

PROPOSALS of ARR and Tariff of OHPC Ltd. for the FY 2022-23

Presentation on 15.02.2022

Power stations of ohpc

Name of Power Stations	Unit Details	Total Installed Capacity of the Station
Rengali Hydro Electric Project	50MWx5	250MW
Hirakud Hydro Electric Project	49.5MWx2; 32MWx2; 43.65MWx2;37.5MWx1	287.80MW
Chiplima Hydro Electric Project	24MWx3	72MW
Upper Kolab Hydro Electric Project	80MWx4	320MW
Upper Indravati Hydro Electric Project	150MWx4	600MW
Balimela Hydro Electric Project	60MWx6; 75MWx2	510MW
Total Installed Capacity of OHPC	31 Units of different Capacity mentioned above	2039.8MW
Odisha Share of MHEP(Jt.)	50% of (17MWx3; 23MWx3)	60MW

INCREASE IN INSTALLED CAPACITY OF OHPC

- After completion of RM & U works of Unit-5 & 6 of HHEP, Burla both the Units were uprated from 37.5MW to 43.65MW. Accordingly the installed capacity of HHEP, Burla increased to 287.80MW from 275.5MW.
- Hence, the installed capacity of OHPC is increased to 2099.8 (2039.8+ 60)MW including 50% from Machkund from earlier value of 2063.5MW. So the net MW addition by OHPC is 36.3MW.
- 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 of MHEP(Jt.) Scheme.

STATUS OF R&M WORKS OF OHPC

- The Renovation & Modernization work of Unit-3 CHEP, Chiplima was successfully completed and synchronized to Grid on 07.11.2019 & declared commercial operation on 21.11.2020.
- OHPC has successfully completed the RM&U work of unit 5&6 of HHEP and both the units were synchronized to Grid. The Unit-6 was declared commercial operation on dtd.02.11.2021 and similarly the Commercial operation of Unit-5 was declared on dtd. 09.01.2022.
- Similarly OHPC has successfully completed the R&M of Unit-2 of BHEP and was declared commercial operation on dtd.29.12.2021. The Unit-1 of BHEP is on the verge of commissioning and will be pumping energy to the Grid shortly. After Commercial Operation of Unit-1, of BHEP the R&M works of Unit-3& 4 of BHEP, Balimela shall be taken up as per the contract with BHEL.
- Beside this OHPC is in the process of conducting RLA study of those Generating Units which are at the fag end of their useful life. Accordingly OHPC shall submit the proposal for in principle approval of need based R&M work.

Estimated Generation for FY 2021-22

The actual generation of different Power Stations under OHPC from 01.04.2021 up to 31.01.2022 and anticipated generation from 01.02.2022 to 31.03.2022 prepared on the basis of the availability of water, irrigation requirement and peak load requirement in co-ordination with DoE, DoWR, GRIDCO and SLDC is furnished below.

Sl. No.	Name of the power stations	Design Energy of Power Station (MU)	Actual generation from 01.04.21 up to 31.01.2022 (MU)	Anticipated generation from 01.02.2022 to 31.03.22 based on DoWR & DoE Schedule (MU)	Total Estimated generation for the FY 2021-22 based on DoWR & DoE Schedule (MU)
1.	RHEP	525.00	771.5232	77.538	849.0612
2.	UKHEP	832.00	331.184	114.195	445.379
3.	BHEP	1183.00	870.5354	217.368	1087.9034
4.	HHEP	684.00	639.49	56.855	696.345
5.	CHEP	490.00	225.294	35.459	260.753
6.	UIHEP	1962.00	1073.3215	104.5215	1177.843
Total		5676.00	3911.3481	605.9365	4517.2846

Thus the total generation of OHPC for the FY 2021-22 shall fall short by 1158.72MU from the approved Design Energy of 5676MU.

PROJECT COST FOR PROPOSED TARIFF OF OHPC FOR FY 2022-23

in Crs)

Name of the power stations	Historic Cost as on 01.04.96	Approved New additions up to 31.03.20	New additions proposed for FY 2022-23 based on Audited Account 2020-21	Less PSDF Grant for FY 2020-21	New addition proposed in Tariff calculation for FY22-23	Asset Reduction during FY2011-12 to 2020-21	Project Cost considered for Tariff calculation
1	2	3	4	5	6=3+4-5	7	8=2+6-7
RHEP	91.09	61.402	5.034	3.133	63.303	0.089	154.30
UKHEP	108.31	27.150	0.684	0.000	27.834	0.494	135.65
BHEP	115.42	224.490	3.214	1.243	226.461	0.534	341.35
HHEP	72.75	265.910	18.523	0.557	283.88	11.511	345.11
CHEP	92.23	51.740	68.617	0.565	119.792	6.928	205.09
Sub Total	479.80	630.690	96.072	5.497	721.265	19.556	1181.51
UIHEP (2001)	Nil	1250.78	2.946	2.31	1251.42	4.912	1246.51
Total	479.80	1881.47	99.018	7.808	1972.682	24.468	2428.02

TARIFF COMPUTATION OF OHPC FOR FY 2022-23

- Return on Equity (ROE):

OHPC has proposed **Rs 83.852 Crs** as RoE. The RoE @ 15.5% is considered for new addition of Rs721.265Crs old power stations of OHPC & @ 16% for UIHEP on new capital addition of Rs1246.51Crs after 01.04.1996 totaling to Rs1967.77 Crs. Income tax of core business amounting to **Rs36.1952Crs** paid for FY 2020-21 to be reimbursed from GRIDCO.

- Interest on Loan:

OHPC has proposed to approve the interest on loan for **Rs8.478Cr**. The Interest on different Loans have been calculated based on the norms of Hon'ble OERC for the Normative Loans.

- Depreciation:

OHPC has proposed to approve **Rs 74.15Crs** towards Depreciation for the FY 2022-23. Depreciation @ 2.57% on historic cost and new capital addition or Loan Repayment whichever is higher is considered as Depreciation. This includes unrecovered depreciation of Rs5.52Crs of UIHEP & Rs0.07Crs of RHEP for the FY2021-22.

- Operation & Maintenance (O&M) Expenses:

OHPC has proposed to approve **Rs 387.193Crs** towards O&M Expenses for the FY 2022-23 for the different Power Stations of OHPC. The O&M expenses for the FY 2022-23 have been computed taking the escalation factor as 5.72%. OHPC has deducted Rs 10.12Cr from O&M Expenses of UIHEP towards the Receivable from DoWR for FY 2020-21.

- Interest on Working Capital:

OHPC has proposed before the Hon'ble Commission to approve **Rs 16.06Crs** towards Interest on Working Capital for the FY 2022-23 for the different Power Stations of OHPC. Interest on working capital is calculated @ 10.00% as per the OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020.

Proposed Tariff of OHPC for FY 2022-23

								(Rs. in Crs.)
Components	RHEP	UKHEP	BHEP	HHEP	CHEP	Sub Total	UIHEP	Total FY2022-23
Saleable Design Energy (MU) considering AUX @1%	519.75	823.68	1171.17	677.16	485.10	3676.86	1942.38	5619.24
Return on Equity	2.944	1.294	10.530	13.200	5.570	33.539	50.313	83.85
Interest on Loan	0.583	0.374	0.374	1.922	4.182	7.435	1.043	8.48
Depreciation	4.291	3.486	8.773	9.312	5.271	31.133	43.015	74.15
O & M expenses	63.262	65.863	61.035	68.303	31.927	290.390	96.803	387.19
Interest on Working Capital	2.382	2.443	2.450	2.771	1.340	11.386	4.674	16.06
Total Cost	73.461	73.461	83.162	95.508	48.290	373.882	195.848	569.73
Less Non-Tariff Income	0.124	0.035	0.224	1.969	0.006	2.361	0.041	2.402
Total ARR for FY2022-23	73.337	73.426	82.938	93.539	48.284	371.524	195.807	567.328
Average Tariff (P/U) for 2022-23 (Proposed)	141.10	89.14	70.82	138.13	99.53	101.04	100.81	100.96

Proposed Capacity Charges & Energy Charges of OHPC for FY 2022-23

Name of Power Station	Annual Fixed Cost (ARR) (Rs. In Crs.)	Annual Energy Charges (AEC) (Rs. In Crs.)	Annual Capacity Charges (ACC) (Rs. In Crs.)	Saleable design energy (MU)	Energy Charge Rate (ECR) (in P/U)
RHEP	73.337	36.669	36.669	519.75	70.550
UKHEP	73.426	36.713	36.713	823.68	44.572
BHEP	82.938	41.469	41.469	1171.17	35.408
HHEP	93.539	46.770	46.770	677.16	69.067
CHEP	48.284	24.142	24.142	485.10	49.767
UIHEP	195.807	97.904	97.904	1942.38	50.404
Total	567.328	283.664	283.664	5619.24	

**Proposed Tariff for the FY 2022-23 Vrs Approved Tariff for FY2021-22
of OHPC Power Stations**

Components of Tariff	Approved for FY 2021-22 (in Crs.)	Proposed for FY 2022-23 (in Crs.)	Absolute Increase or decrease (in Crs.)	Reasons for Increase or decrease
Project Cost	2342.45	2428.02	85.57	Capitalisation of R&M of Unit-3 CHEP (Rs68.568Cr); Unit-1 HHEP Capital Maintenance (Rs7.42Crs); Office Buliding HHEP (Rs5.68Crs) & others
Return on Equity	79.61	83.85	4.24	Effect of increase of Project Cost
Interest on loan	4.97	8.48	3.51	Effect of increase of Project Cost
Depre.	60.20	74.15	13.95	Effect of increase of Project Cost & diff. unapproved depreciation of FY2020-21
O&M	365.75	387.19	21.44	Normal escalation of 5.72% over previous year approval.
IoWC	16.15	16.06	-0.09	Combined impact of above four components also MCLR as on 01.04.2021 has decreased.
Total Cost	526.68	569.73	43.05	As furnished above.
Less Non Tariff Income	25.00	2.402	-22.598	Non- Tariff Income is considered as per clause-41, 26(1) of OERC Regulation 2020.
Total ARR	501.68	567.328	68.05	As mentioned above
Average Tariff (P/U)	89.28	100.96	11.68	As furnished above.

**Tariff for CSPDCL for FY 2022-23 on drawal of power from HHEP,
Burla**

Details in respect of HHEP	Amount (Rs in Crs)
Salable Design Energy of HHEP	677.16 MU
Project Cost (Up-valued cost as on 01.04.1996 + Capitalization up to 31.03.2021 –Decapitalization upto 31.03.2021)	402.52 Crs
Return on Equity (@ 22.0494%)	26.63 Crs
Interest on Loan	4.84Crs
Depreciation (@ 5.28%)	21.253 Crs
O & M expenses (Escalated @ 4.77%)	67.69 Crs
Interest on Working Capital (@ 10.5%)	3.24 Crs
Total ARR	123.65 Crs
Average Tariff (p/u)	182.598

•OHPC prays before the Hon’ble Commission to approve an average Tariff of 182.598 paise/ unit considering CERC norms & Revalued Cost for billing to CSPDCL for FY 2022-23.

Miscellaneous reimbursement claim of OHPC from GRIDCO:

(Rs. in Cr.)

<i>Component of Costs</i>	RHEP	UKHEP	BHEP	HHEP	CHEP	UIHEP	Total
<i>(a) License fee for use of water for generation of electricity for FY 2022-23.</i>	0.840	1.331	1.893	1.094	0.784	3.139	9.082
<i>(b) ED on Auxiliary Energy Consumption for FY2022-23.</i>	0.289	0.458	0.651	0.376	0.270	1.079	3.122
<i>(c) SLDC charges for FY 2022-23.</i>							1.3215
<i>(d) Application fees and publication expenses for FY2022-23</i>							0.270
<i>(e) Differential publication expenses for FY2021-22</i>							0.00434
<i>(f) ERPC charges for FY2022-23</i>							0.16
<i>(g) Differential ARR of MHEP for FY2020-21(due to rise in O&M expense from 30% to 50% share due to New Agreement)</i>							4.309
<i>(h) Working capital equal to 15% of O&M Budget of FY2020-21 for MHEP</i>							7.74
<i>(h) Income Tax as per Audited Account of FY 2019-20</i>							36.1952
Total							62.204

PROJECTED TARIFF OF MACHHKUND (JT.) HEP FOR 2022-23

PROJECTED TARIFF OF MACHHKUND (JT.) HEP FOR 2022-23	
	2022-23
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%
Normative Auxiliary Energy Consumption (AUX) (MU)	5.25
Saleable Design Energy for sharing between Andhra Pradesh & Odisha (MU)	519.75
(50%) Saleable Design Energy Share of Odisha (MU)	259.875
Drawal of Total Share of Odisha Energy by GRIDCO (MU)	259.875
O&M Escalation factor @ 5.72 % for two years over the O&M Bill of MHEP for FY 2019-20.	1.1177
	(Rs. in Crs.)
1. Total Audited Cost of O&M Bill of MHEP (Jt.) for the FY 2020-21	51.5732
2. 50% O&M Expenditure share (Orissa share of Actual O&M Expenditure for 2020-21)	25.7866
3. O&M Expenditure for FY 2022-23 applying the escalation factor	28.8201
4. Total Expected Expenditure during the FY 2022-23	28.8201
5. Tariff (Paise/Kwh)	110.903



Implication of Non- Tariff Income

The Non-Tariff Income is dealt with Clause No.41, 26 of OERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2020. The relevant clauses of the said regulation is stipulated as follows:

Clause No 41: SHARING OF NON-TARIFF INCOME

“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.”

Clause No 26 (1): *“The amount of Non-Tariff Income of the Generating Company as approved by the Commission in accordance with Regulation 41 shall be deducted while determining its Annual Fixed Charge: 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.”*

Implication of Non- Tariff Income

Clause No 26(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 contractors and others;

(j) Income from advertisements;

(k) Income from sale of tender documents;

(l) Any other Non-Tariff Income.

Implication of Non- Tariff Income

- In this connection, Regulation- 62 of the Central Electricity Regulatory Commission (Terms and conditions of Tariff) Regulations-2019 provides that *the non-tariff net income in case of generating station and transmission system from rent of land or buildings, sale of scrap and advertisements shall be shared between the beneficiaries or the long-term customers and the generating company or the transmission licensee, as the case may be, in the ratio 50:50.*
- For better understanding regarding implementation of non-tariff income the CERC statement of reasons of Tariff Regulation 2019 may please be referred which is reproduced as follows:
- *“Many stakeholders suggested to clarify that only non-tariff income net of expenses shall be shared. Further, many stake holders’ suggested difficulty in segregation of non-Tariff income components to be shared like statutory investments, bank balances etc. and also stated benefit of many such type of income, especially rental and interest from contractors is already shared fully, as the impact is reflected in the reduced rates charged by such contractors. After carefully considering the submissions, it has been decided to revise the Regulation by restricting the non-tariff income only from rent of land or building, sale of scrap and advertisement.”*

Implication of Non- Tariff Income

In line with the above provisions of OERC & CERC Tariff Regulations, the deductible Non-Tariff income of different power stations of OHPC to be considered for ARR of OHPC for the FY2022-23 based on the audited account of OHPC for the FY2020-21 shall be Rs2.402Crs towards deductible Non- Tariff income in the present Tariff.

Therefore OHPC pray before commission to approve the deductible non-tariff income of Rs2.402Crs to be reduced from the ARR of different power stations for the FY2022-23.

It may be noted that Hon'ble OERC erroneously deducted Rs25Crs as Non-Tariff Income during the FY2021-22. OHPC has submitted the Review petition and is pending for Hearing.

Reimbursement of Working Capital i.e 15% of O&M Budget for MHEP Odisha share of Power

Clause-16 of New Machkund Agreement 2020 had a provision for deposit of Working Capital for operation of the project. The relevant clause of New Machkund Agreement is reproduced as follow:

“An advance payment/ working capital equal to 15% of O&M Budget shall be provided to the first party on interest free basis by 2nd party for operation of project. The O&M expense of previous year shall form the basis of maintaining 15% O&M expense. To maintain 15% of advance of O&M budget for the ensuing year, the actual of previous years shall be the basis of verification (plus or minus) shall be paid/ adjusted along within the final bill of the year as per the audited accounts”

Accordingly APGENCO claimed a interest free working capital of Rs 7.74 Crs for payment by OHPC/ GRIDCO based on the final audited O&M expense of MHEP for the FY2019-20.

Since the matter was under discussion OHPC had not considered in the ARR Application. But since APGENCO had claimed the above said amount, OHPC is submitting the proposal before the Hon’ble Commission for kind approval. The amount may please be included as additional reimbursement claim of OHPC for the FY2022-23.

P R A Y E R

OHPC pray before the Hon'ble Commission to kindly approve the following in the ARR & Tariff Order of OHPC Power Stations for the FY 2022-23:

- i) The ARR amounting to Rs 567.328Crs. of OHPC Power Stations at an average tariff @ 100.96 Paise/Unit.
- ii) The ACC, AEC & ECR of different Power Stations of OHPC as shown in the Table-20 of Original Tariff petition.
- iii) The miscellaneous reimbursement of Rs 62.204 Crore by OHPC from GRIDCO.
- iv) The tariff for energy billing to CSPDCL @ 1.82598 Rs / kWh considering Up-valued cost of HHEP and the norms of CERC (Terms & Conditions of Tariff) Regulations, 2019.
- v) The tariff of MHEP (Joint Scheme) @ 1.10903 Rs/unit with provision of Rs 25.8201 Crores in the ARR of OHPC & GRIDCO to enable OHPC to make payment of O&M cost to APGENCO as per the new Agreement.
- vi) The average available Installed Capacity as 1679 MW for payment of SLDC charges.
- vii) To approve useful life of Unit-3 CHEP after R&M works for 35years as per the recommendation of OEM.

THANK YOU