be to the account of M/s Bharat Bijlee Ltd.

6. **SECURITY FOR PERFORMANCE**: The firm shall have to deposit 10% of the ordered amount towards security for performance in shape of Bank draft/ Bankers Cheque

from any Nationalized Bank/ Scheduled Bank drawn in favour of "OHPC Limited", payable at Bhubaneswar or in shape of Composite Bank Guarantee executed in a non-judicial stamp paper worth **Rs.100/- (Rupees One Hundred) only** strictly as per proforma given in **Annexure-III** within 21 days of issuance of Work Order. The confirmation letter of the concerned Bank should be sent along with Bank Guarantee to the Unit Head, UKHEP, Bariniput. In the event of any breach or default in all or any of the conditions set forth and provided in the work order, OHPC may forfeit the whole amount of Security deposit.

i) The Security B.G. should remain valid up to the end of the guarantee period.

ii) The BG should be revalidated as and when intimated to cover the entire Guarantee Period.

iii) No interest is payable on the security amount. In case of non-fulfillment of contractual obligation as required in the detailed work order, the security deposit shall be forfeited.

iv) Security deposit shall be released after 30 days from the date of completion of the Guarantee Period & against clearance certificate from EIC.

7. DELIVERY/ COMPLETION SCHEDULE:-

7.1 The zero date of the contract shall be treated as date of issue of work order by OHPC Ltd. Bhubaneswar, on receipt of Advance Payment Bank Guarantee in the prescribed format attached at Annexure-II for required value & validity verification by UKHEP site authorities and receipt of Performance Bank Guarantee in the prescribed format attached as Annexure-III for required value and validity as described in the "Terms of Payment" by UKHEP Site authorities, all conditions satisfied.

7.2 The firm will submit advance payment and performance BG to UKHEP site authorities within 21 days of issuance of the work order by OHPC Ltd. Bhubaneswar.

7.3 The firm will submit the requisite drawings as described in the tender specification to UKHEP within 45 days of release of advance payment, seeking approval of UKHEP site authorities.

7.4 Within 15 days from receipt of drawings from the firm, UKHEP site authorities will communicate drawing approval, with or without any comments, as the case may be, as per technical requirements /analysis commensurate with site conditions written /corrected on the body of the drawings of the firm. The firm shall have to

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acknowledge receipt of the corrected & approved drawings from UKHEP site authorities and make necessary changes to the design and accordingly submit the as-built drawings to the UKHEP site authorities in the manner & number of copies described in the tender specification.

7.5 All other assignments including invitation for factory tests as described in the tender specification strictly in accordance with IS: 2026/2011 Part-I, II & III, IS: 335 and IEC: 60076, Part-3 and other relevant standards, conditions of routine /special tests at factory & other tests at site, approval of test reports, issuance of dispatch instruction, transportation of the new Generator Transformer along with oil and all other accessories & spares to the UKHEP site, receipt of the materials /equipment at site in good condition, conduction of site tests, supervision of installation, testing and successful commissioning of the Generator Transformer, will be completed in all respect within **09 (Nine) months** from the date of issuance of approved drawings by UKHEP site authorities to the firm. As such, it is assured that site shall be handed over to the contractor at the earliest, preferably within a month from the date of receipt of all the materials at site in good condition & verification thereof.

7.6 A tentative bar chart showing different activities from commencement of schedule till successful commissioning will be submitted by the firm to UKHEP site authorities for monitoring purposes.

8. **DISPATCH INSTRUCTIONS**: After approval of Inspection & Test reports, the dispatch instruction shall be issued. After issue of dispatch instruction, the materials should be securely packed and dispatched duly insured directly to the destination i.e. Power House under Divisional Head, Generation Division, UKHEP, Bariniput by the firm at their own arrangement.

9. **PACKING FORWARDING, FREIGHT, TRANSIT INSURANCE, LOADING & UNLOADING OF ORDERED MATERIALS**:-

It will be the sole responsibility of the firm for packing & forwarding, freight, transit insurance, loading and unloading of materials both at the factory site and at the destination site/store. OHPC shall have no responsibility on this account.

10. **E-WAY BILL:** E-Way Bill (if required) will have to be arranged by the firm.

11. **EXTENSION OF TIME:** If the delivery of equipment/material is delayed due to reasons beyond the control of the firm, the firm shall give notice to UKHEP in writing for an

extension of time within 7 days of occurrence of such force majeure events. OHPC on receipt of such notice may agree to extend the contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

12. TERMS OF PAYMENT:

12.1 10% of the contract price (Excluding GST) for supply part only shall be paid as advance payment within 21days of placement of work order against submission of an advance payment bank guarantee of value equivalent to 110% of the advance payment (e.g. if the absolute figure of advance payment is Rs. 50 lakhs, then the successful bidder shall have to submit an advance payment BG amounting to a value of Rs. 55 lakhs) with validity till 100% recovery of Advance Payment as well as successful commissioning of the Generator Transformer at UKHEP site and certification thereof. The advance BG shall be returned after recovery of advance in full and successful commissioning of the GT. Release of advance payment is further subjected to submission of Performance Bank Guarantee (PBG) for an amount equal to 10% of the of the contract price valid up to 2(two) months after the successful completion of guarantee period.

12.2 70% payment of the contract price for supply of materials/ equipment with 100% GST subject to recovery of advance payment in full shall be released against satisfactory receipt of all the materials (GT along with accessories) in full with required specification at site by the consignee & verification thereof by the EIC and on submission of relevant required documents like Material receipt certificate, warranty certificate, copy of GSTIN, PAN, delivery challan etc.

12.3 Balance 30 % of the contract price (excluding GST) for supply part & 100% of contract price of supervision charges along with GST as applicable for supervision charges shall be released after successful commissioning of the Generator Transformer (GT) at UKHEP site and certification thereof by EIC.

12.4 The prescribed formats for advance payment BG and performance BG are attached herewith.

12.5 No interest is payable on any of the Bank Guarantee by OHPCL to the successful bidder.

12.6 The bank guarantee should be executed on non-judicial stamp paper of worth not less than Rs. 100/- (Rupees one hundred) only drawn on any of the nationalized or scheduled bank.

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12.7 In case of delay in delivery / completion period, interest @12% per annum shall be charged by OHPC on the outstanding/unadjusted advance payment for the delayed period provided that the delay is attributable to the supplier without pre-judice to other terms of the contract.

12.8 All payments shall be made through RTGS/NEFT and procedures of the instruments shall be followed as per banking rules.

13. **TDS**: TDS as applicable (As per various Acts & Rules) will be deducted from the invoices of the firm.

14. **TAXES**: Only GST as applicable shall be paid extra

15. **GUARANTEE PERIOD:**

The transformer along with all its accessories and spares, covered by this specification should be guaranteed for satisfactory operation and against defects in design, materials and workmanship for a period of at least 30(thirty) months from the date of delivery or 24(twenty-four) months from the date of commissioning, whichever is earlier. The date of commissioning shall be the date from which the equipment is in satisfactory operation. The last date of delivery shall be the date on which the transformer along with all its accessories and spares are received at OHPCL's stores / site in complete shape and good conditions, substantiated with verification certificate by OHPCL which are released for Dispatch by the purchaser after due inspection.

The above guarantee certificate shall be furnished in triplicate to the purchaser for his approval. Any defect noticed during this period should be rectified by the supplier free of cost to the purchaser provided such defects are due to faulty design, bad workmanship or bad materials used, within one month upon written notice from the purchaser, failing which provision of Clause-16(ii) shall apply.

Equipment along with all its accessories and spares failed or found defective during guarantee period shall have to be guaranteed after repair/replacement for a further period of 24 months from the date of commissioning or 30 months from the date of delivery at UKHEP, Bariniput stores/ site in complete shape and good conditions, after such repair/replacement whichever is earlier. Date of receipt as used in this clause shall mean the date on which the transformer along with all its accessories and spares are received at UKHEP, Bariniput stores / site in complete shape and good conditions.

16. **PENALTY FOR DELAY IN COMPLETION OF THE CONTRACT:**

i) If the Supplier fails to deliver the materials/equipment within the stipulated delivery or completion period/ schedule, specified in the contract, the Purchaser shall recover from the Supplier, penalty for a sum of half percent (0.5 percent) of the contract price of the transformer for "Supply" for each calendar week of delay or part thereof. The total amount of penalty shall not exceed five percent (5%) of the total contract price. Equipment will be deemed to have been delivered only when the equipment along with all its components, accessories and spares as per technical Specification are also delivered as certified by the consignee. If certain components, accessories and spares are not delivered in time, the equipment will be considered delayed until such time as the missing parts are delivered. Similarly providing services for supervision shall be deemed to have been completed when the GT is commissioned satisfactorily and certified by the EIC. In case of delay in supervision or, attending supervision, penalty shall be imposed @0.5% of relevant contract price for each calendar week of delay subject to maximum 5% of contract price for supervision charges.

ii) If the Supplier fails to rectify/replace the equipment/material within 30 days from the date of intimation of the defect, so noticed by the purchaser within the guarantee period, then the penalty for sum of one half of the one percent (0.5%) of the contract price for each calendar week of delay or part thereof shall be recovered by the purchaser within the guarantee period. For this purpose, penalty date will start from the 30th day from the date of issue of letter on defectiveness of equipment/material, so supplied by the purchaser. The total amount of penalty in this case shall not exceed 10% (Ten Percent) of the contract price. If the defects, so noticed during guarantee period will not be rectified by the supplier within the above stipulated period, then whole amount of the B.G. towards performance security will be forfeited by the purchaser, without any intimation to the supplier along with enforcement of Clause No.21 of this part of specification.

iii) In case of failure of the transformer within the guarantee period, the supplier shall take back the faulty transformer from its plinth for repair at their own cost (or replace the transformer with a new transformer) and deliver, at their own cost, unload at the destination sub-station transformer plinth within three months period from the date of intimation of defects to the satisfaction of the owner, at free of cost. If the delivery after repair/replacement will not be completed within three months, then the supplier shall pay penalty @ 0.5% of the contract price for each calendar week

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of delay from the end of three months period from the date of intimation of defects. Also, the Purchaser reserves the right for forfeiture of the Performance Bank Guarantee and all the Securities, available with OHPCL, in case the Supplier fails to deposit the penalty amount within one-month before the expiry of the guarantee period. Also, this will be taken as adverse in all future bids.

The work order amount/ contract price shall mean ex-works price + freight and insurance and all taxes and duties at the current prevailing rate.

17. **FORCE MAJEURE**: The supplier shall not be liable for any penalty for any delay or for failure to perform the contract for reasons of force majeure such as act of God, acts of public enemy, fire, flood, epidemic, quarantine restrictions, strikes, freight embargoes and provided that the supplier shall within 7 days from the beginning of such delay, notify UKHEP authorities in writing of the cause of delay. UKHEP shall verify the facts and grant such extension, if justified without any financial obligation on OHPC.

18. **INSPECTION AND TESTING:**

The purchaser's representative shall be entitled at all reasonable times during manufacture to inspect, examine and test at the supplier's premises, the materials and workmanship of all equipment to be supplied under this contract and if part of the said equipment is being manufactured in other premises, the supplier shall obtain for the purchaser's representative permission to inspect, examine and test as if the equipment were being manufactured in the supplier's premises. Such inspection, examination and testing shall not relieve the supplier from his obligations under the contract.

The supplier shall give to the purchaser adequate time/notice [at least 30 days] in writing for inspection of materials indicating the place at which the equipment is ready for testing and inspection and shall have calibration certificates of testing instruments, calibrated in Govt. approved laboratory with authenticity letter of that laboratory, along with offer for inspection to the Purchaser. A packing list along with the offer indicating the quantity which can be delivered through suitable rail/road transport to facilitate issue of dispatch instruction shall also be furnished.

Where the contract provides for test at the premises of the supplier or any of his sub-vendors, the supplier shall provide such assistance, labour, materials, electricity, fuel

and instruments, as may be required or as may be reasonably demanded by the Purchaser's representative to carry out such tests efficiently. The supplier is required to produce routine test Certificate, calibration certificates of Testing Instruments before offering their equipment for inspection and testing. The test house/ laboratory where tests are to be carried out should be approved by the Govt. A letter pertaining to Govt. approved laboratory should be furnished to the purchaser along with the offer for inspection.

After completion of the tests, the Purchaser's representative shall forward the test results to the Purchaser. If the test results conform to the specific standard and specification, the Purchaser shall approve the test results and communicate the same to the supplier in writing. The supplier shall provide at least FOUR copies of the test certificates to the Purchaser.

The Purchaser has the right to have the tests carried out at his own cost by an independent agency whenever there is dispute regarding the quality of supply.

In case, the transformer is not presented for inspection (stage or final) on the date of inspection, offered by the firm due to any reason(s), the firm shall be required to bear the actual expenses, incurred in the visit of the Inspector(s). Any cost, incurred towards repetition of tests and Inspection shall be to the account of the supplier.

19. TRAINING FACITIES:

The supplier shall provide all possible facilities for training of Purchaser's Technical personnel, when deputed by the Purchaser for acquiring firsthand knowledge in assembly of the equipment, inter section, commissioning and for its proper operation and maintenance in service, wherein it is thought necessary by the purchaser.

21. REJECTION OF MATERIALS:

In the event, any of the equipment supplied by the manufacturer is found defective due to faulty design, bad workmanship, bad materials used or otherwise not in conformity with the requirements of the Specification, the Purchaser shall either reject the equipment/ material or ask the supplier in writing to rectify or replace the defective equipment free of cost to the purchaser. The supplier on receipt of such notification shall either rectify or replace the defective equipment/material free of cost to the purchaser within 30days of the date of such notification by the purchaser. If the supplier fails to do so, the purchaser may: -

At its option replace or rectify such defective equipment / materials and recover the extra costs so involved from the supplier plus fifteen percent and /or terminate the contract for balance work/supplies, with enforcement of penalty Clause as per contract for the un- delivered goods and with forfeiture of Performance Guarantee/Composite Bank guarantee. Acquire the defective equipment /materials at reduced price, considered equitable under the circumstances.

22. **SUPPLIER'S DEFAULT LIABILITY**: OHPC may write notice of default to the supplier and may terminate the contract in circumstances as mentioned below.

a) If the supplier fails to make delivery of the material in complete shape within the time specified.

b) If the supplier fails to comply with any of the provisions of this contract.

c) If any additional cost incurred by OHPC for the complete supply, the supplier will be liable for payment of such cost and penalty for delay.

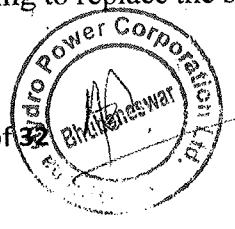
23. **SUPPLIER'S RESPONSIBILITY:** Not-withstanding anything mentioned in the Specification or subsequent approval or acceptance by the Purchaser, the ultimate responsibility for design, manufacturing, materials used and satisfactory performance shall rest with the Supplier. The supplier shall be responsible for any discrepancy noticed in the documents, submitted by them along with the bid(s).

24. **PAYMENT DUE FROM THE FIRM:**- All costs and damages, for which the firm is liable to OHPC, will be deducted by the OHPC from any money, due to the firm under any of the contract(s), executed with OHPC Ltd.

20. **INSURANCE:**

Insurance of the materials / equipment covered by this work order shall be done by the firm with his insurance company unless otherwise stated. The responsibility of delivery of materials / equipment at destination, stores / site in good condition rests with the firm. Any claim of the insurance company or Transport Agency arising due to loss of damage in transit has to be settled by firm. The firm shall undertake free replacement of materials / equipment damaged or lost which will be reported by the consignee within 30 days of receipt of materials / equipment at destination without awaiting settlement of their claims with the carriers & underwriters.

21. **CONSIGNEE:**- Divisional Head, Generation Division, UPPER Kolab Hydro Electric Project, OHPC Ltd., At/Po- Bariniput, Dist.-Koraput (Odisha). If the material supplied by the supplier is found defective / not suitable for use, the consignee shall either reject the material or request the supplier in writing to replace the same.



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22. **ENGINEERING-IN-CHARGE:-** Divisional Head, P&C Division, UKHEP, Bariniput shall be the Engineer-in-charge for the purpose. The supplied materials will be verified by the EIC or his authorized representative after delivery in all respect at Power House, UKHEP, Bariniput.

23. **PAYING OFFICER:-** Finance Wing Head, UKHEP, Bariniput

24. **Supervision of Erection, Testing & Commissioning:**

i. The erection, testing and commissioning of GT shall be supervised by trained personnel (Engineer) of the firm. The Engineer shall direct the sequence of ET&C.

ii. However, it is decided to do the erection of the above equipment departmentally and the firm shall furnish full and detailed instructions complete with drawings and leaflets to enable the satisfactory erection and commissioning of the equipment by UKHEP. Such instructions shall reach the EIC well in advance so that there is no delay in commencement of erection. The firm shall supply any special tools necessary for erection. Details of such tools and the prices thereof shall be included in the work order.

25. **SITE AUTHORITY:-** Unit Head, UKHEP Bariniput.

26. **JURISDICTION OF THE HIGH COURT OF ODISHA**: Suits if any, arising out of this contract shall be filed by either party in a Court of Law within the jurisdiction of Hon'ble High Court of Odisha only. It shall be expressly agreed that neither party shall be competent to bring suit in this regard at any place outside the State of Odisha.

27. **ACCEPTANCE**:-

The duplicate copy of work order duly signed by the firm may be returned as a token of acceptance of the terms and conditions laid down by OHPC.

Encl:- Extra copy of work order, Annexure-1 to IV.

15.12.2023

Contract & Procurement Head,

C.O., OHPC Ltd., BBSR

Memo No. 11554 **Dated/ 15.12.2023**

Copy to the Unit Head, UKHEP, Bariniput for information and necessary action.

15.12.2023

Contract & Procurement Head,

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Memo No. 11535 **Dated/15.12.2023**

Copy submitted to SGM (Ele), Corporate Office for information & necessary action.

15.12.2023

Contract & Procurement Head,

Memo No. 11556 **Dated. 15.12.2023**

Copy to Finance Head, UKHEP, Bariniput, for information and necessary action.

15.12.2023

Contract & Procurement Head,

C.C. to

i) EO, Managing Director, OHPC Ltd for information of MD, OHPC.

ii) PS to Director (Operation)/ Director (Fin) for kind information of respective Directors.

GUARANTEED TECHNICAL PARTICULARS
ANNEXURE-1

Sl no	Particulars	**Bharat Bijlee Ltd** **Siddha Fifth Avenue Space,** **No. 3B, 3rd Floor,** **179 Anandapur. Kolkata-700107**
1	Name of the Manufacture and country of Origin	Bharat Bijlee Ltd
2	Conforming to standard	IS 2026
3	Service (Indoor/ Outdoor)	Out door
4	Ratings	
	a) With OFWF cooling- MVA	102MVA
	b) System highest voltage	245KV
	LV (kV)	12KV
	c) Nominal no load voltage	230Kv
	LV(Kv)	11KV
	d) Rated Current (rms)	256.04A
	LV(Amp)	5353.6A
5	Max temperature rise above 50^0 C Ambient Temperature.	
	a. Top oil measured by Thermometer	50°C
	b. Winding measured by Resistance Method	60°C
6	Temperature rise of winding measured by resistance	
	i) With OFWF cooling (^{0} C)	60°C
	ii) Period of operation of transformer at full load without calculated winding hot spot temperature exceeding 150^0 C	
	50% coolers	
	100% coolers	
7	Rated frequency (Hz)	50Hz
8	No of windings	2 windings
9	No of Phase	3 Phase
10	Connection symbol and vector group	YNd11
11	(a) Type of cooling	OFWF
	(b) Cooling Medium	Minaral oil & water
	(c) Limit of hot spot temperature of which transformer is designed(^{0}C)	98°C over 32°C yearly weighted ambient temperature
12	Tappings	

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	(i) Type of tap changer and Make	Off circuit(Paragon/ alwye/Eq1ulv.
	(ii) Total step (percent)	2.5%
	(iii) Total tap change (+) to (-) in percent	+7.5% to -5%
	iv) Tapping provided at	Neutral end of HV side
13	Magnetization data at no load	
	(i) Currents in Amps	0.5% of rated full load current(Appr)
	(ii) Power factor	<1 (Approx)
	(iii)Loss in KW (core loss + dielectric loss)	46.5Kw Max
	(iv) Max. Flux density in core & Yoke (Wb/ sq.m)	1.76 Tesla
	(v) B.H(volt ampere/ kg) and specific loss core material to be furnished as supplied by the manufacture	During detail Manu.
13.1	At100% rated no load voltage (loss in KW and flux density)	46.5Kw max. 1.6 T max.
13.2	At110% rated no load voltage (loss in KW and flux density)	During detailed engg
13.3	At maximum rated primary voltage (i.e.105% rated no load voltage) (loss in KW and flux density)	During detailed engg
14	Load loss including cooler loss at rated current at 75^0 C	
	i)For OFWF Rating	
	(Cooper loss+ Cooler loss) in KW	290KW+ Cooler loss-6KW
	ii)For OFWF Rating	290KW+ Cooler loss-6KW
	Input to cooling plant in KW	6 KW (approx)%
15	Impedance at rated current and frequency at 75^0 C on rated MVA	
	i) A normal tap in %	12.5% (Max)
	ii)At Max. voltage tap in %	12.7%(Approx)
	iii)At min. voltage tap in %	11.8% (Approx)
16	Reactance at rated current and frequency at normal tap on rated MVA base	12.49%(Approx)
17	Resistance at 75^0 C	
	HV Winding in ohms/phase	During detailed engg
	LV Winding in ohms/phase	During detailed engg
18	Efficiency at 75^0 C taking into account input to cooling plant as loss	Unit PF 0.8PF
	i)At 125% full load	99.60 99.50(Approx.)
	ii)At 100% full load	99.66 99.58 (Approx)

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	iii)At 75% full load	99.72 99.65 (Approx.)
	iv)At 50% full load	99.76 99.70 (Approx.)
19	Minimum efficiency and load at which it occurs	Without taking Cooling plant
	i) at 125% full load	99.61 99.51
	ii) at 100% full load	99.67 99.58
	iii) at 75% full load	99.73 99.65
	iv) at 50% full load	99.77 99.71
20	Regulation at full load and at 75^0 C	
	1)At unit p.f. in%	1.33
	2)At 0.8 p. f. (lag) in %	10.26
	3)At 0.9 p. f . (lag) in %	7.902
21	a) Short time Thermal rating of LV winding in KA and duration in seconds	24.73KA for 1 sec
	b) Short time Thermal rating of HV winding in KA and duration in seconds	2.048 KA for 1 sec
22	a) Over load capacity for 2 hours after continuous full load run	As per IS 2026 part 7
	b) Thermal time constant in hours	2 to 3 hrs
23	Test Voltages	HV HVN LV
	i) Lightning impulse withstand voltage KV (peak)	950 170 75
	ii) Power frequency withstand voltage KV (rms)	395 70 28
	iii) Switching surge withstand KV (peak)	NA
	iv) Induced over voltage withstand KV (rms)	395KV Rms
	Partial discharge level at145 KV as per IEC 44(4)	During detailed engg
24	RIV at 1.1 times minimum phase to ground voltage	NA
25	Noise level when energized at normal voltage and normal frequency at no load	As per NEMA TR-1
26	Approximate weights	
27	i) Core & Winding in Kg	68,000Kg
	ii) Tank and Fittings (kg.)	27,600 Kg
	iii) Oil (kg.)	28,800Kg
	iv) Total weight (kg.)	1,24,400Kg
	Required quantity of oil in litters	33,480 Ltr
28	Terminal connectors types and drawing No.	During detailed engg

29	Net core area in sq. Meters.	During detailed engg
30	Type of transformer (shell / core)	Core Type
31	Material and grade of core laminations	CRGO gr.- HI-B grade
32	a) Maximum flux density at rated voltage and frequency in web/m²	1.6T max
33	b) Maximum flux density at 140% of system voltage and -5% of rated frequency in web/m²	2.36 T Appro.
	c) Building factor for core assembly	During detailed engg
	Type of joints between core limb and yoke	Step lap/mitered
34	Conductor area in sq.cm and current density in Amps/Sq.mm	Conductor Area Current density
35	HV	85.34 mm² 3 A/mm² at nor tap
	LV	1030.30 3 A/ mm²
	HV regulating	85.34mm² 3 A/mm² at nor tap
	a) Type of windings	
36	HV	Disc winding
	LV	Spiral/helical/ Disc
	HV regulating	Disc winding
	b) Type & detail of winding hot spot temp	98 ° over 32°C yearly weighted ambient temp
	Winding insulation	Type & Class
37	HV	Type- Graded insulation Class-A
	LV	Type -Uniform insulation Class-A
	a) Insulating material	
38	i) Turn insulation	Kraft paper, Pressboard& oil
	ii) HV side	Pressboard & Permawood & Oil
	iii)LV side	Pressboard & Permawood & Oil
	b) Between HV and LV as applicable	Pressboard & Oil
	c)Between core & LV side	Pressboard & Oil
	d)For core bolts, washer and end plates	NA
	e) Tapping connection	Kraft paper
39	i) Type of axial support	
	HV winding	Pressboard + Permawood block
	LV winding	Pressboard + Permawood block
	ii) Type of Radial coil support:	

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	HV winding	press board spacers & wraps
	LV winding	press board spacers & wraps
40	Details of special arrangement provided to improve surge voltage distribution in the windings	Interleaving in HV Winding if necessary to be provided
41	Clearance	In oil out of Oil
	HV (in mm)	Adequate as per CBIP
	LV (in mm)	Adequate as per CBIP
42	Details of Tank	
	i) material for T/R Tank	Mild Steel
	ii) Types of the tank	Bell type Tank
	iii) Thickness of sides in mm	10
	iv) Thickness of bottom in mm	12
	v) Thickness of cover in mm	12
	vi) Thickness of radiator in mm	NA
	vii) Tank Dimensions	Inside outside
	Length (in mm)	During detailed engg
	Breadth (in mm)	During detailed engg
	Height (in mm)	During detailed engg
43	Details of painting of work at site	Not in BBL Scope
44	Minimum clear height for lifting bell and for lifting core and winding from tank (mm) (Un- tanking height)	9400 mm
45	Shipping details:	
	i) Parts detached for transport	During detailed engg
	ii) Weight of heaviest package in Kgs.	90700Kg Without oil
	iii) Weight of other heavy package in Kg	During detailed engg
	iv) Dimensions of largest package	
	a) Length in mm	7800mm
	b) Breadth in mm	3400mm
	c) Height in mm	4300mm
	v) Dimensions of other heavy packages	
	a) Length in mm	During detailed engg
	b) Breadth in mm	During detailed engg
	c) Height in mm	During detailed engg

46	Details of Bushings	
	i) Type and make:	HV-OIP,CGL/Yash/Equiv. LV-Oil Communicating type CJI/Genesis/Equiv. Neutral-Oil Communicating type CJI/Genesis/Equiv.
	ii) Power frequency, visible corona discharge voltage kV(rms)	As per Bushing manufacturer
	iii) One-minute dry withstand power frequency voltage kV (rms)	395Kv 50Kv 70Kv
	iv) One-minute wet withstand power frequency voltage kV(rms)	395Kv 50Kv 70Kv
	v) Under oil Flashover or puncture power frequency voltage kV (rms)	As per Bushing manufacturer
	vi) 1.2/50ms. Lighting impulse withstand voltage kVp	1050Kvp 125Kvp 170Kvp
	vii) Switching surge withstand voltage kV (peak)	NA
	viii) Under oil Flashover or puncture impulse voltage kV(rms)	As per Bushing manufacturer
	ix) Creepage distance in air(mm)	6125 600 900
	x) Weight of assembled Bushings (Kg)	150 60 30
	xi) Phase to earth clearance in Air of live parts at the top of bushings	As per CBIP
	xii) Maximum current rating of the Bushings	800A 5500A 2000A
	xiii) Grade of oil in the bushings in liters	As per Trans. Manufacturer
	xiv) Quantity of oil in the bushings in Liters	13Ltr NA NA
47	Details of off circuit tap changing gear	
	i) Make and type	Paragon/Alwye/equiv. Off circuit Tap changer
	ii) Rating	
	a) Voltage(kV)	Suitable for HV winding Neutral end
	b) Rated current Amps)	400A
	c) Step Voltage(kV)	3.319Kv
	d) No of steps (Nos.)	5 steps 6 positions
	iii) Approximate overall dimensions (Width x Breadth x Depth) in mm	Included in overall dimensions of GT
48	Off load tap Changing gear	

	i) Approximate overall weight in Kgs	Since Off load Tap Changer provided this clause is not applicable
	ii) Approximate overall quantity of oil in litres	
	iii) Whether off circuit tap switch/off circuit links provided	As per IS 335
	iv) Whether pad lock provided	
49	Cooling system	
	i) Grade of oil	
	ii) Quantity of oil in transformer in litres	33480 ltrs Approx.
	iii) Weight of oil in transformer in Kgs	28800Kg
	iv) Total radiating surface in square meters	Not Applicable
	v) Method of drying out transformer at site.	Not in BBL scope
	vi) Type and make material used for the radiators	NA since Heat exchangers are provided
	vii) Total number of radiators/ Bank for transformer and dimensions of tubes	NA since Heat exchangers are provided
	viii) Total weight of Radiators in Kg.	NA since Heat exchangers are provided
50	Cooling Equipment	
	i) Make and Type (Details)	Thermo Heat/ Falls Indu./ Equiv type Heat Exchanger
	ii) Number connected... (No)	One running & one Standby
	iii) Nos in standby. (No)	1(One)
	iv) Rated power. (kW)	During detail Engg.
	v) BHP of driven equipment (motor) & Make	During detail Engg.
	vi) Capacity in litres/ Minute	During detail Engg.
	vii)Rated Voltage.. (Volts)	During detail Engg.
	viii) Locked rotor current (Amps)	During detail Engg.
	ix) Temperature range over which control is adjustable	During detail Engg.
	x) Quantity of cooling water circulated and max. permissible water pressure	During detail Engg.
51	Overall dimensions of transformer including cooling gear, tap changing gear etc.	
	a) Length (in mm)	9300
	b) Breadth (in mm)	4700
	c) Height (in mm)	7800

Odisha Hydro Power Corporation Ltd. Bhubaneswar

	d) Reference drawing No. whether submitted or not	No
52	Whether oil temperature indicator provided (yes/No)	Yes
53	Type and size of oil temperature indicator and whether supervisory alarm contacts provided 150mm dial type	150mm diawith Alram & Trip contact
54	Type of oil level indicator and whether supervisory alarm contact for low oil level provided (yes/No)	Magnetic type OLI with low oil level alarm
55	Type and size of Gas operated relay and whether supervisory alarm and trip contacts provided and their sizes and Nos.	Gas operated relay with alarm and Trip
56	Whether winding temperature indicator with supervisory alarm and trip contacts provided and their sizes and No.	150mm dia with Alarm & Trip contact
	a) Yes/No	Yes
	b) length / breath /depth	As per supplier standard practice
	c) Nos.	One for HV & one for LV
57	Ratio and type of CT used for winding temperature indicator	HV LV
	1. Ratio	270/1.4 5354/1.4
	2. Type	Both Ring type Oil immersed
58	Type and size of Thermostat used	Stem Type
59	No. of Breathers provided	1 No.
60	Type of dehydrating agent used for Breathers	Silica gel
61	i. Capacity of Conservator vessel (litres)	7.5% of total oil of GT
	ii. Volume of conservator between highest and lowest level	During detail Engg.
62	Valve sizes and Numbers required/fitted	
	i) drain valves	During detail Engg.
	ii) filter valves	During detail Engg.
	iii) Sampling valves	During detail Engg.
63	Size of rail	1676mm
	Rail gauge for installation in yard	1676mm
	a) Longer axis	As per specification
	b) Shorter axis	As per specification
64	Wheel base	During detail Engg.
65	Particulars of the heaviest package for transport	
	i) Weight	90700 kg
	2) Dimensions	7800x3400x4300(LBH)
66	a) Type and make of pressure relief device	Spring Operated Sukrut/ equiv.

Chhattisgarh Power Corporation Ltd. Bhilai/Raipur

	b) No of each type of devices per transformer	1 no.
	c)Minimum pressure at which the device operates (KPa)	During detail Engg.
67	Details of current transformers i.e. Bushing CT per phase in HV Side, LV side & Neutral at HV Side	
	i) Type and voltage class	In tank type, 1.1KV class
	ii) No of cores	3 for HV, 1 for HVN, 1 for LV
	iii) Ratio	300/1.4, 300/1.4, 5354/1.4
	iv) Accuracy class	PS PS 5P10
	v) Burden (VA)	15VA
	vi) Accuracy limit factor	
	vii)Knee point voltage (Volts)	900V 900V
	viii) Maximum resistance of secondary winding (ohms)	3ohm 3 ohm
	vix) Magnetising Current	As per Manufacturer std
68	Characteristics of Insulating Oil to be used	As per IS 335
	i) Density in gms /cu-cm	
	ii) Kinematic viscosity in cst	
	iii) Interfacial Tension at 27^0 C in N/M	
	iv) Flash point in ^{0}C	
	v) Pour point in ^{0}C	
	vi)Acidity (Neutralization/ value) in mg of KOH/gm	
	vii) Corrosive Sulphur in %	
	viii) Electric strength	
	Breakdown voltage a) As received (kV rms)	
	b) After treatment (kV rms)	
	ix) Dielectric dissipation factor (tan delta) at 90^0 C	
	x) Saponification value in mg of KOH/gm	CRGO M4 or better
	xi) Water content in ppm	0.27 or better (+/-0.03mm)
	xii) Specific resistance	
	a) at 900 Cohm/cm	
	b) at 270 Cohm/cm	
	xiii) N-dm Analysis CA%	
	CM%	
	CP%	

ANNEXURE-IV

DESPATCH SCHEDULE

1. PURCHASER	DIRECTOR (OPERATION)
2. NAME OF THE COSIGNEE	DIVISIONAL HEAD, GENERATION DIVISION, UPPER KOLAB HYDRO ELECTRIC PROJECT, BARINIPUT.
3. ENGINEER IN CHARGE	UNIT HEAD, UPPER KOLAB HYDRO ELECTRIC PROJECT, BARINIPUT / OR HIS AUTHORISED REPRESENTATIVE.
4. NAME OF THE PAYING OFFICER	FINANCE HEAD/DRAWING AND DISBURSING OFFICER, UPPER KOLAB HYDRO ELECTRIC PROJECT, BARINIPUT.
5. DESTINATION	UPPER KOLAB HYDRO ELECTRIC PROJECT, BARINIPUT POWER HOUSE, BARINIPUT, DIST. KORAPUT, PIN 768017.
6. QUANTITY	ONE SET OF 11/230KV, 102 MVA GENERATOR TRANSFORMER WITH ACCESSORIES AND SPARES AS PER CLAUSE NO. 1 OF THIS WORK ORDER.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

ODISHA HYDRO POWER CORPORATION LTD.

(A Government of Odisha Undertaking)
OFFICE OF THE SENIOR GENERAL MANAGER (ELECTRICAL)
UPPER KOLAB HYDRO ELECTRIC PROJECT
At: P.O.BARINIPUT: DIST. KORAPUT – 764006
PHONE: - (06854)242001 FAX: - (06854) 242092
e-mail: sgmel_ukhep@ohpcltd.com

W/E By Regd. Post /e-mail

No. OHPC: SGM: UKHEP: TECH: EM-23(P-5)/ 4890 /Dated. Bariniput the 23/10/2024

To

M/s. APURBA TRANSCON PVT. LTD.
New Sadaipali Colony
Burla, Sambalpur-768017
e-mail: pksvss@gmail.com
Ph No.9437218976

Sub: Work Order for "Dismantling of one no. old CGL Make 102 MVA GT and Erection. Testing & Commissioning of new BBL Make 102 MVA, 11/230 kV GT"- Regarding.

Ref: **(1)** This Office Limited Tender No.4478, dt.21.0.2024
(2) Your Offer against Tender above.

PKS SGM(El)

Sir,

With reference to the above subject, we are pleased to place Work Order on your firm for **"Dismantling of one no. old CGL Make 102 MVA GT and Erection, Testing & Commissioning of new BBL Make 102 MVA, 11/230 kV GT"** as per the scope of order. rates, terms and conditions laid down hereunder. This order along with all correspondences with your firm will constitute the contract documents between yourself and OHPC.

A. SCOPE OF WORK:

The scope of work covers the following

Sl. No.	Description of Work	Unit	Qty
1	Dismantling of existing & old 102MVA, 11/230 kV CGL make GT including disconnecting from the generator bus & overhead lines, drainage of oil and Dismantling of all other fittings.	No.	1
2	Dragging of existing & old 102MVA, 11/230 kV CGL make GT from Trf. Bay to nearby storage facility. (GT Weight-80 MT)	Mtr	118
3	Dragging of new 102 MVA, 11/230 kV BBL make GT from unloading bay to Trf. Bay. *(without oil)* (GT Weight-95.6 MT)	Mtr	68
4	Filtration of new Transformer oil including supply of filter machine and all T&P.	Ltr	33480

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5	Erection and assembly with Testing & Commissioning of new 102 MVA, 11/230 kV BBL make GT under supervision of the OEM Engineer. The activity includes fixation & connection of HV terminals with overhead lines, GT LV terminals with Generator Bus-Bars, Neutral terminal, Bushing CTs, Buchholz relay, WTI, OTI, Heat Exchangers, all Earthing and Marshalling box etc.	Set	1
6	Fabrication work of extended Bus Duct & Aluminum Bus bar, weather proof painted metal Enclosure with inspection door on the LV side of new transformer as per approved drawing and site condition. The work is inclusive of all incidental materials like copper connectors/ flexible jumpers, bimetallic plates, rubber bellows & fabrication materials etc.	Set	3
7	Re-assembly of Transformer Bay including minor modifications, if any of the dismantled Emulsifier system (water sprinkling system), Cooling water system & fencing. The work is inclusive of all incidental materials like gaskets, flanges, pipes, fixtures, paints & name plates etc.	LS	1
8	Additional works like shifting of materials like TFR oil, Aux. equipments etc from OHPC stores to site, temporary storage facility of oil of old GT until re-filling of the same, , accommodation charges, compliance on Statutory Authority / CEI observations etc.	LS	1

B. SCHEDULE OF PRICE:

Sl. No.	Description of Work	Unit	Qty.	Unit price in Rs. excluding GST	Total price in Rs. excluding GST
1	Dismantling of existing & old 102MVA, 11/230 kV CGL make GT including disconnecting from the generator bus & overhead lines, drainage of oil and Dismantling of all other fittings.	No	1	1,20,000.00	1,20,000.00
2	Dragging of existing & old 102MVA, 11/230 kV CGL make GT from Transformer Bay to nearby storage facility. (GT Weight-80 MT)	Mtr.	118	70.00	6,60,800.00
3	Dragging of new 102 MVA, 11/230 KV BBL make GT from unloading bay to Transformer Bay. *(without oil)* (GT Weight-95.6 MT)	Mtr.	68	70.00	4,55,056.00
4	Topping & Filtration of new Transformer oil including supply of filter machine and all T&P.	Ltr	33480	7.30	2,44,404.00

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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9. **INSURANCE OF SERVICE PERSONNEL:-**

The Firm shall have to take workmen compensation insurance policy for the service personnel who will execute the work.

10. **Obligation of the Firm :-**

a) The Incidental materials as per the scope/schedule required for dismantling, installation & commissioning work shall be supplied by the contractor

b) Tools & Plants are to be arranged by the contractor.

c) The firm shall arrange a mobile crane for lifting spares, dragging Generator Transformers (GTs), and transporting vehicles, as well as for any other lifting /transportation purposes required for the work.

d) Any other materials not specified in the schedule, but necessary for the completion of the work, shall be supplied by the firm without imposing any additional financial burden on OHPC.

e) The firm shall be responsible for arranging the inspection of works by the statutory authority/Chief Electrical Inspector, including making necessary arrangements for visits and handling the required coordination and liaison activities.

11. **OBLIGATION OF OHPC :-**

a) Gate pass of the Contractor's personnel will be issued by Divisional Head, Generation Division after submission of their ID proofs.

b) Temporary Electric Supply arrangement inside power House Premises will be made by OHPC.

c) Special Tools & tackles subject to availability will be provided by OHPC on returnable basis in good condition.

d) Accommodation shall be provided by OHPC subject to availability on payment basis.

e) Inspection fees/charges for statutory authority/Chief Electrical Inspector shall be borne by OHPC.

12. **FORCE MAJEURE:**

The contractor shall not be liable for any liquidated damage for delay due to force majeure such as act of God, act of public enemy, act of government, fire, flood, epidemics, quarantine restriction, War restriction imposed by Govt., strikes etc. and provided that the contractor shall within 15 days of the beginning of such delay, notify OHPC in writing of the nature and cause of such delay. OHPC shall verify the facts and may grant such time extension (s) as facts justify.

13. **TERMINATION/CANCELLATION: -**

OHPC may at any time terminate the contract by giving 15 (Fifteen) days' notice to the firm even before expiry of the contract in case of poor workmanship and non-compliance of terms and conditions of the contract or the contractor not found to perform satisfactory without compensation to the firm.

14. **STATUTORY COMPLIANCE:**

a) The firm shall be solely liable for statutory compliance in respect of all applicable laws of the land which inter-alia include central or state labour laws and

regulations/rules made there under including but not limited to compliance of provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948(State Act), Employers' Liability Act, 1938, Employee's Compensation Act, 1923, Industrial Disputes Act, 1947, Contract labour (Regulation and abolition) Act, 1970, EPF & MP Act, 1952, ESI Act, 1948 or any modification thereof or any other law relating thereto and rules made there under from time to time.

b) All the workers or employees deployed by the firm shall consider the employees of contractor and corporation shall not have any liability what so ever in nature in regard to such workers/employees.

c) The firm shall indemnify and keep indemnified OHPC against:
   i) Any claim arising out of third party loss/ damage to life or property caused by/ during execution of the work.
   ii) Any claim arising out of loss/ damage to the workmen engaged by the Successful bidder during execution of the work.
   iii) Any Claim due to non-compliance of applicable PF/Labour laws, ESI Regulation

d) Inspection charges towards the new GT by the statutory authority/Chief Electrical Inspector will be borne by OHPC. However, the contractor must inform OHPC in advance to ensure that the actual commissioning work is not delayed. The contractor shall be responsible for arranging the inspection of works by the authorities, including making necessary arrangements for visits and undertaking required coordination and liaison. The contractor shall not be entitled to any extension of time due to delays in obtaining such approvals.

e) Any deficiency pointed out by such authorities shall be rectified by the contractor within the scope of work at no additional cost to OHPC. The inspection of work by these authorities does not absolve the contractor from any of its responsibilities under this contract.

15. WORK MAN:

Qualified and experienced Electricians and Linemen having valid work permit license issued from ELBO to work in 220 KV line must be engaged for the installation, erection, testing and commissioning work.

16. EXECUTION OF AGREEMENT:-

The firm will be required to execute agreement with Divisional Head, P & C Division within **10 days** of placement of Order. The Following documents are to be submitted before execution of the Agreement.

- Security Deposit/ Performance Bank Guarantee of required amount.
- Copy of valid Insurance Policy of the Contractor's personnel.
- Valid Labour License.
- EPF, ESI Registration certificate of the Contractor's personnel.
- Self-attested copy of valid GSTIN Registration Certificate.
- Self-attested copy of Income Tax PAN.
- Indemnity Bond in Prescribed Format as per **Annexure-A.**
- Self-Attested Photo Copy of Electrical license of category EHT. In the case of an HT license holder, a letter of willingness from an EHT Supervisor license holder through an affidavit must be submitted along with Self-Attested Photo Copy of Electrical license of category HT.

17. **INDEMNITY BOND**

It shall be the firm's responsibility to protect his workmen against accident during the execution of the Work. The firm shall have to furnish an Indemnity Bond to OHPC in the prescribed format **(Annexure-A)** in non-judicial stamp paper worth Rs.100/- and keep indemnified OHPC against:

i) Any claim arising out of third Party loss/damage to life or property caused by/during execution of the work.

ii) Any claim arising out of loss/damage to the workmen engaged by the firm during execution of the work

iii)Any claim due to non-compliance of applicable PF/ Labour laws, ESI regulations etc.

18. **ENGINEER -IN-CHARGE:-**The Divisional Head, P & C Division, OHPC Ltd UKHEP, Bariniput.

19. **PAYING OFFICER:** - The Finance Wing Head, UKHEP, OHPC Ltd Bariniput.

20. **DISPUTE:** - Any dispute arising in completion of work, quality of work, the decision of the undersigned shall be final and binding.

21. **Jurisdiction of High Court of Odisha:** - Dispute if any arising out of this Contract shall be filed by either party in a Court of Law to which jurisdiction of High Court of Odisha extends.

22. **ACCEPTANCE:** - An extra Copy of this Order is enclosed herewith. Please acknowledge the receipt of this Order and return one copy with your signature and seal at every page as a token of acceptance within 07 days from the issue of Work Order.

Encl: 1- Annexure-A & B.
2- An extra Copy of Work Order.

Yours faithfully,

23/10/24
Unit Head
UKHEP, Bariniput

Memo No. 4891 /Dated, Bariniput the 23/10/2024

Copy submitted to the Director (Operation) O.H.P.C. Limited, Bhubaneswar for favour of kind information.

23/10/24
Unit Head
UKHEP, Bariniput

(6)
Memo No. 4892 /Dated, Bariniput the 23/10/2024

Copy forwarded for information and necessary action to: -

1) The Divisional Head, P & C Division, Upper Kolab HE Project, Bariniput.

2) The Divisional Head, Generation Division, Upper Kolab HE Project, Bariniput.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

POWER PURCHASE AGREEMENT

BETWEEN

**ORISSA HYDRO POWER CORPORATION LIMITED,
BHUBANESWAR**

AND

**GRIDCO LIMITED,
BHUBANESWAR**

ON

**UPPER KOLAB HYDRO ELECTRIC PROJECT,
BARINIPUT,KORAPUT**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

(iv)	Capital Cost	Rs. in crores	307.96
(v)	Equity	%	25
(vi)	Loan	-do-	75
(vii)	Depreciation on capital cost	As per para 4 of this Schedule	
(viii)	Return on Equity	As per para 2 of this Schedule	
(ix)	Interest on Loan Capital	As per para 3 of this Schedule	
(x)	O&M expenses	As per para 6 of this Schedule	
(xi)	Interest on Working Capital	As per para 5 of this Schedule	
(xii)	Annual rate of escalation on O&M	As per para 6 of this Schedule	
(xiii)	Normative Annual Plant Available Factor		85%
(xiii)	Design Energy (sale)	MU	823.68

9. Revision of Tariff Norms :

The tariff norms shall be subject to revision in addition to clause 11.6 of the agreement;

i) At the time of renewal, replacement or extension of this Agreement or if required as a result of any guidelines / directives of GoO and / or GoI may issue from time to time regarding the tariff and its application; and

ii) In case of any fresh guidelines / rules / regulations issued by OERC / CERC regarding the tariff and its application and it shall be applicable from the date of its notification .

10. Norms of Operation :

i) Normative Annual Plant Availability Factor(NAPAF)= 85%
ii) Auxiliary consumption = 0.5% of energy generated.
iii) Transformation loss = 0.5% of energy generated.

Orissa Hydro Power Corporation Ltd. Bhubaneswar

POWER PURCHASE AGREEMENT

BETWEEN

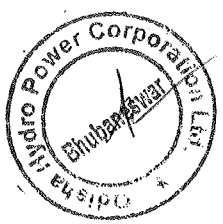
GRID CORPORATION OF ORISSA LIMITED
BHUBANESWAR

AND

ORISSA HYDRO POWER CORPORATION LIMITED
BHUBANESWAR

ON

UPPER INDRAVATI HYDRO ELECTRIC PROJECT
MUKHIGUDA



(iii)	Net Contracted Capacity at Interconnection Point	MW	594
(iv)	Capital Cost	Rs. crores	1195.42
(v)	Equity	-do-	2988.54
(vi)	Loan	-do-	8965.61
(vii)	Depreciation on capital cost	As per Clause-3 (i) of Schedule-5	
(viii)	Return on Equity	%	16
(ix)	Interest on Loan	As per Annexure-I subject to adjustment for the variable interest factor.	
(x)	O&M expenses including Ins.	%	1.5
(xi)	Annual rate of escalation on O&M	%	As per Schedule-5cl.2.1(iii)
(xii)	Normative Availability	%	90
(xiii)	Design Energy (sale)	MU	1942.38
(xiv)	Date of Commercial Operation	15 days from the date of synchronisation	

11. Revision of Tariff:

The tariff shall be subject to revision at the time of renewal, replacement or extension of this Agreement or if required as a result of any guidelines/directives that Government of Orissa and/or GOI may issue from time to time regarding the tariff and its application.

12. Provisional Tariff calculation (along with Debt Schedule) for 30 years is at Annexure-I.

Orissa Hydro Power Corporation Ltd. Bhubaneswar

Details of Estimated Additional Capitalisation below Rs 20Lakhs per asset & capital spare below Rs 10Lakhs for FY2024-25 & FY2025-26 (in Cr.)

RHEP	2024-25	2025-26
Power House electric & machanical works	1.057	1.870
Substation Equipment		
Transmission line		
Water Supply Installation	0.030	0.120
Electrical Installation	0.080	
Office Equipment(Computer & other , associated Equip.)		0.180
Buildings	0.740	0.360
Furniture & Fixture		0.140
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.045	
Total	**1.952**	**2.670**

HHEP	2024-25	2025-26
Power House electric & machanical works	0.920	0.710
Substation Equipment	0.030	0.050
Water Supply Installation		
Civil building/ Township		0.230
Electrical Installation	0.030	0.110
Office Equipment(Computer & other associated Equip.)	0.230	0.070
Furniture & Fixture	0.010	0.050
Misc. Asset.		
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.059	
Total	**1.279**	**1.220**

C.O	2024-25	2025-26
Buildings		
Training center equipment & Misc. Asset		
Land		
Boundry wall & fencing		
Electrical Installation	0.050	
Office Equipment(Computer & other associated Equip.)	0.090	
Furniture & Fixture	0.250	
vehicle & Other Transport	0.100	
Training Center Equipment		
Total	**0.490**	**0.000**

UKHEP	2024-25	2025-26
Power House electric & machanical works	1.460	
Furniture & Fixture	0.263	
Transmission line		
Water Supply Installation		
Electrical Installation		
Office Equipment(Computer & other associated Equip.)	0.300	
Civil building/ Township	0.890	0.260
Misc. Asset.		
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.072	
Total	**2.985**	**0.260**

CHEP	2024-25	2025-26
Power House electric & machanical works	0.340	0.100
Substation Equipment/ Misc. Asset	0.590	0.400
Civil building/ Township	0.410	0.070
Furniture & Fixture	0.160	0.040
Electrical Installation	0.270	0.050
Office Equipment(Computer & other associated Equip.)	0.130	0.220
Water supply syatem	0.160	0.200
vehicle		0.200
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.042	
Total	**2.102**	**1.280**

			2024-25	2025-26
Unit		D.E(in MU)	Apportionment Addition	Apportionment Addition
RHEP		525	0.045	
UKHEP		832	0.072	
BHEP		1183	0.102	
HHEP		684	0.059	
CHEP		490	0.042	
UIHEP		1962	0.169	
Total	**0.000**	5676	**0.490**	

BHEP	2024-25	2025-26
Power House electric & machanical works	0.150	0.340
Buildings/ PH Civil works	0.390	0.580
vehicle		
Water Supply Installation		
Electrical Installation	0.226	0.406
Office Equipment(Computer & other associated Equip.)	0.150	0.090
Civil Building Township		
Misc. Asset.	0.190	
Furniture & Fixture	0.040	
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.102	
Total	**1.248**	**1.416**

UIHEP	2024-25	2025-26
Land		
Plant & Machinery(Generators)	0.380	0.100
HYD.Works, Dam, Penstock		
Water Supply Installation	0.020	0.010
Electrical Installation	0.370	
Office Equipment(Computer & other associated Equip.)		0.130
Tools and plants	0.350	0.090
Books & library		
Furniture & Fixture	0.060	0.090
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.169	
Total	**1.349**	**0.420**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Annexure- 15

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/interest-rates/interest-rates/mclr-historical-data

Corporate Governance | Investor Relations | SBI in the News | Grahak Seba | A A- A+ | Customer Care | Careers | Net Banking

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Marginal Cost Lending Rates

Effective Date	Interest Rate (%)						
	ON	1M	3M	6M	1Y	2Y	3Y
15.10.2024	8.20	8.20	8.50	8.85	8.95	9.05	9.10
15.09.2024	8.20	8.45	8.50	8.85	8.95	9.05	9.10
15.08.2024	8.20	8.45	8.50	8.85	8.95	9.05	9.10
15.07.2024	8.10	8.35	8.40	8.75	8.85	8.95	9.00
15.06.2024	8.10	8.30	8.30	8.65	8.75	8.85	8.95
15.05.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.04.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.03.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
[illegible]4	8.00	8.20	8.20	8.55	8.65	8.75	8.85

Interest Rates

Home Loan

8.50%* p.a. onwards

w.e.f. 05.04.2024

*T&C Apply.

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Odisha Hydro Power Corporation Ltd. Bhubaneswar

Annexure-16

The Odisha Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

No. 2144 CUTTACK, WEDNESDAY, NOVEMBER 13, 2024/KARTIKA 22, 1946

ଓଡ଼ିଶା ବିଦ୍ୟୁତ୍ ନିୟାମକ ଆୟୋଗ

ODISHA ELECTRICITY REGULATORY COMMISSION

BIDYUT NIYAMAK BHAWAN

PLOT NO. 4, OERC ROAD, SHAILASHREE VIHAR, BHUBANESWAR -751021

TEL. No. 2721048, 2721049

E-MAIL: oerc@odisha.gov.in / orierc@gmail.com

WEBSITE: www.orierc.org

NOTIFICATION

The 6th November 2024

No. 1285—OERC/RA/GEN. REG./41/2024—In exercise of powers conferred under section 181 read with Section 61, 62 & 86 of the Electricity Act, 2003 (Act 36 of 2003) and all other powers enabling it in that behalf, the Odisha Electricity Regulatory Commission hereby makes the following Regulations, namely:

CHAPTER - 1

PRELIMINARY

1. SHORT TITLE AND COMMENCEMENT

(1) These Regulations shall be called "Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024".

(2) These Regulations shall be applicable in the State of Odisha.

(3) The Commission in specifying these Regulations shall be guided by the principles contained in Sections 61 and 62 of the Act to encourage competition, efficiency, economical use of resources, good performance and optimum investments.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

35. NON-TARIFF INCOME

(1) The amount of Non-Tariff Income of the Generating Company as approved by the Commission in accordance with Regulation 60 of these Regulations shall be deducted while determining its Annual Fixed Cost:

Provided that the Generating Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.

(2) The Non-Tariff Income shall include:

(a) Income from rent of land or buildings;

(b) Income from sale of scrap;

(c) Income from investments;

(d) Income from sale of ash/rejected coal;

(e) Interest income on advances to suppliers/contractors;

(f) Net Income from supply of electricity by the Generating Company to the housing colonies of its operating staff and supply of electricity by the Generating Company for construction works at the generating Station, after adjusting the expenses incurred for supply of such electricity;

(g) Income from rental from staff quarters;

(h) Income from rental from contractors;

(i) Income from hire charges from contactors and others;

(j) Income from advertisements;

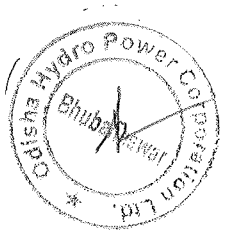
(k) Income from sale of tender documents;

(l) Net-Income from Eco-Tourism Activities;

(m) Any other Non-Tariff Income.

Provided further that all supply of electricity by the Generating Company to the housing colonies of its operating staff and for construction works at the generating Station, shall be metered and billed separately:

Provided also that the tariff for supply of electricity by the Generating Company to the housing colonies of its operating staff and supply of electricity by the Generating Company for construction works at the generating Station, shall be the same as the Tariff approved by the Commission for the supply of electricity to the respective consumer category by the Distribution Licensee for that area of supply.



Net gain (Million Rupees)= [Saleable Scheduled generation in MUs-{(Saleable Scheduled Generation in MUs x (100-normative AEC in %)/(100- actual AEC in %)}x [1.30 or ECR, whichever is lower]

58. SHARING OF SAVING IN INTEREST DUE TO RE-FINANCING OR RESTRUCTURING OF LOAN:

(1) The Generating Company shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such refinancing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the Generating Company, in the ratio of 50:50.

(2) In case of dispute, any of the parties may make an application in accordance with the Odisha Electricity Regulatory Commission (Conduct of Business) Regulations, 2004 as amended from time to time, for settlement of the dispute:

Provided that the beneficiaries shall not withhold any payment on account of the interest claimed by the Generating Company during the pendency of any dispute arising out of re-financing of loan

59. Sharing of net gains of Generating Company with the beneficiary (ies) due to supply of power from alternate source shall be in the ratio of 50:50. In case of existing plants of OPGC (UNIT-I & II) and OHPC sharing of net gains will be as determined by the commission based on prudence check considering the information/ data submitted by the Generating Company.

60. SHARING OF NON-TARIFF INCOME

The details of Non-Tariff income in case of generating station as listed in Regulation 35(2) shall be furnished by the Generating Company at the time of Tariff filling. The net Non-Tariff Income excluding Income from Investments shall be shared between the beneficiaries and the Generating Company, in the ratio 50:50.

61. SHARING OF CLEAN DEVELOPMENT MECHANISM (CDM) BENEFITS

The proceeds of carbon credit from approved emission reduction project under CDM shall be shared in the following manner:

(a) 100% of the gross proceeds on account of CDM to be retained by the project developer in the first year after the date of commercial operation of the generating station

(b) In the second year, the share of the beneficiaries shall be 10% which shall be progressively increased by 10% every year till it reaches 50%, where after the proceeds shall be shared in equal proportion, by the Generating Company, and the beneficiaries.

Details of Non-tariff Income as per Audited Account FY 2023-24 for Tariff computation of FY2025-26

(INR)

Sl No.	Particulars	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Corporate Office	Total
1	Income from rent of land or buildings	145078	120000	25100	119300	27100	67850	22521105	23025533
2	Income from sale of scrap	6445481	0	103829	20000	28360	19568	0	6617238
3	Income from investments	407420	210848	381633	367394	53856	1157514	1887909673	1890488338
4	Income from sale of ash/rejected coal								
5	Interest income on advances to suppliers/contractors	0	0	0	0	9777921	0	0	9777921
6	Net Income from supply of electricity by the Generating Company to the housing colonies of its operating staff and supply of electricity by the Generating Company for construction works at the generating Station, after adjusting the expenses incurred for supply of such electricity	0	443953	972682	0	1041565	306209	0	2764409
7	Income from rental from staff quarters	225957	508630	641873	1307859	660482	147326	163409	3655536
8	Income from rental from contractors								
9	Income from hire charges from contactors and others								
10	Income from advertisements								
11	Income from sale of tender documents	941000	1280000	771650	651000	1451400	676800	303000	6074850
12	Net-Income from Eco-Tourism Activities								
13	Any other Non-Tariff Income	5124864	4105275	4536416	12962719	51445344	2706393	34586666	115467677
14	G Total	**13289800**	**6668706**	**7433183**	**15428272**	**64486028**	**5081660**	**1945483853**	**2057871502**
15	Less:Income from investments as per Regulation 60 of OERC Generation tariff Regulation 2024.	407420	210848	381633	367394	53856	1157514	1887909673	1890488338
16	NetSharable Non-Tariff Income(14-15)	12882380	6457858	7051550	15060878	64432172	3924146	57574180	167383164
17	Sharable Non-Tariff Income(16/2)	6441190	3228929	3525775	7530439	32216086	1962073	28787090	83691582
18	Corporate Non tariff Income apportioned to respective Units as per their Installed capacity	3528176	4516065	7197478	4061636	1016115	8467621	28787090	
19	Non-Tariff Income deducted from ARR as per Regulation 60 of OERC Generation tariff Regulation 2024 (17+18)	**9969366**	**7744994**	**10723253**	**11592075**	**33232201**	**10429694**		**83691582**

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Proposed ARR & Tariff of different power station of OHPC for FY 2025-26

(Rs. in Crs.)

Components	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total FY2025-26
Saleable Design Energy (MU)	519.75	823.68	1171.17	660.52	484.12	3659.24	1942.38	**5601.62**
Return on Equity	4.422	2.418	20.639	22.610	14.717	64.805	58.743	**123.55**
Interest on Loan	2.026	1.544	11.462	10.067	14.777	39.877	7.730	**47.61**
Depreciation	4.593	3.949	13.599	12.948	10.399	45.488	37.846	**83.33**
O & M expenses	72.830	80.893	84.292	57.132	32.919	328.066	74.821	**402.89**
Interest on Working Capital	3.225	3.525	4.221	3.016	1.923	15.911	4.680	**20.591**
Total Cost	87.095	92.329	134.213	105.773	74.736	494.147	183.821	**677.968**
Less Non Tariff Income	0.997	0.774	1.072	1.159	3.323	7.326	1.043	**8.369**
Adjustment of Non-Tariff Income of FY2023-24	0.607	0.777	1.239	0.699	0.175	3.497	1.457	**4.954**
Less Sale of Power to CSPDCL				3.429		3.429		**3.429**
Total ARR for FY2025-26	**86.705**	**92.332**	**134.380**	**101.884**	**71.588**	**486.889**	**184.235**	**671.124**
Average Tariff (P/U) for 2025-26	**166.82**	**112.10**	**114.74**	**154.25**	**147.87**	**133.06**	**94.85**	**119.81**

Energy Charge, Capacity Charge & Energy Charge Rate of different Power Station of OHPC for FY2025-26

Name of the Power Stations	Annual Fixed Cost	Capacity Charges (Rs in Crs.)	Energy Charges (Rs in Crs.)	Saleble Design Energy (in MU)	Energy Charge Rate(P/U)
RHEP, Rengali	86.705	43.353	43.353	519.75	83.410
UKHEP, Baraniput	92.332	46.166	46.166	823.68	56.048
BHEP, Balimela	134.380	67.190	67.190	1171.17	57.370
HHEP, Burla	101.884	50.942	50.942	660.52	77.124
CHEP, Chiplima	71.588	35.794	35.794	484.12	73.936
UIHEP, Mukhiguda	184.235	92.118	92.118	1942.38	47.425

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Annexure- 18

Capital Cost proposed for the Tariff calculation of FY 2025-26

(Rs. in Crs.)

			New Addition (in Crs.)				Project Cost (in Crs.)			
Sl. No.	Name of the Power Stations	Total Asset reduction during the FY 2011-12 to FY 2023-24	Total New additions from 01.04.1996 to 31.03.2023 including original project cost of UIHEP amounting to Rs 1194.79Crs considered for truing up for FY2023-24	Estimated Additional Capitalisation for FY2024-25	Estimated Additional Capitalisation for FY2025-26	Total New additions from 01.04.1996 to 31.03.2025.	Historic cost of assets as on 01.04.96	Total New additions from 01.04.1996 to 31.03.2024 considered for Tariff 2025-26	Total Asset reduction during the FY 2011-12 to FY 2023-24	Project cost considered for Tariff Calculationn based on Historic Cost
1	2	3	4	5	6	7=4+5+6	8	9=7	10=3	11=8+9-10
1	RHEP	**1.723**	89.333			89.333	91.090	89.333	1.723	**178.700**
2	UKHEP	**3.509**	42.759	6.090		48.849	108.310	48.849	3.509	**153.650**
3	BHEP	**3.205**	416.943			416.943	115.420	416.943	3.205	**529.158**
4	HHEP	**25.685**	452.144	4.615		456.759	72.750	456.759	25.685	**503.823**
5	CHEP	**2.818**	152.952	29.440	114.920	297.312	92.230	297.312	2.818	**386.724**
	Sub Total	**36.940**	**1154.131**	**40.145**	**114.920**	**1309.196**	**479.800**	**1309.196**	**36.940**	**1752.055**
6	UIHEP	**5.825**	1390.722			1390.722		1390.722	5.825	**1384.897**
	Total	**42.765**	**2544.853**	**40.145**	**114.920**	**2699.918**	**479.800**	**2699.918**	**42.766**	**3136.952**

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Details of Estimated Additional Capitalisation below Rs 20Lakhs per asset & capital spare below Rs 10Lakhs for FY2024-25 & FY2025-26 (in Cr.)

RHEP	2024-25	2025-26
Power House electric & machanical works	1.057	1.870
Substation Equipment		
Transmission line		
Water Supply Installation	0.030	0.120
Electrical Installation	0.080	
Office Equipment(Computer & other associated Equip.)		0.180
Buildings	0.740	0.360
Furniture & Fixture		0.140
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.045	
Total	**1.952**	**2.670**

HHEP	2024-25	2025-26
Power House electric & machanical works	0.920	0.710
Substation Equipment	0.030	0.050
Water Supply Installation		
Civil building/ Township		0.230
Electrical Installation	0.030	0.110
Office Equipment(Computer & other associated Equip.)	0.230	0.070
Furniture & Fixture	0.010	0.050
Misc. Asset.		
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.059	
Total	**1.279**	**1.220**

C.O	2024-25	2025-26
Buildings		
Training center equipment & Misc. Asset		
Land		
Boundry wall & fencing		
Electrical Installation	0.050	
Office Equipment(Computer & other associated Equip.)	0.090	
Furniture & Fixture	0.250	
vehicle & Other Transport	0.100	
Training Center Equipment		
Total	**0.490**	**0.000**

UKHEP	2024-25	2025-26
Power House electric & machanical works	1.460	
Furniture & Fixture	0.263	
Transmission line		
Water Supply Installation		
Electrical Installation		
Office Equipment(Computer & other associated Equip.)	0.300	
Civil building/ Township	0.890	0.260
Misc. Asset.		
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.072	
Total	**2.985**	**0.260**

CHEP	2024-25	2025-26
Power House electric & machanical works	0.340	0.100
Substation Equipment/ Misc. Asset	0.590	0.400
Civil building/ Township	0.410	0.070
Furniture & Fixture	0.160	0.040
Electrical Installation	0.270	0.050
Office Equipment(Computer & other associated Equip.)	0.130	0.220
Water supply syatem	0.160	0.200
vehicle		0.200
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.042	
Total	**2.102**	**1.280**

		2024-25	2025-26
Unit	D.E(in MU)	Apportionment Addition	Apportionment Addition
RHEP	525	0.045	
UKHEP	832	0.072	
BHEP	1183	0.102	
HHEP	684	0.059	
CHEP	490	0.042	
UIHEP	1962	0.169	
Total	5676	0.490	

BHEP	2024-25	2025-26
Power House electric & machanical works	0.150	0.340
Buildings/ PH Civil works	0.390	0.580
vehicle		
Water Supply Installation		
Electrical Installation	0.226	0.406
Office Equipment(Computer & other associated Equip.)	0.150	0.090
Civil Building Township		
Misc. Asset.	0.190	
Furniture & Fixture	0.040	
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.102	
Total	**1.248**	**1.416**

UIHEP	2024-25	2025-26
Land		
Plant & Machinery(Generators)	0.380	0.100
HYD.Works, Dam, Penstock		
Water Supply Installation	0.020	0.010
Electrical Installation	0.370	
Office Equipment(Computer & other associated Equip.)		0.130
Tools and plants	0.350	0.090
Books & library		
Furniture & Fixture	0.060	0.090
Addl. Capitalisation of CO(Apportioned in the ratio of D.E.)	0.169	
Total	**1.349**	**0.420**

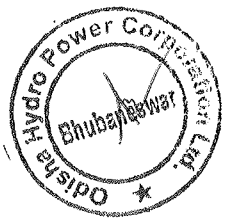
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Proposed Return on Equity for FY 2025-26

(Rs. in Cr.)

Sl. No.	Name of the Power Stations	Total Additional Capitalisation from 01.04.1996 to 31.03.2024 less PSDF Grant	Equity Capital rate	Equity Capital	ROE @16.5% as per New OERC Regulations 2024 & provisions under PPA
	1	2	3	4	5
1	RHEP	89.33	30%	26.800	4.422
2	UKHEP	48.85	30%	14.655	2.418
3	BHEP	416.94	30%	125.083	20.639
4	HHEP	456.76	30%	137.028	22.610
5	CHEP	297.31	30%	89.194	14.717
6	UIHEP*	1384.90	25% & 30%*	356.021	58.743
7	**Total**	**2694.09**		**748.779**	**123.549**
Approved project cost of UIHEP is Rs1194.79Cr. Decapitalisation for FY 2011-12 to FY 2023-24= Rs5.825Cr. Decapitalisation is considered from the approved project cost. New project cost= Rs 1194.79Cr - Rs5.825Cr =Rs1188.965Cr. Additional Capitalisation from FY2013-14 to FY2025-26 =Rs195.932Cr. Hence, Project Cost for Tariff of UIHEP for FY2025-26 Tariff = Rs1384.897Cr.					
The Equity Capital of UIHEP has been considered @25% of Rs 1188.965= Rs297.241Crs. Adding to it the 30% equity towards net additional capitalisation from FY 2013-14 to FY 2025-26 of Rs 195.932Cr =Rs58.78Cr.					
Return on Equity is calculated @16.5% of Equity Capital for power stations of OHPC as per norms of OERC Generation Tariff Regulation, 2024 with a provision of reimbursement of Income Tax paid for the FY 2023-24.					



Proposed Interest on Loan for the FY 2025-26								(Rs. in Crs.)
Source of Loan	**RHEP**	**UKHEP**	**BHEP**	**HHEP**	**CHEP**	**Sub Total**	**UIHEP**	**TOTAL**
Normative Loan Interest	2.026	1.544	11.462	10.067	14.777	**39.877**	7.730	**47.607**
Total	**2.026**	**1.544**	**11.462**	**10.067**	**14.777**	**39.877**	**7.730**	**47.607**

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New addition of RHEP proposed for computation of repayment of loan for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
New Addition approved from 01.04.1996 to 31.03.2023	**a**	68.168
New Addition proposed in truing up from 01.04.1996 to 31.03.2024	**b**	89.333
Differential new addition due to truing up w.e.f 01.04.2024	**c=b-a**	21.165

Normative Loan of RHEP proposed for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
Differential new addition due to truing up w.e.f 01.04.2024	**a**	21.165
Proposed estimated additional capitalisation for FY2024-25 & FY2025-26	**b**	0.000
PSDF Grant for the FY2023-24(audited)	**c**	0.000
Net proposed new additional capitalisation	**d=a+b-c**	21.165
Repayment Period (in years)	**e**	15.000
Less: Eqity 30%	**f=dx30%**	6.350
Debt	**g=d-f**	14.816
Balance approved debt unrecovered till 01.04.2023	**h**	6.570
Opening Balance of Loan Capital for the proposed additional capitalisation for FY2025-26 (truing up & estimated GFA)	**i=g+h**	21.386
Repayment of principal during the FY2025-26	**j=(i/e)**	**1.426**
Closing balance for computation of tariff for FY2025-26	**k=i-j**	19.960
Average Principal for the FY 2025-26	**l=(i+k)/2**	20.673
Interest Charged @ 9.8% for the FY 2025-26	**m=lx9.8%**	2.026
Normative loan Interest for FY 2025-26 of RHEP	**n=m**	**2.026**

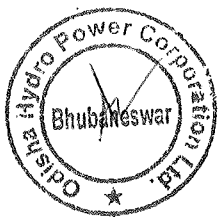
Odisha Hydro Power Corporation Ltd. Bhubaneswar

New addition of UKHEP proposed for computation of repayment of loan for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
New Addition approved from 01.04.1996 to 31.03.2023	**a**	32.821
New Addition proposed in truing up from 01.04.1996 to 31.03.2024	**b**	42.759
Differential new addition due to truing up w.e.f 01.04.2024	**c=b-a**	9.938

Normative Loan of UKHEP proposed for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
Differential new addition due to truing up w.e.f 01.04.2024	**a**	9.938
Proposed estimated additional capitalisation for FY2024-25 & FY2025-26	**b**	6.090
PSDF Grant for the FY2023-24(audited)	**c**	0.000
Net proposed new additional capitalisation	**d=a+b-c**	16.028
Repayment Period (in years)	**e**	15.000
Less: Eqity 30%	**f=dx30%**	4.808
Debt	**g=d-f**	11.220
Balance approved debt unrecovered till 01.04.2023	**h**	5.084
Opening Balance of Loan Capital for the proposed additional capitalisation for FY2025-26 (truing up & estimated GFA)	**i=g+h**	16.303
Repayment of principal during the FY2025-26	**j=(i/e)**	**1.087**
Closing balance for computation of tariff for FY2025-26	**k=i-j**	15.216
Average Principal for the FY 2025-26	**l=(i+k)/2**	15.760
Interest Charged @ 9.8% for the FY 2025-26	**m=lx9.8%**	1.544
Normative loan Interest for FY 2025-26 of UKHEP	**n=m**	**1.544**



NORMATIVE LOAN REPAYMENT ON UPPER INDRAVATI PROJECT (After Repayment of Govt. Loan)

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	(Rs In Crs)															
OB	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74
Loan Repayment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CB	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74
Avg	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74
Interest	6.89	6.89	6.89	6.89	6.89	5.91	5.86	5.80	5.74	5.51	5.51	5.51	5.51	5.51	5.512	5.51
Rate of Interest	0.0875	0.0875	0.0875	0.0875	0.0875	0.075	0.0744	0.0737	0.0729	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Cumulative Interest	6.89	13.78	20.67	27.56	34.45	40.35	46.21	52.02	57.76	63.27	68.78	74.29	79.80	85.31	90.83	96.34

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
	17	18	19	20	21	22	23	24	25	26	27	28
	(Rs In Crs.)											
OB	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	62.69	32.46
Loan Repayment	0	0	0	0	0	0	0	0	0	16.05	30.23	32.46
CB	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	62.69	32.46	0
Avg	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	78.74	70.715	47.575	16.23
Interest	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	5.51	4.95	3.33	1.14
Rate of Interest	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Cumulative Interest	101.85	107.36	112.87	118.39	123.90	129.41	134.92	140.43	145.94	150.89	154.22	155.36

	2029-30	2030-31	2031-32	2032-33	2033-34	2034-35	2035-36	2036-37	2037-38	2038-39	2039-40	2040-41
	29	30	31	32	33	34	35	36	37	38	39	40
	(Rs In Crs.)											
OB	155.36	142.41	129.46	116.51	103.56	90.61	77.66	64.71	51.76	38.81	25.86	12.91
Int Repayment	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.95	12.91

Odisha Hydro Power Corporation Ltd. Bhubaneswar

New addition of UIHEP proposed for computation of repayment of loan for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
New Addition approved from COD to 31.03.2023	a	102.976
New Addition proposed in truing up from COD to 31.03.2024	b	195.932
Differential new addition due to truing up w.e.f 01.04.2024	c=b-a	92.956

Normative Loan of UIHEP proposed for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
Differential new addition due to truing up w.e.f 01.04.2024	a	92.956
Proposed estimated additional capitalisation for FY2024-25 & FY2025-26	b	0.000
PSDF Grant for the FY2023-24(audited)	c	0.000
Net proposed new additional capitalisation	d=a+b-c	92.956
Repayment Period (in years)	e	15.000
Less: Eqity 30%	f=dx30%	27.887
Debt	g=d-f	65.069
Balance approved debt unrecovered till 01.04.2023	h	49.173
Opening Balance of Loan Capital for the proposed additional capitalisation for FY2025-26 (truing up & estimated GFA)	i=g+h	114.242
Repayment of principal during the FY2025-26	**j=(i/e)**	**7.616**
Closing balance for computation of tariff for FY2025-26	k=i-j	106.626
Average Principal for the FY 2025-26	l=(i+k)/2	110.434
Interest Charged @ 7% for the FY 2025-26	m=lx7%	7.730
Normative loan Interest for FY 2025-26 of UIHEP	**n=m**	**7.730**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

LOAN REPAYMENT TO GOVT. ON UPPER INDRAVATI HYDRO ELECRIC PROJECT

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	(Rs. In Crores)																				
OB	497.86	497.86	497.86	497.86	497.86	467.63	437.4	407.17	376.94	346.71	316.48	286.25	256.02	225.79	195.56	165.33	135.1	104.87	74.64	44.41	14.18
Loan Repayment	0	0	0	0	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	30.23	14.18
CB	497.86	497.86	497.86	497.86	467.63	437.4	407.17	376.94	346.71	316.48	286.25	256.02	225.79	195.56	165.33	135.1	104.87	74.64	44.41	14.18	0
Avg	497.86	497.86	497.86	497.86	482.745	452.515	422.285	392.055	361.825	331.595	301.365	271.135	240.905	210.675	180.445	150.215	119.985	89.755	59.525	29.295	7.09
Interest @7%	34.8502	34.8502	34.8502	34.8502	33.79215	31.67605	29.55995	27.44385	25.32775	23.21165	21.096	18.97945	16.86335	14.74725	12.63115	10.51505	8.39895	6.28285	4.16675	2.05065	0.4963
Cumulative Interest	34.8502	69.7004	104.55	139.40	173.19	204.87	234.43	261.87	287.20	310.41	331.51	350.49	367.35	382.10	394.73	405.24	413.64	419.93	424.09	426.14	426.64

Break-up:-

Equity =	Rs 298.70 Crs.
PFC Loan =	Rs 319.49Crs.
Govt.Loan @7% =	Rs 497.86Crs.
Normative Loan=	Rs 78.74Crs.
Total	**Rs 1194.79Crs.**

Status of UIHEP Loan:-

i) PFC loan of Rs 319.49 has already been repaid in full by FY 2009-10.

ii) Total Depreciation of Rs 272.07Crs @ Rs30.23Crs has been allowed to OHPC from the FY 2010-11 to 2021-22. OHPC has made repayment of these amount towards principal on Govt. Loan as per the Hon'ble Commission's directions in the Tariff Order of OHPC.

iii) OHPC did not make any provision for payment of interest on UIHEP Govt. loans from FY 2006-07 onwards as the same was not passed through by Commission.

iv) OERC has not allowed interest on normative loan from FY 2001-02 to FY 2021-22. The accumulated interest on normative loan from the FY 2001-02 to FY 2021-22 has gone upto Rs123.90Cr as shown in the Normative Loan Statement Table.

vi) In the Tariff Order of OHPC for the FY 2013-14, OERC has directed to recover Normative Loan after the recovery of Govt. Loan.

vii) As per the Lr. No. 3063 Dtd. 31.03.2015 of DoE, GoO the interest due to the State Govt. from the FY 2006-07 to FY 2014-15 is Rs 329.25Cr but OERC till date has decided for the recovery of the interest will start after repayment of Principal.

Annexure-A 243

Orissa Hydro Power Corporation Ltd. Bhubaneswar

New addition of HHEP proposed for computation of repayment of loan for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
New Addition approved from 01.04.1996 to 31.03.2023	a	418.694
New Addition proposed in truing up from 01.04.1996 to 31.03.2024	b	452.144
Differential new addition due to truing up w.e.f 01.04.2024	c=b-a	33.450

Normative Loan of HHEP proposed for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
Differential new addition due to truing up w.e.f 01.04.2024	a	33.450
Proposed estimated additional capitalisation for FY2024-25 & FY2025-26	b	4.615
PSDF Grant for the FY2023-24(audited)	c	0.000
Net proposed new additional capitalisation	d=a+b-c	38.065
Repayment Period (in years)	e	15.000
Less: Eqity 30%	f=dx30%	11.419
Debt	g=d-f	26.645
Balance approved debt unrecovered till 01.04.2023	h	92.370
Opening Balance of Loan Capital for the proposed additional capitalisation for FY2025-26 (truing up & estimated GFA)	i=g+h	119.015
Repayment of principal during the FY2025-26	**j=(i/e)**	**7.934**
Closing balance for computation of tariff for FY2025-26	k=i-j	111.081
Average Principal for the FY 2025-26	l=(i+k)/2	115.048
Interest Charged @ 8.75% for the FY 2025-26	m=lx8.75%	10.067
Normative loan Interest for FY 2025-26 of HHEP	**n=m**	**10.067**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

New addition of BHEP proposed for computation of repayment of loan for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
New Addition approved from 01.04.1996 to 31.03.2023	a	338.919
New Addition proposed in truing up from 01.04.1996 to 31.03.2024	b	416.943
Differential new addition due to truing up w.e.f 01.04.2024	c=b-a	78.024

Normative Loan of BHEP proposed for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
Differential new addition due to truing up w.e.f 01.04.2024	a	78.024
Proposed estimated additional capitalisation for FY2024-25 & FY2025-26	b	0.000
PSDF Grant for the FY2023-24(audited)	c	0.000
Net proposed new additional capitalisation	d=a+b-c	78.024
Repayment Period (in years)	e	15.000
Less: Eqity 30%	f=dx30%	23.407
Debt	g=d-f	54.617
Balance approved debt unrecovered till 01.04.2023	h	68.900
Opening Balance of Loan Capital for the proposed additional capitalisation for FY2025-26 (truing up & estimated GFA)	i=g+h	123.517
Repayment of principal during the FY2025-26	**j=(i/e)**	**8.234**
Closing balance for computation of tariff for FY2025-26	k=i-j	115.282
Average Principal for the FY 2025-26	l=(i+k)/2	119.399
Interest Charged @ 9.6% for the FY 2025-26	m=lx9.6%	11.462
Normative loan Interest for FY 2025-26 of BHEP	**n=m**	**11.462**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

New addition of CHEP proposed for computation of repayment of loan for FY 2025-26

Particular	Formulae	*Amount (in Rs Cr)*
New Addition approved from 01.04.1996 to 31.03.2023	**a**	120.693
New Addition proposed in truing up from 01.04.1996 to 31.03.2024	**b**	152.952
Differential new addition due to truing up w.e.f 01.04.2024	**c=b-a**	32.259

Normative Loan of CHEP proposed for FY 2025-26

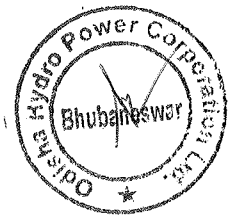
Particular	Formulae	*Amount (in Rs Cr)*
Differential new addition due to truing up w.e.f 01.04.2024	**a**	32.259
Proposed estimated additional capitalisation for FY2024-25 & FY2025-26	**b**	144.360
PSDF Grant for the FY2023-24(audited)	**c**	0.000
Net proposed new additional capitalisation	**d=a+b-c**	176.619
Repayment Period (in years)	**e**	15.000
Less: Eqity 30%	**f=dx30%**	52.986
Debt	**g=d-f**	123.633
Balance approved debt unrecovered till 01.04.2023	**h**	32.356
Opening Balance of Loan Capital for the proposed additional capitalisation for FY2025-26 (truing up & estimated GFA)	**i=g+h**	155.990
Repayment of principal during the FY2025-26	**j=(i/e)**	**10.399**
Closing balance for computation of tariff for FY2025-26	**k=i-j**	145.590
Average Principal for the FY 2025-26	**l=(i+k)/2**	150.790
Interest Charged @ 9.8% for the FY 2025-26	**m=lx9.8%**	14.777
Normative loan Interest for FY 2025-26 of CHEP	**n=m**	**14.777**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Proposed Statement of Outstanding Loan & Interest thereon for the FY2025-26

(Rs. in Crs.)

Sl. No.	Source of Loan	Loan O/S as on 01.04.2025	Interest on Loan for the FY 2025-26
1	State Govt. Loan of UIHEP @7%*	44.41	0.00
2	Normative Loan of Rs78.74Cr for UIHEP,Mukhiguda @ 7%	78.74	0.00
3	Normative Loan for Add. Cap. of CHEP@ 9.80% for FY2025-26	155.99	14.78
4	Normative Loan for Add. Cap. of UKHEP@ 9.80% for FY2025-26	*16.30*	*1.54*
5	Normative Loan for Add. Cap. of HHEP@ 8.75% for FY2025-26	*119.02*	*10.07*
6	Normative Loan for Add. Cap. BHEP@ 9.6% for FY2025-26	*123.52*	*11.46*
7	Normative Loan for Add. Cap. of RHEP@ 9.80% for FY2025-26	*21.39*	*2.03*
8	Normative Loan for Add. Cap. of UIHEP@7.0% for FY2025-26	*114.24*	*7.73*
Total		**673.60**	**47.607**



Depreciation proposed for the FY 2025-26

(Rs. in Crs.)

Sl. No.	Name of the Power Station	Project Cost	Depreciation @ 2.57%	Loan Repayment	Depreciation Claimed@2.57% of the Project Cost or Loan repayment Which ever is higher
1	**2**	**3**	**4 = 3*2.57%**	**5**	**6**
1	RHEP	178.70	4.59	1.43	4.59
2	UKHEP	153.65	3.95	1.09	3.95
3	BHEP	529.16	13.60	8.23	13.60
4	HHEP	503.82	12.95	7.93	12.95
5	CHEP	386.72	9.94	10.40	10.40
6	UIHEP	1384.90	35.59	37.85	37.85
	Total				**83.33**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

PROPOSAL OF O & M EXPENSES FOR THE FY 2025-26

(Rs. in Crs.)

Sl. No.	Particulars	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	CO	Total
1	O & M expenses for FY 2024-25 approved by OERC	57.7	55.3	57.82	54.32	24.56	249.70	68.19		317.89
2	O & M expenses for FY 2022-23 as per Audited Account.	47.57	46.21	45.63	43.02	21.25	203.68	49.61	36.87	290.16
3	O & M expenses for FY 2023-24 as per Audited Account.	48.95	57.51	68.11	48.67	31.51	254.75	55.60	41.88	352.23
4	Average of O&M expenses (2022-23 & 2023-24)	48.26	51.86	56.87	45.85	26.38	229.21	52.61	39.37	321.20
5	Escalation @5.72% for FY 2024-25	51.02	54.83	60.12	48.47	27.89	242.33	55.62	41.63	339.57
6	Escalation @5.72% for FY 2025-26	53.94	57.96	63.56	51.24	29.48	256.19	58.80	44.01	358.99
7	Add: Estimated Additional capitalization less than Rs 20lakhs and Capital Spares valuing up to Rs. 10 lakhs for the FY2024-25 & FY2025-26 (Corporate Office apportioned)	4.62	3.24	2.66	2.50	3.38	16.41	1.77		18.18
8	Total O & M Expenses for the FY 2025-26(6+7)	58.56	61.21	66.22	53.74	32.87	272.60	60.57	44.01	377.17
9	Corporate Office expenses apportioned to different units under OHPC based on Installed Capacity	5.39	6.90	11.00	6.21	1.55	31.06	12.94	44.01	
10	Total O & M Expenses for the FY 2025-26(8+9)	63.95	68.11	77.23	59.95	34.42	303.66	73.51		377.17
11	Less Amount to be received from DoWR towards Dam Maintenance Sharing of UIHEP for FY 2025-26							2.43		2.43
12	**O&M Expenses for the FY 2025-26**	**63.95**	**68.11**	**77.23**	**59.95**	**34.42**	**303.66**	**71.08**	**0.00**	**374.74**
13	Add: Unapproved O & M for FY 2024-25	8.88	12.78	7.06	-2.82	-1.50	24.40	3.74		28.14
14	**Total O&M Expenses for the FY 2025-26(12+13)**	**72.83**	**80.89**	**84.29**	**57.13**	**32.92**	**328.07**	**74.82**	**0.00**	**402.89**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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Proposed Interest on Working Capital for the FY 2025-26

(Rs. in Crs.)

Sl. No.	Description	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total
1	Interest on Loan & GC	2.03	1.54	11.46	10.07	14.78	39.88	7.73	47.61
2	RoE	4.42	2.42	20.64	22.61	14.72	64.81	58.74	123.55
3	O & M Expenses	72.83	80.89	84.29	57.13	32.92	328.07	74.82	402.89
4	Depreciation	4.59	3.95	13.60	12.95	10.40	45.49	37.85	83.33
5	Less Non Tariff Income	1.00	0.77	1.07	1.16	3.32	7.326	1.04	8.369
6	Adjustment of Non-Tariff Income of FY2023-24	0.61	0.78	1.24	0.70	0.18	3.497	1.46	4.954
7	Less Sale of Power to CSPDCL				3.43		3.429		3.429
8	Total[1+2+3+4-5+6-7]	83.48	88.81	130.16	98.87	69.66	470.98	179.56	650.53
10	O & M Expenses for One Month	6.07	6.74	7.02	4.76	2.74	27.34	6.24	33.57
11	Maintenance spares @15% of O & M Expenses	10.92	12.13	12.64	8.57	4.94	49.21	11.22	60.43
12	Receivable equivalent to 45days of Annual Fixed Cost	10.69	11.38	16.57	12.56	8.83	60.03	22.71	82.74
13	Total Working Capital	27.68	30.26	36.24	25.89	16.51	136.58	40.17	176.75
14	**Interest on Working Capital calculated @ 11.65%**	**3.225**	**3.525**	**4.221**	**3.016**	**1.923**	**15.911**	**4.680**	**20.59**

MCLR of SBI for 01.04.2024 (8.65%)+300 basis point	**11.6500%**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

A 350

Annexure- 19

FORM GST INVOICE

1	GSTIN	:	21AAACO2575P1Z9
2	Name	:	Odisha Hydro Power Corporation Limited
3	Address	:	Odisha State Police Housing & Welfare Corporation Building, Vanivihar Chouk, Janpath, Bhubaneswar-751022
	Serial No of Invoice	:	02/2024-25
	Date of Invoice	:	04.05.2024
	Financial Year		2024-25

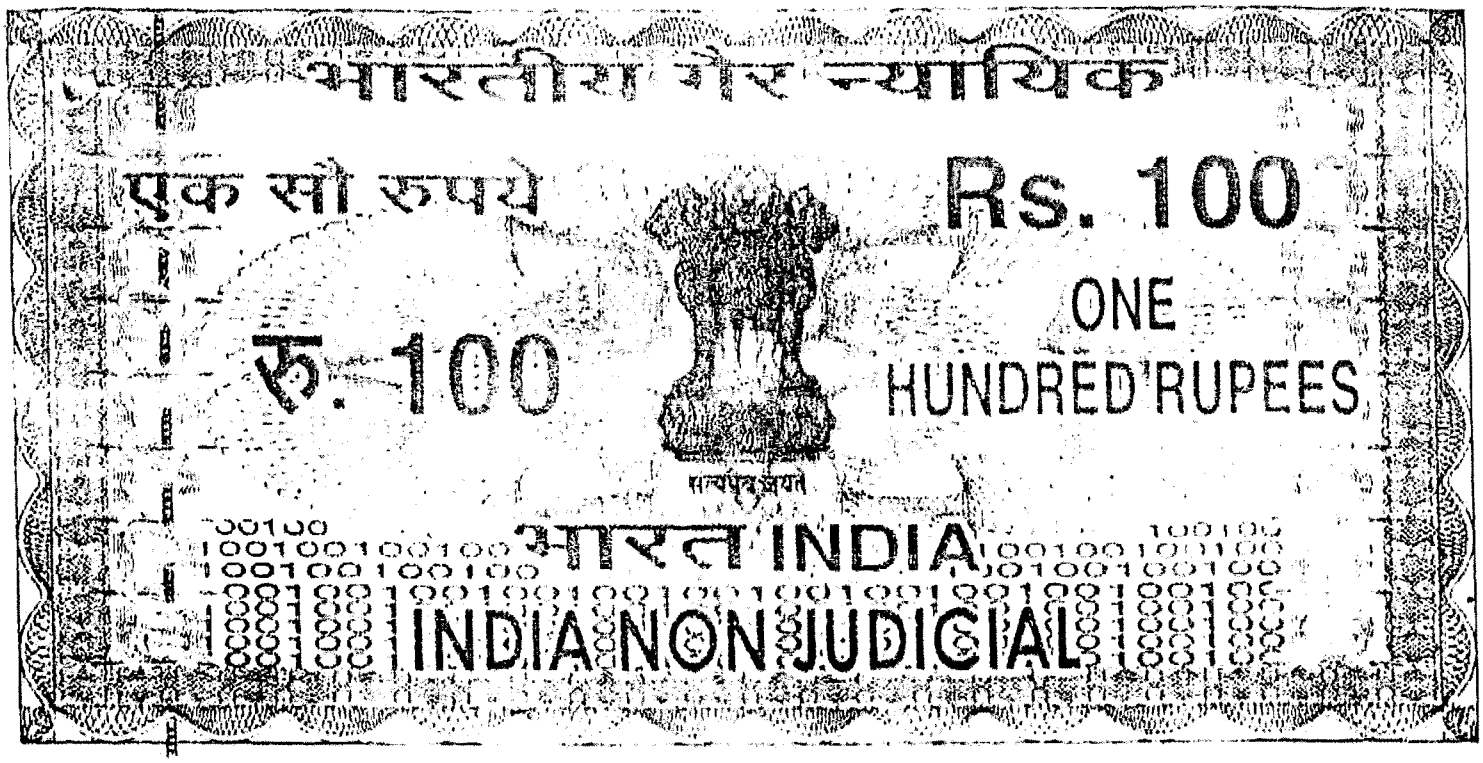
ails of Receiver (Billed to)

Name	:	GRIDCO Limited
Address	:	Vidyut Bhawan 4th Floor, Janpath Bhubaneswar, 751001
State	:	OR
State Code	:	21
GSTIN / Unique ID	:	21AABCG5398P1Z5

No	Description of Goods	HSN	Amount (Sub Total)	Grand Total	CGST		SGST		IGST	
					Rate	Amount	Rate	Amount	Rate	Amount
1	Application Fee for ARR 2024-25	27160000	25,00,000	25,00,000	Not Applicable					
2	Income Tax as per Audited Account for Fy 2022-23	27160000	7,29,03,013	7,29,03,013						
3	Publication Expenses for FY 2024-25	27160000	83,935	1,47,888						
		27160000	39,084							
		27160000	24,869							
	Total =			7,55,50,901						
al Invoice Value (Rs.) (In Figure)				7,55,50,901						
al Invoice Value (Rs.) (In Word)			Seven Crores fifty five lakhs fifty thousand nine hundred one only.							
ount of Tax subject to Reverse Charges										

4.5.24
Sr.G.M.(Finance)

Odisha Hydro Power Corporation Ltd. Bhubaneswar



ଓଡ଼ିଶା ओड़िशा ODISHA

L 423402

This stamp paper forms an integral part of this Agreement of Machkund Hydro Electric (Jt.) Scheme executed between GOVERNMENT OF ODISHA, GOVERNMENT OF ANDHRA PRADESH, ODISHA HYDRO POWER CORPORATION LIMITED (OHPC) AND ANDHRA PRADESH POWER GENERATION CORPORATION (APGENCO) to renovate, modernize and up-rate the Machkund Power House at Machkund.

Director (Operation)
Odisha Hydro Power Corporation Ltd.
BHUBANESWAR-22

Additional Secretary to Govt.
Energy Department

Chief Engineer
HPC & Hydel Projects
APGENCO, Vidyut Soudha
VIJAYAWADA - 520 004

Deputy Secretary to Government
Energy Department, A.P. Secretariat,
Velagapudi, Amaravati

Odisha Hydro Power Corporation Ltd. Bhubaneswar

party shall pay *Rs.27.42 Crores* towards value of 20% installed capacity being computed as per the updated/indexed depreciated cost of the project based on the RBI wholesale price index as on **31-03-2016** to the first party. And thereafter the second party shall be entitled to 50% share of the installed capacity from the date of payment of the above amount to the first party towards acquiring additional 20% share of the project from the first party over and above the 30% share it already holds. This agreement shall come into operation from the date of payment of said amount by second party to first party.

4. The first party shall invest 50% of cost of Renovation, Modernization & Up-rating works and shall have full right to the use of 50% of the ultimate power generated at the Machkund Powerhouse for all intent and purposes.

5. The second party shall invest 50 % of cost of Renovation, Modernization & Up-rating works and shall have full right to the use of 50% of the ultimate power generated at the Machkund Power house after complying with the requirements as mentioned in **Clause-3** above for all intent and purposes.

6. The claim of Payment of Royalty charges to second party towards 20% share at the rate of Rs 20/- per kilowatt on 20% of the maximum demand recorded at the power house every year by the first party shall be withdrawn from the date when this modified agreement comes into effect. However other statutory dues applicable if any shall be paid and shared equally by both parties.

7. The Original Agreement dated: 14.01.1945 with modifications shall continue to be applicable together with this agreement upon its execution. The agreement Dated 15.12.1978 shall stand superseded and become unenforceable.

8. All the previous pending issues arose earlier between the parties as on 31-03-2009 were discussed and settled by paying an agreed amount by APGENCO to OHPC under minutes of meeting dtd:09-02-2010 (the said document is enclosed as an Annexure-VI). Thus, both parties acknowledged the said agreement. The issues that arise after dtd:31-03-2009 out of relating to earlier agreements shall be settled as per the terms of those agreements as if those agreements are in force.

9. The first party shall be responsible for all the works of Renovation, Modernization & Up-rating and Operation & Maintenance of Machkund Hydro Electric (Joint) Scheme, which is situated in the territories of Andhra Pradesh and Odisha State. The cost towards establishment charges for monitoring and supervising the Renovation and Modernization works shall be chargeable to Renovation, Modernization & Up-rating expenditure. Each party shall however, be separately responsible for the modification, maintenance and operation of the power evacuation system to evacuate their respective share of power beyond switchyard.

10. Both parties hereby agree that R, M &U works on Machkund Hydro Electric Project by sharing costs and benefits in the proportion of 50:50 ratio shall be proceeded with after execution of this modified Agreement even pending finalization of DRF and SRF amounts. Further, it is agreed to constitute a

Director (Operation)
Odisha Hydro Power Corporation Ltd.
BHUBANESWAR-22

Additional Secretary to Govt.

Deputy Secretary to Government
Energy Department, A.P. Secretariat

Annexure-21

ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍
(ଓଡ଼ିଶା ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)
ODISHA HYDRO POWER CORPORATION LTD.
(A Gold Rated State PSU of Govt. of Odisha)
CIN : U40101OR1995SGC003963

Powering Odisha with Clean & Green Energy

UOI. No: OHPC/HQ/TECH/ SLDC/ BILL-21/ 2024-25 9634 **Dt.** 06.11.2024.

To

The Director / Chief Load Despatcher,
SLDC, OPTCL,
P.O. Mancheswar Railway Colony,
Bhubaneswar-17.

Sub: Average Available Installed Capacity of OHPC Power Stations for the FY 2025-26 for computation & sharing of SoC & MoC by OHPC - Regarding.

Ref: The email dated 25.10.2024 of the Director/Chief Load Despatcher, SLDC.

Sir,

With reference to above captioned subject, the tentative daily average MW availability from OHPC Power Stations during the FY 2025-26 is furnished in the table below for sharing of SLDC Charges (SoC & MoC) by OHPC / GRIDCO.

Tentative daily average MW availability from OHPC Power Stations during the FY 2025-26

Power Station	Generating Units	Installed Capacity (MW)	Nature of Shutdown	Shut Down Period		Days Unavailable	Days Available	Per Day Average MW Availability
				From	To			
BHEP	#1	60	Annual Maintenance	11.03.2026	31.03.2026	21	344	57
	#2	60	Annual Maintenance	24.12.2025	13.01.2026	21	344	57
	#3	60	Annual Maintenance	11.04.2025	01.05.2025	21	344	57
	#4	60	Annual Maintenance	18.02.2026	10.03.2026	21	344	57
	#5	60	R & M	01.04.2025	31.03.2026	365	0	0
	#6	60	R & M	01.04.2025	31.03.2026	365	0	0
	#7	75	Capital Maintenance	01.01.2026	31.03.2026	90	275	57
	#8	75	Capital Maintenance	01.01.2026	31.03.2026	90	275	57
Sub-Total		**510**	**Per Day Average MW Availability of BHEP**					**342**
HHEP	#1	49.5	Annual Maintenance	01.04.2025	30.04.2025	30	335	45
	#2	49.5	Annual Maintenance	01.11.2025	30.11.2025	30	335	45
	#3	32	Annual Maintenance	01.12.2025	31.12.2025	31	334	29
	#4	32	Annual Maintenance	01.01.2026	31.01.2026	31	334	29

ପଞ୍ଜିକୃତ କାର୍ଯ୍ୟାଳୟ :
ଓଏଚ୍‌ପିସି କର୍ପୋରେଟ୍ ଅଫିସ୍, ଭୋଇ ନଗର, ଜନପଥ, ଭୁବନେଶ୍ୱର-୭୫୧୦୨୨
ଫୋନ୍ : ୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬

REGD. OFFICE :
OHPC Corporate Office, Bhoi Nagar, Janpath, Bhubaneswar-751022
Phone : 0674-2542983 / 2542802 / 2545526 / 2542826
E-mail : ohpc.co@gmail.com, Website : www.ohpcltd.com

Odisha Hydro Power Corporation Bhubaneswar

Gmail OHPC Corporate Office <ohpc.co@gmail.com>

Average Available Installed Capacity of OHPC Power Stations for the FY 2025-26 for computation & sharing of SoC & MoC by OHPC- Regarding.

1 message

OHPC Corporate Office <ohpc.co@gmail.com> Thu, Nov 7, 2024 at 12:21 PM
To: sldcgridco <sldcgridco@yahoo.com>, ODISHA ELECTRICITY REGULATORY COMMISSION Oerc <orierc@gmail.com>, dir.sldc@optcl.co.in, cld_sldc@sldcorissa.org.in, cgm.pp@gridco.co.in
Bcc: Susil Kumar Khuntia <khuntia.sk5@gmail.com>, AKSHAYA DAS <dasakshaya26@gmail.com>

Sir,

Please find attached herewith Letter No.9634 dtd.06.11.2024 for your information and necessary action.

--
With regards,
Director (Operation)

OHPC Ltd.
Bhubaneswar

9634.pdf
829K

	#5	43.65	Annual Maintenance	01.02.2026	28.02.2026	28	337	40
	#6	43.65	Annual Maintenance	01.03.2026	31.03.2026	31	334	40
	#7	37.5	Annual Maintenance	01.05.2025	31.05.2025	31	334	34
Sub-Total		**287.80**	**Per Day Average MW Availability of HHEP**					**262**
CHEP	#1	24	Annual Maintenance	02.04.2025	30.04.2025	30	335	22
	#2	24	Capital Maintenance	16.05.2025	30.11.2025	198	167	11
	#3	24	Annual Maintenance	02.12.2025	31.12.2025	30	335	22
Sub-Total		**72**	**Per Day Average MW Availability of CHEP**					**55**
RHEP	#1	50	Annual Maintenance	03.04.2025	02.05.2025	30	335	46
	#2	50	Annual Maintenance	02.03.2026	31.03.2026	30	335	46
	#3	50	Annual Maintenance	30.01.2026	28.02.2026	30	335	46
	#4	50	Annual Maintenance	31.12.2025	29.01.2026	30	335	46
	#5	50	Annual Maintenance	01.12.2025	30.12.2025	30	335	46
Sub-Total		**250**	**Per Day Average MW Availability of RHEP**					**230**
UKHEP	#1	80	Annual Maintenance	01.11.2025	30.11.2025	30	335	73
	#2	80	Capital Maintenance	01.04.2025	30.09.2025	183	182	40
	#3	80	Annual Maintenance	01.12.2025	30.12.2025	30	335	73
	#4	80	Annual Maintenance	01.01.2026	30.01.2026	30	335	73
Sub-Total		**320**	**Per Day Average MW Availability of UKHEP**					**259**
UIHEP	#1	150	Capital Maintenance	01.11.2025	31.01.2026	92	273	112
	#2	150	Capital Maintenance	01.05.2025	31.07.2025	92	273	112
	#3	150	Annual Maintenance	01.02.2026	28.02.2026	28	337	138
	#4	150	Capital Maintenance	01.04.2025	30.04.2025	61	304	125
			Annual Maintenance	01.03.2026	31.03.2026			
Sub-Total		**600**	**Per Day Average MW Availability of UIHEP**					**487**

ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍
(ଓଡ଼ିଶା ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)
ODISHA HYDRO POWER CORPORATION LTD.
(A Gold Rated State PSU of Govt. of Odisha)
CIN : U40101OR1995SGC003963
Powering Odisha with Clean & Green Energy

Gross Total OHPC	**2039.8**	**Per Day Average MW Availability of OHPC**	**1635**

In view of the above the proposed available MW capacity of OHPC power stations may be considered as **1635 MW** during the FY 2025-26 for calculation & sharing of SLDC Charges (SoC & MoC) by OHPC.

Yours faithfully,

Director (Operation) 06/11/2024
OHPC Ltd, BBSR

CC: 1) Secretary, OERC, Bidyut Niyamak Bhawan, Plot No.4, Chunukoli, Sailashree Vihar, Bhubaneswar-21 for kind information.

2) CGM (PP), GRIDCO, Bhubaneswar for information & necessary action.

3) Director (Finance), OHPC Ltd. for information.

ପଞ୍ଜିକୃତ କାର୍ଯ୍ୟାଳୟ :
ଓଏଚ୍‌ପିସି କର୍ପୋରେଟ୍ ଅଫିସ୍, ଭୋଇ ନଗର, ଜନପଥ, ଭୁବନେଶ୍ୱର-୭୫୧୦୨୨
ଫୋନ୍ : ୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬

REGD. OFFICE :
OHPC Corporate Office, Bhoi Nagar, Janpath, Bhubaneswar-751022
Phone : 0674-2542983 / 2542802 / 2545526 / 2542826
E-mail : ohpc.co@gmail.com, Website : www.ohpcltd.com

ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO.-4, CHUNOKOLI, SHAILASHREE VIHAR
BHUBANESWAR - 751 021

****

Present: **Shri Suresh Chandra Mahapatra Chairperson**
Shri G. Mohapatra, Member
Shri S. K. Ray Mohapatra, Member

Case No. 53/2022 & 19/2023

M/s. OHPC ..... Petitioner
- Vrs. -
M/s GRIDCO Limited & others ..... Respondents

In the matter of: Application for approval of True Up of Annual Revenue Requirement and Tariff of Individual Power Stations of OHPC from FY 2016-17 to FY 2020-21 and FY 2021-22 in terms of Section 62 read with Section 86 of the Electricity Act, 2003 & para no. 2.13 of the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2014 and para no. 8(1)(c) of the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 (Case No. 53/2022) & (Case No.19/2023)

For Petitioner: Shri D. Mohanty, CGM (F), Shri D.N.Patra, GM(Elect.), and Shri Chiranjeebi Jena, C.A

For Respondents: Shri L. K. Mishra, DGM(Fin.) R&T & Ms. Murchhana Dhar, DGM(Elect.) on behalf of GRIDCO

ORDER

Date of hearing: 16.05.2023 **Date of order: 08.06.2023**

1. The present petitions have been filed by the Odisha Hydro Power Corporation Limited (OHPC) for approval of truing up of the capital expenditure including additional capital expenditure incurred from FY 2016-17 to FY 2020-21 and FY 2021-22 in terms of Section 62 read with Section 86 of the Electricity Act, 2003 & Para No. 2.13 ofthe OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2014 and Para No. 8(1)(C) of the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 and consequential determination of revenue gap/surplus for the ensuing year for all Hydro Projects of OHPC based on the audited accounts of respective years.

2. The Commission heard these two petitions analogously as the matters in the two petitions are similar in nature.

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3. The Petitioner-OHPC currently owns and operates six (6) Hydro Power Projects (RHEP, BHEP, UKHEP, UIHEP, Burla-HHEP, CHEP) across the State of Odisha. The Petitioner has stated that the Capital cost of power stations is considered as per the Notification No. 1068 dtd. 29.01.2003 of Dept. Of Energy, Govt. of Odisha (DoE, GoO) which is termed as "Historic cost" as on 01.04.1996. Petitioner has considered the capital cost of all Hydro Electric Projects (HEPs) as per the notification mentioned above, thereafter, capitalization of each year as per Audited Accounts has been added to arrive at the GFA for the respective year.

4. The Petitioner has following submission:

(a) The historic cost considered for various projects as on 1st April 1996 as per Government notification is as follows:

Table 1
Historic Cost of OHPC Projects as on 01.04.1996
(Rs. Crs)

Particulars	Historic Cost
RHEP	91.09
UKHEP	108.31
BHEP	115.42
UIHEP*	1194.79
HHEP Burla	72.75
CHEP	92.23

*Approved project cost

(b) The Commission has approved additional capitalization /new investment made only after 01.04.1996. In view of this, the Petitioner has considered additional capitalization based on the addition in GFA as per audited accounts for the respective year for True up.

(c) The differential additional capitalization has it's impact on ARR in the following heads-.

- **Depreciation** –The Commission has been allowing the depreciation @2.57% of the project cost or loan repayment whichever is higher for the respective year.
- **Interest and Finance Charges** -The Petitioner has computed the normative interest and finance charges based on the debt: equity ratio on differential additional capitalization. The interest rate considered for normative loans is 9.80% in the case of CHEP, UKHEP & RHEP, 9.60% in the case of BHEP, and 7% in case of UIHEP. The following table

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provides the details of the percentage debt and equity considered for each power project.

Table 2
Debt Percentage for OHPC Projects

Particulars	Debt %
RHEP	70%
UKHEP	70%
BHEP	70%
UIHEP	75%
HHEP Burla	70%
CHEP	70%

- **Return on Equity-** The Commission has been allowing the return on equity on new capital addition/ new investments made only after 01.04.1996 based on the contents of the Government Notifications. The rate for return on equity is considered basing on the approval of the Commission from time to time. The Commission has approved ROE @ 15.5% in respect of old power stations and @ 16% in respect of new power stations for FY 2016 to FY 2022. The following table provides the details of equity considered for each power project.

Table 3
Equity Percentage for OHPC Projects

Particulars	Equity %
RHEP	30%
UKHEP	30%
BHEP	30%
HHEP	30%
CHEP	30%
UIHEP	25% on original cost & 30% on additional capitalization

Further, the petitioner has stated that "ROE" is claimed on equity applying the above normative equity percentage on differential additional capitalization.

(d) The corporate office capital costs are allocated to each project in the ratio of design energy and the design energy for sale considered for each project is summarized on the following table.

Table 4
Design Energy for sale considered for OHPC Stations

Particulars	Design Energy (MU)	% Share
RHEP	525	9.25%
UKHEP	832	14.66%
BHEP	1183	20.84%

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Particulars	Design Energy (MU)	% Share
UIHEP	1962	34.57%
HHEP Burla	684	12.05%
CHEP	490	8.63%

(e) The absorption of the capital cost of the corporate office from FY 2016-17 to 2020-21 and for FY 2021-22. The year-wise absorption of the capital cost of the corporate office are mentioned below:

The total capital cost of the corporate office for the FY 2016-17 is. Rs 17.62 crore and its apportioned values for different power stations are as follows:

Table 5

Particulars	Design Energy (MU)	% Share	Apportioned value (Rs. Crores)
RHEP	525	9.25%	1.63
UKHEP	832	14.66%	2.58
BHEP	1183	20.84%	3.67
UIHEP	1962	34.57%	6.09
HHEP Burla	684	12.05%	2.12
CHEP	490	8.63%	1.52
Total	**5676**	**100.00%**	**17.62**

The total capital cost of the corporate office for the FY 2017-18 is Rs.17.89crore and its apportioned values for different power stations are as follows:

Table 6

Particulars	Design Energy (MU)	% Share	Apportioned value (Rs. Crores)
RHEP	525	9.25%	1.65
UKHEP	832	14.66%	2.62
BHEP	1183	20.84%	3.73
UIHEP	1962	34.57%	6.18
HHEP Burla	684	12.05%	2.16
CHEP	490	8.63%	1.54
Total	**5676**	**100.00%**	**17.89**

The total capital cost of the corporate office for the FY 2018-19 is Rs.18.33crore and its apportioned values for different power stations are as follows:

Table 7

Particulars	Design Energy (MU)	% Share	Apportioned value (Rs. Crores)
RHEP	525	9.25%	1.70
UKHEP	832	14.66%	2.69
BHEP	1183	20.84%	3.82

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Particulars	Design Energy (MU)	% Share	Apportioned value (Rs. Crores)
UIHEP	1962	34.57%	6.34
HHEP Burla	684	12.05%	2.21
CHEP	490	8.63%	1.58
Total	5676	100.00%	18.33

The total capital cost of the corporate office for the FY 2019-20 is Rs.18.93 crore and its apportioned values for different power stations are as follows:

Table 8

Particulars	Design Energy (MU)	% Share	Apportioned value (Rs. Crores)
RHEP	525	9.25%	1.75
UKHEP	832	14.66%	2.78
BHEP	1183	20.84%	3.95
UIHEP	1962	34.57%	6.54
HHEP Burla	684	12.05%	2.28
CHEP	490	8.63%	1.63
Total	**5676**	**100.00%**	**18.93**

The total capital cost of the corporate office for the FY 2020-21 is Rs.19.46 crore and its apportioned values for different power stations are as follows:

Table 9

Particulars	Design Energy(MU)	% Share	Apportioned value (Rs. Crore)
RHEP	525	9.25%	1.80
UKHEP	832	14.66%	2.85
BHEP	1183	20.84%	4.06
UIHEP	1962	34.57%	6.73
HHEP Burla	684	12.05%	2.34
CHEP	490	8.63%	1.68
Total	**5676**	**100.00%**	**19.46**

The total capital cost of the corporate office for the FY 2021-22 is Rs.19.84 crore and its apportioned values for different power stations are as follows:

Table 10

Particulars	Design Energy(MU)	% Share	Apportioned value (Rs. Crore)
RHEP	525	9.25%	1.84
UKHEP	832	14.66%	2.91
BHEP	1183	20.84%	4.13
UIHEP	1962	34.57%	6.86
HHEP	684	12.05%	2.39
CHEP	490	8.63%	1.71
Total	**5676**	**100.00%**	**19.84**

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(f) The station wise True up from FY 2016-17 to FY 2020-21 and FY 2021-22. The Petitioner has submitted the basis of calculation of True-up as follows:

- Opening capital cost (GFA) of the financial year is taken from the audited accounts of the concerned unit.
- The company has adopted IND AS and accordingly capital costs in audited accounts are adjusted to a value to arrive at the carrying cost of asset in the year of adoption of IND AS. The adjustment has resulted a change in value of closing balance and next year opening balance of GFA, and reflected in audited accounts of the concerned financial year.
- Necessary adjustments made to arrive at the historic cost of the GFA for the concerned financial year.
- Corporate office capital cost/GFA has been apportioned on the basis of design energy provided in earlier paragraph.
- Up valuation effect of individual unit has been deducted from the GFA.

(g) The True up from FY 2016-17 to FY 2020-21 station-wise and year-wise is submitted by the petitioner as stated below.

(i) Total claim for Balimela Hydro Electric Project

Table 11

(Rs in Cr)

FY	Opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @30% on differential cost	ROE @ 16 % on differential cost	Debt @70% on differential cost	Interest @9.60 % on debt	
1	2	3	4 =(2-3)	5	6	7	8	9	10=(5 +7+9)
2016-17	332.99	329.58	3.41	0.09	1.02	0.16	2.39	0.23	0.48
2017-18	337.16	330.63	6.53	0.17	1.96	0.31	4.57	0.44	0.92
2018-19	341.11	330.95	10.16	0.26	3.05	0.49	7.11	0.68	1.43
2019-20	342.27	336.07	6.20	0.16	1.86	0.30	4.34	0.42	0.87
2020-21	344.42	337.23	7.19	0.18	2.16	0.34	5.03	0.48	1.01
Total									**4.72**

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(ii) Total claim for Chipilima Hydro Electric Project

Table 12

(Rs in Cr)

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @30% on differential cost	ROE @ 16 % on differential cost	Debt @70% on differential cost	Interest @9.80 % on debt	
1	2	3	4 =(2-3)	5	6	7	8	9	10 = (5+7+9)
2016-17	104.25	138.89	(34.64)	(0.89)	(10.39)	(1.66)	(24.25)	(2.38)	(4.93)
2017-18	105.89	139.35	(33.46)	(0.86)	(10.04)	(1.61)	(23.42)	(2.30)	(4.76)
2018-19	107.43	139.45	(32.02)	(0.82)	(9.60)	(1.54)	(22.41)	(2.20)	(4.56)
2019-20	107.71	141.15	(33.44)	(0.86)	(10.03)	(1.61)	(23.41)	(2.29)	(4.76)
2020-21	108.97	141.43	(32.46)	(0.83)	(9.74)	(1.56)	(22.72)	(2.23)	(4.62)
Total									(23.62)

(iii) Total claim for Hirakud Hydro Electric Project

Table 13

(Rs in Cr)

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @30% on differential cost	ROE @ 16 % on differential cost	Debt @70% on differential cost	Interest @8.75 % on debt	
1	2	3	4 = (2-3)	5	6	7	8	9	10= (5+7+9)
2016-17	303.15	273.59	29.56	0.76	8.87	1.42	20.69	1.81	3.99
2017-18	324.04	283.33	40.71	1.05	12.21	1.95	28.50	2.49	5.49
2018-19	344.51	286.08	58.43	1.50	17.53	2.80	40.90	3.58	7.88
2019-20	345.70	323.55	22.15	0.57	6.64	1.06	15.50	1.36	2.99
2020-21	348.09	324.75	23.34	0.60	7.00	1.12	16.34	1.43	3.15
Total									23.51

(iv) Total claim for Rengali Hydro Electric Project

Table 14

(Rs in Cr)

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @30% on differential cost	ROE @ 16 % on differential cost	Debt @70% on differential cost	Interest @9.80 % on debt	
1	2	3	4 =(2-3)	5	6	7	8	9	10= (5+7+9)
2016-17	149.30	148.35	0.95	0.02	0.28	0.05	0.66	0.06	0.13
2017-18	150.21	148.50	1.71	0.04	0.51	0.08	1.20	0.12	0.24

Odisha Hydro Power Corporation Ltd. Bhubaneswar

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @30% on differential cost	ROE @ 16 % on differential cost	Debt @70% on differential cost	Interest @9.80 % on debt	
2018-19	151.40	148.82	2.58	0.07	0.78	0.12	1.81	0.18	0.37
2019-20	151.66	150.08	1.58	0.04	0.47	0.08	1.10	0.11	0.22
2020-21	153.72	150.34	3.38	0.09	1.01	0.16	2.37	0.23	0.48
Total									1.45

(v) Total claim for Upper Indravati Hydro Electric Project

Table 15

(Rs in Cr)

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @25% on differential cost	ROE @ 16 % on differential cost	Debt @75% on differential cost	Interest @7.00 % on debt	
1	2	3	4 =(2-3)	5	6	7	8	9	10= (5+7+9)
2016-17	1,409.25	1,197.69	211.56	5.44	52.89	8.46	158.67	11.11	25.01
2017-18	1,447.42	1,198.19	249.23	6.41	62.31	9.97	186.92	13.08	29.46
2018-19	1,450.37	1,196.93	253.44	6.51	63.36	10.14	190.08	13.31	29.96
2019-20	1,451.61	1,231.50	220.11	5.66	55.03	8.80	165.09	11.56	26.02
2020-21	1,464.73	1,232.75	231.98	5.96	58.00	9.28	173.99	12.18	27.42
Total									137.86

(vi) Total claim for Upper Kolab Hydro Electric Project

Table 16

(Rs in Cr)

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up					Total Claim
				Depreciation @2.57% on differential cost	Additional Capital cost (Differential cost)				
					Equity @30% on differential cost	ROE @ 16 % on differential cost	Debt @70% on differential cost	Interest @9.80 % on debt	
1	2	3	4 =(2-3)	5	6	7	8	9	10= (5+7+9)
2016-17	127.33	127.03	0.30	0.01	0.09	0.01	0.21	0.02	0.04
2017-18	129.86	127.13	2.73	0.07	0.82	0.13	1.91	0.19	0.39
2018-19	130.99	127.13	3.86	0.10	1.16	0.19	2.70	0.26	0.55
2019-20	132.12	128.26	3.86	0.10	1.16	0.19	2.70	0.26	0.55
2020-21	137.58	129.37	8.21	0.21	2.46	0.39	5.74	0.56	1.17
Total									**2.70**

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The petitioner has therefore submitted the True-up summary for all stations as shown in the following table.

Table 17

(Rs in Cr)

FY	BHEP	CHEP	HHEP	RHEP	UIHEP	UKHEP	Total
2016-17	0.48	(4.93)	3.99	0.13	25.01	0.04	24.73
2017-18	0.92	(4.76)	5.49	0.24	29.46	0.39	31.74
2018-19	1.43	(4.56)	7.88	0.37	29.96	0.55	35.63
2019-20	0.87	(4.76)	2.99	0.22	26.02	0.55	25.89
2020-21	1.01	(4.62)	3.15	0.48	27.42	1.17	28.61
Total	**4.72**	**(23.62)**	**23.51**	**1.45**	**137.86**	**2.70**	**146.61**

(h) The True up for FY 2021-22 station-wise is submitted below by the petitioner.

Table 18

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up							Total Claim
				2.57% on differential cost	Loan repayment	Depreciation @ 2.57% on differential cost or loan repayment whichever is higher.	Equity @30% on differential cost	ROE @ 15.5%/ 16 % on differential cost	Debt @70% on differential cost	Interest @9.80 % on debt	
1	2	3	4=(2-3)	5	6	7	8	9	10	11	12= 7+9+11
BHEP	404.34	339.38	64.96	1.67	4.55	4.55	19.49	3.02	45.47	4.1472	11.72
CHEP	171.47	142.69	28.78	0.74	2.01	2.01	8.63	1.34	20.15	1.8757	5.23
HHEP	496.37	327.15	169.22	4.35	11.85	11.85	50.77	7.87	118.45	9.8463	29.56
RHEP	159.52	152.40	7.12	0.18	0.50	0.50	2.14	0.33	4.98	0.4639	1.29
UKHEP	138.18	134.97	3.21	0.08	0.22	0.22	0.96	0.15	2.25	0.2094	0.58
UIHEP	1,342.39	1,245.87	96.52	2.48	6.76	6.76	28.96	4.63	67.57	4.4932	15.88
Total											**64.26**

Net addition during the year for power stations of OHPC for FY-2021-22

Table 19

(Rs in Cr.)

Power station	Addition as per audited account	IDC proposed in the corresponding tariff	Deletion proposed in corresponding tariff	PSDF grant	Net addition
1	2	3	4	5	6=2+3-4-5
BHEP	55.59	5.55	3.34	1.17	56.63
CHEP	0.28			0.01	0.27
HHEP	107.38	25.50	2.75	0.43	129.71
RHEP	0.72				0.72
UKHEP	0.35			0.61	(0.26)
UIHEP	32.42			1.16	31.26

5. The Submission of Respondent-GRIDCO are as follows:

(a) The Petitioner in both of its petition has submitted that the True-Up Petition has been filed as per Regulation 2.13 and 8 (1) (c) of the OERC Generation Tariff

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Regulations, 2014 and 2020 respectively. The Regulation 2.12 & 2.13 of the OERC Generation Tariff Regulations, 2014 stipulates as below:

"2.12: The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditures including additional capital expenditure incurred up to 31.03.2019, as admitted by the Commission after prudence check at the time of truing up.

"2.13: The existing generation plants of OHPC & OPGC may file an application each year for truing up of its generating stations of the previous year(s), with respect to the capital expenditure including additional capital expenditure incurred up to last day of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit as specified by the Commission."

The Regulation 8.1 of the OERC Generation Tariff Regulations, 2020 stipulates as below:

"8.1(c) The Commission shall carry out truing up exercise at the end of the Tariff Period along with the tariff petition filed for the next tariff period, with respect to the following:

The existing generation plants of OHPC and OPGC (Unit - I & II) may file an application each year for truing up of its generating stations of the previous year(s), with respect to the capital expenditure including additional capital expenditure incurred up to last day of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit as specified by the Commission.

Provided that the applicant shall submit to the Commission, information in such form as may be prescribed by the Commission, together with the Audited Accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges."

(b) The petitioner has not adhered to the timeline set by the Commission for filing the True-Up Petition for the past period & have come up with the truing up proposal for last 5 years i.e. from FY 2015-16 to FY 2020-21 at the end of 2022 and for FY 2021-22 in the mid of March 2023. In view of this, the True-up Petitions of OHPC may out rightly be rejected.

(c) The Petitioner had filed True-Up Petition for FY 1996-97 to FY 2015-16 for its different Hydro Electric Projects, vide Petition listed as Case No. 55 of 2020. Subsequently, the Commission, vide its Order dated 03.11.2021, disposed of the said Petition. In the said Order, the Commission opined that the Truing up is only allowed for the Capitalization and additional capitalization and not for different components of Tariff as claimed by OHPC in its Petition i.e. Case No. 55 of 2020. Further, in the above Order, the Commission stated that the

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The petitioner has therefore submitted the True-up summary for all stations as shown in the following table.

Table 17

(Rs in Cr)

FY	BHEP	CHEP	HHEP	RHEP	UIHEP	UKHEP	Total
2016-17	0.48	(4.93)	3.99	0.13	25.01	0.04	24.73
2017-18	0.92	(4.76)	5.49	0.24	29.46	0.39	31.74
2018-19	1.43	(4.56)	7.88	0.37	29.96	0.55	35.63
2019-20	0.87	(4.76)	2.99	0.22	26.02	0.55	25.89
2020-21	1.01	(4.62)	3.15	0.48	27.42	1.17	28.61
Total	**4.72**	**(23.62)**	**23.51**	**1.45**	**137.86**	**2.70**	**146.61**

(h) The True up for FY 2021-22 station-wise is submitted below by the petitioner.

Table 18

FY	opening GFA Considered for True Up	Capital Cost Allowed by OERC	Differential cost	Additional claim for True up							Total Claim
				2.57% on differential cost	Loan repayment	Depreciation @ 2.57% on differential cost or loan repayment whichever is higher.	Equity @30% on differential cost	ROE @ 15.5%/ 16 % on differential cost	Debt @70% on differential cost	Interest @9.80 % on debt	
1	2	3	4=(2-3)	5	6	7	8	9	10	11	12= 7+9+11
BHEP	404.34	339.38	64.96	1.67	4.55	4.55	19.49	3.02	45.47	4.1472	11.72
CHEP	171.47	142.69	28.78	0.74	2.01	2.01	8.63	1.34	20.15	1.8757	5.23
HHEP	496.37	327.15	169.22	4.35	11.85	11.85	50.77	7.87	118.45	9.8463	29.56
RHEP	159.52	152.40	7.12	0.18	0.50	0.50	2.14	0.33	4.98	0.4639	1.29
UKHEP	138.18	134.97	3.21	0.08	0.22	0.22	0.96	0.15	2.25	0.2094	0.58
UIHEP	1,342.39	1,245.87	96.52	2.48	6.76	6.76	28.96	4.63	67.57	4.4932	15.88
Total											**64.26**

Net addition during the year for power stations of OHPC for FY-2021-22

Table 19

(Rs in Cr.)

Power station	Addition as per audited account	IDC proposed in the corresponding tariff	Deletion proposed in corresponding tariff	PSDF grant	Net addition
1	2	3	4	5	6=2+3-4-5
BHEP	55.59	5.55	3.34	1.17	56.63
CHEP	0.28			0.01	0.27
HHEP	107.38	25.50	2.75	0.43	129.71
RHEP	0.72				0.72
UKHEP	0.35			0.61	(0.26)
UIHEP	32.42			1.16	31.26

5. The Submission of Respondent-GRIDCO are as follows:

(a) The Petitioner in both of its petition has submitted that the True-Up Petition has been filed as per Regulation 2.13 and 8 (1) (c) of the OERC Generation Tariff

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Regulations, 2014 and 2020 respectively. The Regulation 2.12 & 2.13 of the OERC Generation Tariff Regulations, 2014 stipulates as below:

"2.12: The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditures including additional capital expenditure incurred up to 31.03.2019, as admitted by the Commission after prudence check at the time of truing up.

"2.13: The existing generation plants of OHPC & OPGC may file an application each year for truing up of its generating stations of the previous year(s), with respect to the capital expenditure including additional capital expenditure incurred up to last day of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit as specified by the Commission."

The Regulation 8.1 of the OERC Generation Tariff Regulations, 2020 stipulates as below:

"8.1(c) The Commission shall carry out truing up exercise at the end of the Tariff Period along with the tariff petition filed for the next tariff period, with respect to the following:

The existing generation plants of OHPC and OPGC (Unit - I & II) may file an application each year for truing up of its generating stations of the previous year(s), with respect to the capital expenditure including additional capital expenditure incurred up to last day of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit as specified by the Commission.

Provided that the applicant shall submit to the Commission, information in such form as may be prescribed by the Commission, together with the Audited Accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges."

(b) The petitioner has not adhered to the timeline set by the Commission for filing the True-Up Petition for the past period & have come up with the truing up proposal for last 5 years i.e. from FY 2015-16 to FY 2020-21 at the end of 2022 and for FY 2021-22 in the mid of March 2023. In view of this, the True-up Petitions of OHPC may out rightly be rejected.

(c) The Petitioner had filed True-Up Petition for FY 1996-97 to FY 2015-16 for its different Hydro Electric Projects, vide Petition listed as Case No. 55 of 2020. Subsequently, the Commission, vide its Order dated 03.11.2021, disposed of the said Petition. In the said Order, the Commission opined that the Truing up is only allowed for the Capitalization and additional capitalization and not for different components of Tariff as claimed by OHPC in its Petition i.e. Case No. 55 of 2020. Further, in the above Order, the Commission stated that the

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capitalization and additional capitalization claim of OHPC has already been approved considering the available audited accounts while calculating the ARR for subsequent years and the same practices have been consistently followed by the Commission while approving the ARR for the Petitioner. Therefore, there is no further scope for conducting the truing up of these cost elements to avoid repetition. The relevant extract of the said Order is reproduced below:

> *"90. In view of this the Commission observes that the OHPC is not entitled to any truing up for the period before the notification of the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations 2014 as there was no provision in the CERC Tariff Regulation for truing up under which the Generation Tariff was regulated for the period before 2014. After the notification of OERC Generation Tariff Regulation 2014, truing up is guided as per the provisions of Regulation 2014.* ***Since the truing up is only allowed for the Capitalization and additional capitalization it is further observed that the Commission in the ARR allows the capitalization including additional capitalization as reflected in the available audited accounts. Therefore, there is no further scope for any truing up of these elements****. Since the Regulations 2014 do not have any provision for truing up of other elements of expenses and revenue we are not inclined to carry out any truing up on these elements."*

(d) OHPC not being satisfied with the Order dated 03.11.2021 filed a review application which was listed as Case No. 11 of 2022. The Commission disposed the said Review Petition, vide Order dated 08.08.2022, without any change in views / opinions. Therefore, it has already been established that there is no scope for truing-up of the capitalization and additional capitalization of the past period since the same has already been considered while determining the ARR for the respective Tariff year. In view of the above, the Commission may reject the instant petition filed by the Petitioner.

(e) The True-Up of additional capitalization (Audited) has already been considered while determining ARR in subsequent year. Hence, there is no need for further review of additional capitalization for the FY 2016-17 to FY 2020-21.

(f) The Commission has already considered the additional capital cost in the ARR of subsequent years. Further, OHPC has not substantiated any justification for claiming additional capital expenditure including approved capital investment plan for additional capital expenditure with details of Cost benefit analysis, date of expenditure incurred, prior period charge, details of expenditure incurred post cut-off date of Commercial Operation Date (COD), comparison of cost as per

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Detailed Project Report (DPR) & actual cost incurred reflecting any cost overrun.

(g) The consumer of the State cannot be burdened and no additional cost be allowed in the greater interest of the consumers of the State.

(h) The Petitioner has claimed head office / corporate office capital cost under the total Gross Fixed Asset (GFA) of various stations apportioned on the basis of their respective design energy. The Commission in the ARR and Tariff Orders for the Tariff period from FY 2016-17 to FY 2021-22 has allowed and approved the apportionment of Corporate Office expenses to different units of OHPC based on design energy under the head "O&M expenses". The Petitioner in both the petitions has claimed additional capital cost incurred for corporate office and has apportioned the same under various stations of OHPC. Further, the objector has stated that the Petitioner has claimed the capital cost of the corporate office again in the True-Up Petition.

(i) The Commission has been allowing corporate office expenses under O&M head in the ARR Orders of respective years. Therefore, no other expense under the capital cost of the corporate office which is recurring in nature may be allowed in the absence of any prior approval from the Commission in order to avoid dual approval.

(j) The Petitioner has claimed depreciation on the calculated differential capital cost by applying 2.57% uniformly across all the OHPC stations. It may be noted that the Commission has been adopting the methodology of calculating depreciation at pre-1992 norms notified by Government of India on the book value of the assets at the rate of 2.57% or the required principal repayment whichever is higher up to FY 2020-21 & from FY 2021-22 onwards the Commission is allowing depreciation calculated @ 2.57% equivalent to loan repayment approach. Therefore, change in approach as suggested by the Petitioner may end up in recalculating the entire depreciation amount for each of the OHPC stations for each year. Since, the Commission has already determined the AFC considering actual capitalization during the corresponding year, such recalculation of depreciation is not required and hence may be rejected.

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(k) The Petitioner has not considered the non-tariff income for deduction from the ARR determined by the Commission. The details of the non-tariff income by various stations of OHPC as mentioned in their respective annual audited accounts have been summarized and amounts to Rs.652.75 Crs. from FY 2016-17 to FY 2020-21. The objector submitted that the Commission may consider that the power generation in India is a regulated business. The Petitioner cannot be allowed to earn additional profit outside the purview of the Regulations. Regulation 19 of the OERC Generation Tariff Regulations, 2020 mentions that Non-Tariff Income shall be deducted from the Annual Fixed Cost for the determination of Cost reflective tariff and moreover to ensure tariff becomes competitive. The Petitioner has earned excessive profits apart from the Return on Equity as allowed by the Commission due to non-consideration of non-tariff / other income in the ARR, without being factored by the Commission.

(l) The Commission to consider the non-tariff income of Rs.652.75 Crs earned during FY 2016-17 to FY 2020-21 as available with the Petitioner for adjustment in the ARR for future period.

(m) The instant Petition may be rejected as the same violates the Tariff Regulation and the issues already have been covered in the ARR for the respective year in the greater interest of justice and interest of the Consumers of the State as well.

6. The Petitioner- OHPC, in its rejoinder has submitted the following:

(a) Prior to issue of the Odisha Electricity Regulatory Commission (Terms and Conditions for determination of Generation Tariff) regulations, 2014, no guidelines or direction for filing up of truing up petition was issued by the Commission in its tariff order. Hence OHPC had not filed the petition earlier. However, some of the objectors had raised the issue for truing up.

The Regulation 2.12 & 2.13 of the OERC Generation Tariff Regulations, 2014 stipulates as below:

"2.12 The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditures including additional capital expenditure incurred up to 31.03.2019, as admitted by the Commission after prudence check at the time of truing up."

Based on provision for truing up in Odisha Electricity Regulatory Commission (Terms and Conditions for determination of Generation Tariff) regulations, 2014

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OHPC filed truing up petition from FY 1996-97 to FY 2015-16 before OERC on 15.09.2020. It took longer period for finalization of the petition due to difficulty in capturing data regarding project cost from FY1996-97 to FY 2003-04 as approved by OERC since for the said period the tariff applications were being filed by GRIDCO jointly for OHPC & GRIDCO.

The petition for truing up for subsequent years was dependent on closing gross fixed asset of individual power stations as on 31.03.2016 and outcome of the final order on truing up petition from FY 1996-97 to FY 2015-16. Therefore, preparation of the application for truing up from FY 2016-17 onwards took some more time.

(b) As per Regulation 2.13 of the OERC Generation tariff Regulation, 2014 & Regulation 8.1 of the OERC Generation Tariff Regulation, 2020, the truing up of project cost of different power stations of OHPC shall be done comparing the approved project cost of a particular year with respect to the capital cost as per audited account of that year only but not of two years back. So, the capital cost as per the audited account of a particular year will be always higher than the approved capital cost of that year since the additional capitalization during the two subsequent years are further added.

(c) As per provisions of Regulation 3.4(d) OERC Generation Tariff Regulation, 2014 & Regulation 12(3) of the OERC Generation Tariff Regulation, 2020 OHPC has submitted the details of additional capitalization required along with all relevant documents in its ARR application in every financial year on the basis of prior approval of the Commission for RM&U & capital maintenance work with justification. The Commission after due scrutiny approves the additional capitalization of that year.

(d) OHPC has claimed additional capitalization of different power stations as per Regulation 3.4(d) of OERC Generation Tariff Regulations, 2014 which is reproduced as follows:

"The capital expenditure incurred or projected to be incurred, on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

(d) Any additional works/services, which have become necessary for efficient and successful operation of a generating station but not included in the original capital cost"

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OHPC has claimed additional capitalization of different power stations as per Regulation 12(3) of OERC Generation Tariff Regulations, 2020 which is reproduced as follows:

"In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission."

(e) OHPC has not considered any disallowance made by the Commission in the ARR order.

(f) The review of capital cost is the basic theme behind truing up of ARR. The project cost for a particular year is approved by the Commission based on the audited account of two years back only & without considering the estimated additional capitalization for the said year & previous year. Hence, the approved project cost for that particular year needs to be revised considering the capital cost of the audited account for that particular year.

(g) If Commission had approved the estimated capital addition (CWIP) along with the additional capitalization as per the audited account then the impact of truing up would have been less.

(h) The truing up as claimed is as per the actuals and in line with true spirit of the provision at Regulation 2.13 of the OERC Generation Tariff Regulations, 2014 and Regulation 8.1 of the OERC Generation Tariff Regulations, 2020.

(i) The Commission in the ARR and tariff orders for the tariff period from FY 2016-17 to FY 2021-22 has allowed and approved apportionment of corporate office expenses to different units of OHPC based on design energy under the head 'O&M expenses". The petitioner in both the petitions has claimed additional capital cost incurred for corporate office and apportioned the same under various stations of OHPC.

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(j) OHPC in the ARR proposal of each financial year claimed the tariff for all power stations. But there is no tariff proposal for corporate office. However, in each financial year capital expenditures are incurred for corporate office and account for different heads like building, vehicles, office equipment, training center equipment, electrical installations etc. Since there is no separate tariff for corporate office of OHPC, the capital expenditures are apportioned on the basis of design energy of all power stations and accordingly the total additional capitalization of individual power stations are finalized by OERC for each Financial year on the basis of audited account of two years back. OHPC submitted documentary evidence of the additional capitalization of corporate office in the ARR application each year. Based on this OHPC submission, OERC approves the additional capitalization of a Financial Year. Besides this the revenue expenditures like salary, pension, consumables, housekeeping, repair & maintenance etc. are booked under O&M expense. Since there is no tariff of corporate office, all revenue expenditures are apportioned among different power stations in proportion to their design energy and added with the O&M expense of individual power stations and the Commission approves the same. Hence GRIDCO's confusion of comparing O&M expense with capital cost for corporate office is baseless which may not be considered by the Commission.

(k) The contention of GRIDCO i.e. "the petitioner cannot be allowed to earn additional profit outside the purview of the Regulation" is not correct. Nowhere in the OERC Generation Tariff Regulation, OHPC as a power generating corporation is debarred from earning other income. OHPC is making profit due to efficiency in management of different activities including fund management. Other income constitutes mostly interest on bank deposits against different funds like depreciation fund, ROE fund etc. Further the petitioner has stated that Regulation 4.3 of OERC Generation Tariff Regulations, 2014 does not provide any deduction of non-tariff income from the approved tariff. The Commission for this reason has not deducted non-tariff income for the block period FY 2015-16 to FY 2020-21. However, OERC Generation Tariff Regulation, 2020 at Regulation 19(1) provides for deduction of non-tariff income from approved ARR only on three items. As per Regulation 41 & 26(1) of OERC Generation Tariff Regulation, 2020 Truing up is carried out only on capitalization &

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additional capitalization. Hence the non-tariff income is not a part of truing up exercise.

7. The Commission heard the petitioner and respondents in detail in hybrid mode (physical & virtual mode). The petitioner has filed this petition for approval of True up of its Annual Revenue Requirement and Tariff of individual power stations from the financial year 2016-17 to 2021-22 in terms of Section 62 read with Section 86 of the Electricity Act, 2003 and para 2.13 of the OERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2014 and Para No. 8(1)(c) of the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020.

8. The Commission in a similar petition earlier has also dealt with this issue of True up of Annual Revenue Requirement and Tariff of individual power stations of OHPC from the financial year 1996-97 to 2015-16 in Case No. 55/2020 dated 03.11.2021. The observation of the Commission pertaining to filing of true up application under OERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2014 in that order is reproduced below:

> *"89. As per regulation 2.12, the OHPC was required to file its tariff petition along with the true up petition with respect to the capital expenditure including additional capital expenditure incurred up to 31.03.2019 as admitted by the Commission. The OHPC further as per regulation 2.13 may file an application each year for truing up of its generating station of the previous year(s), with respect to the capital expenditure including additional capital expenditure incurred up to the last day of the previous year(s) and determination of revenue gap/surplus for the ensuing year.* ***The OHPC has not complied with the provisions of these regulations****. Nevertheless these regulations only provide for the truing up of the item of capital expenditure including additional capital expenditure."*

9. The same principle of timing of filing of true up application is also followed in OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. As per Regulation 8 (1) (c) of the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020, OHPC may file an application each year for truing up expenses of its hydro generating stations of the previous year(s) with respect to capital expenditure including additional capital expenditure incurred upto last day of the previous year(s) and revenue gap /surplus for the ensuing year within the time limit as specified by the Commission. The present petition has been filed for truing up expenses for the period from FY 2016-17 to 2021-22 after filing of the tariff application for the respective year and issue of order in that respect which is contrary to the

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provision of the Generation Tariff Regulations, 2014 and also the Generation Tariff Regulation, 2020. No specific reasons have been cited by the Petitioner to condone the delay except stating that the details of closing gross fixed assets for respective years for different power stations were not available with them in time. This is not a valid ground as the closing fixed assets can be very well-known basing on their own audited accounts. The audited account is the basis of truing up exercise. The Commission has been approving capital addition including additional capitalization in each year's tariff order. In the subsequent year's tariff order, the Commission has been accepting capital addition which has been actually made out of previous year's approval and as reflected in the audited accounts. Therefore, there is no question of variation between the audited accounts and that of capital assets accepted by the Commission for determination of tariff. Moreover depreciation, return on equity and interest on loan component are also allowed on the additional capitalization so accepted by the Commission.

10. Basing on the above discussion we are not inclined to accept the truing up application in its present form. However, we draw the attention to a general provision in OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 with regard to truing up which is reproduced below:

"8.(1) *The Commission shall carry out truing up exercise at the end of the Tariff Period along with the tariff petition filed for the next tariff period, with respect to the following:*

(a) *the capital expenditure including additional capital expenditure incurred up to 31.03.2024, as admitted by the Commission after prudence check at the time of truing up.*

(b) *the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law."*

The above Regulation relates to approval of any additional capital expenditure which has not been specifically allowed in each year's tariff order. Accordingly, the Petitioner has the liberty to approach the Commission under the above Regulation once the control period of the present Tariff Regulations expires on 31.03.2024.

11. Both the applications are disposed of accordingly.

Sd/-	Sd/-	Sd/-
(S. K. Ray Mohapatra)	**(G. Mohapatra)**	**(S. C. Mahapatra)**
MEMBER	**MEMBER**	**CHAIRPERSON**

Hydro Power Corporation Ltd. Bhubaneswar

ODISHA ELECTRICITY REGULATORY COMMISSION

BIDYUT NIYAMAK BHAWAN
PLOT NO.-4, CHUNOKOLI, SHAILASHREE VIHAR
BHUBANESWAR - 751 021

****

Present: **Shri Suresh Chandra Mahapatra, Chairperson**
Shri G. Mohapatra, Member
Shri S. K. Ray Mohapatra, Member

Case No. 52/2023

OHPC Ltd. ..... Petitioner

Vrs.

GRIDCO Ltd. & Others ..... Respondents

In the matter of: **Application under Section 94(1)(f) of the Electricity Act, 2003 read with Regulation 70 of the OERC (Conduct of Business) Regulations, 2004 and Order 47 R-1 of the Code of Civil Procedure, 1908 for review of Order dated 23.03.2023 of the Commission passed in Case No.74 of 2022.**

For Petitioner: Shri A. K. Das, AGM (Elect.) & Shri D. N. Patra, GM(Elect.) of M/s. OHPC Ltd.

For Respondents: Shri L.K. Mishra, DGM(F), R&T, GRIDCO Ltd., Shri B. K. Das, Sr.GM (PP), GRIDCO Ltd.

None appears on behalf of DoE, GoO, Shri R. P. Mahapatra, Shri R. C. Satpathy and Shri Soumya Ranjan Patnaik, MLA, Khandapara.

ORDER

Date of Hearing: 11.07.2023 **Date of order: 16.08.2023**

This petition has been filed by Odisha Hydro Power Corporation Ltd (OHPC) under Section 94(1)(f) of the electricity Act, 2003 read with Regulation 70 of the OERC (Conduct of Business) Regulations, 2004 for review of the Order dated 23.03.2023 passed by the Commission in Case No. 74 of 2022 in the matter of approval of Annual Revenue Requirement (ARR) and Generation Tariff of OHPC Power Stations for the FY 2023-24 under Section 62 & 86 of the Electricity Act, 2003 read with related provisions of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations,

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2020 and OERC (Conduct of Business) Regulations, 2004 and provisions of approved PPAs between OHPC & GRIDCO.

2. The petitioner has prayed for review of the following –

a) To allow Estimated Capital Addition of Rs.186.372 Cr for the FY 2022-23 & FY 2023-24 as proposed in the Original Tariff Application of OHPC for the FY 2023-24.

b) To allow interest During Construction amounting to Rs.37.427 Cr for the proposed RM&U projects of Unit-5 & 6 of HHEP, Burla and Unit-1&2 of BHEP, Balimela.

c) To allow depreciation as proposed in the Original Tariff Application of OHPC for the FY 2023-24 in order to repay the principal amount of all normative loans, which would enable OHPC to recover 90% of the additional capitalization within useful life of the Project.

d) To allow Rs.3.33 Cr as income tax reimbursement from GRIDCO as proposed in the Original Tariff Application of OHPC for the FY 2023-24 and considering the deduction of excess reimbursement of Rs.18.56 Cr as pointed out by OHPC in its additional submission.

e) To approve ARR amounting to Rs.568.127 Crs of OHPC Power Stations at an average tariff @101.40 Paise/Unit as claimed in the original tariff application for FY 2023-24 considering the above grounds of review including error in computation of RoE.

f) To approve ACC, AEC & ECR of different Power Stations of OHPC as shown in the Table-23 of the original tariff application for FY 2023-24.

3. The present review application is file on the ground of error apparent on the face of record on following matters.

a) Non- approval of Estimated Capital Addition for the FY2022-23 & FY2023-24.

b) Non-approval of Interest During Construction (IDC) for proposed capitalization of R&M works.

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the Regulation 10(5) of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. In the ARR & Tariff application for FY2023-24, OHPC had claimed IDC in two parts, i.e. from zero date to Scheduled date of Commercial operation (SCOD) & from Scheduled date of Commercial operation to Commercial Operation Date (COD).OERC could have at least approved IDC from zero date to SCOD. Further OHPC has stated that even if, IDC on normative basis is not reflected in the Audited account of OHPC, which is prepared as per the commercial accounting system in line with the Company's Act, the Commission may allow IDC after prudence check of the computation sheets separately attached in the original Tariff application for the FY2023-24.

c) OHPC has stated that till the finalization of gross fixed assets, OERC may consider to approve depreciation @ 2.57% of the project cost or loan repayment, whichever is higher as per the original submission of OHPC for ARR of FY 2023-24.

d) The petitioner has filed the present petition for review of order on Annual Revenue Requirement and Generation Tariff of OHPC Power Stations for the FY 2023-24 under Sections 62 & 86 of the Electricity Act, 2003 read with related provisions of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations 2020, OERC (Conduct of Business) Regulations, 2004, and Provisions of approved PPAs between OHPC & GRIDCO.

13. The order 47 Rule 1 of the Code of Civil Procedure, 1908 allows review of an order on following grounds:

a) Error apparent on the face of the record;

b) New and important matter or evidence which is relevant for the purpose though discovered could not be produced after exercise of due diligence or if there appears some mistake;

c) Any other sufficient reason.

14. The Hon'ble Supreme Court in Parsion Devi &Others Vrs. Sumitri Devi & Other [(1997) 8 SCC 715] observed as under:

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"9. Under Order 47 Rule 1 of CPC, a judgment may be open to review inter alia if there is a mistake or an error apparent on the face of the record. An error which is not self-evident and has to be detected by a process of reasoning, can hardly be said to be an error apparent on the face of the record justifying the Court to exercise its power of review under Order 47 Rule 1 CPC. In exercise of the jurisdiction under Order 47 Rule 1 of CPC, it is not permissible for an erroneous decision to be "reheard and corrected". A review petition, it must be remembered, has limited purpose and cannot be allowed to be "an appeal in disguise."

15. Keeping in view the limited scope of interference in Review jurisdiction as per the authoritative pronouncements indicated above, the Commission has examined/analyzed the issues raised by the Petitioner point wise and observations are presented as under:

a) **Non-approval of estimated capital addition for the FY 2022-23 & FY 2023-24 proposal of OHPC:**OHPC in this petition has proposed for inclusion of the estimated additional capitalization of Rs 186.72 Crs in the project cost in FY 2022-23 and FY 2023-24 taken together. In this matter, we refer to Regulation 9 (3) of the OERC (Determination of Generation Tariff) Regulations, 2020 which mandates as follows:

"9 (3) *The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff. Provided further that prudence check may include scrutiny of the reasonableness of the capital expenditure in the light of capital cost of similar projects based on past historical data, wherever available, reasonableness of financing plan, interest during construction, incidental expenditure during construction, use of efficient technology, cost over-run and time over-run, procurement of equipment and 21 materials through competitive bidding and such other matters as may be considered appropriate by the Commission for determination of tariff;"*

One of the major ingredients of prudence check is verification of audited account of the generating company. It is a common regulatory practice to rely upon audited accounts for verification of authenticity of claim of expenditure. The Commission has been following the above practice for all the utilities of the State without exception let alone OHPC. When the tariff application for respective year

Odisha Hydro Power Corporation Ltd. Bhubaneswar

was filed with the Commission, the audited accounts accompanying the application did not have any indication of the expenditure now claimed by the Petitioner. Therefore, the above claim could not be considered by the Commission. The claim raised now cannot also be considered within the limited scope of review petition as stated in the forgoing paragraph. When the audited accounts referring to the above expenditure on additional capitalization for FY 2022-23 & FY 2023-24 will be filed with the Commission it will be considered appropriately.

b) **Non-approval of Interest during Construction (IDC) for proposed capitalization of RM&U works:** OHPC in this petition has claimed Interest During Construction (IDC) of Rs 37.427 Crs. which was not allowed to them earlier. As stated in the earlier paragraph any expenditure can be allowed after its prudence check and IDC is one among them. The audited accounts submitted with us during the tariff proceeding for FY 2023-24 had not dealt with this matter. Therefore, the Commission could not take into consideration the above expenditure for tariff determination. Raising the matter without even submitting Auditors Report now in this regard is a fruitless exercise for the reasons we have discussed earlier. The Petitioner has also not proved to our satisfaction how the matter can be considered within a limited scope of review petition. It is not out of place to mention here that the capitalization has taken place from the own fund of the Petitioner. The IDC on own fund which is to be treated as normative loan has also not been dealt in our Regulation. Therefore, the claim of the Petitioner to consider the IDC component in a review petition has no force and cannot be accepted by us.

c) **Less approval of Depreciation**: OHPC in this petition has proposed to allow depreciation @ 2.57% or loan repayment whichever is higher amounting to Rs.90.45 Crs instead of Rs.67.14 Crs allowed in the ARR for FY 2023-24. The Commission had calculated depreciation @ 2.57% on asset reflected in the audited accounts or loan repayment whichever is higher in absence of information on station-wise and year-wise asset addition. While doing so the Commission had kept in mind the under mentioned Regulatory provisions. Regulation 23 of the



OERC (Terms & Condition for Determination of Generation Tariff) Regulations, 2020 dealing with depreciation provides that

"Provided that for existing plants of OHPC as per the directions of the High Court of Orissa, depreciation will be calculated at pre-1992 norms notified by Government of India on the book value of the assets."

The said Regulation further provides that "*Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-A to these regulations for the assets of the generating station.*"

Therefore, unless the station-wise and year-wise asset addition information is available with the Commission through audited accounts it is not possible to consider the claim of OHPC in this regard. This has been reasonably discussed in the tariff order. As a result, this issue does not fall under review provision discussed earlier.

d) **Less approval of Tax reimbursement:** OHPC in this petition has proposed for income tax reimbursement of Rs.3.33 Crs. instead of Rs.2.02 Crs. allowed in the ARR for FY 2023-24. Since the detailed claim of reimbursement of income tax was not available with the Commission during the tariff proceeding this could not be reflected in the tariff order in its entirety. OHPC may submit details of reimbursement in the next tariff proceeding which can be considered then. Hence, the prayer for review of this matter is not acceptable.

e) **Error in the computation of ROE in the approved ARR for FY 2023-24:**OHPC in this petition has proposed for calculation of RoE by deducting decapitalization from historic cost rather than on new additional capitalization of assets. The Commission analyzed and observes that the ROE is to be allowed on the equity infused by the company. Further, while calculating ROE, asset reduction/decapitalized historical assets and assets created through Govt. grant are to be excluded from the total capitalized amount. The ROE calculation for FY 2023-24 has been made basing on above principle considering data/information provided by OHPC. For any additional claim with respect to ROE, OHPC is required to submit a detailed calculation of ROE for FY 2023-24 excluding decapitalized historical assets and grant assets (created through Govt. grant) from

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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the total GFA (Gross Fixed Asset). Accordingly, review on this matter is not attracted.

16. From the above observations it is found that the Petitioner has raised five issues in the tariff order for FY 2023-24 in Case No.74 of 2022 for review. They are as follows:

a) Non-approval of additional capitalization for the FY 2022-23 & FY 2023-24.
b) Non-approval of IDC for proposed R&M works.
c) Less approval of depreciation.
d) less approval of income tax reimbursement.
e) Incorrect approval of RoE.

Our order on ARR and Generation Tariff on application of OHPC is a speaking order. The above issues were discussed in that order on thread bare basis. The Commission had also given its findings on those issues. No new fact or development has been brought before us during this review proceeding. It is just reiteration of their earlier claims which were heard by the Commission and appropriate order was issued. Therefore, none of them qualifies to be reviewed within the ambit of review jurisdiction of the Commission.

However, the review petitioner is at liberty to submit relevant information lack of which resulted in filing the present review petition along with its forthcoming ARR and Generation Tariff application for the FY 2024-25 for consideration of the Commission.

17. The review petition is accordingly disposed of.

Sd/-	**Sd/-**	**Sd/-**
(S. K. Ray Mohapatra)	**(G. Mohapatra)**	**(S. C. Mahapatra)**
MEMBER	**MEMBER**	**CHAIRPERSON**

PROJECTED TARIFF OF CSPDCL FOR FY 2025-26	
	2025-26
Installed capacity of HHEP,Burla for the year (MW)	287.80
Design Energy for the year (MU)	684.00
Auxiliary Consumption (1%)	6.84
Saleble Design Energy for the year (MU)	677.16
Financial Asumptions(As per CERC Tariff Regulation 2024)	
Rate of depreciation	5.28%
Return on Equity (pre-Tax)	22.0494%
Interest on Working Capital as per MCLR as on 01.04.24	11.90%
Revalued Capital cost of power project as on 01.04.1996(Crore)	130.16
Decapitalisation considered upto 31.03.2024(Cr.)	25.69
Additional Capitalisation proposed in truing up from 01.04.96 to 31.03.2024 (Crores)	452.14
Estimated Additional Capitalisation of HHEP for FY2024-25 & FY2025-26	4.61
Net project cost (Crores)	561.23
Capital Structure	
Debt (70%)	392.86
Equity (30%)	168.37
Tariff calculation	
1. Return on Equity for 2025-26: (in Crore)	37.12
2. O&M Expenditure of HHEP, Burla for FY 2024-25(Approved by Commission for FY 2024-25 for HHEP)	54.32
3. O&M Expenditure of HHEP, Burla for FY 2025-26(Escalated @5.47% on approved O&M expense for FY 2025-26)	57.29
4. O&M Expense of HHEP, Burla for FY 2025-26 Tariff	57.29
5. Interest on loan convertible bond of HHEP, Burla	1.75
6. Interest on Normative loan of HHEP, Burla	10.07
7. Interest on Loan for Tariff of 2025-26(in Crore)	11.82
8. Depreciation @5.28% of Project Cost	29.63
9. Loan Repayment for the year(in crore)	5.56
10. Depreciation for Tariff for FY 2025-26 (in Crore)	29.63
11.Working Capital	
i) O&M expencess (1 Month)	4.77
ii) Receivables (45 Days)	17.20
iii) Maintenance Spares (15% of O&M Expenditure)	8.59
iv) Total Working Capital	30.57
12 . Interest on Working Capital @ 11.90% for 2025-26	3.64
15. Total Annual Fixed Cost	139.50
AverageTariff (p/u)	206.012
Total amount to be billed for 16.644MU	3.429

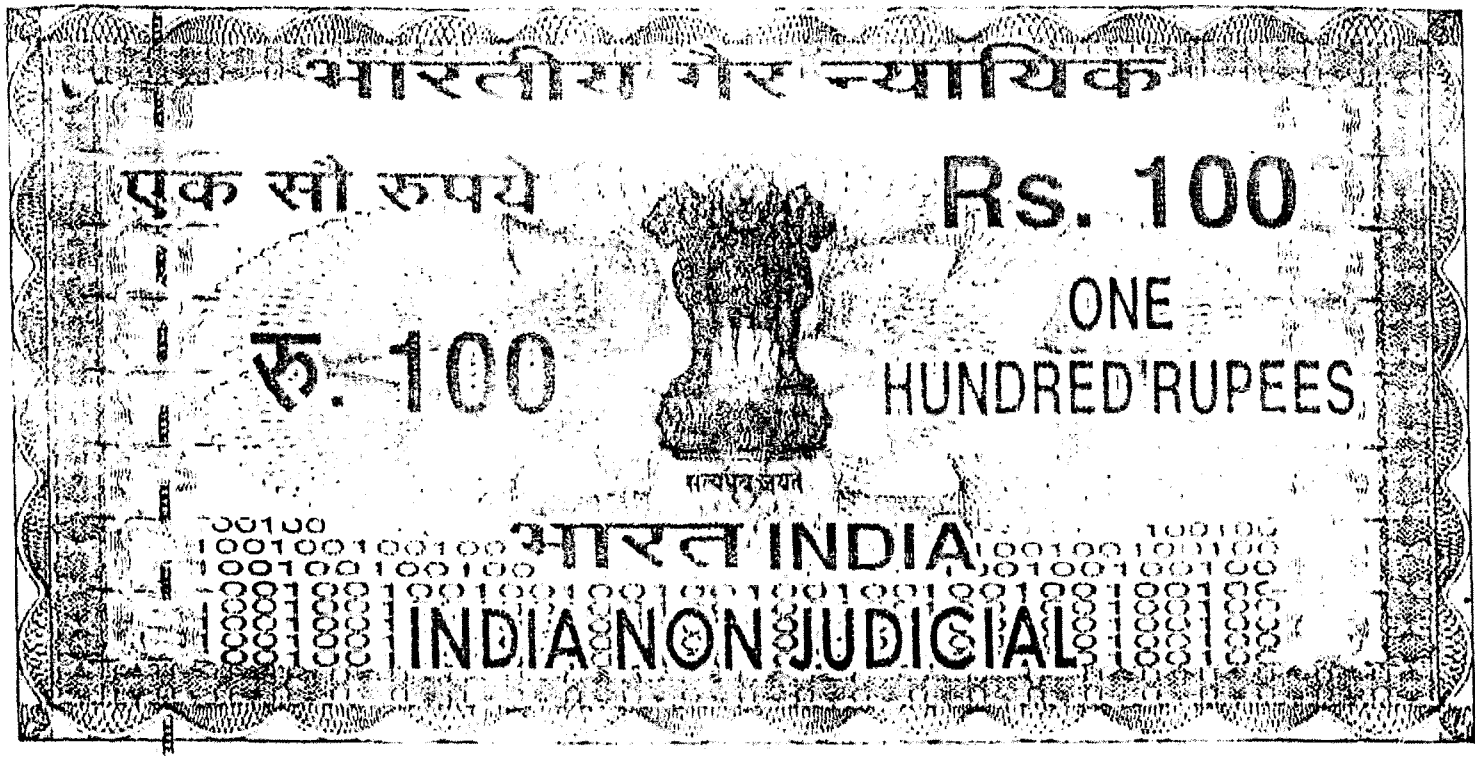
Odisha Hydro Power Corporation Ltd. Bhubaneswar

Interest on Loan for Convertible Bond of HHEP for FY 2025-26

Particular	*FY 2015-16 (Rs. in Crs.)*	*FY 2016-17 (Rs. in Crs.)*	*FY 2017-18 (Rs. in Crs.)*	*FY 2018-19 (Rs. in Crs.)*	*FY 2019-20 (Rs. in Crs.)*	*FY 2020-21 (Rs. in Crs.)*	*FY 2021-22 (Rs. in Crs.)*	*FY 2022-23 (Rs. in Crs.)*	*FY 2023-24 (Rs. in Crs.)*	*FY 2024-25 (Rs. in Crs.)*	*FY 2025-26 (Rs. in Crs.)*
Amount considered as Loan for Convertible Bond	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33
Project cost cosidered for capitalization	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33
Year of Capitalisation	2015-16	2015-16	2015-16	2015-16	2015-16	2015-16	2015-16	2015-16	2015-16	2015-16	2015-16
Repayment Period (in years)	15	15	15	15	15	15	15	15	15	15	15
Less: Equity 0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Principal of Govt Loan on covertible bond	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33	83.33
Opening Balance of Loan Capital as on 1st April of each year	83.33	77.77	72.22	66.66	61.11	55.55	50.00	44.44	38.89	33.33	27.78
Less: Principal Claim for the year	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555	5.555
Closing Principal balance	77.77	72.22	66.66	61.11	55.55	50.00	44.44	38.89	33.33	27.78	22.22
Average Principal for the yaer	80.55	75.00	69.44	63.89	58.33	52.78	47.22	41.67	36.11	30.55	25.00
Interest Charged @ 7% for the Financial Year	5.639	5.250	4.861	4.472	4.083	3.694	3.305	2.917	2.528	2.139	1.750
Govt loan on Convertible Bond Interest for FY 2025-26 of HHEP	**1.750**										
Govt loan on Convertible Bond Principal for FY 2025-26 of HHEP	**5.555**										

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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This stamp paper forms an integral part of this Agreement of Machkund Hydro Electric (Jt.) Scheme executed between GOVERNMENT OF ODISHA, GOVERNMENT OF ANDHRA PRADESH, ODISHA HYDRO POWER CORPORATION LIMITED (OHPC) AND ANDHRA PRADESH POWER GENERATION CORPORATION (APGENCO) to renovate, modernize and up-rate the Machkund Power House at Machkund.

Director (Operation)
Odisha Hydro Power Corporation Ltd.
BHUBANESWAR-22

Additional Secretary to Govt.
Energy Department

Chief Engineer
HPC & Hydel Projects
APGENCO, Vijayawada
VIJAYAWADA - 521 001

Deputy Secretary to Government
Energy Department, A.P. Secretariat,
Velagapudi, Amaravati

Odisha Hydro Power Corporation Ltd. Bhubaneswar

ANNEXURE-III

Milestones for Completion of 2x30MW Balimela Dam Toe Power House

1	ZERO DATE	Date of signing of Tripartite Agreement
2	PLUS Three Months	Tender for preparation of DPR & Issuance of Work Order.
3	PLUS Six Months	Submission of DPR by the consultant for acceptance by APGENCO & OHPC.
4	PLUS Six Months	Submission of DPR for clearance of CEA & CWC.
5	PLUS Six Months	• Clearance to be obtained from MOEF and other statutory authorities. • Power evacuation proposal to be finalized with OPTCL & APTRANSCO. • Preparation of Tender Document for EPC contract.
6	PLUS Six Months	Tendering & Tender to be finalized for EPC contract. PPA with GRIDCO and APDISCOM.
7	PLUS Three Months	Construction of project including transmission line, Commissioning of the project.
8	Total **Fifty Seven Months** (4 Years & 9 Months) From Zero Date To Commissioning	

ANNEXURE- IV

Schedule of Activities for Renovation & Modernization of Unit-1 to 6 of MHEP, MACHKUND

1	Zero Date	Date of signing of agreement
2	Plus Three Months	Tender for preparation of DPR & Issuance of Work Order.
3	Plus Six Months	Submission of DPR by the consultant for acceptance by APGENCO & OHPC.
4	Plus Six Months	Submission of DPR for clearance of CEA& CWC, if required.
5	Plus Three Months	Preparation of Tender Document for EPC Contract.
6	Plus Six Months	Tendering & Tender to be finalized for EPC contract.
7	Plus Thirty Months	Erection of renovated machines and other allied mechanical & electrical works and commissioning.
8	**Total Four Years Six Months from zero date to Commissioning**	

Director (Operation)
Odisha Hydro Power Corporation Ltd.
BHUBANESWAR-22

Deputy Secretary to Government
Energy Department, A.P. Secretariat
Velagapudi, Amaravati

Annexure- 26

ANDHRA PRADESH POWER GENERATION CORPORATION LIMITED

From
The Chief Engineer,
(HPC&Hydel Projects)
APGENCO,Vidyut Soudha,
Gunadala,Vijayawada,
Andhra Pradesh-520 004.

To
The Director (Operation),OHPC,
O.S.P.H & W.C.B.Vanivihar Chowk,
Janapath, Bhubaneswar,
Odisha-751022.

Lr.No.CE(P)/ SAO (Accts)/Budget Section/ MHE (J)/D.No.309 /2024, Dt:28.08.2024

Sub: **APGENCO – M.H.E. (J) Scheme – Final Bill towards OHPC share of O&M Expenditure for the FY 2023-24 payable by OHPC/ GRIDCO Ltd., Bhubaneswar – Furnished - Regarding.**

* * *

The Final Bill of Rs.31,79,94,091.00 (Rupees Thirty One Crores Seventy Nine Lakh Ninety Four Thousand and Ninety One only) towards 50% OHPC Share of O&M Expenditure for the FY 2023-24 payable to APGENCO is herewith enclosed for arranging payment to APGENCO CC A/c as detailed below.

APGENCO	- CASH CREDIT ACCOUNT NO. - 62351741685
BANK DETAILS	- STATE BANK OF INDIA, COMMERCIAL BRANCH
IFSC : SBIN0016576	RAMAVARAPPADU BR VIJAYAWADA

AKD
AGM(EV)

Encl: Bill 1 Nos

Yours faithfully

Chief Engineer
(HPC & Hydel Projects)

Copy to:

1. The Director (Commercial), GRIDCO, Jana path, PO-Bhoi nagar, Bhubaneswar-751022.
2. The Senior General Manager, Upper Kolab Hydro Electricity Project, Bariniput, Koraput(Dist), Odisha-764006.
3. The Chief General Manager(R&A), APGENCO,
4. The Chief Engineer /O&M/LSHES/Mothugudem
5. The Superintending Engineer, Hydel-II (HPC&Hydel Projects),APGENCO
6. The Superintending Engineer, O&M, Machkund, Onukudelli, Orissa

Hydro Power Corporation Ltd. Bhubaneswar

FINAL BILL OF O&M SHARE (50%) PAYABLE BY O.H.P.C To APGENCO IN RESPECT OF MACHKUND HYDRO ELECTRIC (JOINT) SCHEME PROJECT FOR THE FY 2023-24

Sl.No.	ACCOUNT GROUP.	ACCOUNT DESCRIPTION	DEBIT Rs.	CREDIT Rs.	NET AMOUNT Rs.
1	450	Employees Cost	77,04,41,175.57	-18,98,08,163.31	58,06,33,012.26
2	460	Repairs & Maintenance	3,99,22,352.88	-1,55,22,487.81	2,43,99,865.07
3	470	ADM. & Genl. Expenses	3,16,80,720.13	-1,37,02,491.27	1,79,78,228.86
4	301	Other Income	68,85,106.42	-1,12,32,590.00	-43,47,483.58
5	400	Consumables	1,79,18,963.61	-5,94,404.71	1,73,24,558.90
5		O&M Expenses allocable in between OHPC & APGENCO (Col. 1+2+3+4)			63,59,88,181.51
6		50% Share of O.H.P.C (Col. 5 X 0.5)			31,79,94,090.76
7		Net O&M Share payable by O.H.P.C (Col.6-7)			31,79,94,091
(Rupees Thirty One Crore Seventy Nine Lakh Ninety Four Thousand and Ninety One Only)					

Chief Engineer,
(HPC & Hydel Projects) 28/8/24

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Annexure -27

Actual Generation (in MU) of OHPC for last 10 Financial Year

Financial Year	HHEP, Burla	CHEP, Chiplima	BHEP, Balimela	RHEP, Rengali	UKHEP, Bariniput	UIHEP, Mukhiguda	MHEP, Machkund (Jt.)	Total
Design Energy (in MU)	**684**	**490**	**1183**	**525**	**832**	**1962**	**262.5**	**5938.50**
2014-15	582.40	278.56	1267.43	735.80	718.27	2657.15	284.99	**6524.59**
2015-16	457.10	216.76	599.83	606.17	727.82	1654.16	280.25	**4542.09**
2016-17	535.89	200.57	998.53	553.51	620.01	1522.91	342.84	**4774.24**
2017-18	614.30	219.24	1476.29	762.57	676.38	1742.52	239.73	**5731.03**
2018-19	380.09	158.51	1677.63	745.97	923.88	2142.60	273.71	**6302.39**
2019-20	528.78	233.88	1508.47	666.25	827.96	2232.21	306.55	**6304.10**
2020-21	628.17	328.42	1625.54	1007.16	789.31	1757.57	298.97	**6435.14**
2021-22	708.88	268.23	1026.33	865.28	451.22	1156.64	315.24	**4791.81**
2022-23	904.80	326.07	1006.01	759.13	544.46	1380.37	254.23	**5175.06**
2023-24	866.62	300.09	1034.80	778.52	581.36	1726.08	386.13	**5673.60**
Average Gen.	**620.70**	**253.03**	**1222.09**	**748.04**	**686.07**	**1797.22**	**298.26**	**5625.41**

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Status report on Unit No-I&II Capital Maintenance

Unit No-I was handed over to M/s Voith Hydro Private Ltd., Noida on 23.12.2023(zero Date) to carry out the Capital Maintenance work. The status of the work as follows.

1. **Dismantling of Generator:** Work completed.
2. **Dismantling of Turbine:** Work completed.
3. **D&D System:** Replacement of dewatering system completed. Turbine Top Cover Drainage system will be installed during assembly work of Turbine. Final test is pending.
4. **Main Cooling Water System:** Work completed. Final testing is pending.
5. **Cooling Water System for TGB & Shaft Seal:** Work completed. Final test is pending.
6. **Hydraulic Pressure Unit(HPU):** The replacement of HPU completed except interfacing with Guide-vane & Runner servomotor pipe line. The interfacing work will be done during assembly work of Turbine. Final test is pending.
7. **Lubricating Oil Supply System:** Work completed except installation of oil cooler & interfacing with existing pipelines. Balance work will be carried out during assembly work of Generator. Final test is pending.
8. **Brake system:** Work completed. Final test is pending.
9. **Refurbishment of Turbine Components at Vadodara:** While machining of Inner Guide Ring to fit the new water lubricated TGB and Maintenance Seal, it is seen that material condition is deteriorated a lot due to prolong use and making holes to fit the new TGB housing is not possible due to insufficient strength in the material. In this condition, M/s VHN proposed for a new design Inner Guide Ring as per the present requirement. OHPC agreed to the proposal of M/s VHN. Now the manufacturing of new Inner Guide Ring is under process. Expected date for reaching of refurbished component at site is last week of October-2024.
10. **Protection, CCB, UCB, UAB, DCDB, I/O, Digital Governor Panels etc.:** The installation of panel & termination of cable are completed. Final test is pending.
11. **Automation system:** The work will be started after completion of assembly work of Turbine & Generator.
12. **Upgradation of Fire-fighting system:** Work completed. Final test is pending.
13. **Assembly of Turbine:** The work can be started after arrival of refurbished components from Vadodara. Expected date for start of assembly work of Turbine is first week of November-2024.
14. **Assembly of Generator:** The work can be started after assembly of Turbine. Expected date for start of assembly work of Generator is third week of November-2024.
15. **Pre-commissioning Test(Dry Condition):** Expected date for start of pre commissioning test is first week of December-2024.
16. **Commissioning Test:** Expected date for start of commissioning test is second week of December-2024.
17. **Project Completion/ Hand over of Unit to OHPC:** The schedule date for handing over of Unit to OHPC was 11.07.2024. Expected date of handing over of Unit to OHPC is 15.12.2024.

NB: The Capital Maintenance work of Unit No-2 will be taken up after completion of Unit No-1.

23/10

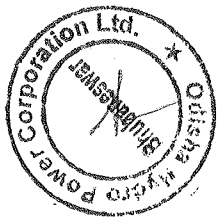
Unit Head,
CHEP, Chiplima

23/10/2024

Divisional Head
Maintenance Division
CHEP Chiplima

Status report of "Repair and Renovation of Power Channel from Burla Power House to Chiplima Power House"

- Hon'ble OERC vide their order against 78/2021 dtd.13.06.2022 has approved the work, "Repair and renovation of Power Channel from HHEP, Burla to CHEP, Chiplima" amounting to Rs.153.55 Crores.
- As per the approval of BoD in its 163rd meeting held on 25.06.2021, work order no.4035(WE) dtd.30.06.2021 and 4072 dtd.01.07.2021 were placed on M/s NBCC for the work "Repair & Renovation of power Channel from RD 0.00 ft. to 16,000.00 ft." and "Repair & Renovation of Power Channel from RD 30,000.00ft. to 83,480.00 ft." respectively on deposit work basis.
- The final DPR amounting to Rs.169.48 Crores has been submitted by M/s NBCC on 18.10.2023 through email on 11:38 AM which has been vetted by DoWR and intimated vide their office letter no.15634(WE) dtd.06.05.2024.
- OHPC BoD in its 175th meeting held on dt.20.01.2024 had directed to take up the works through DoWR or OCC Ltd.
- As per the suggestion of the EIC, WR, DoWR vide his letter no.20745 dtd.02.07.2024, M/s OCC Ltd. has been requested to take up the works on deposit work basis.
- M/s OCC Ltd. has inspected the site on 24.09.2024 & 18.10.2024 and will submit their views/ suggestion on DPR and terms & condition for taking up the work.
- As discussed in the meeting held on 08.10.2024, M/s OCCL has been requested vide letter no.8921(WE) dtd.08.10.2024, to submit their views and suggestions on the DPR with the detailed methodology, financial implication and terms & conditions for taking up the work.
- OHPC BoD in its 180th meeting held on 21.10.2024 has in principle approved to carry out the work through M/s OCC Ltd. on deposit work basis.
- The Execution of work will be commencing very shortly, in co-ordination with DoWR, M/s OCC Ltd. and local authorities.



STATUS OF NEW PROJECTS

UPPER INDRAVATI PUMPED STORAGE PROJECT

- At present Upper Indravati Hydro Electric Project of 600 MW capacity is in operation. The existing HEP is capable of producing average annual energy output of 1,962 MU.
- OHPC has planned to construct a Pumped Storage Project adjacent to Upper Indrāvati Hydro Electric Project. The proposed Upper Indravati Pumped Storage Project (PSP) will utilise the existing Indravati reservoir as upper reservoir and a lower reservoir will be constructed, which will store water for pumping it to upper reservoir in a closed cycle operation.
- The proposed PSP will have an underground powerhouse located near the lower reservoir, equipped with four vertical-axis reversible-type Francis hydroelectric units having capacity of 150 MW each.
- All the 13 pre-DPR (Detailed Project Report) clearances have been obtained.
- Final DPR of Upper Indravati PSP has been prepared by M/s WAPCOS. Techno-Economic Clearance has been accorded by CEA, New Delhi on 19.08.2024.
- Upper Indravati PSP has been recommended by Single Window Committee (SWC) for in-principle approval by State Level Single Window Clearance Authority (SLSWCA) on 30.09.2024.

PROJECT DETAILS

- Capacity : 600MW (4 x 150 MW)
- Project Cost : Rs.3394 Crore (July-2024 Price Level)
- Annual Energy Generation : 1040 MU
- Annual Pumping Energy Requirement : 1283 MU
- Total Land required : 146 ha. (Forest: 108 Ha, Govt.:18 Ha, Pvt.: 20 Ha)

PRE-DPR CLEARANCES

Sl. No.	Aspects	Clearance obtained from Directorate/Divisions.	Remarks
1	Hydrological Studies	CWC, New Delhi	Approved in April 2019
2	Power Potential Studies	Hydro Project Appraisal Division, CEA, New Delhi.	Approved on 07.08.2020
3	Foundation Engineering and seismic aspects	FE & SA Directorate, CWC, New Delhi.	Approved on 10.05.2019.
4	General Layout of project.	Concerned Design Dte., CWC	Approved on 13.12.2018.
5	Geological aspects	Geological Survey of India	Approved on 24.06.2024
6	Construction Materials aspects	Central Soil and Material Research Station	Approved on 06.10.2023.
7	Inter-state matters	ISM Directorate, CWC	Approved on 13.09.2022
8	Transmission System Chapter	PSPA, CEA	Approved on 07.11.2023
9	Embankment design	Embankment Dte. CWC	Approved on 06.05.2024.
10	Gates/HM Design	Gates Design Dte., CWC	Approved on 03.12.2023.
11	Instrumentation	Instrumentation Dte., CWC	Approved on 20.10.2023.
12	Hydel Civil Design	HCD Dte., CWC	Approved on 16.07.2024
13	E &M Design	HE & TD Div, CEA	Approved on 24.11.2023.

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STATUS OF WORK IN PROGRESS OF UIPSP

ENVIRONMENTAL CLEARANCE

- ToR received from MoEF&CC on 14.12.2023.
- For Environmental Clearance, baseline (three season) study is under progress. Pre-monsoon and Monsoon season data collection has been completed at UIPSP site by WAPCOS.
- Public hearing will be conducted after preparation of draft Environmental Impact Assessment / Environmental Management Plan (EIA/EMP) Study Report.

FOREST CLEARANCE

- Consultant engaged on 25.08.2023 for land demarcation, DGPS map preparation, land schedule preparation and to obtain forest clearance of UIPSP.
- Land schedule preparation, DGPS survey (total: 1053 pts), pillar posting for land demarcation, Tree Enumeration for forest land and non-forest land (total trees: 8238) has been completed.
- Compensatory afforestation (CA) land of 112.5 Ha allocated by Collector, Kalahandi on 01.10.2024.
- Application for Forest clearance stage-I clearance submitted on PARIVESH portal of MoEF&CC on 15.10.2024 and was accepted by Project Screening Committee (PSC) on 23.10.2024.

LAND ACQUISITION

- For Acquiring Govt. & Private Land Liaisoning with Collector, District Magistrate and other district officials of Kalahandi district is under process.

INPRINCIPLE APPROVAL FROM GRIDCO

- GRIDCO on 24.11.2023 accorded in-principle approval for providing pumping power and purchase of Power from UIPSP.

MoU:

- MoU signed with CEA on 22.03.2024 for providing Design review Consultancy services on Electro-Mechanical works.
- Signing of MoU with CWC for providing Design review Consultancy services on Civil & Hydro-Mechanical works is under progress.

PROJECT MANAGEMENT CONSULTANT

- Process to engage Project Management Consultant is under progress.

EPC CONTRACT PACKAGES:

- OHPC has decided to execute the project in EPC mode with Two packages and process for tender preparation is under progress:
  - **Package I:** Civil and Hydro Mechanical works.
  - **Package II:** Electro-Mechanical works.

ACTION PLAN AND WAY AHEAD OF UPPER INDRAVATI PSP

Sl. No.	Action	Date
1	Single Window Clearance from State Government	Nov - 24
2	MoU with CWC for Design & Engg.	Nov - 24
3	Engagement of Project Management Consultant	Dec - 24
4	Environmental clearance & Forest clearance	Feb - 25
5	Financial Closure	May - 25
6	Award of Project Works (Contract Packages)	June - 25
7	Commissioning	FY 2030-31

KHARAG HYDRO ELECTRIC PROJECT (63 MW)

- GEDCOL has prepared 4 (Four) nos. of Pre-Feasibility reports for development of Kharag I, II, IIA & III Small Hydro Electric Projects of each 24 MW capacity.
- Subsequently during the meeting held on 21.08.2017 under the chairmanship of Hon'ble Minister (Steel, Mines & Energy) in presence of Principal secretary, DoWR Commission-Cum-Secretary, Department of Energy, CMD, OHPC, it was decided that instead of four Individual projects, the benefits of integrated projects may be ascertained through WAPCOS by OHPC and thereafter the steps may be taken for preparation of DPR. Accordingly, work Order for Preparation of DPR for development of Kharag Hydro Electric Project on Kharag River in Kandhamal District was placed in favour of M/S. WAPCOS Limited on 24.02.2018.
- Final DPR prepared by M/s WAPCOS was submitted to IIT, Roorkee on 11.10.2023 for scrutiny.
- State Level Single Window Clearance Authority (SLSWCA) accorded approval on 06/03/2024.
- WAPCOS submitted revised final DPR on 28.03.2024 incorporating observations of IIT, Roorkee.

PROJECT DETAILS

- Capacity : 63 MW (3 x21 MW)
- Project Cost : Rs. 806.16Crore (2023 Price Level)
- Levelized Tariff : ₹ 5.40/KWh.
- Annual Energy Generation : 229.61 MU
- Total Land required : 255 ha. (Forest: 199 Ha, Govt.: 43 Ha, Pvt.: 13 Ha)

STATUS OF WORK IN PROGRESS OF KHARAG HEP

ENVIRONMENTAL CLEARANCE:

- ToR received from MoEF&CC on 12.09.2023. Environmental Impact Assessment study is under progress.
- For Environmental Clearance, baseline (three season) study is under progress. Pre-monsoon and Monsoon season data collection has been completed at Kharag HEP site by WAPCOS.
- Public hearing will be conducted after preparation of draft Environmental Impact Assessment / Environmental Management Plan (EIA/EMP) Study Report.

FOREST CLEARANCE

- Land schedule have been prepared. DGPS survey completed for all the 2081 points. Pillars posting for demarcation of surveyed land and Tree enumeration are under progress.
- Identification of CA Land has been completed. Process of CA land allocation is under progress.
- Forest clearance application will be submitted on PARIVESH portal of MoEF&CC after allocation of CA land.

LAND ACQUISITION OF GOVT & PVT LAND

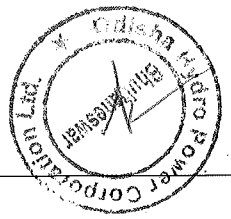
- For Acquiring Govt. & Private Land Liaisoning with Collector & District Magistrate of Kandhamala district and other officials of district is under process.

MoU:

- MoU signed with CEA on 22.03.2024 for providing Design review Consultancy services on Electro-Mechanical works.
- Signing of MoU with CWC for providing Design review Consultancy services on Civil & Hydro-Mechanical works is under progress.

PROJECT MANAGEMENT CONSULTANT

- Preparation of tender documents for engagement of PMC is under progress.



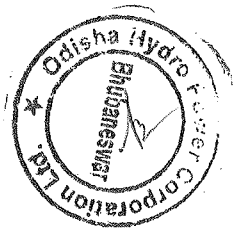
EPC CONTRACT PACKAGES:

OHPC has decided to execute the project in EPC mode with Two packages and formulation of contract packages will be done after engagement of PMC.

- **Package I:** Civil and Hydro Mechanical works.
- **Package II:** Electro-Mechanical works.

ACTION PLAN AND WAY AHEAD OF KHARAG HEP

Sl. No.	Action	Date
1	MoU with CWC for Design & Engg.	Nov-24
2	Engagement of PMC	Jan-25
3	Environmental clearance, Forest clearance and land acquisition.	March-25
4	Financial Closure	June-25
5	Award of Project Works (Contract Packages)	June-25
6	Start of Construction of work	FY 25-26
7	Commissioning	FY 29-30



UPPER KOLAB PUMPED STORAGE PROJECT

- At present Upper Kolab Hydro Electric Project of 320 MW capacity is in operation. The existing HEP is capable of producing average annual energy output of 832 MU.
- Preparation of Detailed Project Report (DPR) to construct a Pumped Storage Project adjacent to Upper Kolab Hydro Electric Project is under progress. The proposed Upper Kolab Pumped Storage Hydroelectric Power Project (PSP) will utilise the existing Kolab reservoir as upper reservoir and a new lower reservoir will be constructed, which will be used to store water for pumping it to upper reservoir in a closed cycle operation.
- The proposed PSP will have an underground powerhouse located near the lower reservoir, equipped with four vertical-axis reversible-type Francis hydroelectric units having capacity of 150 MW each.

PROJECT DETAILS

- Capacity : 600MW (4 x 150 MW)
- Annual Energy Generation : 1308.52 MU
- Project Cost : Rs. 2300.00 Crore (June - 2024 Price Level)

STATUS OF PROJECT

- Topographical Survey, Surface Geological Mapping has been completed.
- Installed capacity has been enhanced from 320MW to 600MW in first consultation meeting with CEA.
- For preparation of DPR alternate layout study has been completed.
- Forest clearance to carry out Geotechnical Investigation (stage-I) received on 03.11.2023.
- Power Potential Study report for the capacity enhancement to 600 MW is submitted to HPA, CEA on 27.05.2024.
- Revised hydrology report for 600 MW UKPSP submitted to Hydrology Dte., CWC on 26.06.2024.
- Alternate Layout Studies of Upper Kolab PSP submitted to CEA and CWC on 16.07.02024
- Geotechnical Investigation (Drilling of Boreholes) commenced at site from 08.05.2024.
- Till date drilling of 933.0 m out of 1095 m i.e. 05 nos. boreholes out of 15 have been completed.

ENVIRONMENTAL IMPACT ASSESSMENT / ENVIRONMENTAL MANAGEMENT PLAN

- ToR received vide letter dated 28.02.2020.
- M/s OHPC on 20.03.2024 has requested for extension of validity of ToR.
- Data Collection for Three season study is in progress by M/s WAPCOS Ltd for Environmental Impact Assessment / Environmental Management Plan (EIA/EMP) Study Report.

STATUS OF PRE-DPR CLEARANCES

Sl. No	Aspects	Clearance obtained from Directorate/Divisions.	Remarks
1	Hydrological Studies	CWC, New Delhi	Revised hydrology report for 600 MW UKPSP submitted to Directorate, Hydrology (South), CWC on 26.06.2024.
2	General Layout of the project.	HCD Dte., CWC	The revised alternate Layout plan for 600MW UKPSP submitted on 16.07.2024.

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		HE &TD Div, CEA	The revised Layout plan for 600MW installed capacity will be submitted within Nov-2024.
3	Power Potential Studies	Hydro Project Appraisal Division, CEA, New Delhi.	As suggested by HPA, CEA in the First consultation Meeting, Power Potential Study report for the capacity enhancement to 600 MW is submitted to HPA, CEA on 27.05.2024.
4	Foundation Engineering and seismic aspects	FE & SA Directorate, CWC, New Delhi.	Not yet prepared
5	Geological aspects	Geological Survey of India	Not yet prepared
6	Construction Materials aspects	Central Soil and Material Research Station	After finalization of 600 MW layout, further revision will be done.
7	Inter-state matters	ISM Directorate, CWC	After finalization of water usage for 600MW installed capacity revised report will be submitted.
8	Transmission System chapter	PSPA, CEA	Not yet prepared
9	Dam/Barrage design	CMDD/BCD/Embankment Dte. CWC	Not yet prepared
10	Gates/HM Design	Gates Design Dte., CWC	Not yet prepared
11	Instrumentation	Instrumentation Dte., CWC	Not yet prepared
12	Hydel Civil Design	HCD Dte., CWC	Not yet prepared
13	E &M Design	HE & TD Div, CEA	Not yet prepared

ACTION PLAN AND WAY AHEAD OF UKPSP

Sl. No.	Action	Date
1	Layout finalization with CWC, CEA	Nov-24
2	Drilling for Geotechnical Investigation	Dec-24
3	Pre-DPR clearance from CEA & CWC	Mar-25
4	Uploading of DPR on CEA Website	Apr-25
5	Obtaining TEC from CEA	June-25
6	Approval from State Govt.	July-25
7	Environmental clearance &Forest clearance	Dec-25
8	Engagement of PMC & Financial Closure	Dec-25
9	Start of Project Work	FY 26-27
10	Commissioning	FY 31-32

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BALIMELA PUMPED STORAGE PROJECT

- At present Balimela Hydro Electric Project of 510 MW capacity is in operation. The existing HEP is capable of producing average annual energy output of 1183 MU.
- Preparation of Detailed Project Report (DPR) to construct a Pumped Storage Project adjacent to Balimela Hydro Electric Project is under progress. The proposed Balimela Pumped Storage Hydroelectric Power Project (PSP) will utilise the existing Balimela reservoir as upper reservoir and a new lower reservoir will be constructed, which will used to store water for pumping it to upper reservoir in a closed cycle operation.
- The proposed PSP will have an underground powerhouse located near the lower reservoir, equipped with two vertical-axis reversible-type Francis hydroelectric units having capacity of 250 MW each.

PROJECT DETAILS

- Capacity : 500 (2 x 250 MW)
- Project Cost : Rs.2413 Crore (2019 Price Level)
- Annual Energy Generation : 1095 MU
- Annual Pumping Energy Required : 1303.57 MU
- Total Land required : 249 Ha (Forest Area-234 ha & Non-Forest Area: 15 ha)

STATUS OF PROJECT

- WAPCOS submitted the Inception Report and Revised PFR on 11.06.2019 basing on Installed capacity of 500 MW (2x250 MW).
- The conceptual layout has been approved by Water Resource Department, Govt. of Odisha on 18.03.2021.
- Hydrology aspect approved by CWC on 12.04.2023.
- Topographical Survey Completed on 26.03.2019.

GEOTECHNICAL INVESTIGATION

- Forest clearance received on 27.10.2023 for Geotechnical Investigation (drilling of borehole)
- Drilling of boreholes commenced from 20.12.2023.
- Till date completed drilling for 11 nos. out of 21 nos. 778.65 mtr till date. (total-1930 m)

INTERSTATE ISSUE

- For interstate issue, observation from Govt. of Andhra Pradesh received on 31.08.2023.
- OHPC vide letter on 22.12.2023 requested to DoWR, GoO for further Compliance to Govt. of AP.

ENVIRONMENTAL IMPACT ASSESSMENT / ENVIRONMENTAL MANAGEMENT PLAN

- ToR received vide letter dated 21.05.2020.
- M/s OHPC on 20.03.2024 has requested for extension of validity of ToR.
- Data Collection for Three season study is in progress by M/s WAPCOS Ltd for Environmental Impact Assessment / Environmental Management Plan (EIA/EMP) Study Report.

STATUS OF PRE-DPR CLEARANCES

Sl. No	Aspects	Clearance obtained from Directorate/Divisions.	Remarks
1	Hydrological Studies	CWC, New Delhi	Approved on 12.04.2023
2	Power Potential Studies	Hydro Project Appraisal Division, CEA, New Delhi.	Comments received on 25.09.2023. Compliance submitted on 22.08.24 & 10.09.24

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3	Foundation Engineering and seismic aspects	FE & SA Directorate, CWC, New Delhi.	Comments received on 10.05.19.
4	General Layout of the project.	Concerned Design Dte.(S),CWC	Alternate Layout Report submitted on 25.01.2024
5	Geological aspects	Geological Survey of India	Geotechnical Investigation under Progress
6	Construction Materials aspects	Central Soil and Material Research Station	Testing will be carried out as per the comments received from CSMRS on 08.01.2020
7	Inter-state matters	ISM Directorate, CWC	Pending
8	Transmission System chapter	PSPA, CEA	Not yet prepared
9	Dam/Barrage/Embankment design	CMDD/BCD/Embankment Dte. CWC	Not yet prepared
10	Gates/HM Design	Gates Design Dte., CWC	Not yet prepared
11	Instrumentation	Instrumentation Dte., CWC	Chapter submitted on 04.05.2024 and comments of Director Instrumentation received on 30.05.2024. Compliances will be submitted by Sept-2024.
12	Hydel Civil Design	HCD Dte., CWC	Not yet prepared
13	E &M Design	HE & TD Div, CEA	Not yet prepared

ACTION PLAN AND WAY AHEAD OF UKPSP

Sl. No.	Action	Date
1	Layout finalization with CWC, CEA	Nov-24
2	Drilling for Geotechnical Investigation	Dec-24
3	Pre-DPR clearance from CEA & CWC	Mar-25
4	Uploading of DPR on CEA Website	Apr-25
5	Obtaining TEC from CEA	July-25
6	Environmental clearance &Forest clearance	Dec-25
7	Approval from State Govt.	Oct-25
8	Engagement of PMC & Financial Closure	Dec-25
9	Start of Project Work	FY 26-27
10	Commissioning	FY 31-32

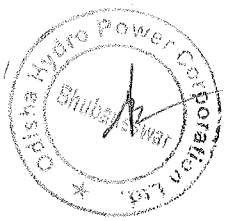
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SELF IDENTIFIED PUMPED STORAGE PROJECTS

- Additionally, OHPC has identified the following Pumped Storage Projects having total installed capacity of 10440 MW
- Work Order placed with M/s Aarvee Associates Architects Engineering & Consultants Pvt. Ltd. on 14.03.2024 for preparation of Pre-Feasibility Report of Kholidihi PSP, Khunta PSP, Ambapani PSP, Prahadipanga PSP & Tumudibandha PSP. (Sl. No. 1-5 in table below)
- Work Order placed with M/s Aarvee Associates Architects Engineering & Consultants Pvt. Ltd. on 22.10.2024 for preparation of Pre-Feasibility Report of Madhapur PSP, Kamalakheta PSP, Lakaisuni PSP & Panabari PSP. (Sl. No. 6-9 in table below)

Sl. No.	Name of PSP	District	Capacity (in MW)	Status
1	Prahadipanga	Kandhamala	2300	❖ Site Visit Completed. ❖ Preparation of Inception Report completed. ❖ Alternate Layout report prepared. ❖ Draft PFR has been prepared.
2	Tumudibandha	Kandhamala	3000	
3	Ambapani	Kalahandi	1000	
4	Kholidihi	Deogarh	640	
5	Khunta	Mayurbhanj	1000	
6	Madhapur	Boudh	1000	❖ PFR study under progress.
7	Kamalakheta	Ganjam	250	
8	Lakaisuni	Ganjam	1000	
9	Panabari	Nayagarh	250	
Total:			10440	

- Accordingly, Detailed Project Report (DPR) will be prepared for feasible Projects.



Annexure- 30

Status of Floating Solar Project

300 MW Floating Solar Project in Rengali reservoir:

- MOU signed with NHPC on 20.07.2020 to form a Joint Venture Company [JV between GEDCOL (26%) and NHPC (74%)] for development of 500MW Floating Solar Projects in different reservoirs of Odisha.
- NHPC invited tender on 23.10.2021 for implementation of 300 MW Floating Solar Project on behalf of JV Company.
- M/s Tata Power Solar Systems Ltd. emerged as L1 bidder.
- The levelized tariff discovered through open tender in August, 2021 was Rs.3.56/Unit which could not be taken forward due to non-acceptance of tariff by GRIDCO.
- Retender was done on 05.04.2023. The levelized tariff based on the cost quoted by BHEL increased to Rs.4.67/Unit.
- MD, GRIDCO informed in the meeting held on 16.03.2024 under the Chairmanship of Principal Secretary, Energy Department that the levelized tariff rate is high in comparison to the solar power purchase by GRIDCO from different sources.
- The tender was cancelled by NHPC Ltd. on 03.05.2024.
- Fresh tender to be floated by NHPC Ltd. through TBCB mode based on the meeting under the Chairmanship of Hon'ble Deputy Chief Minister, which is under process.

500 MW and 160 MW Floating Solar Project in Hirakud reservoir and Indravati reservoir respectively:

- GEDCOL had prepared DPR for development of 500 MW and 160 MW Floating Solar Project in Hirakud reservoir and Indravati reservoir respectively.
- GEDCOL submitted the DPR to 4th SWC for in-principle approval in favour of GEDCOL for implementation of the project.
- As per decision in 4th SWC, the proposal will be revised & re-submitted.

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Major Forced Outages of machines of OHPC from FY 2019-20 to October'2024

Sl. No.	Name of the Power Hose	Unit No.	Period of Forced Outage	Reasons	Remedial Measures Taken
1	HHEP, Burla	I	15.03.2018 to 24.02.2021	Heavy water leakage near generator shaft and turbine coupling. Reason: Failure of Shaft seal.	Shaft seal replaced with new one during capital maintenance. Till date no leakage observed.
		IV	11.12.2018 to 19.08.2019	Oil leakage through punctured oil pipe line of intake gate Reason: Ageing.	Pipeline replaced with new one. Piston seal servo cylinder replaced. No oil leakage found thereafter.
		VI	24.08.2023 to 13.09.2023	Water & oil mixing at UGB. Reason: Puncture in the tubes of UGB Oil cooler.	The defective cooler replaced with new one.
		VII	07.04.2019 to 27.04.2019	Heavy water leakage from Generator air cooler. Reason: Puncture in the tubes of generator air cooler.	All the defective generator air cooler replaced, tested and installed.
			01.11.2020 to 07.08.2021	Puncture in the lower bar. Reason: Babbitt material in thrust Pad worn out.	➢ The punctured Lower bar replaced with new one. The damaged thrust pad replaced with spare one. The guide bearing pads replaced with the spare ones. ➢ No further problem arises thereafter.
2	BHEP, Balimela	I	08.12.2022 to 24.01.2023	Fault in seal valve of MIV System. Reason: Ageing.	➢ Repair & refurbishment of seal valve has been made. Seal valve piston ring changed. ➢ Inlet & outlet port of seal valve cylinder arrangement and oil lines cleaned. ➢ No further fault occurred.
		II	22.03.2024 to 06.10.2024	Vibration in TGB with abnormal sound observed in runner area. Reason: After inspection it was found that rotating & stationary labyrinth have scratch marks which proved that there was a contact between them.	➢ Rotor levelling was made. ➢ Shaft alignment was made. ➢ After boxing up the Unit brought to service.
			19.05.2024 to 06.10.2024	Abnormal sound observed in its Generator Barrel floor	➢ Gap setting and centring of the unit carried out. Levelling of rotor was done. Unit axis alignment/Shaft alignment carried out. ➢ Bearing pads gap setting was done.

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			to 08.07.2022	Problem in PMG Reason: Due to misalignment of generator & turbine shaft.	During the R& M works of the Unit the PMG is replaced by SSG.
		IV	02.03.2020 to 22.03.2021	Heavy spark in PMG with abnormal sound was observed Reason: Due to misalignment of generator & turbine shaft.	During R & M the turbine generator set has been replaced with new one.
		V	13.12.2020 to 05.04.2021	Puncture of stator bar. Reason: Ageing.	Faulty stator bar replaced with new one. No further problem arises.
			24.01.2022 to 06.05.2022	Disturbance of shaft alignment resulting in touching of rotor shaft with the stator.	➢ Shaft alignment done with gap setting of guide bearing pads. ➢ 03 Nos. of UGB Pads replaced with new ones.
		VII	16.07.2019 to 02.08.2019	1.Guide vane problem Reason: Due to entry of foreign particle in water conducting path, guide vane top & bottom clearance disturbed which restrict the movement of guide vane.	➢ One no. no of Guide vane replaced with spare one. Pivot ring surfaces were polished & machined. ➢ One new guide vane replaced against the damaged one.
3	RHEP, Rengali	I	22.03.2024 to 26.04.2024	Stator Earth Fault: Reason: Failure of insulation of Stator Bar No. T-146.	➢ The faulty stator bar replaced with new stator bar. ➢ Sufficient spare stator bar kept in store. ➢ The proposal for installing Carbon dust collector in each unit has been active consideration.
		II	20.03.2021 to 18.06.2021	Unit-2 was under breakdown/ due to heavy leakage of oil from the hydraulic cylinder installed in the penstock gate of Unit 2.Penstock gate did not open. Reason: Oil leakage from the hydraulic cylinder.	➢ The cylinder repair work which includes seal change, piston rod chrome plating, honing of cylinder bore, piston ring replacement etc. was carried out to arrest the oil leakage. ➢ To avoid occurrence of such faults in other units, the complete over hauling of cylinders and gates of rest units were taken up in phased manner.
		III	19.07.2021 to 26.11.2021	Oil Leakage from Runner Hub: Reason: Oil leakage was occurring from the rubber cord in between the hub and the Bottom Plate of Runner.	➢ Rubber cord replacement work was made inside the Runner chamber without lifting the Runner. This work was carried

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					out through Outsourcing with due Official procedure. ➢ This type of work Usually made during Capital Maintenance of Unit with Runner lifting. So it is impossible to change the Rubber Cord frequently. The oil leakage from Runner is being inspected in every Annual Maintenance from the draft tube main hole.
		III	26.11.2021 to 10.05.2022	Damage in Thrust Pads: After synchronization of Unit-3, it was loaded to 40 MW and the machine got tripped due to very High temperature of thrust bearing pads. Reason: Thrust bearing pads babbitt lining were damaged and the molten babbitt materials was stuck on the surface of the mirror disc.	➢ During the process of changing of Thrust Pad it was come to the notice that Thrust Collar was in loose fit with the Generator shaft, which may have exerted uneven load on the Thrust Pad causing damage to Pads. ➢ During rectification work, the Thrust Collar was reconditioned, the Mirror disc surface was polished, texolite sheets were changed. Further the damaged Thrust Pads were replaced and Generator Shaft alignment made and work completed on dt. 10.05.2022.
4	UKHEP, Bariniput	II	19.03.2021 to 17.07.2021	Damage of TGB Pads: Sudden water hammering caused due to low reservoir level and malfunctioning of air release valve and anti-vacuum device. The Unit-II of UKHEP, Bariniput tripped with abnormal sound on Dtd.19.03.2021. Reason: Turbine Guide bearing Pads are damaged.	➢ Damaged TGB pads replaced with new one. ➢ Air release valve and anti-vacuum device repaired and tested. ➢ Gap setting of all the Pads carried out. ➢ Dynamic vibration of the unit measured and kept with in standard. ➢ No further fault has been made since rectification.
			25.08.2023 to 04.01.2024	Rotor Pole Problem: ➢ Due to fatigue, failure of inter pole coil connecting stud. ➢ Reason being ageing. ➢ Broken stud failure caused damage to stator winding at multiple places.	➢ Inter pole coil connecting stud replaced with new one after proper DP testing. ➢ Strengthening of pole connecting joints carried out by upgraded soldering procedure and insulation strengthening of joints done by

					use of latest resin and Hardener. ➢ Damaged winding and core area repaired. ➢ CO2 dry ice cleaning of pole and stator carried out. ➢ In future the present stator core with windings of Class-B insulation to be replaced with new stator of Class-F insulation during capital maintenance.
		III	28.03.2019 to 14.08.2019	Generator Stator inter turn Fault: Reason: Local hotspot created on overhang portion of Stator winding of Unit-3 due to minor looseness in core punching and aging.	➢ Pressing of core with necessary torque once again carried out. ➢ Proper cleaning and inter-core lamination insulation carried out. ➢ Final ELCID test of complete core carried out to limit the leakage current within standard. ➢ In future the present stator core with windings of Class-B insulation to be replaced with new stator of Class-F insulation during capital maintenance.
			01.04.2021 to 31.05.2021	<u>TGB Problem and Abnormal Sound:</u> Unit-III while running at 80 MW tripped at 7:55 AM on 7.1.2020 with Turbine Guide Bearing temperature very high. Reason: Damages in TGB Pads was carried out through OEM, M/S BHEL. Vide W.O. no-2194 dtd.29.05.2020 and the Unit handed over to BHEL on 29/09/2020. All assembly works as per scope of W.O had been completed successfully on dtd. 16.05.2021. During bearing run, dry out, synchronizing and loading of the unit 3, all parameters are found to be normal. Unit-3 was successfully synchronized on dtd.31.05.2021.	Oil from all the bearing sumps of TGB, LGB & UGB was drained and inspection was carried out. All the TGB pads were removed and observed that, Pad 1 & 2 were severely damaged and Pad 3 & 8 were severely scratched. In LGB Housing crack has been developed in joint of housing and U-bracket No. 1, 3,4,5,7 and 8, but pads were found to be normal. Thrust bearings & UGB bearings were inspected and found ok. The repair works of Unit # 3 was carried out by BHEL and the unit synchronized on 31.05.2021.
5	UIHEP, Mukhiguda	II	16.08.2022 to 07.09.2022	Governor Heavy fault:	Then shear pin along with monitoring device removed to check the free movement of

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				Unit -II auto tripped during starting with Governor Heavy Fault and declared as Forced Outage. Observation: Guide vane of Unit-II didn't open. Reason: Shear lever of guide vane no- 7, 8, 9, 11, 12, 13, 17, 19 & 20 were loosening.	guide vanes. Then jack arrangement was done for opening of the above guide vanes for grinding of lower facing plate. After completion of grinding, free movement was checked and all the guide vanes along with shear levers were placed and the work completed. No such problems occurred thereafter.

A statement depicting approved NAPF vis-a-vis audited achieved PAFY of different power stations of OHPC for the same period of trailing 5- year period is also enclosed for kind reference of Honourable Commission. On an overall annual basis, it may please be observed that OHPC has missed the targeted approved NAPF for three FY out of the last five FY, viz. 2019-20, 2020-21 & 2021-22 and exceeded the approved NAPF for the balance two FY. It may also please be observed that different generating units were either under R & M or capital maintenance schedule.

Regarding RHEP, one of the generating units suffered major forced shutdown because of failure of generator transformer & other associated technical issues, which consumed time to troubleshoot & refurbishment at outside specialized workshop. The RHEP also had to overhaul hoist gate & associated equipment in coordination with DoWR.

Similarly, UKHEP confronted with stator & rotor faults & TGB problems which contributed towards low achievement of PAFY. The machines (especially Unit- 2 & 3 upon which capital maintenance works have not been carried out) were over three decades old, generator insulation was obsolete & in general, bearing & other equipment faced frequent problems. After detailed examination of the machines, the OEM (BHEL) advised for complete replacement of the generators of both the units together with carrying out capital maintenance works in phased manner. OHPC has already procured 2 sets of generators, 3 sets of DAVR, 2 sets of digital governing system, two sets of HS lubrication system & a full set of turbine spares with a view to carry out CM works in accordance with the recommendations of the OEM. OHPC has also placed work order on BHEL on 23rd October'2024 to carry out CM works of Unit-2 and work order for Unit-3 will be placed subsequently after successful commissioning of Unit-2.

* * *

Odisha Hydro Power Corporation Ltd.

ACHIEVED PLANT AVAILABILITY FACTOR FOR FY OF OHPC POWER STATIONS

FY	HPS/HHEP		CHEP		BHEP		RHEP		UIHEP		UKHEP		OHPC(Wt.Avg. of all PS)	
	PAFY	NAPAF	PAFY	NAPAF	PAFY	NAPAF	PAFY	NAPAF	PAFY	NAPAF	PAFY	NAPAF	PAFY	NAPAF
FY2007-08	71.232	85.000			90.152		86.580		91.020		88.977		86.540	
FY2008-09	73.394	85.000			87.520		75.607		91.053		65.014		81.123	
FY2009-10	78.494	80.000			86.010	85.000	68.798	75.000	96.494	88.000	90.614	85.000	86.429	83.798
FY2010-11	77.627	78.000	82.246	75.000	81.105	85.000	79.237	75.000	92.064	88.000	84.769	85.000	84.264	83.348
FY2011-12	57.657	78.000	80.930	75.000	73.716	85.000	81.039	75.000	97.015	88.000	94.607	85.000	82.885	83.348
FY2012-13	74.249	78.000	73.001	75.000	84.181	85.000	76.329	75.000	86.092	88.000	88.527	85.000	82.718	83.348
FY2013-14	79.751	78.000	76.648	75.000	72.557	85.000	84.833	75.000	96.578	88.000	86.854	85.000	84.559	83.348
FY2014-15	65.208	78.000	61.466	75.000	75.385	85.000	85.004	75.000	94.280	88.000	92.555	87.000	83.491	83.822
FY2015-16	79.250	78.000	75.034	75.000	74.579	83.000	85.782	75.000	95.992	88.000	92.483	87.000	85.774	83.161
FY2016-17	73.993	78.000	88.531	75.000	86.561	83.000	85.692	75.000	83.963	88.000	83.107	87.000	83.817	83.332
FY2017-18	69.009	78.000	58.311	75.000	81.964	83.000	72.019	75.000	94.654	88.000	65.059	87.000	79.882	83.463
FY2018-19	34.404	78.000	54.675	75.000	87.754	83.000	80.849	75.000	86.423	88.000	73.195	87.000	75.093	83.170
FY2019-20	41.281	75.000	64.982	75.000	73.576	83.000	77.015	80.000	89.119	88.000	72.228	87.000	73.694	83.371
FY2020-21	40.824	75.000	85.448	75.000	60.317	83.000	80.894	80.000	91.493	88.000	68.838	87.000	71.669	83.370
FY2021-22	68.997	75.000	98.592	75.000	70.111	83.000	68.398	80.000	87.905	88.000	85.876	87.000	78.495	83.354
FY2022-23	89.104	75.000	95.871	75.000	86.724	87.000	70.811	80.000	94.070	88.000	93.339	87.000	88.586	84.106
FY2023-24	91.073	75.000	99.562	75.000	89.922	87.000	85.031	80.000	91.793	88.000	80.305	87.000	88.673	84.320

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Odisha Hydro Power Corporation Ltd. Bhubaneswar

Annexure- 32(i)

COMPLIANCE TO THE QUERIES OF HON'BLE COMISSION ON APPROVAL OF CAPITAL WORKS FOR REPLACEMENT OF ALL FOUR UNITS OF UIHEP

i) Option of OHPC for not going for replacement of one set of MIV on trial basis: The OEM tried to replace the seal ring and rubber seal of Unit-4 of UIHEP, which was under planned maintenance. The operation of MIV and inspection of leakage was under observation. The operation of MIV was smooth for few months and no significant leakage was observed. But, gradually the auto-oscillation of penstock was noticed once again. On detail inspection, the OEM found that the surface on which the seal ring was mounted had been eroded and was beyond the repair. Hence OEM withdrew the first option and after detailed analysis suggested to replace the complete MIV with new improved design along with new MIV seal control system & OPU system as a long-term solution.

ii) Advantages of new MIV with new improved design:

The technical details of the new MIV as submitted and presented by the experts from Voith Germany are attached herewith at **Annexure-32(vi)** for reference of the Hon'ble Commission.

The basic difference of the new MIV and old MIV are as follows:

a) Increase in the spherical diameter of the new MIV to 2000 mm, which, in turn, ensured increase the water flow into the closing side of the seal ring to compensate leakage & make sure that the leakage water on the opening side is drained and drainage line is opened/not blocked by debris.

b) There are other technical differences between the new & old MIV including change in the low-pressure air oil accumulator to high pressure nitrogen accumulator. The operating pressure in the OPU had increased from 50Kg/ Cm^2 to 62Kg/ cm^2.

iii) Guarantee period:

The OEM had extended the Guarantee for a further period of 12 months i.e. from 24 months to 36 months from the date of commissioning of MIV of each unit covering auto- oscillation & penstock vibration.

iv) Reasonability of the rate quoted:

➢ OHPC asked the OEM to provide orders received from other purchasers for supply of similar MIVs and obtained the copies of the orders received from 118 MW Nikachhu HEP, a SPV owned by Royal Govt of Bhutan, for comparison purposes. The price- adjusted derivation statement was prepared & placed before the TCC-I of OHPC, which was acknowledged and accepted by the Board. The prices

Odisha Hydro Power Corporation Ltd. Bhubaneswar

adjusted for differential sizes of the two MIVs (Bhutan & UIHEP) and updated for FOREX & domestic inflation worked out to be Rs.13.26 Cr per MIV, whereas OHPC extracted a negotiated price from Voith at Rs.12.39 Cr. This fully justified the price reasonableness of the negotiated Voith offer.

➢ The OEM also had submitted the rate reasonability certificate confirming that the rate quoted in their offer is most reasonable and same shall be offered to other Govt. dept./ PSUs/ Private organization.

v) Reason for choosing OEM for replacement of MIV work:

OHPC had attempted several times in the past to source supplies & services of various equipment from parties other than OEM of the particular generating unit, but had not been successful. Two such examples during the last ten years are explained hereunder to substantiate the point.

Case No.1 In the year 2019, OHPC had decided to procure one set of 150 MW stator for Unit-4 of UIHEP through open tendering process. This required preparation of detailed technical specification of the stator which could not be done because OHPC did not possess detailed design data of the various equipment in a hydro power station. OHPC, thereafter, attempted to avail assistance of WAPCOS for framing the technical specification, but to no avail as WAPCOS did not respond. Upon examination, the whole gamut of issues, it was found that none of the OEMs including BHEL are providing the customers their design data as being their patented property. Having realized the complexity of the task, OHPC in 2020 finally decided to procure the said stator from the OEM.

Case No.2 In the year 2015, BHEP faced problems in the DVR of Unit- 7 and made attempts to avail services of Alstom (OEM of Unit- 7 & 8 is LMZ of Russia) but could not succeed because the DVR is password protected and no OEM provides the password as well as the operating system software (OSS) of the DVR without which no-one else other than the OEM can provide services for trouble shooting. In 2017, BHEP also faced similar problems in digital governor of Unit-8 which was also password protected and the services of the LMZ experts had to be hired to sort out the issues.

Thus, non-transfer of design data by OEM to the Generators is a major constraint to seek the proposal form other service providers to develop a tailor-made Capital asset.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

ଓଡ଼ିଶା ଜଳବିद्युତ୍ ନିଗମ ଲିମିଟେଡ୍ (ODISHA
ଓଡ଼ିଶା ରାଜ୍ୟ ଆରକ୍ଷୀ ... ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)
ଫୋନ: ୯୧-୦୬୭୪-୨୫୪୨୯୫୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ: ୨୫୪୨୧୦୨
ମାଜମଙ୍ଗଳ ନିଗମ ଭବନ, ବାଣୀବିହାର ଛକ, ଜନପଥ, ଭୁବନେଶ୍ୱର-୨୨

ODISHA HYDRO POWER CORPORATION LTD.

(A GOVT. OF ODISHA UNDERTAKING)
CIN: U40101OR1995SGC003963
GD. OFFICE : ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING, VANIVIHAR CHOUK, JANPATH, BHUBANESWAR-751 022
PHONE : 91-0674-2542983, 2542802, 2545526, 2542826, FAX : 2542102
E-mail: ohpc.co@gmail.com / info@ohpcltd.com, Website : www.ohpcltd.com

Annexure- 32(ii)

No. OHPC/HQ/TECH/CD/11/2013/ 7088 Dated. 25.07.2019

From,

Vishal Kumar Dev, IAS,
Chairman-cum-Managing Director

To

The Principal Secretary,
Department of Water Resources
Govt. of Odisha, Bhubaneswar

Sub: Leakage in the manholes and expansion joints of the penstocks of UIHEP, Mukhiguda– regarding.

Sir,

With reference to the above cited subject, this is to intimate that vibration, air release and water leakage is being observed in the manholes and expansion joints of the penstocks of Upper Indravati Hydro- Electric Project (UIHEP), Mukhiguda, when the units are being brought to shutdown condition with a reservoir level below 630.00 mtrs.

This phenomenon was also observed in 2018 and this year the problem has aggravated causing major leakages in penstocks as well as shutdown of units.

The problem seems unique in nature and may endanger the water conductor system of UIHEP.

Keeping in view the above, it is requested to depute water resources experts of your department to take stock of the situation and initiate appropriate action for rectification of the problem at the earliest.

Yours faithfully,

Chairman-cum-Managing Director

Odisha Hydro Power Corporation Ltd. Bhubaneswar

– A 312 –

ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍ ODISHA
NEW OPPORTUNITIES
Regd. Office
(ଓଡ଼ିଶା ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)
ଓଡ଼ିଶା ରାଜ୍ୟ ଆରକ୍ଷୀ ଗୃହନିର୍ମାଣ ଏବଂ ସମାଜମଙ୍ଗଳ ନିଗମ ଭବନ, ବାଣୀବିହାର ଛକ, ଜନପଥ, ଭୁବନେଶ୍ୱର-୨୨
ଫୋନ: ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍: ୨୫୪୨୧୦୨

ODISHA HYDRO POWER CORPORATION LTD.

(A GOVT. OF ODISHA UNDERTAKING)
CIN: U40101OR1995SGC003963
REGD. OFFICE : ODISHA STATE POLICE HOUSING & WELFARE CORPORATION BUILDING, VANIVIHAR CHOUK, JANPATH, BHUBANESWAR-751 022
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E-mail: ohpc.co@gmail.com / info@ohpcltd.com, Website : www.ohpcltd.com

No. OHPC/HQ/TECH/CD/11/2013(part-1)/ 7626 Dated. 18/08/2019

To,

The Director,
D & R (Coordination)
Design and Research Wing,
Central Water Commission,
4th Floor (S), Sewa Bhawan,
R. K. Puram, New Delhi – 110066.

Sub: Leakage in the manholes and expansion joints of the penstocks of UIHEP, Mukhiguda– regarding.

Sir,

With reference to the above cited subject, this is to intimate that vibration, air release and water leakage is being observed in the manholes and expansion joints of the penstocks of Upper Indravati Hydro- Electric Project (UIHEP), Mukhiguda, when the units are being brought to shutdown condition with a reservoir level below 630.00 mtrs, though the MDDL is at 625.00 mtrs.

This phenomenon was also observed in 2018 and this year the problem has aggravated causing major leakages in penstocks as well as shutdown of units.

The problem seems unique in nature and may endanger the water conductor system of UIHEP.

Keeping in view the above, it is requested to depute experts of your organisation to take stock of the situation and for initiating appropriate action for rectification of the problem at the earliest.

The lay-out drawing is enclosed herewith for kind reference.

An early response is awaited.

Encl:- as above.

Yours faithfully,

18/8/19

Director (Operation)

Odisha Hydro Power Corporation Ltd.

1:/D/All Unit/UIHEP/ Letter.

ଓଡ଼ିଶା ଜଳ ବିଦ୍ୟୁତ୍ ନିଗମ ଲିମିଟେଡ୍ ODISHA NEW OPPORTUNITIES
(ଓଡ଼ିଶା ସରକାରଙ୍କ ଏକ ଉପକ୍ରମ)
ଓଡ଼ିଶା ରାଜ୍ୟ ଆରକ୍ଷୀ ଗୃହନିର୍ମାଣ ଏବଂ ସମାଜମଙ୍ଗଳ ନିଗମ ଭବନ, ବାଣୀବିହାର ଛକ, ଜନପଥ, ଭୁବନେଶ୍ୱର-୭୨
ଫୋନ: ୯୧-୦୬୭୪-୨୫୪୨୯୮୩, ୨୫୪୨୮୦୨, ୨୫୪୫୫୨୬, ୨୫୪୨୮୨୬, ଫ୍ୟାକ୍ସ: ୨୫୪୨୧୦୨

ODISHA HYDRO POWER CORPORATION LTD.

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No. OHPC/HQ/TECH/UIHEP/CD/11/2013 (Part 2) 2541 /Dated 07.04.2021

From

Shri Bishnupada Sethi, IAS
Chairman-Cum-Managing Director
OHPC Limited, Bhubaneswar

To

The Principal Secretary,
Department of Water Resources,
Government of Odisha, Bhubaneswar.

Sub: Abnormal sounds, vibration & water leakage in the manholes and expansion joint of the penstock of UIHEP.

Ref: 1) This office letter no. 5966 dtd. 17.07.2020

2) This office letter no. 7088 dtd. 25.07.2019.

Sir,

With reference to the above cited subject, this is to intimate that there has been frequent abnormal sounds, vibration starting from Main Inlet Valve (MIV) upto penstocks of UIHEP, Mukhiguda, when the units are being brought to shutdown condition at any level of reservoir, leading to leakages in the manholes and expansion joints in the penstocks. This problem has been recurring since 2018 and frequency of this abnormality has increased now a days with most recent incident occurred on dated 07.02.2021. The above abnormalities may be a threat for the Water Conductor system of UIHEP.

Keeping in view the above and the importance of UIHEP, it is once again requested to depute an expert team for inspection and possible rectification.

This is for your information and necessary action.

Yours faithfully,

Chairman-Cum-Managing Director

D:\ALL UNIT\UIHEP\ Letter

Hydro Power Corporation Ltd. Bhubaneswar

- A314 -

EXTRACTS TAKEN FROM THE MINUTES OF THE 167TH (ADJOURNED) MEETING OF THE BOARD OF DIRECTORS OF ODISHA HYDRO POWER CORPORATION LTD HELD ON THURSDAY, THE 30TH JUNE, 2022 AT 4:30 P.M.

Item No.167/45
Auto oscillation & penstock vibration problem of UIHEP.

The Board perused the memorandum and noted that auto oscillation & penstock vibration problem at UIHEP is continuing since 2018. The Board noted that OEM M/s Voith- Fuji at present placed a fresh proposal for complete replacement of existing MIV with a new improved design MIV as a permanent Solution to the problem.

MD informed that the problem is persisting since 2018 and appropriate decision is to be taken on the proposal of OEM after receipt of replies to the queries raised by OHPC.

Director (Operation) appraised to the Board that the matter has once been discussed in TCC-I. In the meanwhile, a meeting was also held with OEM i.e. M/s VOITH. Based on the proposal of OEM, further action needs to be expedited to arrive at a suitable decision for permanent solution to the problem.

Sh R C Tripathy, Independent Director informed that in the case the fresh proposal of the OEM is considered, in such an eventuality, the Company may reconsider the decision taken under item 167/24 for placement of Order to OEM for procurement of 4 numbers of Control Valve of downstream seat ring of MIV of UIHEP, Mukhiguda.

Chairman expressed that the matter being sensitive one needs to be decided on priority. TCC-1 meeting comprising of Sh. Dronadeb Rath, Sh. R.C.Tripathy and other members may be convened at the earliest to deliberate on the matter and make necessary recommendation. The Board authorized Chairman to take appropriate decision based on the recommendation of TCC-1 including any modification/ cancellation required against the decision taken under item No. 167/24.

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FOR & ON BEHALF OF
OHPC LTD.

COMPANY SECRETARY

Odisha Hydro Power Corporation Ltd. Bhubaneswar

(62)

EXTRACTS TAKEN FROM THE MINUTES OF THE 168TH MEETING OF THE BOARD OF DIRECTORS OF ODISHA HYDRO POWER CORPORATION LTD HELD ON SATURDAY, THE 17TH SEPTEMBER, 2022 AT 6:00 P.M & CONCLUDED AT 8:00 PM AT MEETING ROOM, 3RD FLOOR OF MAYFAIR HOTELS & RESORTS LTD., JAYDEV VIHAR, BHUBANESWAR-751013.

Item No.168/16
Present status regarding Auto oscillation & penstock vibration problem of UIHEP.

The Board perused the memorandum and noted that a meeting between the representative of the OEM and members of TCC-1 was convened on 17.08.2022 in order to deliberate on various techno-commercial issues on the subject and TCC-1 recommended the following course of action.

1. Closure of proposal regarding replacement of seal ring and rubber seals at a price of Rs.10.8Crores keeping in view of the fact that the OEM after conducting site inspection ascertained that repair of existing MIVs is unviable because of severe deterioration.
2. To seek guarantee from the OEM against successful resolution of penstock vibration, in case OHPC decides to go for complete replacement of existing MIVs with new MIVs of improved design together with compatible new MIV control system.
3. Supply of the new MIV control system within the ordered price of existing control valves, for which order have already been placed on the OEM on dtd 16.04.2022.

Accordingly, the OEM was asked to accept the above conditions of OHPC. In response to the same, the OEM vide its mail dtd.24.08.2022 has contended the following:

a) Guarantee for a period of 12 months from the date of commissioning of each Unit against auto-oscillation & penstock vibration if the phenomenon occurs due to pressure pulsation only, and not due to other reasons such as issues related to civil structure or any other factors.

b) The OEM accepted OHPC proposal for supplying new MIV control system within the prices for supply of existing control valves, order for which were placed on 16.04.2022 at a price of Rs.3.2203 Crore Excluding GST.

The Board discussed the matter in detail and noted that auto oscillation & penstock Vibration problem at UIHEP is continuing since 2018. Associated risk to the plant due to Auto-oscillation was deliberated. It was felt prudent to opt for changing entire MIV as recommended by OEM. This action may help eliminating the potential risks to the plant. Comprehensive guarantee may be obtained.

Accordingly, during the course of discussion, a consensus was emerged that the auto oscillation and vibration problem appears to be a complex phenomenon. Keeping in view of the same, the proposal of OEM for complete replacement of existing MIVs with new MIVs of improved design together with compatible MIV control system may be considered for comprehensive long term solution and as a general industry practice guarantee for 12 months from the date of commissioning of MIV in each Unit may be obtained from OEM.

The Board advised that the TCC may be convened accordingly forthwith with its existing members to consider the proposal of M/s Voith and thereafter the recommendation of TCC may be placed before the ensuing Board.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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COMPANY SECRE...

EXTRACTS TAKEN FROM THE MINUTES OF THE 169TH MEETING OF THE BOARD OF DIRECTORS OF ODISHA HYDRO POWER CORPORATION LTD HELD ON SATURDAY, THE 24TH SEPTEMBER, 2022 AT 3:00 P.M & CONCLUDED AT 3.30 PM IN THE CONFERENCE HALL OF OHPC CORPORATE OFFICE AT BHUBANESWAR THROUGH HYBRID MODE.

Item No.169/14

Auto- oscillation & penstock vibration problems of UIHEP, Mukhiguda Decisions taken by the Board in its 168th meeting held on 17th September'2022.

The Board perused the memorandum and after detailed deliberation advised to negotiate prices with M/s. Voith and they may be asked to furnish an undertaking that equivalent rates are charged for such work from other parties in the recent past. M/s. Voith may also be asked to furnish copy of the similar supply orders; if any, executed by them during recent past. Thereafter, TCC may be convened to consider the negotiated offer of M/s Voith.

The Board authorized Chairman to take appropriate decision on finalization of the contract based on the recommendation of TCC-1.

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COMPANY SECRETARY

Odisha Hydro Power Corporation Ltd. Bhubaneswar

EXTRACTS TAKEN FROM THE MINUTES OF THE 170TH MEETING OF THE BOARD OF DIRECTORS OF ODISHA HYDRO POWER CORPORATION LTD HELD ON THURSDAY, THE 19TH JANUARY, 2023 AT 3:00 P.M & CONCLUDED AT 4.00 PM IN THE CONFERENCE HALL OF OHPC CORPORATE OFFICE AT BHUBANESWAR THROUGH HYBRID MODE.

Item No. 170/13

Auto oscillation & penstock vibration problem of UIHEP–Regarding-Supply and replacement of four sets of new MIVs in four generating Units of UIHEP.

The Board perused the memorandum and noted that TCC-1 meeting of OHPC was held on 23.11.2022 between the representatives of the OEM and members of TCC-1 in order to finalize the contract on Auto oscillation & penstock vibration problem of UIHEP. After several rounds of negotiation, OEM offered a discounted total price of Rs. 49,54,50,000/- exclusive of GST for design, manufacture, supply & replacement of New MIVs for all four generating Units of UIHEP. Accordingly, as per the recommendation of TCC-1 and with due approval of the Competent Authority, LOI dt. 30.11.2022 was issued in favour of the OEM, Voith Hydro Pvt. Ltd. for design, manufacture, supply & replacement of New MIVs for all four generating Units of UIHEP at a total price of Rs.49,54,50,000/- exclusive of GST. The Board also noted that today the detailed purchase-cum-work order dtd.19.01.2023 has already been issued by Unit Head, UIHEP, Mukhiguda.

The Board after detailed deliberation approved and ratified the action taken towards issuance of LOI and detailed purchase-cum-work order dtd.19.01.2023 in favour of the OEM M/s Voith Hydro Pvt. Ltd. for design, manufacture, supply & replacement of New MIVs for all four generating Units of UIHEP at a total price of Rs.49,54,50,000/- exclusive of GST.

CERTIFIED TRUE COPY
FOR & ON BEHALF OF
OHPC LTD.

COMPANY SECRETARY

Odisha Hydro Power Corporation Ltd. Bhubaneswar

OFFICE OF THE SR. GENERAL MANAGER (ELECTRICAL)
UPPER INDRAVATI HYDRO ELECTRIC PROJECT, MUKHIGUDA,
DIST: KALAHANDI-766026, E-mail: sgmel_uihep@ohpcltd.com
ODISHA HYDRO POWER CORPORATION LTD. (A GOVERNMENT OF ODISHA UNDERTAKING)
Regd. Office OSPH & W.C Building, Vanivihar Chhak, Janpath, Bhoinagar, Bhubaneswar-751022,
Tel: 91-0674-2542983, 2542802, 2545526, 2542826, Fax:2542102, E-Mail: ohpc.co@gmail.com / md@ohpcltd.com
WEB: www.ohpcltd.com, CIN: U40101OR1995SGC003963
ISO 9001-14001 18001 Certified

No. UIHEP/SGM (EL.)/TW/ 2383 (Part-I) 335 **(WE) / Dated** 19.01.2023

To

M/s Voith Hydro Pvt. Ltd.,
A-20&21, Sector – 59,
Noida – 201301, Uttar Pradesh
E-mail: raj.vidyarthi@voith.com,
Namita.Saini@Voith.com , Dibyendu.Dhara@Voith.com

Sub: Purchase-cum-Work Order for "Design, Engineering, Manufacturing, Supply, Erection, Testing and Commissioning of new MIVs for all the four generating units of UIHEP, Mukhiguda".

Ref: 1) Your Original offer letter dt.04th January 2022
2) Your first revised offer letter dated 22nd September 2022
3) Your 2nd revised offer letter dated 23rd November 2022
4) LOI no. OHPC/HQ/UIHEP-38/2022/8560 dated 30th November 2022
5) Your LOI Acceptance Letter No. VHNAMB-UI_Valve-16 dated 08.12.2022

Sir,

With reference to the above, Work Order is hereby placed in your favour for **Design, Engineering, Manufacturing, Supply, Erection, Testing and Commissioning of new MIVs for all the four generating units of UIHEP, Mukhiguda**. The order together with all references, correspondences & minutes of meetings pertaining to the subject matter shall constitute the integral part of the contract.

The General Conditions of Contract shall be applicable as per FIDIC 1999 (Yellow book) conditions of contract.

The contract shall be governed by the following special conditions of contract (SCC) which shall prevail in the event of conflict / difference with FIDIC 1999 (Yellow Book) conditions of contract.

1.0 TECHNICAL SCOPE OF SUPPLY AND SERVICES:

The broad technical supply & services to be provided by the OEM includes but not limited to site survey & measurement, design, Engineering, manufacture, factory testing, supply, installation, site testing & commissioning of the newly designed improved system comprising of the following equipment with an objective of resolution of auto- oscillation & penstock vibration in all the four (04) generating units of UIHEP, Mukhiguda.

1.1 Main Inlet Spherical Valve
1.2 Main Inlet Valve Servomotor (preferred make of servomotor is Hydac, Rexroth & IPH- Mumbai)
1.3 Upstream Pipes
1.4 Downstream Pipes with Dismantling Joints
1.5 By- pass Pipe Assembly
1.6 Instrumentation (proximity/limit switches, scale for rotor position, pressure gauge, pressure differential switched, proximity switches for main seal position indication)

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1.7 Special Tools & Devices for Installation (tightening device & D- Shackles for lifting)

1.8 Hydraulic Pressure Unit (HPU) for valve

1.9 HPU Panels (switchgear)

1.10 Power & Control Cables between valves, HPU & control panel

1.11 Services include but not limited to the followings:

1.11 1 Disassembly works of old MIV system: Dismantling of electrical connections & instruments, disassembly of MIV inlet & outlet pipes, disassembly of MIV servomotor, disassembly of by-pass valve & piping, disassembly of MIV foundation bolts, disassembly of old existing control valves, removal of old MIV, fixing of cover in the upstream side of penstock & by-pass connection flange and hand over the same at the employers designated place assembly work of New MIV System: Placement of new valve in the foundation & bolting with foundation, placement of new OPU system in the MIV floor, assembly of new servomotor & connection with the new OPU, assembly of New MIV Seal Control System, assembly of inlet & outlet pipes, assembly of by-pass valve & piping, assembly of electrical connection & instruments.

1.11.2 Functional test of the New MIV System.

1.11.3 Commissioning of the Generating Unit.

Any item (s) of supply or services specifically not mentioned herein but are essentially required for completeness of supplies as well as services in order to successfully commission the whole system are deemed to have been included in the Purchase-cum-Work Order at no additional cost to OHPC beyond the stipulations in the price schedule.

2.0 NEW MIV SEAL CONTROL SYSTEM:

New MIV Seal Control System compatible with the New MIVs for four units shall be supplied by M/s Voith. The earlier purchase order No. 1543 dated 16.04.2022 for supply of seal control system placed with M/s Voith Hydro shall be suitable amended with the same price with Rs. 3,22,03,200/-. This purchase order shall be read in conjunction with the supply order no. 1543 dated 16.04.2022 and amendments thereof. It is incumbent on the OEM to satisfactorily discharge the obligations under both the contracts / supply order. Failure to comply with any of the two supply orders (i.e. the present work order for the MIVs and w.o. no. 1543 dated 16.04.2022) shall be construed as the non-performance of the obligations of the other contract also and action for such default shall be taken.

3.0 PRICE SCHEDULE

Sl. No.	DESCRIPTION OF SUPPLY & SERVICES	QTY (Sets)	Unit FOR (UIHEP) Price (Rs.)	Total FOR (UIHEP) Amount (Rs.)
1	Design, Engineering, Manufacturing & Supply of New Spherical Valves (MIV) of improved design along with New High Pressure OPU System, By-Pass Valves & all associated pipelines & hardware.	04	11,00,00,000/-	44,00,00,000/-
2	Removal of old MIVs, OPU system, by- pass valves, Control valves, pipelines etc, installation, testing & commissioning of the New MIV System.	04	1,38,62,500/-	5,54,50,000/-
	Total Prices exclusive of GST			**49,54,50,000/-**
	(Rupees Forty-Nine Crore Fifty-Four Lakh Fifty Thousand) Only			

N. B Total Contract Price shall mean total price as per above schedule excluding GST.

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4.0 TAXATION

The aforementioned prices are exclusive of GST. GST as applicable shall be paid extra in accordance with GST Act & Rules. TDS shall be deducted at the rate & in the manner as applicable as per various Acts & Rules at the time of payment of advances & bills.

5.0 TERMS OF PAYMENT

5.1: Supplies

a) 10% of supply contract price (Sl. 1 of the table at Clause 3.0 above) shall be released as interest- free advance payment against submission of Bank Guarantee (BG) drawn on a nationalized/scheduled bank in favour of OHPC equivalent to 110% of advance amount. The BG shall remain valid till up to three (03) months after the scheduled date of delivery of all the equipment & materials. Zero date of the contract will be reckoned as the date of release of advance payment for supply of equipment & materials.

b) 80% of contract price plus 100% of applicable GST shall be released on Unit-wise pro- rata basis limiting to a maximum of eight (08) tranches of payment schedule for total supply of equipment & materials, on submission of Performance BG equivalent to 10% of total contract price (Rs. 49, 54, 50, 000/-). The Performance BG shall remain valid till three (03) months after expiry of guarantee period of all the four Units.

c) Balance 10% of supply contract price shall be released on Unit- wise pro- rata basis after successful commissioning of each of the four sets of New MIV System.

5.2: Services:

I) 10% of service contract price (Sl. 2 of the table at Clause 3.0 above) shall be released as interest- free advance payment against submission of BG drawn on a nationalized/scheduled bank in favour of OHPC equivalent to 110% of advance amount. M/s Voith Hydro Pvt. Ltd shall submit the BG after delivery of 1st consignment at UIHEP site & raise their claims for release of Advance Payment for services. The Advance Payment for services BG shall remain valid till up to three (03) months after successful completion of work for all the four generating units.

The Zero date of service contract shall be reckoned as date of handing over of each Unit.

II) Balance 90% of service contract price plus 100% GST shall be released on Unit-wise pro- rata basis after successful completion of work of each unit.

III) The OEM shall have to provide a thirty (30) days clear advance notice to UIHEP site authorities regarding their requirement of handing over of each Unit for execution of work. UIHEP site authorities in consideration to plant suitability & SLDC (State Load Dispatching Center) clearance shall take appropriate decision on the matter.

5.3 Sample formats for advance payment & performance bank guarantee are attached with this Purchase-cum-Work Order as Annexure- II & III. The OEM shall have to take prompt action in extending the validity period of the bank guarantees from time to time as per requirement in accordance with the provisions of the contract.

5.4 No interest shall be paid on the bank guarantees under any circumstances whatsoever.

6.0 DELIVERY / COMPLETION SCHEDULE

6.1: Supplies

Sl. No.	Item Description	Time Schedule
1.	New MIVs & other supplies – 1st Unit	11 months from zero date
2.	New MIVs & other supplies – 2nd Unit	11 months from zero date
3.	New MIVs & other supplies – 3rd Unit	13 months from zero date
4.	New MIVs & other supplies – 4th Unit	13 months from zero date

The zero date of the supply contract shall be reckoned as the date of release of advance payment.

6.2: Services:

The OEM shall successfully complete commissioning of New MIV System of each generating Unit within three (03) months from the date of handing over of each Unit.

7.0 PERFORMACE GUARANTEE

The equipment under the scope of supply is warranted by the OEM against any defects due to bad material, faulty design or poor workmanship for a period of twelve (12) months from the date of commissioning of each Unit or twenty- four (24) months from the date of FOR delivery of each Unit whichever is earlier.

The improved designed New MIV System along with New MIV Seal Control System shall be designed to counter the phenomenon of auto- oscillation in penstock induced due to pressure pulsation. Warranty of one (01) year from the date of commissioning of each Unit is provided for resolution of auto- oscillation & penstock vibration problem limited to OEM's scope of supply. Any works related to civil structure, if any, shall be in the scope of OHPC.

8.0 BILLING BREAK- UP

Billing break-up of items of supplies shall be provided by the OEM after placement of detailed PO to facilitate delivery/billing of equipment & materials pertaining to payment terms at Clause No. 5.1 (b). The OEM shall provide General Arrangements (GA) drawings, maintenance manual & other such documents which are general in nature but are essential for safe operation & maintenance of the whole New MIV System of improved design along with delivery of the equipment.

9.0 CODES AND SPECIFICATION

The OEM shall comply with international as well as Indian Standards such as BIS, ASTM & DIN for design, engineering, manufacturing, installation, testing and commissioning of New MIV System, Seal Control System & OPU system as well as specification of material to meet the performance standard.

10.0 INSURANCE

10.1 FREIGHT AND TRANSIT INSURANCE

The contract prices are inclusive of all transportation and transit insurance charges up to the site at UIHEP, Mukhiguda and are in OEM's Scope. Transit Insurance shall be

certificate from insurance company for the cover of the transit insurance. In the event of any loss or damage of materials or equipment in transit the supplier shall replace/ repair the same immediately at their own cost.

10.2 EAR Policy

The contract shall obtain erection all risk (EAR) policy in consultation with the employer to ensure the adequacy of the policy covering various risks involved. The policy shall be taken in the joint name of contractor and employer. The cost on this account shall be reimbursed to the contractor after submission of necessary proof of payment and copy of the EAR policy.

11.0 PACKING & FORWARDING

Contract Prices are inclusive of all packing, forwarding, loading & unloading charges.

12.0 EFFECTIVE OR ZERO DATE OF THE CONTRACT

Contract shall be effective from the date of signature of the Contract. However, the Commencement Date / Zero Date for Supply and Service shall be as follows.

12.1 For Supply: Date of release of advance payment.

12.2 For Service: Date of handing over of each Unit.

13.0 PERFORMANCE SECURITY

The OEM shall furnish performance security deposit equivalent to 10% of total contract value in shape of Bank Guarantee (BG) from any Nationalized Bank / Scheduled Bank registered under RBI having local branch in Bhubaneswar, Odisha. The BG shall be submitted in enclosed format within 30 days of issue of work order.

The BG towards performance security deposit shall be valid till 3 (three) months after the end of warranty period. The performance security deposit shall be suitably extended if any defect noticed during the warranty period.

Sample formats of Advance & Performance BG are enclosed with this Order as Annexure- II & III for reference of the OEM.

14.0 LIMITATION OF LIABILITY

The aggregate liability of the OEM, whether arising out of this Contract, in tort or otherwise, shall not exceed the total Contract Price. However, besides the said liability, the OEM is liable for deposit of all statutory dues as applicable as per prevailing Acts & Rules. Further, the OEM is also liable for compliances as required under various statutes including Workmen's Compensation.

15.0 INSPECTION & TESTING

The OEM shall offer to OHPCL for final inspection of the valves (pre- dispatch inspection for functional tests & seal leakage test) at their Vadodara Works. Travel & other costs of OHPC personnel shall be to OHPCL account. The OEM shall intimate to OHPCL at least one week in advance for inspection. The decision of UIHEP site authorities regarding deputation of inspecting office shall be final.

16.0 CHANGES & ADDITIONS

If the OEM is called upon to do works other than those originally indicated in its 'Scope of Works' or to redo some work already completed satisfactorily or to undertake any rectification of plant and equipment or to carry out any modification due to alteration in

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work on the basis of mutually agreed upon terms may

17.0 LABOUR

The OEM may engage labour and skilled manpower directly or through a sub-contractor for executing the site works under supervision of OEM's experts. However, the OEM shall obtain necessary prior permission/ clearance from UIHEP site authorities in writing before such engagement at site. Any dispute related to labour law shall have to be settled by the OEM. The workmen engaged for the said works shall not be paid at less than the rate of minimum wages as applicable as per prevailing Govt. Rule notified from time to time. All the statutory dues relating to engagement of labour shall be paid / deposited / borne by the OEM/ their sub-contractor including compliances thereof from time to time. The OEM shall ensure & be liable for the same. Issues pertaining to Workmen's Compensation Act or any other labour laws if any shall have to be sorted out by the OEM, while keeping OHPCL harmless at all the time.

18.0 FORCE MAJEURE

18.1 Acts of God, acts of Government and other causes as strikes, lockout or other concerted action of workmen, war, sabotage, riots, civil commotion, police action, revolution, flood, fire, earthquake and epidemic. However, power cut shall not be considered under force majeure provisions.

18.2 If the OEM suffers delay in the due execution of the contractual obligations due to delays caused by Force Majeure situation as defined above, the agreed time of completion of the work covered under this contract may be extended by a period of time as facts justify with or without levy of LD, provided that within 15 days of the occurrence of any such contingency, the OEM immediately reports to the UIHEP site authorities in writing the cause of delay with requisite documentary evidence (s).

18.3 The decision of the OHPC whether there exist genuine Force Majeure conditions or not and whether extension of time should be granted or not shall be intimated to the OEM within 30 days of application of time extension.

18.4 Eventualities namely flood, fire, earthquake and war prevailing at the premises of the sub-contractor of the OEM with the exception of strikes and lock-outs, will also be considered as Force Majeure conditions provided list of sub-contractors is furnished by the OEM at the time of release of advance payment.

19.0 EXTENSION OF TIME

In the event the work suffer delays due to Force Majeure conditions or for the reason beyond the control of the contractor or for reasons such as outbreak of epidemic or pandemic as provided in clause – 18 the completion period shall be extended suitably without any cost to the employer.

20.0 LIQUIDATED DAMAGES

In case the OEM fails to supply the equipment and complete the work within the specified time or any extension granted thereto due to the cause / reason solely attributable to OEM, the OEM is liable to pay liquidated damages for delay for an amount computed @ 0.5% of the contract price (supply & service separately) per week of delay or part thereof, subject to a maximum deduction of 5% of the total contract price from the invoices of the OEM. However, when the amount of LD leviable reaches the maximum limit, OHPCL shall have the right to terminate the contract and get the

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balance work from the OEM without prejudice to applicability of other terms & conditions of the contract.

21.0 GOVERNING LAWS

The Contract shall be governed by and interpreted in accordance with laws of India. If, during execution of the Contract any new law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the OEM and / or the Time of Completion, the Contract price may be correspondingly adjusted, and / or Time of completion shall be reasonably adjusted to the extent that the OEM has thereby been affected in the performance of any of the its obligation under the Contract on mutually agreeable basis only.

22.0 SUSPENSION/TERMINATION OF CONTRACT

In the event of unforeseen circumstances arising out of execution of contract beyond the control of OHPC and/or the OEM thereby necessitating suspension of the contract for a prolonged period or altogether terminate the contract, such issues shall have to be discussed threadbare with both parties making all possible endeavor to mutually resolve the matter on hand.

In the unfortunate scenario of failing to resolve the issues mutually, either party will then be free to take recourse to remedies available at Clause No. 28.0 of the Contract.

23.0 CONFIDENTIAL INFORMATION

The OHPC and the OEM shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract. Whether such information has been furnished prior to, during or following termination of the Contract. Notwithstanding the above, the OEM may furnish to its sub-supplier(s) such documents, data and other information it received from OHPC limited to the extent required for the sub-supplier(s) to perform its work under the Contract.

The OHPC shall not use such documents, data and other information received from the OEM for any purpose other than the operation and maintenance of the Facility/Plant. Similarly, the OEM shall not use such documents, data and other information received from OHPC for any purpose other than the design, procurement of Plant and Equipment, construction or such other work and services as are required for the performance of the Contract.

However the information relating to contract asked for by the appropriate authority of the Central Govt. / State Govt. / Regulatory authorities / autonomous bodies such as CIC / CVC etc. under the appropriate Rules / Laws / Act shall be furnished without any liability to OHPC.

24.0 ENGINEER-IN-CHARGE

The Divisional Head, Maintenance Division, UIHEP, Mukhiguda

25.0 CONSIGNEE

The Divisional Head, Operation Division, UIHEP, Mukhiguda.

26.0 PAYING OFFICER

Finance Wing Head, UIHEP, Mukhiguda.

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27.0 SITE AUTHORITY

Unit Head, UIHEP, Mukhiguda.

28.0 JURISDICTION OF COURT & ARBITRATION

In the event of any dispute arises in fulfilment of contractual obligations or in case difficulties arising in interpretation of various clauses of the contract, either party may, if they so desire, file suits in a court of law to which jurisdiction of High Court of Orissa extends. However, all endeavor should be made to resolve disputes, if any, through mutual agreements and if such endeavor did not yield the desired resolution, either party may initiate arbitration proceedings in accordance with Arbitration & Conciliation Act of India. The venue of arbitration proceedings shall be Bhubaneswar, Odisha, India.

29.0 ACCEPTANCE

Acceptance of the order is to be acknowledged by the OEM in the manner of returning the extra copy of this order attached herewith duly signed & stamped on each page within seven days of issue of the order as a token of acceptance of the same.

Yours faithfully

Encl:1. Annexure-I (Facilities to be provided by OHPCL)
Annexure-II (Standard Advance BG Format)
Annexure-III (Standard Performance BG Format)

19.1.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 336 **Date.** 19.01.2023

Copy submitted to the Director (O), OHPC Ltd, Bhubaneswar for favour of kind information.

19.1.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 337 **Date.** 19.01.2023

Copy communicated to the Finance Wing Head, UIHEP, Mukhiguda for information. & necessary action.

19.1.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 338 (2) **Date.** 19.01.2023

Copy communicated to the Divisional Head, Maintenance Division / Divisional Head, Operation Division. UIHEP for information & necessary action.

19.1.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 339 **Date.** 19.01.2023

Copy communicated by e-mail to Mr. Vidyarthi Raj, Head of HY Service, Voith India (E-mail: raj.vidyarthi@voith.com)

19.1.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 340(3) **Date.** 19.01.2023

Copy communicated for information and necessary action to the:

1. Divisional Head, P&C Division, UIHEP, Mukhiguda
2. Divisional Head, Utility Division, UIHEP, Mukhiguda
3. SDO, Operation Sub-Division – II, UIHEP, Mukhiguda

19.1.2023
Unit Head
UIHEP, Mukhiguda

C.C.: Work Order Guard File

Odisha Hydro Power Corporation Ltd. Bhubaneswar

Annexure- 32(v)

OFFICE OF THE SR. GENERAL MANAGER (ELECTRICAL)
UPPER INDRAVATI HYDRO ELECTRIC PROJECT, MUKHIGUDA,
DIST: KALAHANDI-766026, ODISHA, E-mail: sgmel_uihep@ohpcltd.com
ODISHA HYDRO POWER CORPORATION LTD. (A GOVERNMENT OF ODISHA UNDERTAKING)
Regd. Office OSPH & W.C Building, Vanivihar Chhak, Janpath, Bhoinagar, Bhubaneswar-751022,
Tel: 91-0674-2542983, 2542802, 2545526, 2542826, Fax:2542102, E-Mail: ohpc.co@gmail.com / md@ohpcltd.com
WEB: www.ohpcltd.com, CIN: U40101OR1995SGC003963

ISO 9001:14001
18001 Certified

No. UIHEP/SGM (EL.)/TW/ 2383 (Part-I)\ 1318 (WE) / Dated 17.03.2023

To

M/s Voith Hydro Pvt. Ltd.,
A-20&21, Sector – 59,
Noida – 201301, Uttar Pradesh
E-mail: raj.vidyarthi@voith.com, Namita.Saini@Voith.com ,
Dibyendu.Dhara@Voith.com

Sub: Design, manufacturing & supply of four sets of New MIV Seal Control System for all the four generating units of UIHEP, Mukhiguda in partial amendment to UIHEP Order No. 1543, Dated 16th April'2022 for Procurement of four numbers of Control Valves for Downstream Seat Ring of UIHEP, Mukhiguda

Ref: 1) UIHEP Order No. 335, Dated 19.01.2023 (New MIV System PO-cum-WO)
2) Your Offer Letter No. VHNAMB-00568758-CS-01, Dated 24th August'2022
3) UIHEP Order No. 1543, Dated 16th April'2022 (Control Valve PO)

BNM GM(EL)

Sir,

With reference to the above and in accordance with Clause No. 2.0 (NEW MIV SEAL CONTROL SYSTEM) of UIHEP Purchase-cum-Work Order bearing No. 335, Dated 19.01.2023 commensurate with your acceptance Letter No. VHNAMB-UI_Valve-20, Dated 14.03.2023, the UIHEP Order No. 1543, Dated 16th April'2022 is hereby amended to the extent as elaborated hereunder complete with the following terms, conditions and prices. The order together with all references and correspondences & meetings conducted between OHPC Ltd (*hereinafter referred to as OHPC*) and M/s Voith Hydro Pvt. Ltd. (*hereinafter referred to as the OEM*) pertaining to the subject matter shall constitute the contract document between OHPC & OEM.

1.0 SCOPE OF SUPPLY:

The scope of supply within this amendment order includes but not limited to design, manufacture & supply of four sets of New MIV Seal Control System along with all associated accessories as may be required for & compatible with successful commissioning of the New MIV System. This amendment order shall always be read in conjunction with UIHEP Purchase-cum-Work Order bearing No. 335 Dated 19.01.2023 for New MIV System. It is incumbent upon the OEM to satisfactorily discharge the obligations under UIHEP Purchase-cum-Work Order bearing No. 335 Dated 19.01.2023 and this amendment order. Failure to comply with any of the two orders shall be construed as non- performance of the obligations on the part of OEM. The New MIV seal control system shall include the following supplies:

- One (1) no. MIV seal control system for each Unit.
- One (1) no. local control panel for MIV operation.
- One (1) set of piping and its accessories MIV seal control Unit System.

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- One (1) set of electrical cabling and its accessories for above scope of supply.

Description of Seal Control for MIV:

MIV seal control panel provided to control maintenance and service seal. For Maintenance & Service seal operation, the water is tapped from existing penstock tapping. Duplex type filter shall be provided to achieve required degree of filtration. The filter shall be equipped with differential pressure switch to have visual local & electrical remote indication. Pressure switch on common header shall be provided to monitor the seal control system pressure. Pressure gauge for local pressure monitoring shall also be provided. Control valves for the seals operation shall be operated through the new proposed HPU for MIV.

The hydraulic schematic of new MIV seal control system is enclosed herewith as Annexure- I for reference.

2.0 PRICE SCHEDULE

Sl. No	SCOPE OF SUPPLY	QTY (Sets)	Unit FORD (UIHEP) Price (Rs.)	Total FORD (UIHEP) Amount (Rs.)
1	Design, Manufacturing & Supply of New MIV Seal Control System compatible with New MIV of improved design	04	80, 50, 800/-	3,22,03,200/-
	Total Prices exclusive of GST			**3,22,03,200/-**
	(Rupees Three Crore Twenty-Two Lakh Three Thousand Two Hundred) Only			

3.0 PRICE BASIS &TAXATION

The aforementioned prices as per price schedule are inclusive of all taxes & duties and all cost with FOR destination at UIHEP, Mukhiguda but exclusive of GST. GST as applicable shall be paid extra in accordance with GST Act & Rules. TDS & TCS shall be deducted at the rate & in the manner as applicable as per various Acts & Rules at the time of payment of advances & bills.

4.0 TERMS OF PAYMENT.

a) 10% of contract price shall be released as interest- free advance payment against submission of Bank Guarantee (BG) drawn on a nationalized/scheduled bank in favour of OHPC equivalent to 100% of advance amount. The BG shall remain valid till up to three (03) months after the scheduled date of delivery of all the equipment & materials. Advance payment amounting to Rs. 3,220,320/- only against Bank guarantee No.820-02-0084559 Dated 05.05.2022 has already been paid to the OEM, no further advance payment is applicable under this amendment order. Zero date for delivery of materials as per this amended contract will be reckoned as the date of release of advance.

payment for supply of New MIV against UIHEP Purchase-cum-Work Order bearing No. 335 Dated 19.01.2022 for New MIV System.

b) 80% of contract price plus 100% of applicable GST shall be released against delivery of materials on Unit-wise pro-rata basis limiting to a maximum of eight (08) tranches of payment schedule for total supply of equipment & materials, on submission of Performance BG equivalent to 10% of total contract price (Rs. 3, 22, 03, 200/-). The Performance BG shall remain valid till three (03) months after expiry of guarantee period of all the four Units.

c) Balance 10% of contract price shall be released on Unit- wise pro- rata basis after successful commissioning of each of the four sets of New MIV System.

d) All the above payments are subject to TDS & TCS as applicable and against submission of GST invoices along with warranty certificate.

4.1 Sample formats for performance bank guarantee is attached with amendment purchase order as Annexure - II. The OEM shall have to take prompt action in extending the validity period of the bank guarantees from time to time as per requirement in accordance with the provisions of the contract.

4.2 No interest shall be paid on the bank guarantees under any circumstances whatsoever.

5.0 DELIVERY / COMPLETION SCHEDULE

Sl. No.	Item Description	Time Schedule
1.	New MIV Seal Control System & other supplies – 1st Unit	11 months from zero date
2.	New MIV Seal Control System & other supplies – 2nd Unit	11 months from zero date
3.	New MIV Seal Control System & other supplies – 3rd Unit	13 months from zero date
4.	New MIV Seal Control System & other supplies – 4th Unit	13 months from zero date

6.0 WARRANTY

The equipments under the scope of supply are to be warranted by the OEM against any defects due to bad material, faulty design or poor workmanship for a period of twelve (12) months from the date of commissioning of each Unit or twenty- four (24) months from the date of FORD delivery of each Unit whichever is earlier. The OEM shall submit the warranty certificate at the time of submission of bill towards 80% of contract price.

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The improved designed New MIV Seal Control System shall be designed to counter the phenomenon of auto- oscillation in penstock induced due to pressure pulsation. Warranty of one (01) year from the date of commissioning of each Unit is provided for resolution of auto- oscillation & penstock vibration problem limited to OEM's scope of supply. Any works related to civil structure if any, shall be in the scope of OHPC.

7.0 BILLING BREAK- UP

Billing break-up of items of supplies shall be provided by the OEM after placement of this amendment order to facilitate delivery/billing of equipment & materials pertaining to payment terms at Clause No. 4.0 (b). The OEM shall provide General Arrangements (GA) drawings, maintenance manual & other such documents which are general in nature but are essential for safe operation & maintenance of the whole New MIV System of improved design along with delivery of the equipment.

8.0 CODES

The OEM shall follow international as well as Indian Standards such as BIS, ASTM & DIN for manufacturing of New MIV Seal Control System.

9.0 FREIGHT AND TRANSIT INSURANCE

The contract prices are inclusive of all transportation and transit insurance charges up to the site at UIHEP, Mukhiguda and are in OEM's Scope. Transit Insurance shall be covered under OEM Marine Policy taken for all projects. OEM shall provide the certificate from insurance company for the cover of the transit insurance. In the event of any loss or damage of materials or equipment in transit the supplier shall replace/ repair the same immediately at their own cost.

10.0 PACKING & FORWARDING

Contract Prices are inclusive of all packing, forwarding, loading & unloading charges.

11.0 EFFECTIVE DATE & ZERO DATE OF THE CONTRACT

Contract is effective from the date of acceptance of original P.O No. 1543 dt. 16.04.2022. However, the Commencement Date / Zero Date for supply shall be reckoned as the date of release of advance payment against UIHEP Purchase-cum-Work Order bearing No. 335, Dated 19.01.2023 for supply & execution of New MIV System as referred at cl 1 of this amendment order.

12.0 Performance Security:

The OEM shall furnish performance security deposit equivalent to 10% of total contract value in shape of Bank Guarantee from any Nationalized Bank / Scheduled Bank under RBI having branch in Odisha. The BG shall be submitted in enclosed format before release of payment under Clause No. 4.0 (b).

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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The BG towards performance security deposit shall be valid till 3 (three) months after the end of warranty period. The performance security deposit shall be suitably extended if any defect noticed during the warranty period.

The performance BG formats is enclosed herewith as Annexure- II.

13.0 LIQUIDATED DAMAGES

In case the OEM fails to supply the equipment or complete the work within the specified time or any extension granted thereto due to the cause / reason solely attributable to OEM, the OEM is liable to pay liquidated damages for delay in the amount computed @ 0.5% of the price of delayed portion per week or part thereof of delay to a maximum of 5% of the contract price.

14.0 LIMITATION OF LIABILITY

The aggregate liability of the OEM, whether arising out of this Contract, in tort or otherwise, shall not exceed the total Contract Price. However, besides the said liability, the OEM is liable for deposit of all statutory dues as applicable as per prevailing Acts & Rules. Further, the OEM is also liable for compliances as required under various statutes including Workmen's Compensation.

15.0 INSPECTION & TESTING

The OEM shall offer to OHPCL for final inspection of the valves (pre-dispatch inspection for functional tests & seal leakage test) at their Vadodara Works. Travel & other costs of OHPC personnel shall be to OHPCL account. The OEM shall intimate to OHPCL at least one week in advance for inspection. The decision of UIHEP site authorities regarding deputation of inspecting officer shall be final.

16.0 CHANGES & ADDITIONS

If the OEM is called upon to do works other than those originally indicated in its 'Scope of Works' or to redo some work already completed satisfactorily or to undertake any rectification of plant and equipment or to carry out any modification due to alteration in scope, parameters and drawings agreed by OHPC, additional payment for such extra work on the basis of mutually agreed upon terms may be considered by OHPC.

17.0 LABOUR

The OEM may engage labour and skilled manpower directly or through a sub-contractor for executing the site works under supervision of OEM's experts. However, the OEM shall obtain necessary prior permission/ clearance from UIHEP site authorities in writing before such engagement at site. Any dispute related to labour law shall have to be settled by the OEM. The workmen engaged for the said works shall not be paid at less than the rate of minimum wages as applicable as per prevailing Govt. Rule notified

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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from time to time. All the statutory dues relating to engagement of labour shall be paid / deposited / borne by the OEM/ their sub-contractor including compliances thereof from time to time. The OEM shall ensure & be liable for the same. Issues pertaining to Workmen's Compensation Act or any other labour laws if any shall have to be sorted out by the OEM, while keeping OHPCL harmless at all the time.

18.0 FORCE MAJEURE

18.1 Acts of God, acts of Government and other causes as strikes, lockout or other concerted action of workmen war, sabotage, riots, civil commotion, police action, revolution, flood, fire, earthquake and epidemic. However, power cut shall not be considered under force majeure provisions

18.2 If the OEM suffers delay in the due execution of the contractual obligations due to delays caused by Force Majeure situation as defined above, the agreed time of completion of the work covered under this contract may be extended by a period of time as facts justify with or without levy of LD, provided that within 15 days of the occurrence of any such contingency, the OEM immediately reports to the UIHEP site authorities in writing the cause of delay with requisite documentary evidence (s).

18.3 The decision of the OHPC whether there exist genuine Force Majeure conditions or not and whether extension of time should be granted or not shall be intimated to the OEM within 30 days of application of time extension.

18.4 Eventualities namely flood, fire, earthquake and war prevailing at the premises of the sub-contractor of the OEM with the exception of strikes and lock-outs, will also be considered as Force Majeure conditions provided list of sub-contractors is furnished by the OEM at the time of release of advance payment.

18.5 No increase in contract price shall be granted due to application of force majeure provisions under any circumstances whatsoever

19.0 GOVERNING LAWS

The Contract shall be governed by and interpreted in accordance with laws of India. If, during execution of the Contract any new law, regulation, ordinance, order or by-law having the force of law is enacted, promulgated, abrogated or changed (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the costs and expenses of the OEM and / or the Time of Completion, the Contract price may be correspondingly adjusted, and / or Time of completion shall be reasonably adjusted to the extent that the OEM has thereby been affected in the performance of any of the its obligation under the Contract on mutually agreeable basis only

Odisha Hydro Power Corporation Ltd. Bhubaneswar

-A331-

20.0 **SUSPENSION/TERMINATION OF CONTRACT** In the event of unforeseen circumstances arising out of execution of contract beyond the control of OHPC and/or the OEM thereby necessitating suspension of the contract for a prolonged period or altogether terminate the contract, such issues shall have to be discussed threadbare with both parties making all possible endeavor to mutually resolve the matter on hand.

In the unfortunate scenario of failing to resolve the issues mutually, either party will then be free to take recourse to remedies available at Clause No. 26.0 of the Contract.

21.0 **CONFIDENTIAL INFORMATION**

The OHPC and the OEM shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data or other information furnished directly or indirectly by the other party hereto in connection with the Contract except to Government authorities if asked for, whether such information has been furnished prior to, during or following termination of the Contract except to Govt. authorities. Notwithstanding the above, the OEM may furnish to its sub-supplier(s) such documents, data and other information it received from OHPC limited to the extent required for the sub-supplier(s) to perform its work under the Contract.

The OHPC shall not use such documents, data and other information received from the OEM for any purpose other than the operation and maintenance of the Facility/Plant and divulge such documents to Government if asked or called for. Similarly, the OEM shall not use such documents, data and other information received from OHPC for any purpose other than the design, procurement of Plant and Equipment, construction or such other work and services as are required for the performance of the Contract.

However the information relating to contract asked for by the appropriate authority of the central Govt./ state Govt./ Regulatory authorities/ autonomous bodies such as CIC/ CVC etc. under the appropriate Rules/ Laws/ Act shall be furnished without any liability to OHPC.

22.0 **ENGINEER-IN-CHARGE**

The Divisional Head, Maintenance Division, UIHEP, Mukhiguda

23.0 **CONSIGNEE**

The Divisional Head, Operation Division, UIHEP, Mukhiguda.

24.0 **PAYING OFFICER**

Finance Wing Head, UIHEP, Mukhiguda.

25.0 **SITE AUTHORITY**

Unit Head, UIHEP, Mukhiguda.

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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26.0 JURISDICTION OF COURT & ARBITRATION

In the event of any dispute arises in fulfilment of contractual obligations or in case difficulties arising in interpretation of various clauses of the contract, either party may, if they so desire, file suits in a court of law to which jurisdiction of High Court of Orissa extends. However, all endeavor should be made to resolve disputes, if any, through mutual agreements and if such endeavor did not yield the desired resolution, either party may initiate arbitration proceedings in accordance with Arbitration & Conciliation Act of India. The venue of arbitration proceedings shall be Bhubaneswar, Odisha India.

27.0 ACCEPTANCE

Acceptance of this amendment order is to be acknowledged by the OEM in the manner of returning the extra copy of this order attached herewith duly signed & stamped on each page within seven days of issue of the order as a token of acceptance of the same.

Yours faithfully

Encl.: As above

17.3.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 1319 **Date.** 17.03.2023

Copy submitted to the Director (O), OHPC Ltd, Bhubaneswar for favour of kind information with reference to his office letter No. 875 dtd. 04.02.2023 and 1563 dtd. 03.03.2023

17.3.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 1320 **Date.** 17.03.2023

Copy communicated to the Finance Wing Head, UIHEP, Mukhiguda for information. & necessary action.

17.3.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 1321 **Date.** 17.03.2023

Copy communicated to the Divisional Head, Maintenance Division/ Operation Division, UIHEP for information & necessary action.

17.3.2023
Unit Head
UIHEP, Mukhiguda

Memo No. 1322(3) **Date.** 17.03.2023

Copy communicated for information and necessary action to the:

1. Divisional Head, P&C Division, UIHEP, Mukhiguda
2. Divisional Head, Utility Division, UIHEP, Mukhiguda
3. SDO, Operation Sub-Division No. – II, UIHEP, Mukhiguda

17.3.2023
Unit Head
UIHEP, Mukhiguda

C.C.: Work Order Guard File.

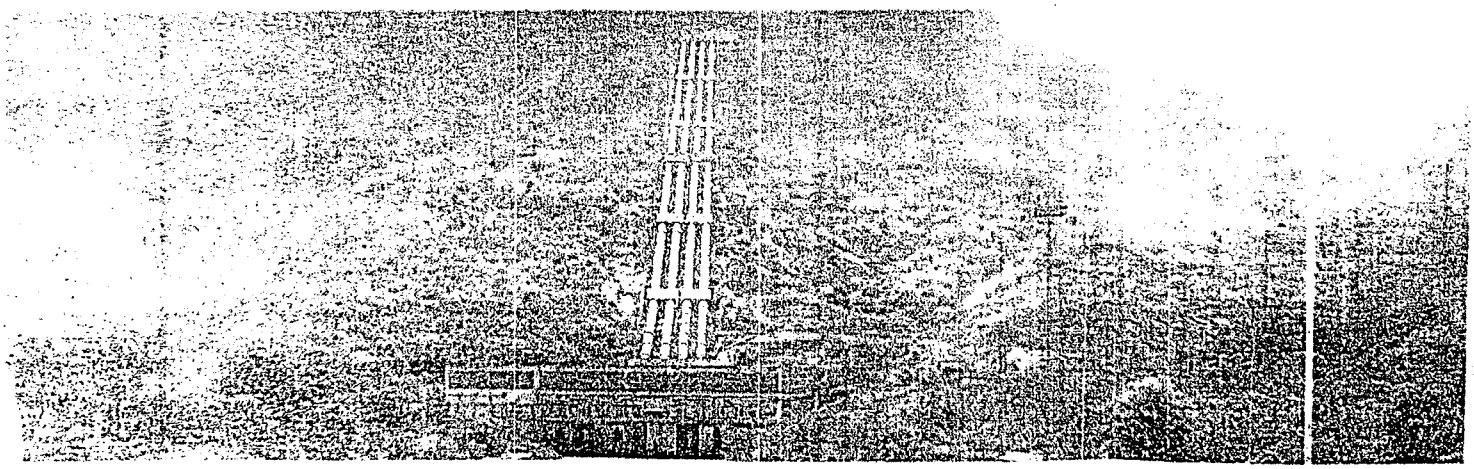
Odisha Hydro Power Corporation Ltd. Bhubaneswar

VOITH

a Hydro Power Company Limited
Bhubaneswar

Upper Indravati
Pressure pulsation in penstock

Thomas Neidhardt | 2021-04-15



Agenda

VOITH

1. Introduction – reasons for high pressure pulsation
2. Auto oscillation in spherical valves
3. Upper Indravati penstock pressure pulsation
4. Recommended actions
5. Summary

Odisha Hydro Power Corporation Ltd. Bhubaneswar

ypical pressure pulsations in power plants
sasons for penstock vibration

VOITH

Pressure pulsation forced from part load vortices in Francis turbines

Abnormal turbine governor reaction leading into a excitation of the water ways

Incomplete closing of the main inlet valve

As the pulsations in Upper Indravati occur during standstill, when the machines are shut down and main inlet valves is closed:

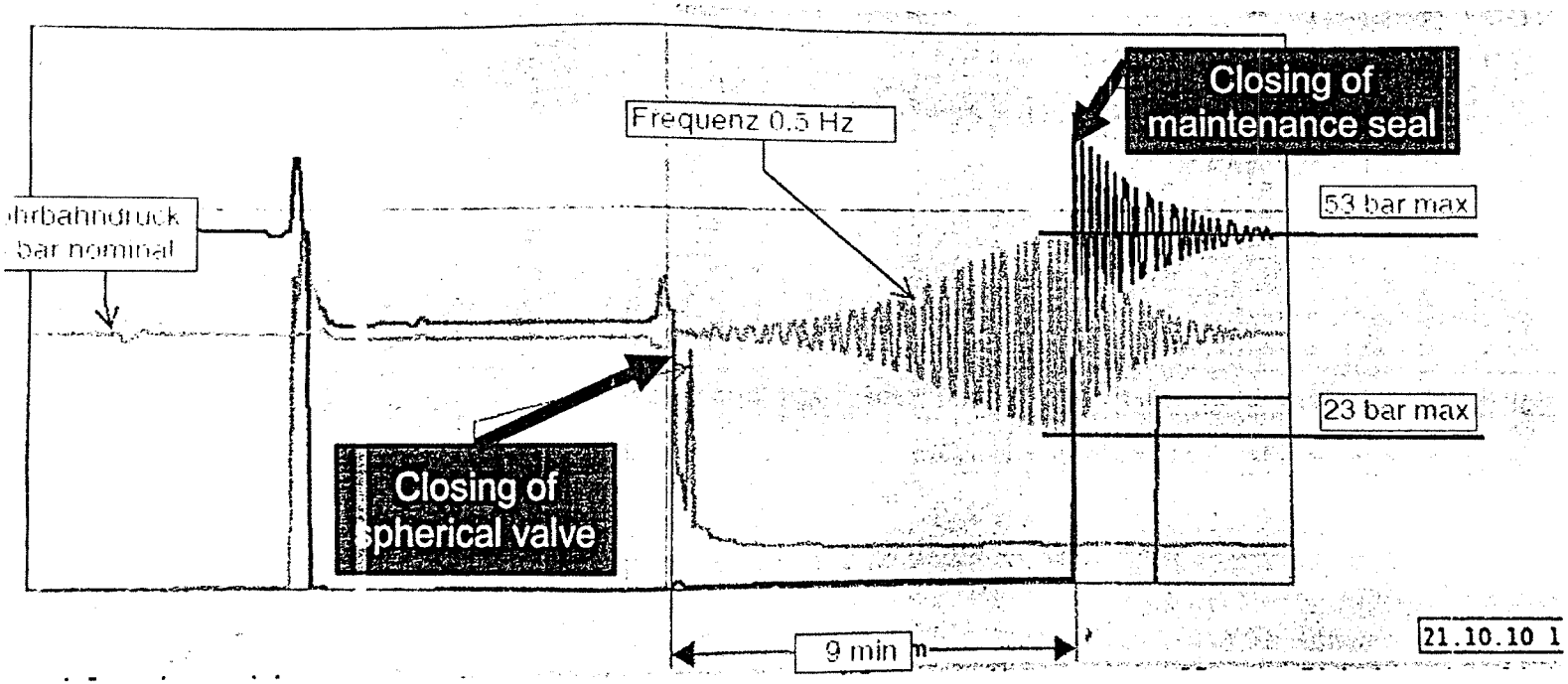
The origin of the pulsation is the spherical valve

Hydro Power Corporation Ltd. Bhubaneswar

Auto- oscillation in penstock

Example

VOITH



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A337

Auto- oscillation in penstock

Hydraulic phenomena

VOITH

- Self exciting – no external energy necessary
- Precondition: Relation of pressure versus flow needed – a change of flow causes a change in pressure
- Resonance of the water column in the penstock – vibration with water column natural frequency
- The theoretical maximum pressure rise can reach 2 times the maximum static head
- Several cases auto- oscillations in penstock caused by the main inlet valves are reported all over the world. E.g. penstock rupture in 2012 at a power plant in France

Must detected in time, risk of severe damage and loss of human life

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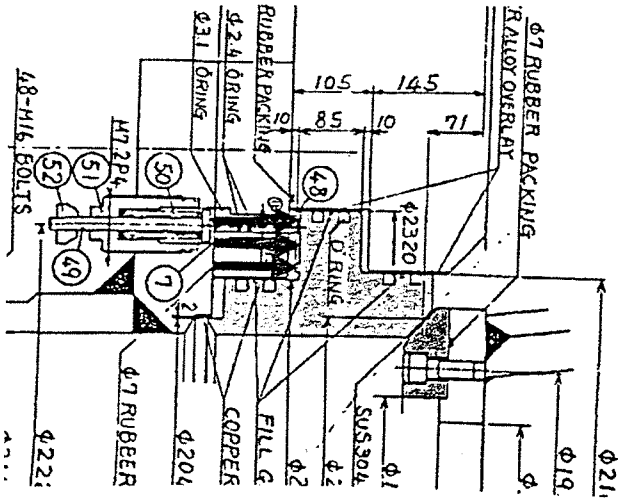
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Auto oscillation by spherical valve

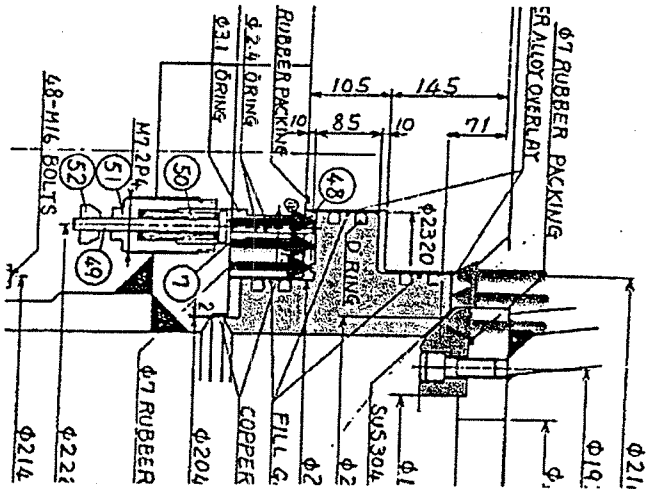
Upper Indravati

VOITH

Closing of service seal by penstock pressure



When service seal is closed, upstream pressure push seal to open



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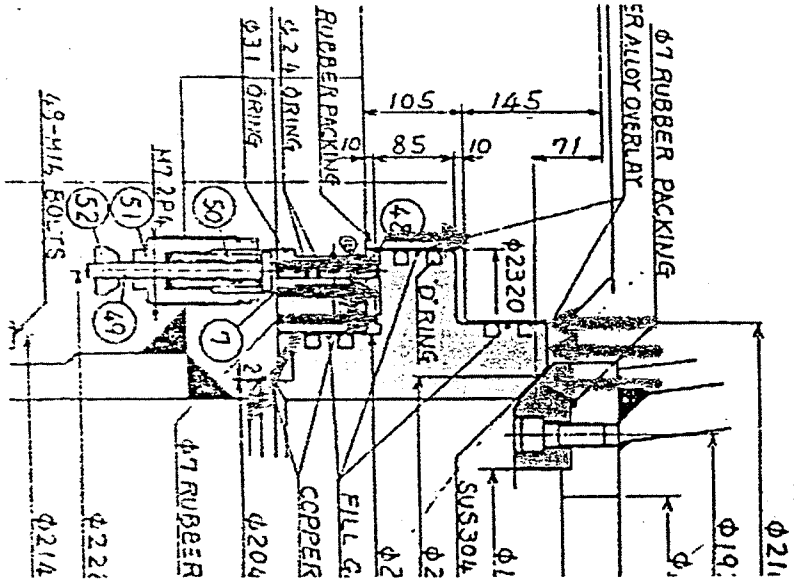
A339

Auto oscillation by spherical valve

Upper Indravati

VOITH

When seals are new, closing pressure is always larger than opening pressure on upstream side



When rubber seals are old/worn, then leakage occurs on closing side. Pressure on closing side is not strong enough and seal ring opens.

Once seal ring opens, upstream pressure is reduced, then closing starts again until upstream pressure is large enough to open the seal.

This is the auto oscillation process.

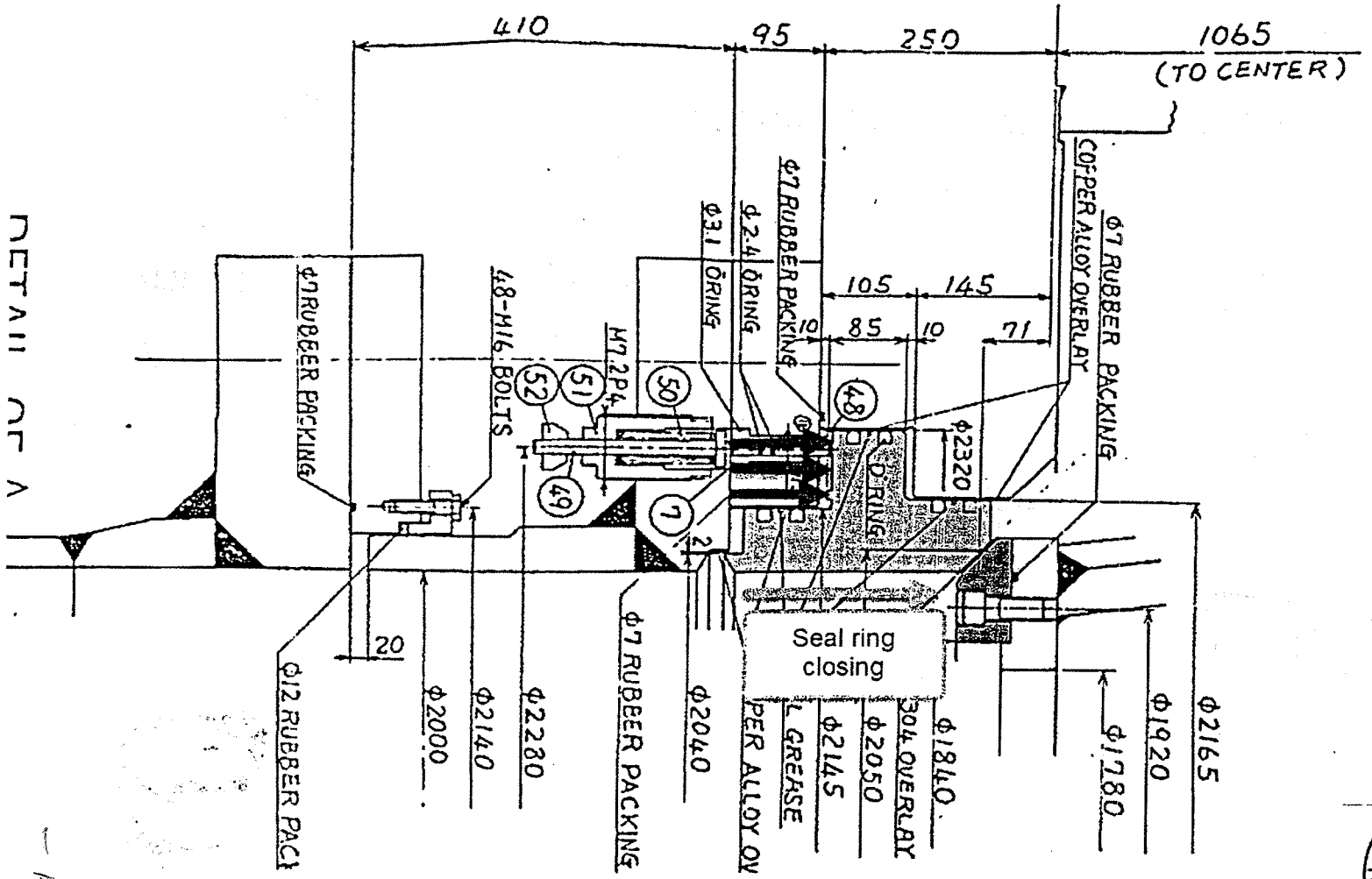
Orissa Power Corporation Ltd. Bhubaneswar

A340

Auto oscillation by spherical valve

Upper Indravati

VOITH



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Bhubaneswar

Auto oscillation by spherical valve

VOITH

Upper Indravati

Due to the pressure water leakage on the closing side of the seal ring -> Seal ring starts to oscillate -> in resonance with the frequency of the penstock -> pressure pulsation is increased -> can reach up to two times static pressure

Methods to stop auto oscillation:

- Closing maintenance seal
- Drilling non-service seal
- Open bypass
- Shut second unit connected at bifurcation in spinning mode

Hydro Power Corporation, Ltd. Bhubaneswar

1 A 342 1

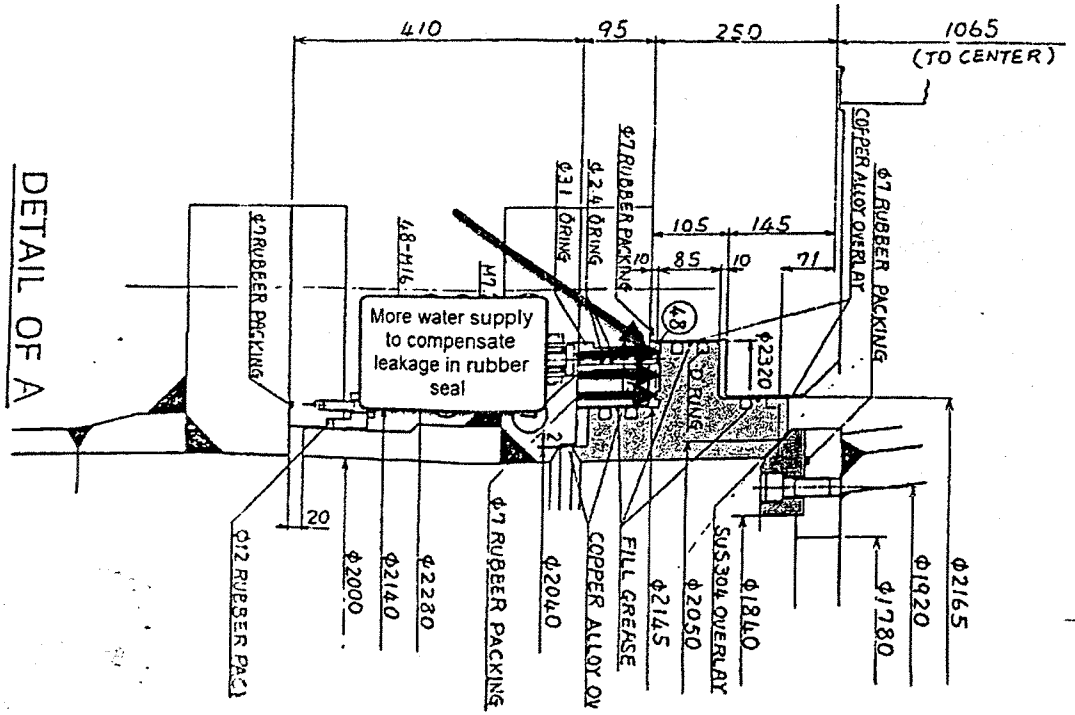
Actions to avoid Auto oscillation

Upper Indravati

VOITH

A) Increase the water flow into the closing side of the seal ring to compensate leakage

- Check if the head water supply inlet / pipe / filter is blocked



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Bhubaneswar

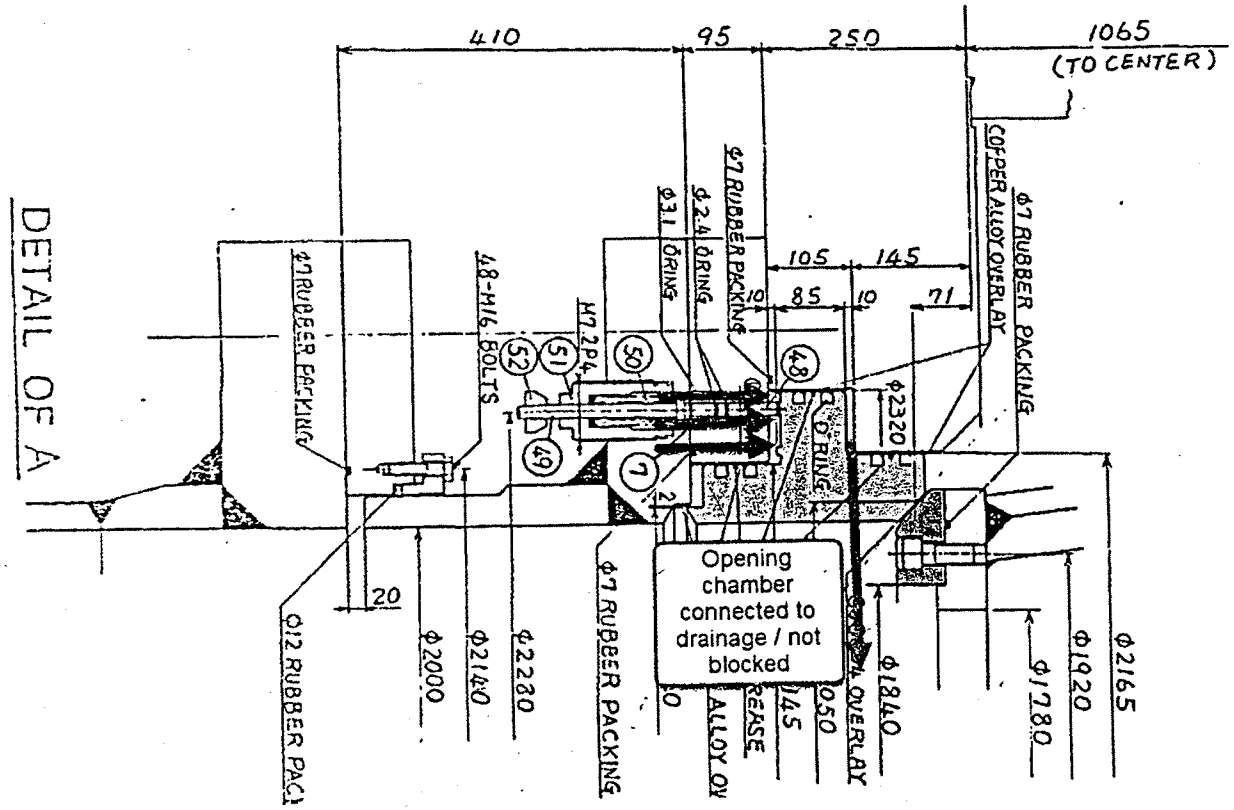
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Actions to avoid Auto oscillation

Upper Indravati

VOITH

B) Make sure that the leakage water on the opening side is drained and drainage line is open / not blocked by debris



Power Corporation
Bhubaneswar

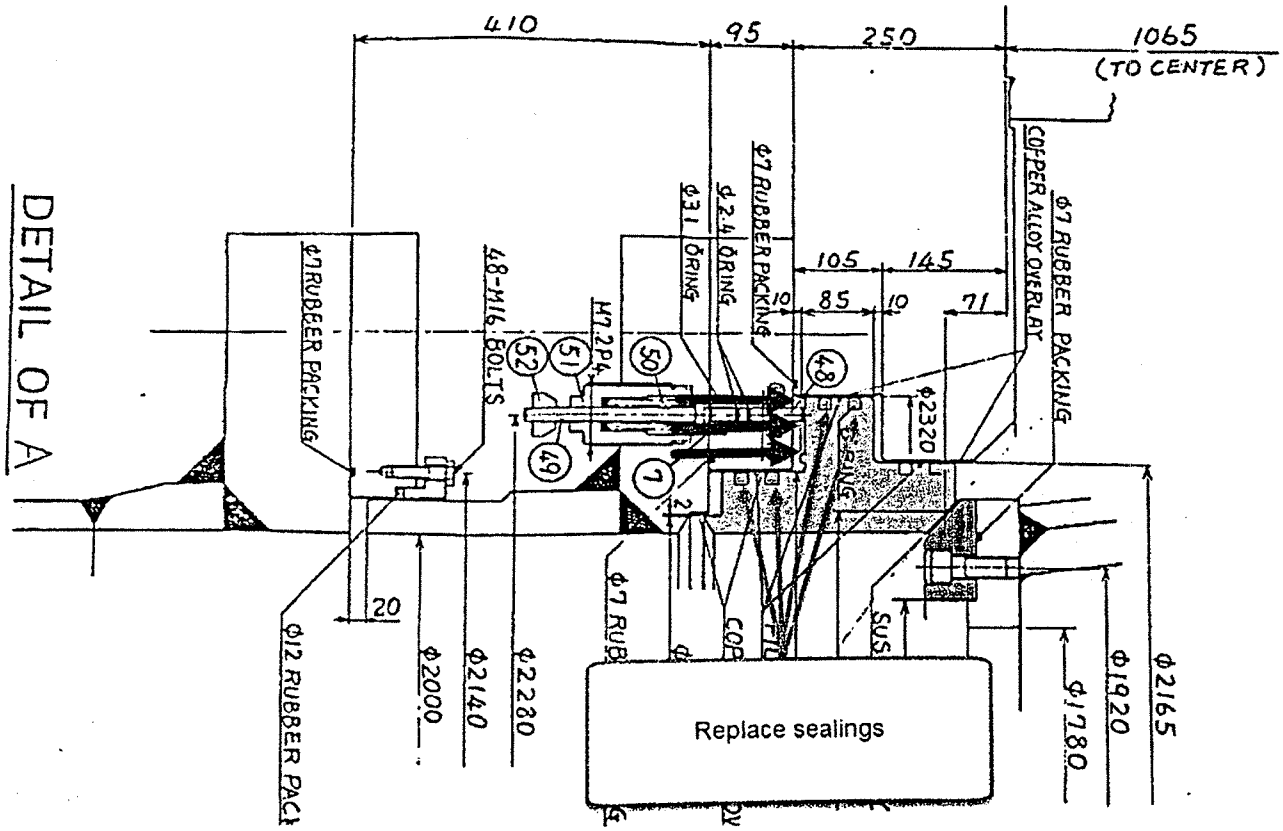
A344

Actions to avoid Auto oscillation

Upper Indravati

VOITH

C) Replace the seal rings and rubber seals to stop leakage

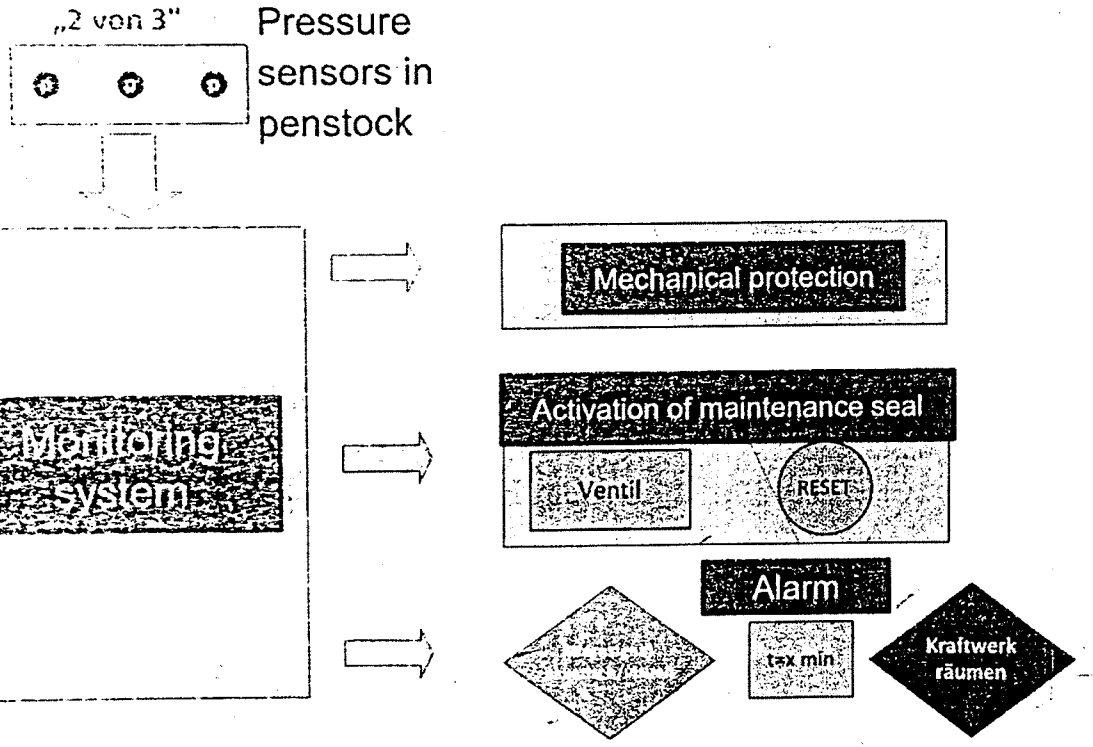


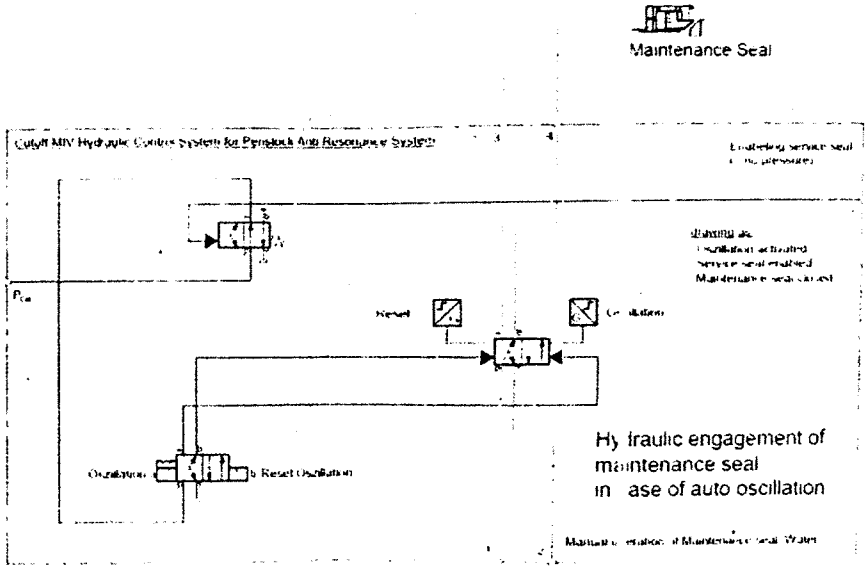
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Bhubaneswar

Actions to avoid Auto oscillation

VOITH

D) Install Auto- oscillation monitoring system: when auto- oscillation is detected -> the maintenance seal will be automatically closed





Power Corporation Ltd. Bhubaneswar

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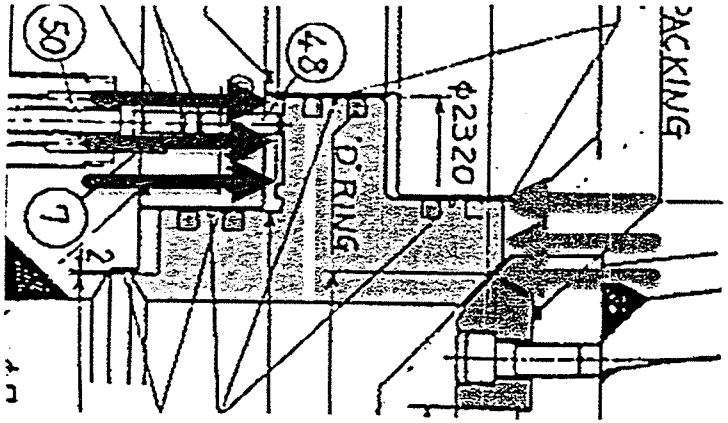
Actions to avoid Auto oscillation

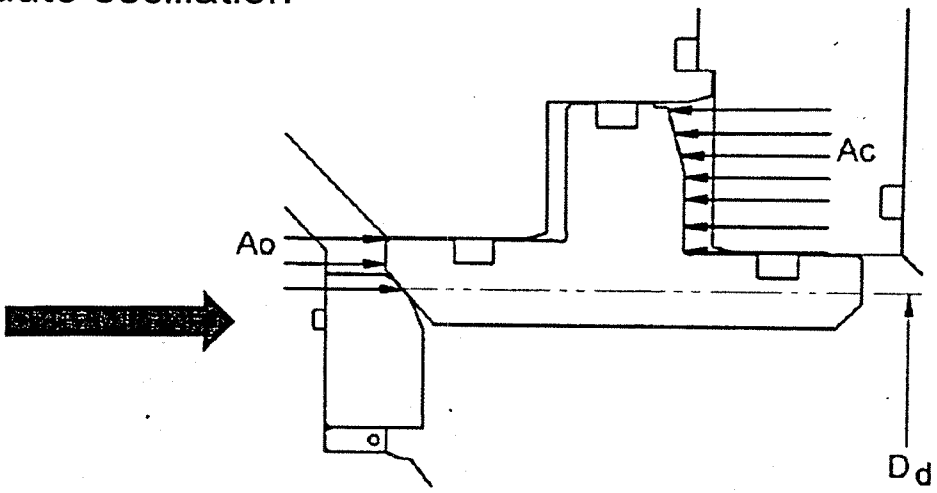
Upper Indravati

VOITH

E) For long term safety, replace main inlet spherical valve by new design

New seal ring design, safety against auto oscillation





Old design, Upper Indravati

New design with increase closing area

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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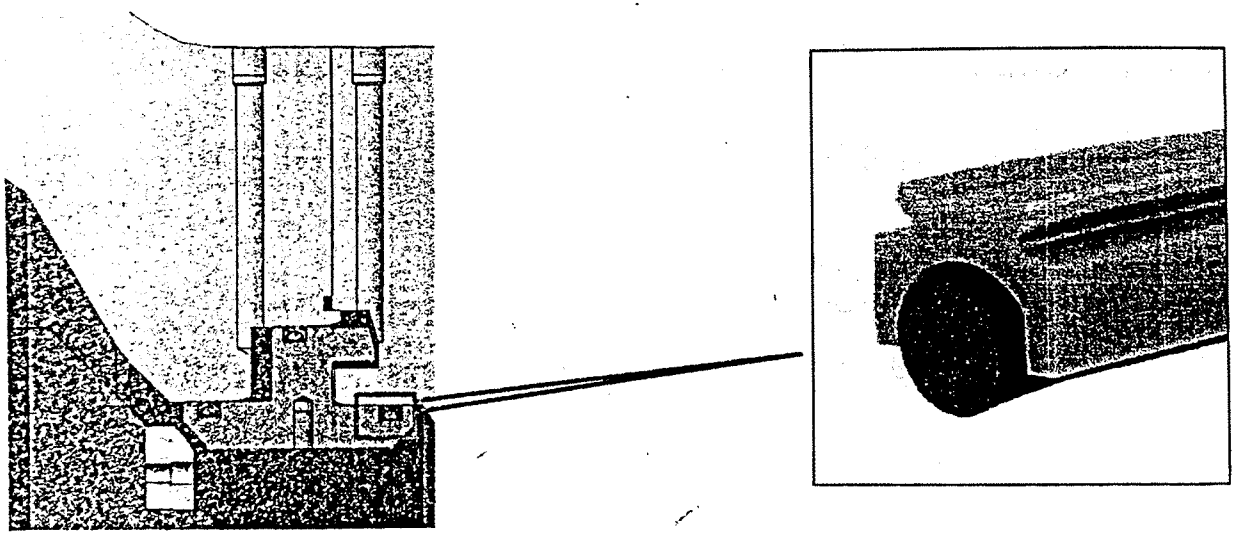
Actions to avoid Auto oscillation

Power Indravati

VOITH

E) For long term safety, replace main inlet spherical valve by new design

New polyurethane robust seal profiles for long life – minimize leakage over time



Power Corporation Ltd. Bhubaneswar

Summary
Upper Indravati

VOITH

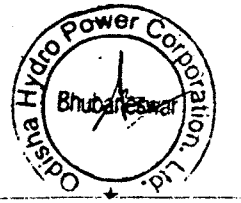
- Pressure fluctuation in the penstock is caused by an oscillating seal ring in the spherical valve
- The phenomena is self exciting and the fluctuations continuously increase over time
- The pressure fluctuation can go as high as two times the static pressure
- If the fluctuation is not stopped in time, it will lead to a penstock rupture and a possible danger for human life
- Proposed actions A) to D) should be implemented as fast as possible to reduce the risk of auto- oscillation and possible danger of a severe accident
- For long term improvement the spherical valves should be replaced by a new design (action E)

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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VOITH

Thank you!



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TANGSIBJI HYDRO ENERGY LIMITED

(Developer of 118 MW Nikachhu Hydropower Project)



CONTRACT AGREEMENT

FOR

Supply of Main Contract Package, MP-2(Electro-Mechanical Works) i.e "Complete Design, Manufacture and Supply of Plant and Mandatory Spare Parts" of 118 MW Nikachhu Hydropower Project, Trongsa, Bhutan

BETWEEN

Tangsibji Hydro Energy Limited (THyE)

&

Voith Hydro Private Limited, India

VOLUME 01-AG 01

Supply Contract

DECEMBER 2015

CONTRACT NO. :THyE/MP-2/2015/01(A)

SUPPLY CONTRACT

Doc. No.	Description
	Volume 01-AG-1
1	Contract Agreement No. THyE/MP-2/2015/01(A)(Supply Contract) between Tangsibji Hydro Energy Limited and M/s Voith Hydro Private Limited
2	Description of Contract
3	Price Schedule of Supplies
4	Notification of Award- Letter of Award
5	Copy of Bank Guarantee against Performance Security
6	Integrity Pact- ACC
	Appendix 1 - Terms and Procedures of Payment of Supply Contract
	Appendix 2 - Price Escalation applicable for Supply Contract
	Appendix 3 - Insurance Requirements
	Appendix 4 - Time Schedule
	Appendix 5 - List of Major Items of Plant and Services and List of Approved Subcontractors
	Appendix 6 - Scope of Works and Supply by the Employer
	Appendix 7 - List of Documents for Approval or Review
	Appendix 8 - Functional Guarantees
	Volume 02
	Correspondence Exchanged
1	Negotiation Minutes with Voith Hydro Private Limited
2	Correspondence exchanged between M/s Voith and THyE(Post Bid)
2	Addenda issued to Bidders (Pre-Bid)
	Volume 03
	Tender and other documents forming part of Contract
1	Instruction to Bidders(ITB)
2	Bid Data Sheets(BDS)
3	Evaluation and Qualification Criteria(EQC)
4	Bidding Forms(BDF)
5	Eligible Countries(ELC)
6	Conditions of Contract and Contract Forms
	6A: General Condition of Contract
	6B: Special Condition of Contract
	6C: Contract Forms
	Volume 04
	Employer's Requirement(General Technical Specifications)
	Employer's Requirement
	General Technical Specifications
	Volume 05
	Employer's Requirement(Particular Technical Specifications)
	Volume 06
	Employer's Tender Drawings
	Volume 07
	Employer's Technical Data Sheets
	Volume 08
	Quality Assurance Plans & Supplementary Information
	Volume 09
	Techno Commercial Offer of M/s Voith Hydro Private Limited

Voith Hydro Private Limited Noida

TANGSIBJI HYDRO ENERGY LIMITED

Odisha Hydro Power Corporation Ltd.

Contract Agreement (Supply Contract)

THIS AGREEMENT No. THyE/MP-2/2015/01(A) made the **30th day of December, 2015,**

BETWEEN

(1) **M/s Tangsibji Hydro Energy Limited**, a corporation incorporated under the laws of **Bhutan** and having its principal place of business at **Trongsa, Bhutan** (hereinafter called "the Employer"), and (2) **M/s Voith Hydro Private Limited**, a corporation incorporated under the laws of **India** and having its principal place of business at **A-20 & 21,Sector 59, Noida 201 301, Uttar Pradesh, India** (hereinafter called "the Contractor/Bidder").

WHEREAS the Employer desires to engage the Contractor for complete design, manufacture, and supply of complete Facilities, viz. **118 MW Nikachhu Hydropower Project, Trongsa, Bhutan** ("the Facilities") and the Contractor have agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

Article 1 **Contract Documents**	1.1	**Contract Documents** (Reference GCC Clause 2) The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract: (a) the Contract Agreement (b) the Letter of Acceptance (c) the Negotiation Minutes (d) the Addenda (Pre-Bid) & Post Bid Correspondence (e) the Special Conditions of Contract (f) the General Conditions of Contract (g) the Employer's Requirement (h) the Tender and any other documents forming part of the Contract including the Contractor's Bid.
	1.2	**Order of Precedence** (Reference GCC Clause 2) In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.
	1.3	**Definitions** (Reference GCC Clause 1) Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions.
Article 2 **Contract Price and Terms of Payment**	2.1	**Contract Price** (Reference GCC Clause 11) The Employer hereby agrees to pay to the Contractor the Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price

		shall be the aggregate of: **USD 19,604,896 (United States Dollar Nineteen Million Six Hundred Four Thousand Eight Hundred And Ninety Six Only)**, as specified in Price Schedule No. 4 (Grand Summary), or such other sums as may be determined in accordance with the terms and conditions of the Contract. 2.2 **Terms of Payment** (Reference GCC Clause 12) The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in the Appendix (Terms and Procedures of Payment) hereto. Remittance of all payment to Contractor for the Supply shall be made to the bank details as provided below: **Account Name: VOITH HYDRO PRIVATE LIMITED** **Bank Name: ANZ Banking Group Limited** **Branch Address: One Horizon Centre, 20th Floor, Golf Course Road, Sector 43, DLF phase V, Gurgaon- 122 002, India** **Account No. 003000039531** **CCY: USD** **SWIFT CODE: ANZBINBXXXX**
Article 3 **Effective Date**	3.1	**Effective Date** (Reference GCC Clause 1) The Effective Date upon which the period until the Time for Completion of the Facilities shall be counted from is the date when all of the following conditions have been fulfilled: (a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor; (b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee; (c) The Employer has paid the Contractor the advance payment; Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.
	3.2	If the conditions listed under 3.1 are not fulfilled within 2 months from the date of this Contract because of reasons not attributable to the Contractor, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Completion and/or other relevant conditions of the Contract.

Article 4 Communications	4.1	The address of the Employer for notice purposes, pursuant to GCC 4.1 is: Tangsibji Hydro Energy Limited (THyE) Near DGPC Office, Thori Lam Lower Motithang, Thimphu Bhutan
	4.2	The address of the Contractor for notice purposes, pursuant to GCC 4.1 is: **M/s Voith Hydro Private Limited** **A – 20 and 21, Sector 59** **Noida – 201301** **Uttar Pradesh** **India**
Article 5. Appendices	5.1	The Appendices listed in the attached List of Appendices shall be deemed to form an integral part of this Contract Agreement.
	5.2	Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by, for and on behalf of the Employer

(Karma Chhophel)
Managing Director, THyE

In Presence of:

(Sujan Rai)
Dy.MD, THyE

Signed by, for and on behalf of the Contractor

(Summet Mazumdar)
Member of Board of Management

(Vishal Kumar Goel)
Vice President, Sales & Marketing

In Presence of:

(Bhuvan Vikram Singh)
AVP, Sales & Marketing

(Sandeep Shrivastav)
AGM, Sales & Marketing

Voith Hydro Private Ltd. Noida

Odisha Hydro Power Corporation Ltd. Bhubaneswar

TANGSIBJI H. DRO

PRICE SCHEDULES OF SUPPLIES

Voith Hydro Private Limited Noida

SCHEDULE OF RATES AND PRICES

Schedule No. 2 - Price[3] for Complete Design, Manufacture and Supply of Plant and Mandatory Spare Parts supplied from India/ Bhutan

Item	Description[4]	Qty.	Ex works Price including packing, forwarding & handling charges		Inland Freight Charges upto CIP Project site (USD)	Total Cost upto Project site (USD)
			Unit (USD)	Total (USD)		
1	2	3	4	5=3 x 4	6	7= (5 + 6)
1	Vertical Axis Pelton Turbine of rated capacity of 60.204 MW output at rated net head of 520.22 m , 375 rpm complete with all Auxiliaries & Accessories, measuring Instruments, Guide Bearing as per Specifications and 10% extra bearing oil.	2 sets				
2	Modern Electro Hydraulic Governor System for Vertical Axis Pelton Turbine as mentioned above as per Specifications.	2 sets				
3	Spherical Type Main Inlet Valve of size 1400 mm with Hydraulic Control System, OPU, Nitrogen Bottles, Anti Vacuum Valve, Dismantling Joint and other Accessories, Piping etc. complete as per Specifications.	2 sets	489,884	979,768	31,888	1,011,656
4	Generator Units of rated capacity 59 MW with 10% O/L, vertically mounted, Salient Poles, Closed Loop Air Cooled, 375 rpm , 0.9 p.f [lag], 11 kV generating voltage, 50 Hz, directly coupled to Vertical axis Pelton Turbine, complete with Static Excitation System, Excitation Transformer, Modern Automatic Voltage Regulator [AVR], Online Vibration Monitoring System along with all associated Equipment, Material and Accessories, RTD etc., Thrust and Guide Bearings, Water Fire Protection System in complete conforming to latest IEC standard as per specifications and 10% extra bearing oil.	2 sets				
	Butterfly Valve (Penstock Valve) of size 3000 mm complete with Hydraulic Control System, OPU, Anti Vacuum Valve, Dismantling Joint and other Electrical and Mechanical Auxiliaries and Accessories etc. to suit Local/ Remote operation, complete as per Specifications.	1 sets	0	-	0	-

TANGSIBJI HyDRO

Odisha Hydro Power Co. Ltd. Bhubaneswar

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སྦྱང་སེབ་སྦྱི་སྨོག་མེ་ཚང་འཛོམ།

TANGSIBJI HYDRO ENERGY LIMITED

(Developer of 118 MW Nikachhu Hydropower Project)

སྦྱང་སེབ་སྦྱི་སྨོག་མེ།
TANGSIBJI
HyDRO

CONTRACT AGREEMENT

FOR

Services of Main Contract Package, MP-2(Electro-Mechanical Works) i.e "Complete Installation, Erection, Testing, Commissioning and Other Services including Insurance, Storage, Efficiency Testing and Training Charges" of 118 MW Nikachhu Hydropower Project, Trongsa, Bhutan

BETWEEN

Tangsibji Hydro Energy Limited (THyE)

&

Voith Hydro Private Limited, India

VOLUME 01-AG 02

Services Contract

DECEMBER 2015

CONTRACT NO.: THyE/MP-2/2015/01(B)

SERVICES CONTRACT

Doc. No.	Description
	Volume 01 /AG-2
1	Contract Agreement No. THyE/MP-2/2015/01(B)(Services Contract) between Tangsibji Hydro Energy Limited and M/s Voith Hydro Private Limited
2	Description of Contract
3	Price Schedule of Services
4	Notification of Award- Letter of Award
5	Copy of Bank Guarantee against Performance Security
6	Integrity Pact- ACC
	Appendix 1 - Terms and Procedures of Payment of Services Contract
	Appendix 2 - Price Escalation applicable for Services Contract
	Appendix 3 - Insurance Requirements
	Appendix 4 - Time Schedule
	Appendix 5 - List of Major Items of Plant and Services and List of Approved Subcontractors
	Appendix 6 - Scope of Works and Supply by the Employer
	Appendix 7 - List of Documents for Approval or Review
	Appendix 8 - Functional Guarantees
	Volume 02
	Correspondence Exchanged
1	Negotiation Minutes with Voith Hydro Private Limited
2	Correspondence exchanged between M/s Voith and THyE(Post Bid)
2	Addenda Issued to Bidders (Pre-Bid)
	Volume 03
	Tender and other documents forming part of Contract
1	Instruction to Bidders(ITB)
2	Bid Data Sheets(BDS)
3	Evaluation and Qualification Criteria(EQC)
4	Bidding Forms(BDF)
5	Eligible Countries(ELC)
6	Conditions of Contract and Contract Forms
	6A: General Condition of Contract
	6B: Special Condition of Contract
	6C: Contract Forms
	Volume 04
	Employer's Requirement(General Technical Specifications)
	Employer's Requirement
	General Technical Specifications
	Volume 05
	Employer's Requirement(Particular Technical Specifications)
	Volume 06
	Employer's Tender Drawings
	Volume 07
	Employer's Technical Data Sheets
	Volume 08
	Quality Assurance Plans & Supplementary Information
	Volume 09
	Techno Commercial Offer of M/s Voith Hydro Private Limited

Voith Hydro Private Limited Noida

Odisha Hydro Power Corporation Bhubaneswar

TANGSIBJI HYDRO

Contract Agreement (Services Contract)

THIS AGREEMENT No. THyE/MP-2/2015/01(B) made the **30th day of December, 2015,**

BETWEEN

(1) **M/s Tangsibji Hydro Energy Limited**, a corporation incorporated under the laws of **Bhutan** and having its principal place of business at **Trongsa, Bhutan** (hereinafter called "the Employer"), and (2) **M/s Voith Hydro Private Limited**, a corporation incorporated under the laws of **India** and having its principal place of business at **A-20 & 21,Sector 59, Noida 201 301, Uttar Pradesh, India** (hereinafter called "the Contractor/Bidder").

WHEREAS the Employer desires to engage the Contractor for installation, erection, testing, completion including insurance, storage, efficiency testing and training charges and commissioning of certain Facilities, viz. **118 MW Nikachhu Hydropower Project, Trongsa, Bhutan** ("the Facilities") and the Contractor have agreed to such engagement upon and subject to the terms and conditions hereinafter appearing.

NOW IT IS HEREBY AGREED as follows:

Article 1 **Contract Documents**	1.1	**Contract Documents** (Reference GCC Clause 2) The following documents shall constitute the Contract between the Employer and the Contractor, and each shall be read and construed as an integral part of the Contract: (a) the Contract Agreement (b) the Letter of Acceptance (c) the Negotiation Minutes (d) the Addenda (Pre-Bid) & Post Bid Correspondence (e) the Special Conditions of Contract (f) the General Conditions of Contract (g) the Employer's Requirement (h) the Tender and any other documents forming part of the Contract including the Contractor's Bid.
	1.2	**Order of Precedence** (Reference GCC Clause 2) In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above.
	1.3	**Definitions** (Reference GCC Clause 1) Capitalized words and phrases used herein shall have the same meanings as are ascribed to them in the General Conditions.
Article 2 **Contract Price**	2.1	**Contract Price** (Reference GCC Clause 11) The Employer hereby agrees to pay to the Contractor the

and Terms of Payment		Contract Price in consideration of the performance by the Contractor of its obligations hereunder. The Contract Price shall be the aggregate of: **USD 4,168,632 (United States Dollar Four million one hundred sixty eight thousand six hundred and thirty two Only)**, as specified in Price Schedule No. 4 (Grand Summary), or such other sums as may be determined in accordance with the terms and conditions of the Contract. 2.2 **Terms of Payment** (Reference GCC Clause 12) The terms and procedures of payment according to which the Employer will reimburse the Contractor are given in the Appendix (Terms and Procedures of Payment) hereto. Remittance of all payment to Contractor for the Services shall be made to the bank details as provided below: **Account Name: VOITH HYDRO PRIVATE LIMITED** **Bank Name: ANZ Banking Group Limited** **Branch Address: One Horizon Centre, 20th Floor, Golf Course Road, Sector 43, DLF phase V, Gurgaon- 122 002, India** **Account No. 003000039531** **CCY: USD** **SWIFT CODE: ANZBINBXXXX**
Article 3 Effective Date	3.1	**Effective Date** (Reference GCC Clause 1) The Effective Date upon which the period until the Time for Completion of the Facilities shall be counted from is the date when all of the following conditions have been fulfilled: (a) This Contract Agreement has been duly executed for and on behalf of the Employer and the Contractor; (b) The Contractor has submitted to the Employer the performance security and the advance payment guarantee; (c) The Employer has paid the Contractor the advance payment; Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable. 3.2 If the conditions listed under 3.1 are not fulfilled within 2 months from the date of this Contract because of reasons not attributable to the Contractor, the parties shall discuss and agree on an equitable adjustment to the Contract Price and

		the Time for Completion and/or other relevant conditions of the Contract.
Article 4 Communications	4.1	The address of the Employer for notice purposes, pursuant to GCC 4.1 is: **Tangsibji Hydro Energy Limited (THyE)** **Near DGPC Office, Thori Lam** **Lower Motithang, Thimphu** **Bhutan**
	4.2	The address of the Contractor for notice purposes, pursuant to GCC 4.1 is: **M/s Volth Hydro Private Limited** **A – 20 and 21, Sector 59** **Noida – 201301** **Uttar Pradesh** **India**
Article 5. Appendices	5.1	The Appendices listed in the attached List of Appendices shall be deemed to form an integral part of this Contract Agreement.
	5.2	Reference in the Contract to any Appendix shall mean the Appendices attached hereto, and the Contract shall be read and construed accordingly.

IN WITNESS WHEREOF the Employer and the Contractor have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

Signed by, for and on behalf of the Employer

(Karma Chhophel)
Managing Director,THyE

Signed by, for and on behalf of the Contractor

(Summet Mazumdar)
Member of Board of Management

(Vishal Kumar Goel)
Vice President, Sales & Marketing

In Presence of:

(Sujan Rai)
Dy.MD,THyE

In Presence of:

(Bhuvan Vikram Singh)
AVP, Sales & Marketing

(Sandeep Shrivastav)
AGM, Sales & Marketing

Volth Hydro Private Limited Noida

Tangsibji Hydro Energy Limited

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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PRICE SCHEDULES OF SERVICES

SCHEDULE OF RATES AND PRICES

Schedule No. 3 - Price[5] for Complete Installation, Erection, Testing, Commissioning and Other Services including Insurance, Storage, Model Testing, Efficiency Testing and Training Charges

Item	Description	Charges for Services supplied from India/ Bhutan (USD)	Charges for Services supplied from country other than India/ Bhutan (USD)
1	2	3	4
	E&M Equipments		
1	Vertical Axis Pelton Turbine	506,275	213,158
2	Modern Electro Hydraulic Governor System for Vertical Axis Pelton Turbine	126,569	-
3	Spherical type Main Inlet Valve	216,975	10,200
4	Generator Units of rated capacity 59 MW	867,900	196,915
5	Butterfly Valve (Penstock Valve)	90,406	9,800
6	Isolated Phase Bus Duct	68,709	-
7	5 bay indoor GIS having double bus bar arrangement	90,406	-
8	Outdoor Pothead yard equipments	84,982	-
9	Duel Closed/ Open Circuit Cooling Water System	90,406	-
10	Low Pressure Compressed Air System	9,764	-
11	Drainage and Dewatering System	-	-
12	Protection and Relay panels for Turbine, Generator, Generator Transformer, Power Plant Auxiliaries, 145 kV GIS, Pothead	90,406	-
13 a)	Minimum 600 AH, 220 V DC Battery bank	32,546	-
13 b)	DCDBs (220V & 48V), DC - DC convertors (220V/ 48V), UPS	36,162	-
14	Air conditioning, Ventilation equipment for Power House Complex.	90,406	-
15	Power House Control and Monitoring System	216,975	-
16	1.1kV Power, Control and Instrumentation cables, Cable trays and accessories	108,487	-
17	Electrical Overhead Traveling Crane of 150/ 30/ 5T capacity for PH along with runway rails, down shop leads and other accessories	90,406	-
18	Electrical Ovechead Traveling Crane 35T capacity for penstock valve house along with runway rails, down shop leads and other accessories	16,273	
19	Electrical Overhead Traveling Crane of 5T capacity for GIS along with runway rails, down shop leads and other accessories.	12,657	-
20	Fire detection & fire alarm system.	57,860	-
21	Ground mats for Powerhouse, Dam, PPV house, GIS & Pothead yard and Transformer.	54,244	-
22	Power Line Carrier Communication System	52,436	-
23	415V LT Boards for Power House Complex		-
a)	Unit Auxiliary Boards (UABs)	18,985	-
b)	Station Service Boards (SSBs)- Sectionalized in two sections	19,889	-
c)	Boards of different configurations for power house complex, valve house, surge shaft, dam etc.	54,244	-

Voith Hydro Private Limited Noida

Odisha Hydro Power Bhubaneswar

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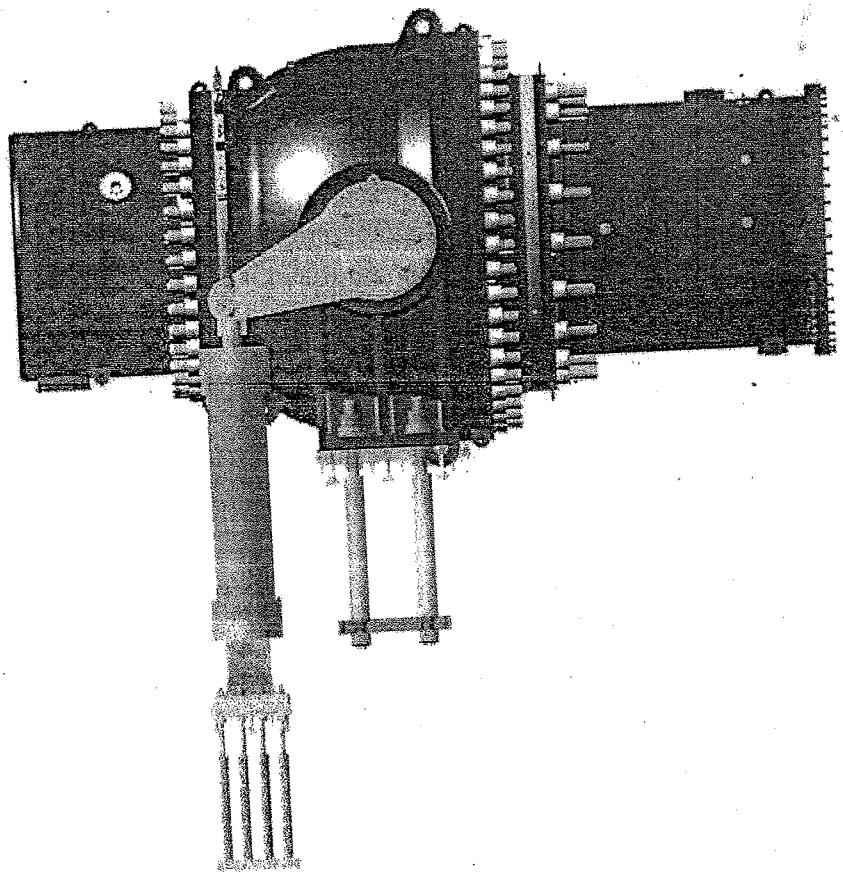
SCHEDULE OF RATES AND PRICES

Schedule No. 3 - Price[5] for Complete Installation, Erection, Testing, Commissioning and Other Services including Efficiency Testing and Training Charges for equipment supplied from India/ Bhutan

Item	Description	Qty	Unit Price (USD)	Total Price (USD)	Qty	Unit Price (USD)	Total Price (USD)	Total Price (USD)
		Assembly & Erection			Testing & Commissioning			
1	2	3	4	5 = 3*4	6	7	8	9 = 8 + 5
	E&M Equipments							
1	Vertical Axis Pelton Turbine	2	323,746.00	647,492.00	2	35,971.00	71,942.00	719,434.00
1.1	Pit Liner	2	17,900.00	35,800.00				
1.2	Anchorage for Housing	2	5,420.00	10,840.00				
1.3	Inner Housing	2	37,000.00	74,000.00				
1.4	Outer Housing	2	28,000.00	56,000.00				
1.5	Distributor Piping	2	1,600.00	3,200.00				
1.6	Distributor	2	17,676.00	35,352.00				
1.7	Nozzle	2	63,800.00	127,600.00				
1.8	Jet Deflector & Servomotor	2	2,375.00	4,750.00				
1.9	General Accessories (Platforms Walkways etc.)	2	33,250.00	66,500.00				
1.10	Runner	2	89,250.00	178,500.00				
1.11	Bearing	2	25,000.00	50,000.00				
1.12	Piping System	2	1,575.00	3,150.00				
1.13	Miscellaneous Items	2	900.00	1,800.00				
2	Installation of Modern Electro Hydraulic Governor System for Vertical Axis Pelton Turbine & Spherical Valve complete with	2	56,950.00	113,900.00	2	6,338.00	12,676.00	126,576.00
2.1	Digital Governor	2	28,480.00	56,960.00				
2.2	High Pressure Oil System	2	17,080.00	34,160.00				
2.3	Piping & Accessories	2	11,390.00	22,780.00				
3	Installation of Spherical type Main Inlet Valve along with By Pass Arrangement & Instruments/ controls	2	102,738.00	205,476.00	2	10,849.00	21,698.00	227,174.00
3.1	Spherical Type Main Inlet Valve Assembly	2	39,146.00	78,292.00				
3.2	Upstream and Downstream extension	2	35,174.00	70,348.00				
3.3	Bypass assembly	2	5,882.00	11,764.00				
3.4	Inlet valve Oil supply	2	5,882.00	11,764.00				
3.5	Piping & fittings	2	10,772.00	21,544.00				
3.6	MIV Seal Control Panel	2	5,882.00	11,764.00				
4	Generator Units of rated capacity 59 MW	2	488,555.00	977,110.00	2	43,853.00	87,706.00	1,064,816.00
4.1	Assembly of Rotor	2	210,900.00	421,800.00				
4.2	Assembly of Stator	2	99,000.00	198,000.00				
4.3	Installation of Stator Assembly	2	37,300.00	74,600.00				
4.4	Lowering of Rotor and Assembly with Runner	2	29,000.00	58,000.00				
4.5	Lower Fan	2	1,155.00	2,310.00				
4.6	Upper Fan	2	1,200.00	2,400.00				
4.7	Combined Bearing Oil System & Oil Cooler	2	8,000.00	16,000.00				
4.8	Installation of DE Bearing Assembly & Shaft Coupling Complete with run out	2	57,700.00	115,400.00				
4.9	Static Excitation system with accessories	2	36,000.00	72,000.00				
4.10	Excitation Transformer	2	6,900.00	13,800.00				
4.11	Miscellaneous generator parts	2	1,400.00	2,800.00				
5	Installation of Butterfly Type Penstock Protection Valve	1	91,160.00	91,160.00	1	9,046.00	9,046.00	100,206.00
5.1	Butterfly Type Valve Assembly	1	34,460.00	34,460.00				
5.2	Upstream and Downstream extension	1	19,280.00	19,280.00				
5.3	Bypass assembly	1	6,100.00	6,100.00				
5.5	Piping & fittings	1	4,060.00	4,060.00				
5.6	Seal Control Panel	1	6,080.00	6,080.00				
5.7	High Pressure Oil System	1	21,180.00	21,180.00				
6	Isolated Phase Bus Duct	2	30,924.00	61,848.00	2	3,431.00	6,862.00	68,710.00
6.1	Bus Duct	2	18,564.00	37,128.00				
6.2	LAVT	2	6,180.00	12,360.00				
6.3	NGT	2	6,180.00	12,360.00				
7	5 bay indoor GIS having double bus bar arrangement	5	16,272.00	81,360.00	1	9,046.00	9,046.00	90,406.00
8	Outdoor Pothead yard equipments	1	76,480.00	76,480.00	1	8,502.00	8,502.00	84,982.00
8.1	LA	1	7,640.00	7,640.00				
8.2	CVT	1	7,640.00	7,640.00				
8.3	Isolators	1	7,640.00	7,640.00				
8.4	Structures & accessories	1	22,960.00	22,960.00				
8.5	CT	1	15,300.00	15,300.00				
8.6	Wave Trap	1	15,300.00	15,300.00				
9	Dual Closed/ Open Circuit Cooling Water System	2	45,836.00	91,672.00	2	4,791.00	9,582.00	101,254.00
9.1	Pumps & Motors	2	12,748.00	25,496.00				
9.2	Filters & Strainers	2	12,748.00	25,496.00				
9.3	Heat Exchangers	2	8,140.00	16,280.00				
9.4	Piping, valves & accessories	2	12,200.00	24,400.00				
10	Low Pressure Compressed Air System	1	8,780.00	8,780.00	1	984.00	984.00	9,764.00
10.1	Compressor Unit	1	7,280.00	7,280.00				
10.2	Piping, valves & accessories	1	1,500.00	1,500.00				
11	Drainage and Dewatering System							
12	Protection and Relay panels for Turbine, Generator, Generator Transformer, Power Plant Auxiliaries, 145 kV GIS, Pothead yard etc.	1	81,360.00	81,360.00	1	9,046.00	9,046.00	90,406.00

Annexure A

Upper Indravati (4 x 150 MW)
Technical Description
Main Inlet Spherical Valve (Dual Seal)



Voith Hydro Pvt. Ltd. NOIDA

Odisha Hydro Power Corp. Bhubaneswar

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Voith Hydro Pvt. Ltd. NOIDA

1. Introduction

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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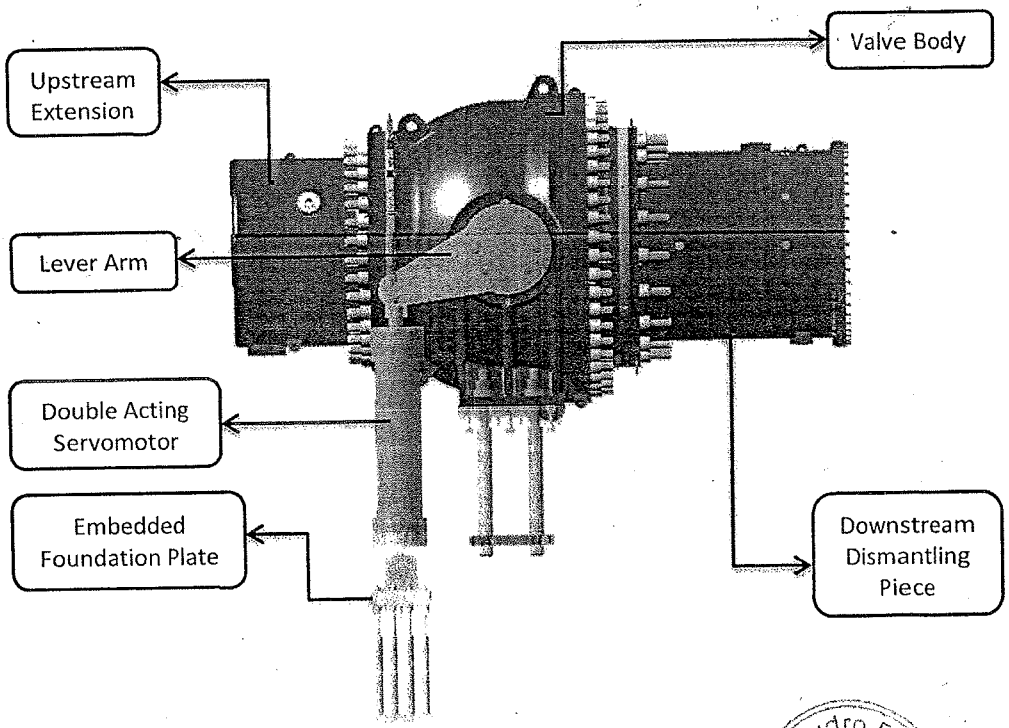
The Main Inlet Valve (spherical valve) will be installed upstream of the turbine inlet pipe in the power house. The valve body will be bolted to the upstream pipe which will be welded at lower end of the existing penstock transition piece. Downstream side will be connected to the turbine inlet pipe by a dismantling joint. The valve body will be settled over embedded base plates and can slide in axial direction to compensate pipe deflections due to the axial force when valve is closed.

The spherical valve is a protection element of the Hydropower Plant in case of emergency due to any damage on inlet pipe, spiral case or any other element downstream to the valve. The valve serves also as an isolating element, to drain the spiral case for inspection and maintenance of turbine component(s) without the necessity of emptying the penstock.

Typical sectional views / arrangements and design details are provided in this document. However, exact details / arrangements will be provided specific to the project during detailed engineering.

The Voith Hydro standard for allowable stresses and the definition of the loading cases are considered.

All used materials will be of accepted national or international standards and of proven reliability for the intended purpose. The materials might be subject to changes according to market availabilities.



Typical View of Spherical Valve Arrangement

Voith Hydro Pvt. Ltd. NOIDA

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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OF THE SR. GENERAL MANAGER (ELECTRICAL)
PROJECT MUKHIGUDA,

2. Design Data

2.1 Technical Detail

Sr. No.	Description	
1	Nominal Diameter	2000 mm
2	Design Pressure	45 bar
3	Hydrostatic Test Pressure	67.5 bar
4	Leakage Test Pressure	38.35 bar
5	Existing HPU Pressure	47-50 bar
6	Opening/Closing Time	60-90 seconds

2.2 Operation Conditions

Normal Operation- Closing: By Double Acting Servomotor (Oil Pressure)
Normal Operation-Opening: By Double Acting Servomotor (Oil Pressure) under no-flow & balanced condition.
Emergency Closing: By Double Acting Servomotor (Oil Pressure)

2.3 Applicable Standards and Codes

The standards, codes and manuals cited throughout this technical description are used to establish the level of safety, precision, quality, class of materials, acceptability, tolerances etc., to which the work is to be performed. Where these are cited, the latest revision or edition will prevail. Other standards, codes and manuals that will provide an equivalent level of safety, precision, quality, class of materials, acceptability, tolerances, etc. may be substituted.

Specific standards, codes and manuals are referenced in the appropriate parts of this specification documents. Following is a list of references to sources for some general codes and manuals cited in the specification documents.
IEC and ISO are the leading Standards.

Units of measurement shall be in the International System of Measurement (SI). The latest edition of each standard shall mean the available edition at 6 months before bid date.

ASME	American Society of Mechanical Engineers
DIN	Deutsche Industrie Normen
EN	European Standard
ISO	International Organisation for Standardisation
IS	Indian Standard (Especially IS-7332)
ASTM	American Society for testing and materials

VOITH HYDRO PVT. LTD. NOIDA
Odisha Power Corporation Ltd.
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The units of measurements applied under this specification are those of the SI-system, in accordance with ISO 1000.
In addition to the application of many international accepted standards Voith are subject to several internal standards, which are more detailed and more specific than contemptible general standards.

2.4 Allowable Stresses

The Voith Hydro standard for allowable stresses and the definition of the loading cases are considered. These stress limit criteria have been defined according to the advanced software used for the very accurate stress analysis and optimized design.

- In normal condition, the limit of allowable stress S_limit = the least of 1/2 of yield strength or 1/3.5 of the tensile strength.
- For an exceptional condition, the limit of allowable stress S_limit = the least of 2/3 of the yield strength or 1/2.4 of the tensile strength.
- For an extreme condition, the limit of allowable stress S_limit = ¾ of yield strength.

3 Design Features

3.1 Valve Body

The valve body (housing) of the spherical valve which is of cast or cast welded construction is bolted to the upstream connection pipe with a flange and hydraulically pre-stressed bolts of high tensile strength steel.

The connection between the upstream and downstream parts of the valve body shall be made with bolts of high strength steel utilizing rubber O-rings as sealing elements.

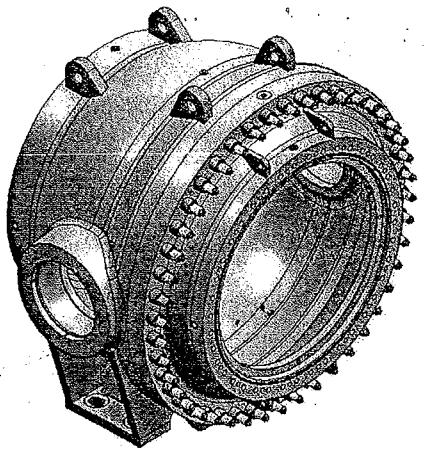
The body will have a tap on the highest point for aeration and an adequate flange connection at the bottom for draining the valve for maintenance.

The body will have two integral feet to support it on embedded base plate. To allow axial movements of the housing, the feet will be equipped with an arrangement suitable for the intended service

Voith Hydro Pvt. Ltd. NOIDA

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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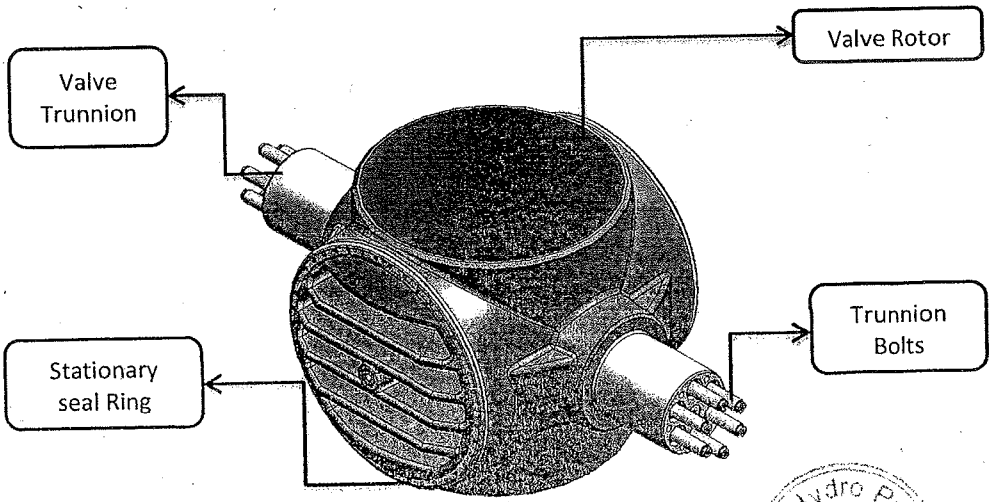
Typical View of Spherical Valve Body

3.2 Valve Rotor with Trunnions

The valve rotor will of rigid construction and of cast steel. It withstands the forces due to water pressure keeping the deflections to minimum.

The attached trunnions will be made of forged steel. They will be attached to the rotor by high strength steel bolts. Outer surface in contact with bearings shall be fitted with stainless steel sleeve. Alternatively, trunnion can be made with SS overlay or completely from stainless steel.

As a contacting surface to the seals, the rotor will have stainless steel seat rings bolted to the upstream and downstream sides of the rotor to ease maintenance



Typical View of Spherical Valve Rotor

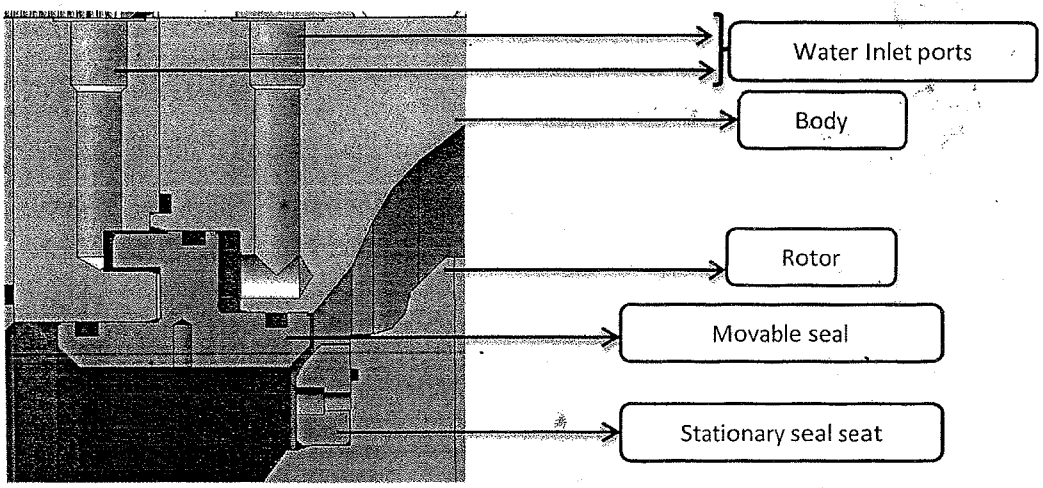
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3.3 Valve Seals

The spherical valve shall be equipped with two seals. The seals consist of a stainless steel ring which can slide in the valve body using high pressure water tapped from penstock. The extension and retraction of the seals are controlled by direction control valves. Penstock water is filtered before entering to this system. All surfaces wetted by filtered water on the valve body have stainless steel overlay. Operation by pressurised penstock water is safer and environment friendly.

3.3.1 Service Seal (Downstream Valve Seal)

The service seal is arranged at the downstream end of the spherical valve. In the open position of the rotor the seal is retracted. It also remains retracted during the closing operation. In the closed position, the direction control valve gets actuated from governor signal; the movable seal ring will be extended and will come in contact with service side seat ring. The position of the seals can be checked through the indicators. Both seals will be of stainless steel material with different hardness.



Typical View of Spherical Valve stationary and movable Seal arrangement

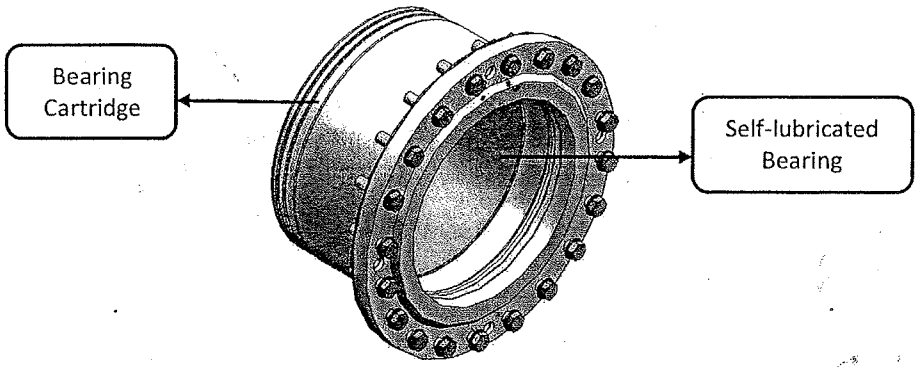
3.3.2 Maintenance Seal (Upstream Valve Seals)

The maintenance seal is arranged at the upstream end of the spherical valve. In the open position of the rotor the seal is retracted. It also remains retracted during the closing operation. In the closed position, the direction control valve gets actuated from governor signal; the movable seal ring will be extended and will come in contact with maintenance side seat ring. The position of the seals can be checked through the indicators. Both seals will be stainless steel material with different hardness.

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3.4 Bearings

The proposed bearings are maintenance free bearings having bearing surface of self-lubricating material. Bearing is carried by bronze or stainless steel cartridge so that it can be exchanged with a minimum of disassembly effort. The trunnion seals are arranged to prevent water entering in to the bearings. As an axial bearing, similar self-lubricated strips are screwed to the lever and have stainless steel mating surface which is overlaid to the bearing covers.



Typical View of Spherical Valve Bearing Assembly

3.5 Valve Servomotor

Opening of the valve is performed by hydraulic double acting servomotor, which is operated by pressurized oil from a hydraulic oil supply system. Closing of the inlet valve shall be performed by the double acting servomotor operated by pressurized oil from a hydraulic oil supply system. The valve servomotor will be designed to withstand the maximum forces during emergency closure. The valve servomotor will be firmly supported by adequate anchorage in the concrete with bolts of high strength steel.

3.6 Upstream Pipe

The upstream pipe with cutting allowance of 150 mm having diameter matching to valve size will be made of steel plate and will be field welded to the steel liner/penstock downstream to the surge shaft and bolted to the spherical valve body upstream flange. The upstream pipe supplied with connection tapings for.

- Tapings for discharge/flow measurement and pressure gauge.

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3.7 Downstream pipe with Dismantling Joint

Downstream pipe of the length suitable shall be fastened to the valve by a flange welded on it and to the spiral case inlet pipe by loose dismantling flange. The dismantling flange enables disassembly of a downstream pipe for the maintenance purpose with the valve closed. A pipe will be made of plate steel and has stainless steel overlay on the mating surface to the rubber seals paced in dismantling flange. The mating surface shall be machined to tight roundness and surface finish suitable for leak proof dismantling joint.

3.8 Bypass pipe assembly

A bypass pipe of suitable size will be included from the existing upstream transition pipe to the existing downstream pipe of the valve. The bypass line includes bypass valve and full flow guard valve for the maintenance purpose. The bypass valve shall be of the needle / slide type with a stainless steel plug and valve seat. It shall be operated hydraulically and be equipped with proximity switches indicating the open and closed positions of the bypass. The bypass valve will be sized adequately for filling the spiral case of the turbine.

3.9 Control and Monitoring

For control and monitoring purposes, the valve will be equipped with the following instrumentation:

- Proximity /Limit switches for main inlet valve open/closed position
- Scale for rotor position (0-90°)
- Pressure gauge
- Pressure differential switches
- Proximity switches for main seals position indication

3.10 Tools and Devices

Special tools and devices necessary for installation will be supplied.

4 Tests

4.1 Shop Assembly and Pressure Tests

The spherical valve will be assembled in the workshop without servomotor. The assembly will be filled with water, subject to leakage test at the maximum operating pressure and pressure tested for integrity at 1.5 times the design pressure.

For the tightness test of the maintenance seal, the maintenance seal will be closed and the maximum operating pressure will be applied upstream of the valve.

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The ends shall be closed with flanged bulkheads and the valve plug turned to the open position so that a hydrostatic pressure can be applied to the body of the valve by a suitable connection in the upstream bulkhead. The hydrostatic pressure shall be held for suitable time at the test pressure.

After completion of the above, the valve shall be closed, the downstream bulkhead removed, and the maximum operating pressure applied as before. The leakage through the closed valve shall then be accurately measured.

4.2 Function Tests

- The functional test shall be conducted as per IS 7332
- The complete valve with levers excluding servomotor shall be assembled and tested in the workshop.
- Seal Leakage test will be performed at workshop.
- Operating test of the servomotor separately.
    - Operating test of bypass arrangement separately.

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Annexure- 32(vii)

VOITH

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Odisha State Police Housing & Welfare Corporation Building
Vanivihar Chouk, Janpath, Bhubaneswar, 751022
Odisha

Kind attention: **Director (Operation)**

Your ref.
Your message
Our ref. VHNAMB-UI_Valve-12A
Phone 0120 4079242
Fax 0120 4079243
Date 06.10.2022
E-mail Raj.Vidyarthi@voith.com
Namita.Saini@voith.com
Dibyendu.Dhara@voith.com

Rate Reasonability Certificate

Sub: Regarding Offer for "Supply & replacement of old MIV with new improved MIV in four units" of UIHEP , Mukhiguda

Dear Sir,

We would like to inform that the Replacement of Spherical Valves with new design Spherical valves including OPU System etc. is specific to Upper Indravati and scope is quite extensive. Order copies of similar size valves and scope is not available.

However, we would like to confirm that the rate quoted in our offer is most reasonable and same shall be offered to other Govt. deptt./PSUs/Private organization.

Thanking and assuring you the best of our services at all times.

Yours sincerely,
For **Voith Hydro Pvt. Ltd.**

Namita Singh Saini
Deputy General Manager
HyService

Raj Vidyarthi
Vice President
HyService & Large Hydro

Voith Hydro Pvt. Ltd. NOIDA

Board of Management
Ravinder Kalra, Managing Director
Sanjive Kumar

CIN
U40109DL2002PTC152516

Odisha Hydro Power Corporation Ltd. Bhubaneswar

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PRICE REASONABLENESS CALCULATION SHEET

Sub.: Design, Manufacture, supply, installation & commissioning of New MIV with improved design, high pressure OPU system, by- pass valves for resolution of auto- oscillation & penstock vibration problem of UIHEP, Mukhiguda

Ref.: i) Revised discounted offer of M/s Voith India Letter Dated 22nd September'2022
ii) Supporting documents submitted by M/s Voith India on 21st September'2022

The copy of the contract documents signed by M/s Voith India with Nikachhu HEP, Bhutan in December'2015 & price adjusted derivation sheet submitted by M/s Voith India during price negotiation meeting with the members of TCC-I on 21st September'2022 were studied in detail and found some anomalies in the calculation sheet. Therefore, the price up-dation of Bhutan PO commensurate with actual size of the MIVs offered for UIHEP has been reworked and extrapolated till September'2022 by applying 2022 currency exchange rate & average domestic price rise between 2015 & 2022. The methodology & detailed calculations made by OHPC are presented hereunder.

Supplies:

Size of the MIVs supplied to Bhutan HEP in 2015 was 1400 mm whereas size of the UIHEP MIV is 2000 mm. Hence the prices shall have to be adjusted for size differential.

1. Comparative size of the MIV supplied to Bhutan HEP/UIHEP in mm = 1400/2000
2. Area proportion of size of the MIV of UIHEP compared with Bhutan HEP = $(4\pi r_1^2 / 4\pi r_2^2) = (2000/1400)^2 = 2.04$ times
3. 2015 PO prices per MIV system of Bhutan HEP = $4,89,884
4. Adjusted for higher size MIV required for UIHEP, 2015 Bhutan prices = 489884 x 2.04 = $ 9,99,263 per MIV system
5. Average US$ - INR exchange rate for September'2022 = Rs. 80/-
6. Conversion of Bhutan 2015 PO prices into 2022 INR = 999363 x 80 = Rs.7,99,49,040/-
7. Average domestic price rise @ 7% for 7 years between 2015 & 2022 = 49%
8. Updated & extrapolated prices for each MIV system for UIHEP adjusted for larger size, exchange rate & domestic inflation = 79949040 x 1.49 = Rs.11,91,24,070/-

Services:

Size of the MIV has no bearing on prices for services as the manpower requirement for execution of MIV system does not vary according to size of valves.

1. 2015 PO prices per MIV system of Bhutan HEP = $1,13,587
2. Average US$ - INR exchange rate for September'2022 = Rs. 80/-
3. Conversion of Bhutan 2015 PO prices into 2022 INR = 113587 x 80 = Rs.90,86,960/-
4. Average domestic price rise @ 7% for 7 years between 2015 & 2022 = 49%
5. Updated prices for installation & commissioning of each valve adjusted for exchange rate & domestic inflation = 9086960 x 1.49 = Rs.1,35,39,570/-
6. Offered prices of M/s Voith India for installation & commissioning of each MIV system to OHPC = Rs.1,42,00,000/-

Total updated Bhutan prices for both supply & services of each set of MIV system=Rs.**13.26** Cr
Offered prices of Voith for UIHEP for supply & services of each set of MIV system=Rs.**12.39** Cr

Therefore, the offered prices of M/s Voith India Pvt. Ltd. for supply & execution of New MIV System at UIHEP as compared with the 2015 Bhutan HEP MIV prices adjusted & extrapolated for size differential of the valves, currency exchange rate & domestic price rises between 2015 & 2022 appears to be reasonable.

Prepared & Checked By:-

G. Nayak (CE) 22/9/22
Tech. Consultant, OHPC

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