

**ODISHA ELECTRICITY REGULATORY COMMISSION
BIDYUT NIYAMAK BHAWAN
PLOT NO. 4, CHUNOKOLI, SHAILASHREE VIHAR,
BHUBANESWAR – 751021
*** ****

**Present: Shri U. N. Behera, Chairperson
Shri S. K. Parhi, Member
Shri Gajendra Mohapatra, Member**

CASE NO. 71/2020

DATE OF HEARING : 05.02.2021 (3:00 PM)

DATE OF ORDER : 26.03.2021

IN THE MATTER OF: Application for determination of Generation Tariff of Odisha Power Generation Corporation Ltd. (OPGC) for FY 2021-22 under Section 62 & 86 of the Electricity Act, 2003 read with OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 and OERC (Conduct of Business) Regulations, 2004.

ORDER

The Petitioner, M/s. Odisha Power Generation Corporation (OPGC) Ltd. has filed this application before the Commission for determination of Generation Tariff of its power station of 420 MW capacity (2 x 210 MW) for FY 2021-22. The principle of tariff determination has been settled by Hon'ble Apex Court in its judgement dated 19.04.2018 in Civil Appeal No. 9485/2017 wherein the Apex Court has held as under:

- “ 6. *We are of the view that the Commission vide their order dated 27.04.2015 on the joint application of the parties dated 26.02.2014 rightly fixed the tariff but the view taken in subsequent order dated 21.03.2016 which has been upheld on appeal is unsustainable.*
7. *Accordingly, we set aside the impugned order and remand the matter to the State Commission for fresh decision. The State Commission may take into account the Notification dated 21.06.2008 for the fixed costs, the PPA for the variable costs specified therein and for other costs not reflected in the PPA, statutory Regulations may be applied.*
8. *The appeal shall stand disposed of as indicated above.*
9. *The parties may appear before the State Commission for further proceedings on 02.07.2018.”*

Accordingly, OPGC has been filing annual tariff petition before the Commission since 2016-17.

2. Now OPGC Ltd. has filed the present petition for determination of tariff for FY 2021-22 which shall be determined by the Commission in accordance with the principle already laid down by the Hon'ble Apex Court. Under the existing legal set up, GRIDCO Ltd. is evacuating power from the generating stations of OPGC Ltd. and delivering it to the Distribution Utilities of Odisha (Distribution Licensee).
3. After due scrutiny and admission of the aforesaid petition, the Commission had directed OPGC Ltd. to publish its application in the approved format. In compliance to the same; public notice was given in leading and widely circulated newspaper and was also posted in the Commission's website, in order to invite objections/suggestions from the general public. The applicant was also directed to file its rejoinder to the objections/suggestions filed by the objectors. In response to the aforesaid public notice, the Commission received 4 numbers of objections/suggestions from the following persons /organizations:-

(1) Sri Ananda Kumar Mohapatra, Power Analyst, S/O. Jachindranath Mohapatra, Plot No.639/1021, Lane-2, Laxmi Vihar, P.O: Bankual, Tankapani Road, P.S: Saheed Nagar, Bhubaneswar, Dist.-Khurda-751002; (2) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour & President, Upobhokta Mahasangha, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012; (3) Shri R.P.Mahapatra, Retd. Chief Engineer & Member (Gen.), Plot No-775 (P), Lane-3, Jayadev Vihar, Bhubaneswar-751013; and (4) M/s. GRIDCO Limited, Janapath, Bhubaneswar-751022.

All the above named Objectors along with the representative of Department of Energy, Government of Odisha were present during tariff hearing and their written submissions filed before the Commission were taken on record and also considered by the Commission. The applicant submitted its reply to the issues raised by the various objectors during hearing.

4. In exercise of the power conferred under Section 94(3) of the Electricity Act, 2003 and to protect the interest of the consumers, the Commission has appointed World Institute of Sustainable Energy (WISE), Pune as Consumer Counsel for objective analysis of the applicant's petition for determination of generation tariff proposal for its different

- power stations for the financial year 2021-22. The Consumer Counsel presented views on the matter during the hearing.
5. The date of hearing was fixed as 05.02.2021 at 3.00 P.M and was duly notified in the leading and widely circulated newspaper mentioning the list of objectors. The Commission also issued individual notice to the objectors and the Department of Energy, Government of Odisha informing them about the date and time of hearing through virtual mode due to COVID-19 pandemic situation in the State and requesting the Applicant, the Objectors and the Government's authorized representative to furnish their individual e-mail ID and Whatsapp number in the address oerc.vc@gmail.com on the previous day of hearing to facilitate providing links for hearing. Accordingly, the Applicant, Objectors and the representative of DoE, GoO had furnished their e-mail IDs, took part during the proceedings and offered their views/suggestion/proposal in the hearing on virtual mode on the date and time fixed by the Commission.
 6. As part of the consultative process, the Commission conducted a public hearing at its premises at Bhubaneswar on 05.02.2021 at 3.00 P.M and heard the Applicant, Objectors, Consumer Counsel and the Representative of the Dept. of Energy, Government of Odisha at length. The Commission convened the State Advisory Committee (SAC) meeting on 22.02.2021 at 11.00 AM to discuss about the application for determination of generation tariff proposal of the generating company for FY 2021-22. The Members of SAC presented their valuable suggestions and views on the matter for consideration of the Commission.

OPGC PROPOSAL FOR DETERMINATION OF GENERATION TARIFF FOR THE FY 2021-22 (PARA 7 TO 26)

7. OPGC has stated that they had entered into Bulk Power Supply Agreement with GRIDCO dated 13.08.1996 ("PPA") to sell power from its generating Units- I&II having capacity of 420 MW (2x 210 MW) of IB thermal power station. The said PPA was approved by the Government of Odisha and came into force from 01.01.1995. Further, a Tripartite Agreement was signed between OPGC, GRIDCO and Government of Odisha on 18.10.1998 ("Tripartite Agreement") providing certain amendments to the existing PPA. In addition, an escrow and securitization agreement dated 30.11.1998 was entered between OPGC, GRIDCO and Union Bank of India. Thereafter, an agreement was signed between OPGC and GRIDCO on 06.09.2012 as

supplemental to the Tripartite Agreement based on Government of Odisha Notification dated 21.06.2008 which was made effective from 12.10.2009. Subsequently, OPGC and GRIDCO had signed an amendment to the existing PPA on 19.12.2012 (together called the “Amended PPA”) which has been approved by the Commission vide its order dated 27.04.2015 passed in Case No. 13/2002. Accordingly, OPGC had filed a petition before this Commission for approval of its generation tariff for FY 2016-17. The Commission vide its order dated 21.03.2016 had determined the generation tariff of Units-I and II in accordance with the Terms and Conditions of the OERC Generation Tariff Regulations, 2014. OPGC had filed an appeal before the Hon’ble APTEL against the said tariff order and Hon’ble APTEL vide its judgment dated 06.04.2017 had upheld the Commission’s order. Being aggrieved of the judgment of the Hon’ble APTEL OPGC had filed a Civil Appeal No. 9485 of 2017 before the Hon’ble Supreme Court of India. Hon’ble Supreme Court vide its judgment dated 19.04.2018 had remanded the matter to this Commission for a fresh decision. In effect, Hon’ble Supreme Court had held that primarily the tariff norms under the PPA are to be followed in determining the tariff of OPGC and further to the extent there are tariff norms not covered by PPA, the OERC (Generation Tariff) Regulations, 2014 may be relied upon by the Commission to determine the tariff for OPGC. In the meantime, the Commission has notified the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 (“OERC Generation Tariff Regulations, 2020”) on July 15, 2020 in exercise of the powers conferred under Section 61 and Section 62 read with Section 181 of the Act. In accordance with the provisions of these regulations and in line with the approach adopted by the Commission for determination of tariffs for FY 2019-20 and FY 2020-21, OPGC has now filed an instant petition for approval of its generation tariff for FY 2021-22.

Computation of Annual Fixed Cost

8. OPGC has submitted the Annual Fixed Cost components as per Clause 3.0 of Schedule II of the Amended PPA which comprises of the following:
 - Return on Equity;
 - Interest on loan capital;
 - Depreciation;
 - Interest on working capital; and
 - Operation and maintenance expenses.

Capital Cost

9. OPGC has submitted that it has considered capital cost of Rs. 1060 Crore for the project for FY 2021-22 as per the Amended PPA signed between OPGC and GRIDCO and approved by OERC vide its Order dated 27.04.2015.

Debt – Equity Ratio

10. OPGC submitted that it has considered the equity amount of Rs. 450 Crore and debt amount of Rs. 610 Crore of the original project cost of Rs.1060 crore as per approved Amended PPA by OERC vide Order dated 27.04.2015.

Depreciation

11. OPGC has submitted that, as per Clause 3.0 (a) of Schedule II of the Amended PPA depreciation charges shall be equal to 7.5% of the Capital Cost during the year. However, OPGC has not claimed any amount towards depreciation on the original capital cost for FY 2021-22 as the assets of the generating Stations are fully depreciated by the financial year ending 31.03.2009.

Return on Equity

12. OPGC has submitted that Clause 8.0 (10) of Schedule II of PPA provides for Return on Equity (RoE) at the rate of 16%. Considering the equity capital of Rs. 450 Crore of the original project cost, OPGC has claimed Rs.72 Crore towards RoE for determination of generation tariff for FY 2021-22.

Interest on Loan Capital

13. OPGC has submitted that Clause 8.0 (7) and (11) of Schedule II of the Amended PPA stipulates that the loan amount shall be Rs. 610 Crore and interest on loan is to be allowed as per actual. As the loan amount of the original project cost has been fully repaid by financial year ending 2011-12, OPGC has not claimed any amount towards Interest on loan capital for determination of generation tariff of FY 2021-22.

O&M Expenses

14. OPGC has submitted that, as per Clause 3.0 (d) and (e) of Schedule II of the Amended PPA, O&M expenses for first year of operation shall be at the rate of 2.5% of the capital cost of Rs 1030 Crore; which shall be escalated by 8% each year from April 1,

1996. Considering the above methodology, the O&M expense proposed by OPGC for generation of tariff for FY 2021-22 is Rs. 176.35 Crore.

Interest on Working Capital

15. OPGC has submitted that it has considered the components of working capital requirement as per the Clause 3.0 (f) of Schedule II of the Amended PPA. OPGC has stated that it has been availing working capital from external sources and therefore the actual interest rate for the Working Capital facility availed by OPGC in FY 2020-21 till 10.11.2020 is 7.70%. Accordingly, OPGC claimed interest on working capital as Rs.13.19 Crore for FY 2021-22. The detailed calculation of working capital requirement and Interest on Working Capital is given in Table - 1 below.

Table - 1
Proposed Interest on Working Capital by OPGC for FY 2021-22
(Rs. Crore)

Sr. No.	Particulars	Amount
1.	Cost of Coal for one and half months	43.69
2.	Cost of Secondary Fuel Oil for two months	5.57
3.	O&M Expenses for one month	14.70
4.	Receivables equivalent to two months	107.41
5.	Total Working Capital Requirement	171.36
6.	Interest Rate %	7.70%
7.	Interest on Working Capital	13.19

Summary of Annual Fixed Cost

16. Considering the above annual fixed cost components, OPGC has proposed the total Annual Fixed Cost for FY 2021-22 corresponding to the original project cost as Rs. 261.54 Crore. The details are given in the Table - 2 below.

Table - 2
Annual Fixed Cost proposed by OPGC for FY 2021-22
considering original project cost
(Rs Crore)

Particulars	Amount
Return on Equity	72.00
Interest on loan capital	0.00
Depreciation	0.00
O&M expenses	176.35
Interest on working capital	13.19
Total Annual Fixed Cost	261.54

Operation Performance Parameters

17. For calculation of energy charges, OPGC has proposed the operational performance parameters as per Clause 8 of Schedule-II of the Amended PPA. Accordingly OPGC has considered following operational norms for determination of energy charges of FY 2021-22. Details of these norms are given in Table - 3 below.

Table - 3
Operational Performance Parameters Proposed by OPGC for FY 2021-22

Particulars	Unit	Values
Normative Availability Factor	%	68.49
Plant Load Factor	%	68.49
Gross Station Heat Rate	kcal / kWh	2500
Secondary fuel oil consumption	ml/kWh	3.5
Auxiliary consumption	%	9.50

Price & GCV of Coal and Secondary Fuel Oil

18. OPGC submitted that the Price & Gross Calorific Value (GCV) of Coal and Secondary fuel oil will be considered as per Clause 7 of Schedule II of the existing PPA and also as per Clause 9 of Schedule II of the PPA which stipulates that the prices and GCV of coal and oil for one year shall be the base for the next year. The Commission vide its Order dated October 28, 2020 in Case No. 43 of 2017 on the Petition filed by OPGC regarding the dispute on Gross Calorific Value, finalized a formula of calculating GCV of coal as delivered to the power station (total moisture basis). OPGC has filed Appeal No. 189 of 2020 before the Hon'ble APTEL against this Commission's Order dated October 28, 2020 in Case No. 43 of 2017 on the GCV to be considered for tariff computation.
19. As per the provision of PPA, the GCV of Oil and Coal is to be considered as actually delivered to the power station. Accordingly, OPGC has considered the GCV of coal and oil as actually delivered to the power station for the computation of energy charges. As it is not possible to provide the auditor certified value of delivered price and GCV of oil and coal for the whole year FY 2020-21, OPGC has considered the actual weighted average prices and GCV of oil and coal for the period April to September 2020 for purpose of computation of energy charges for FY 2021-22. Details of these parameters are given in Table – 4 below:

Table - 4
Proposed Price and GCV of Coal and Oil by OPGC for FY 2021-22

Sl. No.	Particulars	Unit	Values
1	Price of Coal	(Rs. /MT)	1542.30
2	Price of LDO	(Rs./kL)	46344.95
3	Price of HFO	(Rs./kL)	36921.93
4	Gross Calorific Value of Coal	(kCal/kg)	2740.93
5	Gross Calorific value of LDO	(kCal/ltr.)	10000
6	Gross Calorific value of HFO	(kCal/ltr.)	10000
7	Specific Coal Consumption	(kg /kWh)	0.90
8	Specific Oil Consumption-LDO	(ml/kWh)	0.35
9	Specific Oil Consumption-HFO	(ml/kWh)	3.15

Energy charges

20. OPGC has submitted Variable Charges for FY 2021-22 as per clause 7.0 of Schedule II of the Amended PPA. Considering the above stated operational norms and price and GCV of Coal and Secondary fuel oil parameters of PPA, OPGC has proposed energy charges of 167.91 Paisa/kWh for FY 2021-22 of its generating station I & II. Further, OPGC submitted that any variation in energy charges during the year on account of fuel prices and calorific value will be claimed through Fuel Price Adjustment in supplementary bills on half yearly basis as per the provisions of PPA.

Reimbursement of Other Charges

21. Apart from the Annual Fixed Cost and Energy Charges, OPGC proposed for reimbursement of the other charges and expenses such as Electricity duty, water cess and water charges, tax and cess on land, SOC and MOC paid to SLDC, ERPC charges, Income tax, recovery of ARR and tariff petition fees and contribution to Water Conservation Fund of Odisha as per clause 10.0 and 11.0 (vii) of Schedule II of PPA. The details are given in Table - 5 below:

Table - 5
Other Charges claimed by OPGC for FY 2021-22 considering original project cost (Rs. Crore)

Sl. No.	Particulars	Amount
1	Electricity Duty	12.98
2	Water Cess and Water Charges including Electricity Charges to OHPC	8.37
5	Tax and Cess on land	0.19
6	SOC and MOC for SLDC	0.38
7	ERPC Charges	0.16
8	Income Tax	38.67
9	Water Conservation Fund	6.13
10	Recovery of ARR & Tariff Petition Fee	0.30
	Total	67.19

22. Accordingly, OPGC has requested to provisionally approve the above charges amounting to Rs.67.19 Crore considering the original project cost and to direct GRIDCO Ltd. to reimburse the other charges on actual basis during the FY 2021-22.

Additional Capitalization

23. OPGC has submitted that it has filed a petition before the Commission for approval of additional capitalization of Rs.128.07 Crore made during the period from FY 2015-16 to 2018-19, which was registered as Case No. 54/2018 and order in this case is yet to be issued by the Commission. OPGC has submitted that the claim of additional capitalization of Rs.13.32 Crore, Rs.20.94 Crore and Rs.44.11 Crore for the FY 2015-16, 2016-17 and FY 2017-18 were as per actual basing on the audited figures. However, the amount of Rs.49.70 Crore claimed for the FY 2018-19 was based on the projection basis and after completion of FY 2018-19, the actual additional capitalization was Rs.43.78 Crore. Hence, the total additional capitalization from FY 2015-16 to FY 2018-19 is Rs.122.15 Crore instead of Rs.128.07 Crore as claimed in Case No. 54/2018. OPGC has requested the Commission to consider the same in the said Petition and approve the additional capitalization for the respective years as claimed. Further, OPGC has also submitted additional capitalization of Rs.6.41 Crore for FY 2019-20.
24. In its ARR and Tariff Application now submitted by OPGC, in addition to the above additional capitalization, it has proposed the additional capitalization of Rs.39.96 Crore and Rs.29.25 Crore for FY 2020-21 and FY 2021-22 respectively. OPGC mentioned that it has followed the provisions of the Tariff Regulations, 2020 for claiming the proposed additional capitalization. Accordingly, in the ARR for the FY 2021-22, OPGC has claimed additional annual fixed cost of Rs. 40.07 Crore and other charges of Rs.4.72 Crore towards income tax on additional Return on Equity on account of aforesaid proposed additional capitalization. The details are given in Table below.

Table - 6
OPGC Proposal on account of Additional Capitalization for FY 2021-22
(Rs. Crore)

Particulars	Amount
Additional Annual Fixed Cost	
Depreciation	24.39
Return on Equity	8.79
Interest on loan	6.37

Particulars	Amount
Interest on working capital	0.51
Total	40.07
Other Charges –Additional Income Tax	4.72

Summary of Tariff proposal for FY 2021-22

25. Considering the approved original project cost and proposed additional capitalization, the summary of tariff proposed by OPGC for FY 2021-22 is given in the Table below:

Table - 7

Summary of Tariff Proposal of OPGC for FY 2021-22

Particulars	Units	Corresponding to original project cost	Corresponding to Additional Capitalisation	Total
Depreciation	Rs. Crore	-	24.39	24.39
Return on Equity	Rs. Crore	72.00	8.79	80.79
Interest on loan	Rs. Crore	-	6.37	6.37
O&M expenses	Rs. Crore	176.35	-	176.35
Interest on working capital	Rs. Crore	13.19	0.51	13.71
Total Annual Fixed Cost	Rs. Crore	261.54	40.07	301.61
Variable Charges per kWh	Paisa/kWh	167.91	-	167.91
Other charges	Rs. Crore	67.19	4.72	71.91

26. OPGC has prayed to the Commission to approve the additional capitalization, annual fixed cost and variable charges, other charges as proposed for FY 2021-22 along with the recovery of other charges on actual basis. OPGC has also prayed to approve the variation in energy charges during the year on account of change in fuel prices and calorific value to be claimed through Fuel Price Adjustment in supplementary bills on half yearly basis as per the provisions of PPA.

VIEWS OF THE OBJECTORS ON THE GENERATION TARIFF PROPOSAL OF OPGC FOR FY 2021-22 (PARA 27 TO 50)

We are dealing with the views of the objectors issue wise

(a) Statutory provisions to be followed for determination of generation tariff

27. GRIDCO submitted that OPGC should not be allowed to cherry pick the provisions of PPA for unilateral benefit of the generator only.
28. An Objector suggested reviewing the PPA amendments while determining the generation tariff.

29. Another Objector has suggested that since the Government of Odisha is currently the owner of 100% share of OPGC, the calculation of GCV as per direction of the Hon'ble Supreme Court should be stopped.

(b) Additional capitalization

30. GRIDCO submitted that since the order in Case No. 54/2018 is yet to be issued by the Commission, the claim of OPGC for additional capitalization may not be considered in the present case. GRIDCO further submitted that instead of doing renovation and modernization to improve operational efficiency of the plant, additional capitalization is being done which would increase the tariff burden. GRIDCO has requested the Commission to direct OPGC to come up with separate detailed/ comprehensive application for renovation and modernization of Unit 1 & 2 as a whole with the proposal of life extension/ residual life of thermal units along with Cost benefit analysis.
31. Another objector submitted that there is no provision relating to additional capitalization during the validity of the PPA. Further, many of the works proposed are similar to regular O&M activities and recovery of capital cost within remaining life of 5/6 years for unit 1 and 2 would result in undue burden on the consumers. He has requested the Commission to direct OPGC to submit Petition for R & M and life extension of the Units 1 and 2 of the Ib Thermal Power Plant as the Units have been in operation for 26 and 24 years respectively. He further stated that while the additional capitalization is under consideration by the Commission in separate cases, it is not possible to pass on the same in this instant proceeding.
32. An Objector has requested to initiate necessary action to dispose of the pending cases in the matter of additional capitalization after duly considering the year wise De-capitalization and dismiss the claims of additional capitalization projected in the instant petition.

(c) Depreciation

33. GRIDCO submitted that depreciation with respect to additional capitalization may not be considered in the present case.

(d) Energy generation and PLF

34. GRIDCO submitted that the actual performance of OPGC is much better than the submission herein and therefore the Commission may prudently fix the operational parameters for FY 2021-22. GRIDCO further submitted that the PAFM and PLF have to be certified by SLDC on month to month basis as is being carried out at present.
35. Another Objector submitted that he has reviewed the Amended PPA along with generation plan of OPGC submitted to GRIDCO and has found that OPGC is required to comply the difference of Energy (MU) proposed by them *vis-a-vis* the projections of GRIDCO.

(e) Auxiliary Consumption

36. One of the objectors submitted that OPGC has proposed auxiliary consumption at the rate of 9.5% whereas central thermal power stations like NTPC have auxiliary consumption of 5.5%.
37. The Objector suggested that the auxiliary calculation should be made as per the regulation.

(f) Norms of operation

38. GRIDCO submitted that OPGC's actual performance in terms of various parameters is better than submission made in the present application.

(g) GCV, Fuel availability and Fuel Cost

39. GRIDCO submitted that GCV of linkage coal procured from MCL should commensurate with cost paid for the notified Grade of GCV of coal for FY 2020-21 by the coal supplier. GCV of coal shall be GCV of coal as delivered to the power station /weighted average GCV of coal received during month in Rs/MT. But OPGC has considered "As fired" GCV of coal as actual GCV of coal contradicting the provisions of PPA in effect as well as the Hon'ble Supreme Court's direction dated 19.4.2018.
40. GRIDCO further submitted that it has requested OPGC to submit Third Party Joint Sampling Report done by CIMFR at billing end in respect to coal procured from MCL as billed GCV and moisture data for calculation of ECR as per order of Hon'ble Commission dated 28.10.2020 in case no. 43/2017. However, till date OPGC has not submitted the required data. Therefore, till submission of such data, the Commission

- may consider provisionally the median value of 3101 Kcal/kg and 3400 Kcal/kg, i.e. 3250.5 Kcal/kg for computation of tariff for FY 2021-22.
41. With respect to Energy Charges, GRIDCO submitted that OPGC is not being compliant to the provisions of PPA in respect of GCV of coal considered in determining the Energy Charges Rate as well as actual specific fuel oil consumption. Further, OPGC has not considered the aforementioned directions of the Commission while deriving the Base ECR. GRIDCO requested OERC to consider base ECR prudently and set the principle of monthly ECR determination accordingly, which shall be paid on actual basis from month to month.
 42. Another objector submitted that the variable cost for the FY 2021-22 may be determined on the basis of data submitted by MCL relating to GCV of coal at the loading point of MGR. The objector further submitted that GCV of coal on equilibrated condition at the loading point of the MGR as determined by CIMFR is to be considered towards cost of coal.
 43. Despite knowing that their appeal before APTEL, OPGC violates the order of Commission and states in their instant petition to consider GCV of coal @2740.93 kcal/kg as actually delivered to power station for calculation of charges. The Objector requested OERC to approve the GCV of coal as per the order dated 28.10.2020 as the appeal of OPGC is still pending in APTEL.
 44. The coal consumption proposed is too high in comparison to all India average as per the report published by CEA. The Objector suggested considering the vulnerability of coal firing to climate change. Further, the Objector requested to develop such technology for power generation which could consume coal at about national average of 0.70 kg/kWh.

(h) **Other Issues**

45. GRIDCO submitted that OPGC shall have to provide all supporting documents in support of their claim raised on GRIDCO in respect to fixed charges, energy charges and reimbursement of other charges. GRIDCO further stated that the claim for reimbursement of ECC lacks sufficient documents to scrutinize and arrive at an opinion regarding efficient and optimized utilization of water by OPGC and other modalities. OPGC may be directed to meet such expenses from its O&M expenses. Moreover, the ECC claimed by OPGC with attached invoices of OHPC have no

- segregation for amounts payable for Units 1 & 2 and Units 3 & 4. It further submitted that it shall reimburse the other charges subject to necessary directions from the Commission and on scrutiny of all supporting documents to be provided by the OPGC along with their claim including documents of recovery of ARR, Tariff Petition fee and public expenses. GRIDCO have suggested giving necessary directions regarding Deviation Settlement Mechanism (DSM) Charges payable by OPGC in case of deviation between scheduled generation and actual export to GRIDCO.
46. With Government of Odisha being the owner of 100% share of OPGC, the Commission should direct the OPGC authorities to conduct the audit through CAG.
 47. One of the objectors submitted that OPGC in their ARR application have mentioned that they are functioning as per the PPA signed between GRIDCO and OPGC while knowing that PPA and tariff hearing are separate subjects.
 48. An Objector requested the Commission to direct to OPGC to produce a) the number of the force outage & reason for such from the year 2016 till today; b) month wise cash flow statement showing sources of inflow and outflow of cash from the FY 2010-11 to 2020-21; c) detailed action plan they have prepared for development of mini-hydro projects now under their disposal including the list of mini hydro projects, their functioning and their per unit cost; and d) the number of cases pending before different courts and amount paid for legal expenses of the said cases for FY 2015-16, 2016-17, 2017-18, 2018-19 and 2019-20.
 49. The proposed per unit cost of power sale and other charges look very high in consideration to the pit head IB thermal power station.
 50. In the instant Petition, OPGC fails to submit the actual data of previous year while projecting the data for the ensuring FY 2021-22. It was further requested to the Commission to direct OPGC to submit the actual data with respect of AFC, VC and Energy generation for previous financial year well in advance of public hearing, so that it could be verified.

VIEWS OF CONSUMER COUNSEL (PARA 51)

51. WISE, Pune on behalf of the Consumers made a presentation on the Analysis of ARR and tariff filing of OPGC for FY 2021-22. The Consumer Counsel's observations/suggestions are as given below:

- a) OPGC has proposed interest on working capital @7.70% based on actual interest rate for working capital for FY 2020-21. So, interest on working capital may be reviewed by the Commission based on actual information.
- b) OPGC has considered the Clause 3.0 (d) and (e) of Schedule II of the Amended PPA which provides that O&M expenses for first year of operation at the rate of 2.5% of the capital cost which shall be escalated by 8% each year from April 1, 1996. Actual O&M expenses and its growth rate can be reviewed by the Commission in this regard.
- c) OPGC proposed the PLF as 68.49%, as per Amended PPA. However, the actual PLF for FY 2019-20 was 71.65%. Also, as per Regulations, NAPLF of thermal power stations is considered as 85%. So, the Commission can appropriately decide the PLF for FY 2021-22.
- d) OPGC has submitted the specific oil consumption as 3.5 ml/kWh for FY 2021-22 as a mix of FO and LDO in the ratio of 90:10. In 2017-18 and FY 2018-19, they have used LDO only but now proposing to use LDO and HFO. OPGC should justify its proposal.
- e) The Commission, in the ARR of FY 2020-21, has approved the GCV as 3100 Kcal/kg. However, OPGC proposes the same as 2740.93 Kcal/kg for FY 2021-22, indicating the actual GCV of FY 2019-20 as 2951 Kcal/kg and 2726 Kcal/kg (up to November 2020) in FY 2020-21. In Para 83 of last year order the Commission opined that: *"The Commission observed that now OPGC is availing the coal of Grade-14 (G-14) from M/s. MCL and the standard range of GCV of G-14 coal is 3101-3400 kcal/kg. Accordingly, the Commission has adopted 3100 Kcal/kg as GCV of Coal for determination of OPGC tariff which is the minimum value of GCV of G-14."* The MCL declared grade's GCV can be considered for present tariff determination process.

- f) The weighted average coal price for FY 2019-20 was 1572 Rs/ MT and in FY 2020-21 the average price was 1543 Rs/MT (up to November 2020). So, the latest available price of coal can be considered.
- g) Along with water cess and water charges, energy compensation to OHPC is proposed by OPGC for FY 2021-22. This charge should be reviewed on the basis of actual payment made to OHPC, if any. Water contribution fund should be reviewed based on actual payment made vis-a-vis the Govt. order and verification of the same by GRIDCO.
- h) Income tax claim can be approved on the basis of approved RoE, which is derived from approved equity as per additional capitalization to be approved by the Commission.
- i) The claim for additional capitalization for FY 2019-20 is based on Regulation 3.4 of OERC Generation Tariff Regulations, 2014. The additional capitalization claimed for FY 2020-21 and FY 2021-22 is based on Regulation 12(4) of OERC Generation Tariff Regulations, 2020. The claim may not be included in the present petition and issues on additional capitalization should be addressed in the Case No. 54/2018 as mentioned by the Commission in last year tariff order.
- j) The additional claim of RoE, interest on loan, and depreciation are related to proposed additional capitalization; therefore, the additional capitalization claim should be reviewed thoroughly and may be allowed during truing-up only.
- k) OPGC has calculated the interest on normative loan on the basis of interest rate of 10.62%, which is weighted average rate of interest of generating company as a whole (on the ongoing loan draw from PFC and REC for OPGC Units 3&4) for FY 2019-20. The Commission may review the loan details pertaining to the generating company in perspective of recent downward trend of interest rate.

OPGC's RESPONSE TO THE OBJECTORS (PARA 52 TO 86)

Statutory provisions for determination of generation tariff

52. OPGC submitted that the Regulation 19(2) of OERC Generation Tariff Regulations, 2020 stipulates as follows:

“The Annual Fixed Cost 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.”

53. Hon'ble Supreme Court vide its Judgment dated April 19, 2018 has set aside the Tariff Order for FY 2016-17 of OERC and has remanded the matter to the OERC for a fresh decision. In effect, the Hon'ble Supreme Court has held that primarily the tariff norms under the PPA are to be followed in determining OPGC's tariff. Further, to the extent there are tariff norms not covered by the PPA, the Tariff Regulations may be relied upon by the OERC to determine OPGC's tariff. OPGC submitted that the effect of the Supreme Court's Judgment is that this arrangement would apply for the entire term of the subsistence of the PPA viz. till 30.06.2026.
54. OPGC filed the Petitions for Re-determination of Tariff for FY 2016-17, FY 2017-18 and FY 2018-19 before OERC on May 25, 2018 considering the original project cost as per the approved Amended PPA. The said Petitions were numbered as Case No. 33 of 2018 and the final Order was issued by the Commission on March 28, 2019. Hence it is settled principle that the tariff for OPGC Unit 1 and 2 is to be determined as per the provisions of the PPA. Accordingly, OPGC has computed the various components of Annual Fixed Charges for FY 2021-22 in accordance with the principles and norms stipulated in the PPA. OPGC therefore requested to approve the Annual Fixed Charges for FY 2021-22 in accordance with the principles and norms stipulated in the PPA.
55. Irrespective of ownership of the Company, the basic principles of tariff determination cannot change and tariff needs to be determined as per the provisions of the PPA in compliance with the Hon'ble Supreme Court Judgment. Hence, the stakeholder's statements for not complying with the Orders of the Supreme Court are unwarranted.

Additional capitalization

56. OPGC submitted that it has filed a separate Petition numbered as Case No. 54 of 2018, for approval of additional capitalization for FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 in compliance to the Commission's directive in the Tariff Order for FY 2018-19 dated March 22, 2018 and Hon'ble Supreme Court order in Civil Appeal No. 9485/2017 dated April 19, 2018. The Commission has reserved the Case for final Order. OPGC has requested to consider the additional capitalization and its impact thereof in this instant Petition.
57. In line with the approach adopted in Petitions in Case No. 33 of 2018 and Case No. 54 of 2018, OPGC had filed Petition for approval of Generation Tariff for FY 2019-20 and FY 2020-21 whose final Order was issued by the Commission on March 29, 2019

against Case No. 70 of 2018 and on April 22, 2020 against Case No. 69 of 2019 respectively. In the order of Case No. 70 of 2018, the Commission at Para 101, has held that since separate petition bearing Case No.54/2018 is pending adjudication, the present claim is not being considered now. Whereas in the order of Case No. 69 of 2019, the Commission at Para 97, has held that *“issues on additional capitalization by OPGC shall be addressed in the Case No. 54/2018 and its impact on generation tariff of OPGC shall be considered thereafter. Therefore, in the instant case, the Commission has not considered the impact of proposed additional capitalization on the generation tariff of OPGC for the FY 2020-21”*. In line with the approach adopted in Petitions in Case No. 33 of 2018, Case No. 70 of 2018, Case No. 69 of 2019 and Case No 54 of 2018, OPGC has filed the instant Petition for approval of Generation Tariff for FY 2021-22.

58. The regulatory concepts of renovation & modernization on the one hand, and additional capitalization on the other, are fundamentally different, and for this reason are accorded separate and distinct treatment under the 2020 OERC Tariff Regulations as well as the CERC Tariff Regulations for the control period 2019-24. The list of works claimed by OPGC for additional capitalization is not in lieu of the renovation and modernization. OPGC stated that it would be appropriate if these two distinct concepts are not conflated.
59. Also, the works in respect of which OPGC has claimed additional capitalization are for sustained operations of the generating station, compliance with statutory requirements and replacement of some of the obsolete equipment and therefore, they cannot be classified as being routine O&M expenses. The renovation and modernization work of a thermal generating station is necessitated when the performance of the station becomes uneconomical. Despite being more than 20-year-old generating station, the operational performance of OPGC is among the best state sector generating stations in the country and continues to operate at annual PLF of around 80%.
60. In order to meet the revised emission norms issued by MoEF & CC in December 2015, OPGC is already working on a composite plan, involving installation of FGD and taking up R&M together, in order to extend the life of the plant (and PPA term beyond 2026) and to rationalise tariff as a result of installation of FGD and R&M. RLA assessment through third party consultant has been completed and provisional

- cost estimates completed. These works will be taken up for implementation on receiving concurrence from the respective Boards of OPGC and GRIDCO and decision from Government of Odisha. It will be subsequently placed for approval of the Commission, as part of separate proceedings. Further, this decision has no bearing on the immediate process of determining annual tariff, which is a routine matter.
61. Further, OPGC has submitted the details of actual additional capitalization for FY 2019-20 and proposed additional capitalization for FY 2020-21 and FY 2021-22 with complete justification for the additional capitalization has been submitted. OPGC requested the Commission to approve the actual additional capitalization from FY 2015-16 to FY 2019-20 and proposed additional capitalization for FY 2020-21 and FY 2021-22 and allow the impact of same on Annual Fixed Charges while approving the tariff for FY 2021-22.
62. Hence, the submissions made by GRIDCO with regard to additional capitalization are mis-conceived and intended to mis-lead the Commission and hence need to be outrightly rejected.

Operational parameters

63. Hon'ble Supreme Court vide its Judgment dated April 19, 2018 has held that primarily the tariff norms under the PPA are to be followed in determining OPGC's tariff. Further, to the extent there are tariff norms not covered by the PPA, the Tariff Regulations may be relied upon by the OERC to determine OPGC's tariff. The suggestion of GRIDCO to again prudently fix the operational parameters which are already agreed in PPA is in contradiction to Hon'ble Supreme Court Judgment as well as the Commission's Orders on re-determination of tariff for FY 2015-16 to FY 2018-19, Tariff Order for FY 2019-20 and Tariff Order for FY 2020-21. Any attempt to revise the operational norms which are already covered in the PPA will lead to violation of Hon'ble Supreme Court Judgment.
64. OPGC in Amended PPA signed with GRIDCO has agreed upon operational performance parameters. OPGC in its Petition for computation of variable charges for FY 2021-22 has considered the operational performance parameters as per Clause 8 of Schedule II of the approved Amended PPA and requested the Commission to approve the same.

Generation and PLF

65. OPGC has projected the PLF of 81.88% for FY 2021-22 and not 81.46%. OPGC submitted that the actual PLF of the plant depends on scheduled maintenance outages and other operating conditions beyond the control of OPGC during a given year. Accordingly, the PLF varies from year to year. OPGC in FY 2016-17 achieved PLF of 87.92% ranking first among the thermal generating stations in State sector. The target export of Power to GRIDCO for the FY 2021-22 is 2698.677 MU, which is equivalent to a PLF of 81.88%.

Auxiliary consumption

66. The normative auxiliary consumption claimed by OPGC is 9.5% in accordance with the approved Amended PPA even though the actual auxiliary consumption has remained above 10% since COD of the station. The reference to auxiliary consumption of central generating stations is misplaced as they are governed by Tariff Regulations of the Central Electricity Regulatory Commission. Further, even the auxiliary consumption of 5.5% mentioned is for super critical units with capacity of 660 MW and above and not for Units with capacity of 210 MW. CERC norm for 200 MW series units is 9.0% with induced draft cooling towers. Moreover, the norms have been revised upward by CERC in its Tariff Regulations, 2019.

GCV and Fuel cost

67. OPGC submitted that as per terms of the Amended PPA, GCV of coal shall be considered 'as delivered to the power station'. The Ministry of Power Notification dated 30.03.1992 based on which the Amended PPA has been structured, clearly provides for considering GCV of coal 'actually received and burnt' for purposes of determining energy charge. Since implementation of the PPA from 1996, OPGC has been providing the GCV of coal only on the basis of this principle, which has been accepted by GRIDCO and paid accordingly. GRIDCO cannot be allowed to adopt a different principle now to suit its own interest and withhold energy charge payments on the grounds of re-interpreting the term 'as delivered to the power station' value of GCV as 'grade GCV' value (with moisture adjustment formula).
68. There is no scope for re-interpreting the settled terms of the PPA after the Hon'ble Supreme Court's directions. Further, re-interpreting terms of the PPA from time to time to suit stakeholder's claims, shakes the very spirit of entering into a contract.

Further, the Commission vide its Order dated 28.10.2020 in Case No. 43 of 2017 on the Petition filed by OPGC regarding the dispute on Gross Calorific Value to be considered for tariff has ruled as under:

“13. We carefully heard the arguments and rival arguments of all the parties including opinions of experts. The bone of contention in this case is related to the calculation of Energy Charge Rate (ECR) of the power procured by GRIDCO from OPGC. After longstanding dispute in this matter, the Commission had finally redetermined the tariff for Unit-I and II of the petitioner vide case No.33 of 2018 dt.28.03.2019 for FY 2016-17, FY 2017-18 and FY 2018-19 pursuant to the judgment of the Hon’ble Supreme court of India dated 19.04.2018 in Civil Appeal No. 9485 of 2017. The Commission in the said order had directed as follows:

Directives of the Commission:

“40. The recovery of monthly Capacity Charges as approved by the Commission here shall be made as per the methodology stipulated in the PPA and GRIDCO Ltd. shall make payment after prudence check.

41. The operational norms like Auxiliary Consumption, Gross Station Heat Rate, and Consumption of Oil as indicated in Clause 8 of Schedule-II of the PPA and Price and GCV of Oil and Coal actually delivered to the power station as per Clause 7 of Schedule-II of the PPA shall be considered. Accordingly claims of monthly Energy Charges shall be made by OPGC and GRIDCO Ltd. shall make payment after prudence check of all parameters of energy charges like GCV and price of Coal & Oil etc.”

The capacity charge and energy charge are to be computed as per the above order of the Commission.

14. Heat energy contents of the coal and oil are converted to electrical energy in the power station. Heat energy content of the coal per kilogram varies at different points starting from the time of its mining till its firing in the furnace due to addition and release of moisture and other impurities during its handling. PPA between the parties at clause-7 of Schedule-II specifies that Gross Calorific Value of the coal and oil shall be determined “as delivered to the power station”. It is understood from the submission of the experts and parties that the GCV of coal is measured at mines end by a third party agency named CIMFR on “equilibrated method”. This is done to arrive at a standardized pricing of coal of a particular grade. But the heat energy available in the power station from the coal depends upon moisture content and other impurities. Therefore, GCV of coal measured at equilibrated method requires moisture correction for determination of heat content available for energy conversion. Therefore, if we apply a moisture correction formula on “as billed” GCV which is determined on equilibrated method, we can arrive at GCV on total moisture basis. CERC in petition No.279/GT/2014 dated 30.07.2016 has also adopted this method. This is because the measurement of GCV on total moisture basis at power station end is the practice generally followed by the industry and it determines the volume of coal the power station requires to generate a particular quantity of energy.

GCV of coal as delivered to the power station (total moisture basis)= GCV X ((1-TM)/(1-IM))

Where:

GCV= Gross Calorific value of coal as billed by coal supplier

TM= Total moisture as per CIMFR report

IM= Inherent moisture as per CIMFR report

The above formula should form the basis of calculation of GCV of coal on “as delivered basis” for computation of energy charge. The above formula shall take care of total moisture in calculation of GCV which is the prevalent industry practice.

15. The old bill of OPGC should be modified accordingly from April, 2017 onwards for the entire tariff period. The value of IM and TM should be adopted from the third party CIMFR report.”

69. OPGC has submitted that it has filed Appeal No. 189 of 2020 before the Hon’ble APTEL against this Commission’s Order dated October 28, 2020 in Case No. 43 of 2017 on the GCV to be considered for tariff computation. In the hearing dated 26.11.2020 before the Hon’ble APTEL, GRIDCO undertook not to precipitate the matter pursuant to this Commission’s Order dated 28.10.2020 in Case No. 43 of 2017 till the next date of hearing. On 08.01.2021, Hon’ble APTEL during the hearing directed all respondents including GRIDCO to file their reply by 22.01.2021 and OPGC to file the rejoinder by 29.01.2021. The matter is listed for hearing on 01.02.2021 with a direction to continue the interim arrangement till the next date of hearing.
70. Since 1996, OPGC has been measuring GCV of coal at the boiler end/ firing point within its Power Plant and GRIDCO has paid OPGC variable costs on such basis without any objections. If GRIDCO’s submissions are accepted, it will amount to precipitating the matter, before the Hon’ble APTEL has had the opportunity to adjudicate upon the matter pending before it. GRIDCO cannot be allowed to precipitate the matter until the final disposal of Appeal No. 189 of 2020 in deference to the fact that the Hon’ble APTEL is seized of the matter.
71. In line with the Judgment of the Hon’ble Supreme Court of India dated 18.04.2018 in Civil Appeal No. 9485 of 2017, variable costs for OPGC are to be determined as per the PPA. As per the provision of PPA, the GCV of Oil and Coal is to be considered as actually delivered to the power station, which implies GCV measured at the ‘boiler end’ on a Total Moisture basis. Accordingly, OPGC has considered the GCV of coal and oil as actually delivered to the power station for the computation of energy charges. In view of the above, the Commission is requested to consider the actual

- GCV of coal as provided by OPGC for base ECR in line with Clause 9, Schedule II of the PPA, till the final disposal of Appeal No. 189 of 2020 by the Hon'ble APTEL.
72. OPGC further submitted that in accordance with the direction of the Commission in its Case No. 33/2018 (Para 41), 70/2018 (Para 104) and Case No. 69/2019 (Para 100) and terms of the PPA (Clause 9 of Schedule-II), OPGC has submitted the audited prices and GCV for oil and coal while claiming the half yearly fuel price adjustment and as such, Coal Sampling Report of CIMFR has no bearing on the monthly energy bill and hence the same is not being submitted along with the monthly bills.
 73. OPGC has already submitted the actual quantum of oil consumed for generation for the Period of April 2019 to November 2020 vide its filing 2 dated 13.01.2021 in the petition and the same has also been served to GRIDCO. As there is no arrangement for use of HFO in OPGC Units 1&2, there is no actual consumption of HFO. However, the details of price and GCV of both LDO and HFO have been submitted to GRIDCO vide its Half Yearly Fuel Price Adjustment bill.
 74. OPGC has prayed for allowing variation in energy charges during the year on account of fuel prices and calorific value to be claimed through Fuel Price Adjustment in supplementary bills on half yearly basis in accordance with the provisions of the approved Amended PPA. Further, the Commission vide its orders in Case No. 33 of 2018 (Para-42), Case No.70 of 2018 (Para-105) and Case No. 69 of 2019 (Para – 101) directed OPGC to claim the Fuel Price Adjustment and other charges through supplementary bills, which is being followed by OPGC. The practice being followed is in accordance with the approved PPA and any direction to change the practice beyond Half Yearly/Annual Fuel Price Adjustment will alter the terms and conditions of PPA.
 75. The coal consumption for generating one unit of electricity from a thermal generating station is dependent on the norms of operation namely Gross Station Heat Rate and Specific oil consumption as well as the actual GCV of coal and oil. The normative Gross Station Heat Rate of OPGC is 2500 kcal/kWh whereas the same for Talcher TPS is 2830 kcal/kWh. The coal consumption of old 210 MW units cannot be compared with new Super Critical Units of 500 MW and above. The comparison is without a comprehensive understanding of the underlying factors leading to coal requirement for power generation and does not have any merit.

76. OPGC has submitted the projected net export to GRIDCO for FY 2021-22 in the Petition. The stakeholder has not substantiated the statement that the per unit cost of OPGC is higher. As per GRIDCO's Tariff Order for FY 2020-21, the per unit cost of OPGC is one of the lowest amongst the various sources of power purchase of GRIDCO.

Other issues

77. OPGC has been claiming the amount payable to OHPC towards Energy Compensation Charges (ECC) which is in terms of the GoO order. It may be noted that vide letter no. 2771 dated 15.11.2018, OPGC informed GRIDCO for reimbursement of Rs.7,82,85,955/- towards ECC up to August 2018. In the said letter, detailed calculation of ECC as claimed by OHPC along with delayed payment surcharge and a detailed calculation sheet indicating the bifurcation between OPGC 1 (Unit 1&2) and OPGC 2 (Unit 3&4) were provided with. GRIDCO preferred to avoid replying to the said letter. Subsequent invoices raised by OHPC were made part of the petition. Thus GRIDCO's present allegation that because of the absence of detailed calculations, GRIDCO is unable to scrutinize is not correct.

78. Further it may also be noted that latest ECC invoice from OHPC has been received by OPGC is up to November 2020 (Bill No. OHPC/HHEP/EN.COM/118/2020-21 dated 04.12.2020, as per which total amount payable now is Rs.15,15,70,680/- that includes Rs.8,72,80,943.13 as delayed payment surcharge).

79. As per the Government of Odisha letter No. 6140 dated 31.07.2012, OPGC is required to pay additional charges to OHPC for drawl of water in the form of Energy Compensation Charge (ECC). The invoice raised by OHPC is for the total amount of Rs.11,60,48,991/-. Out of this total amount, the amount of Rs.8,42,40,037/- pertains to Units 1&2 which has been claimed in the Petition. OHPC has not raised separate invoices for Units 1&2 and Units 3&4. OPGC requested the Commission to issue directions to GRIDCO for reimbursement of such amount and the amount payable for the period of FY 2019-20 whenever paid to OHPC by OPGC.

80. In accordance with Clause 10.0 of the approved Amended PPA, the O&M expenses allowable for OPGC are exclusive of the impositions charged by the State Government and hence the request of GRIDCO to meet such expenses from O&M expenses is without merit and deserves outright rejection.

81. Main Dam Division, Burla, Department of Water Resources, Govt. of Odisha has imposed a penalty on water charges (six times of the normal water charges) drawn by OPGC from Hirakud Reservoir during the period from June 12, 2013 to June 28, 2013 (16 days) amounting to Rs. 1,87,03,456/-. The interest accrued till March 2019 is Rs.6,84,35,459/- as per the latest bill. OPGC is continuously pursuing the matter with the Water Resources Department, Government of Odisha to waive the penalty along with interest. This is under active consideration by Government of Odisha. However, till date this matter has not been resolved. Accordingly, OPGC has requested to pass appropriate Order for reimbursement of such amount if paid by OPGC.
82. As per the Resolution of Department of Water Resources, Government of Odisha, dated May 18, 2015, OPGC is required to contribute an amount of Rs.30.65 Crore (12.26 Cusec X 2.5 Crore/Cusec) towards creation of water conservation Fund. Further, as per the Resolution of Department of Water Resources, Government of Odisha, dated November 3, 2015, the Government has provided the facility to industries to deposit their contribution to the Water Conservation Fund in five equal annual instalments. OPGC has also received a letter on July 14, 2015 from Main Dam Division, Burla to deposit the contribution towards Water Conservation Fund. As the facility of making this payment is available in five equal annual instalments, OPGC has decided to opt for this facility and make payment in five annual instalments to reduce the burden to be passed on in tariff. Accordingly, OPGC has claimed an amount of Rs.6.13 Crore in FY 2021-22 towards contribution to Water Conservation Fund. Further, OPGC had sought the approval of annual contribution for FY 2020-21 in its Petition No 69/2019. While disposing of the Petition, OERC in its Order dated 22.04.2020 at Para has observed as follows:

“Reimbursement of contribution towards Water Conservation Fund (WCF)

93. As per the resolution of Department of Water Resources, Govt. of Odisha, dated 18.05.2015, OPGC has proposed approval of Rs.6.13 crore towards reimbursement of contribution to WCF during FY 2020-21. Further, respondent GRIDCO in its objection has submitted that the above amounts will be reimbursed to OPGC subject necessary direction of the Commission and submission of all supporting documents with regards to payment made by OPGC. From the above submission of GRIDCO, it is understood that no payment has yet been made by OPGC towards WCF. We direct that the above amount be reimbursed by GRIDCO subject to verification of supporting documents of actual payment vis-a-vis the Govt. order in this regard. However, at present, we do not allow any amount on this head for reimbursement by GRIDCO during 2020-21.”

- OPGC submitted that this expense is not in control of OPGC and is payable because of Government Resolution. Hence, OPGC has requested the Commission to allow reimbursement of the same for FY 2021-22 as well as FY 2020-21, so that the same can be deposited by OPGC and claim for reimbursement from GRIDCO.
83. Imported power from the grid system is being settled on net exchange basis every month in accordance with the practice being followed as per the Approved PPA and record note of discussion held on 13.08.1996 between OPGC and GRIDCO. Also, the approved PPA has the appropriate provision for considering the tariff for power imported by OPGC for black start up along with its settlement. Hence, OPGC submitted before the Commission for settlement of the imported power in accordance with the approved PPA. The energy scheduling to GRIDCO from its power station is being settled on net exchange basis every month, wherein actual generation being considered as scheduled generation, in accordance with the practice being followed as per the approved Amended PPA.
84. OPGC submitted that the accounts of OPGC are regularly audited from time to time as per the statutory provisions as applicable. OPGC further mentioned that the audited annual accounts for FY 2019-20 have been submitted to the Commission along with the Tariff Petition on dated November 27, 2020 and the information on monthly cash flow statement is not relevant for tariff determination.
85. OPGC submitted that the information on pending cases and legal expenses is not relevant as OPGC has claimed only normative O&M expenses and has not separately sought any compensation for legal expenses.
86. The Commission determines tariff based on normative parameters. Further, OPGC has submitted the audited figures as sought by the Commission in its replies to the queries of the Commission.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA 87)

87. The Commission convened the State Advisory Committee (SAC) meeting on 22.02.2021. One Member mentioned that the Commission should consider the final Order in Case No. 43/2017 dated 28.10.2020 where the Commission has provided a formula for calculating GCV of coal with moisture correction on “as delivered” basis. Apart from this, no specific reference was made relating to Annual Revenue Requirement and Tariff filing of OPGC.

COMMISSION'S OBSERVATIONS AND ANALYSIS OF OPGC'S PROPOSAL FOR DETERMINATION OF GENERATION TARIFF FOR FY 2021-22 (PARA 88 TO 111)

88. That the present petition for determination of generation tariff for FY 2021-22 has been filed by OPGC under Sections 62 and 86 of the Electricity Act, 2003 read with Approved Bulk Supply Agreement (PPA) along with Supplemental Agreement (together referred to as the Amended PPA), related provisions of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 and OERC (Conduct of Business) Regulations, 2004 and as per Hon'ble Supreme Court Order dated April 19, 2018 in Case No. 9485 of 2017.
89. In obedience to the judgement of Hon'ble Supreme Court as stated above, the Commission while determining the tariff of the Generating Company for FY 2020-21 has also relied upon the norms of PPA for fixed and variable costs. Regarding other costs not reflected in the PPA, statutory Regulations have been followed.

Computation of Annual Fixed Cost

- (i) The Commission considered the norms as per Clause 3.0 of Schedule II of the PPA for approval of the Annual Fixed Cost. Accordingly the component wise annual fixed cost of OPGC for determination of generation tariff for FY 2021-22 is as under:
- (a) **Capital Cost:** As per the Amended PPA signed between OPGC and GRIDCO and approved by the OERC vide its order dated 27.04.2015, the original capital cost of the project is Rs. 1060 Crore. Accordingly, the same is approved for determination of generation tariff of OPGC for FY 2021-22. The additional capitalization claimed by OPGC shall be decided in the separate order pending with the Commission.
- (b) **Debt – Equity Ratio:** As per Clause 8.0 of Schedule II of the PPA, the original capital cost of Rs. 1060 of the project consists of equity of Rs.450 crore and debt of Rs.610 crore. Accordingly the Commission approves the same debt-equity ratio for determination of generation tariff for FY 2021-22.
- (c) **Depreciation:** The Clause 3.0 (a) of Schedule II of the Amended PPA provides that depreciation charges shall be equal to 7.5% of the Capital Cost during the year. Since the assets of the generating Stations have

fully depreciated by the end of FY 2008-09, OPGC has not considered any amount towards depreciation and accordingly the Commission does not approve any amount towards depreciation for determination of generation tariff for FY 2021-22.

- (d) **Return on Equity (RoE):** As per Clause 8.0 (10) of Schedule II of PPA, Return on Equity is to be paid @ 16% on Equity Capital. Considering the equity capital of Rs.450 crore of the original project cost, OPGC has claimed the RoE of Rs.72 crore @ 16% per annum. Accordingly, the Commission approves the same amount of Rs.72 crore towards RoE for determination of generation tariff for FY 2021-22.
- (e) **Interest on Loan Capital:** As per Clause 8.0 (7) and (11) of Schedule II of the Amended PPA, loan amount is Rs. 610 crore and interest on loan will be paid as per actual. As the loan amount of the original project cost has been fully repaid by financial year ending 2011-12, OPGC has not claimed any amount towards Interest on loan capital. Accordingly, the Commission does not approve any amount towards interest on loan capital for determination of generation tariff for FY 2021-22.
- (f) **O&M Expenses:** As per clause 3 (d) & (e) of Schedule-II of the amended PPA, for the purpose of computation of O&M expenses, capital cost is to be taken as Rs.1030 crore and O & M Expense for the first year of operation shall be @ 2.5% of the capital cost and it shall be escalated @ 8% each year from 01.04.1996 with the first escalation factor becoming applicable on 01.04.1997. Based on the above methodology OPGC has claimed Rs.176.35 crore towards O&M expenses. Accordingly, the Commission approves the same amount of Rs.176.35 crore $\{Rs.1030 \text{ cr} \times 2.5\% \times (1.08)^{25}\}$ towards O&M expenses for determination of generation tariff for FY 2021-22.
- (g) **Interest on Working Capital:** As per the Clause 3.0 (f) of Schedule II of the PPA, working capital requirement is to be worked out by considering coal cost for 1.5 months, Oil cost for 2 months, O & M expenses for one month and Receivable for 2 months on the normative level of generation. The interest rate applicable for working capital shall be the rate on the date when the fixed charges are computed. OPGC has

submitted that it has started availing working capital requirement from external sources and the actual interest rate for the working capital facility is 7.70% in the FY 2020-21. The same has been considered for the FY 2021-22. The detailed calculation of working capital requirement and interest on working capital approved by commission against OPGC proposal for determination of generation tariff for FY 2021-22 is given in table below:

Table-8
Interest on working capital Approved by Commission for determination of Generation Tariff for FY 2021-22

(Rs Crore)

Particulars	Norms	FY 2021-22	
		OPGC Proposal	OERC Approval
Cost of Coal	1.5 Months	43.69	39.39
Cost of Secondary Fuel Oil	2 Month	5.57	5.57
O&M expenses	1 Month	14.70	14.70
Receivables	2 Month	107.41	101.46
Working Capital Requirements		171.36	161.12
Rate of Interest		7.70%	7.70%
Interest on working capital		13.19	12.41

Accordingly the Commission approves Rs.12.41 crore towards interest on working capital for determination of generation tariff of OPGC for FY 2021-22 as against OPGC proposal of Rs.13.19 crore.

Summary of Annual Fixed Cost

90. Based on the above approval of the different components total Annual fixed cost by the Commission for determination of generation tariff of OPGC for FY 2021-22, the total AFC comes to Rs 260.81 crore as against OPGC proposal of Rs. 261.54 crore. The proposal of OPGC and approval of the Commission with respect to Annual Fixed cost of OPGC (Unit-I&II) is summarised in the table below:

Table- 9
Total Annual Fixed Cost Approved by Commission for determination of Generation Tariff of OPGC for FY 2021-22

(Rs Crore)

Particulars	OPGC Proposal	OERC Approval
Depreciation	0.00	0.00
Return on Equity	72.00	72.00
Interest on Loan Capital	0.00	0.00
O&M Expenses	176.35	176.35
Interest on working capital	13.19	12.41
Total	261.54	260.76

Computation of Energy Charges:

Operational Performance Parameters

91. Regarding operational parameter the Commission adopts the norms mentioned in the PPA. Details of these parameters are given in table below:

Table-10

Operational norms adopted by the Commission in accordance with PPA for Determination of Generation Tariff of OPGC for FY 2021-22

Particulars	Unit	OPGC Proposal	OERC Approval
Plant Load Factor (PLF)- Normative	%	68.49	68.49
Auxiliary consumption	%	9.50	9.50
Gross Station Heat Rate	(Kcal/Kwh)	2500	2500
Secondary fuel oil consumption	(ml/Kwh)	3.50	3.50

Price & GCV of Coal and Secondary fuel oil

92. The Commission vide its Order dated 28.10.2020 in Case No. 43/2017 has provided the basis for calculation of GCV of coal as delivered to the power station (total moisture basis). This has been challenged by OPGC in APTEL which is pending there. As per Clause 7 of Schedule-II of the PPA, Gross Calorific Value (GCV) of Secondary Oil and Coal is to be considered “as delivered” basis to the power station. During the present proceeding, we have earlier sought details from OPGC on GCV of Coal “as delivered” (at the delivery point) in line with the PPA and the Order of Hon’ble Supreme Court. OPGC has not submitted the details of the coal at the delivery point (basing on as billed GCV with moisture correction) and has rather submitted GCV of coal on “as fired” basis in total moisture method which does not appear even in their PPA. As per Commission’s Order dated 28.10.2020, sampling report by CIMFR at mine’s end with moisture correction would be considered for determining GCV of ‘as delivered’ Coal on total moisture basis. This is in line with PPA and order of Hon’ble Supreme Court. However, OPGC has taken a plea at para 3.35 of their tariff application that they have gone on appeal in Appeal No. 189/2020 to Hon’ble APTEL challenging order of the Commission in this regard in Case No. 43/2017 dated 28.10.2020. Therefore, in the absence of above details, the Commission has decided to consider the base GCV of Grade-14 (G-14), i.e. 3101 kcal/kg similar to last year order. On the query of the Commission OPGC has submitted that the price of G-14 coal has also been revised to Rs.1573.00/ MT including all charges w.e.f. 01.12.2020.

93. Considering all the above operational norms, price and GCV of Coal and Secondary fuel oil parameters of PPA, the Commission determines indicative Energy charges @ 152.81 paisa/kwh for OPGC as against its proposal of @ 167.91 paisa/kwh for FY 2021-22. Details of these operational norms and parameters for calculation of energy charges are given in table below:

Table-11
Computation of Energy Charges for determination of Generation
Tariff of OPGC for FY 2021-22

Particulars	Unit	OPGC Proposal	OERC Approval
Price of Coal	(Rs./MT)	1542.30	1573.00
Price of LDO	(Rs./KL)	46344.95	46344.95
Price of HFO	(Rs./KL)	36291.93	36291.93
GCV of Coal	(Kcal/Kg)	2740.93	3101
GCV of Oil	(Kcal/Kg)	10000	10000
Secondary Fuel Oil Consumption (LDO10% & HFO-90%)	(ml/kwh)	3.50	3.50
Energy Charges	(Paisa/Kwh)	167.91	152.81

Reimbursement of Other Charges

94. Apart from the Annual Fixed Cost and Energy Charges, as per Clause 10 and 11 (vii) of Schedule II of PPA, other charges such as levies, taxes, duties cess, tariff filing fee etc. and supplementary bills, if any, are to be reimbursed from GRIDCO. Accordingly, OPGC has proposed to consider other charges of Rs.67.19 Crore for FY 2021-22 as part of the reimbursement from GRIDCO. These are to be examined item-wise by GRIDCO basing on their paid bills with appropriate rules regarding those charges. However, provisionally the following expenditure is being allowed now.

Electricity Duty:

95. OPGC has submitted that, they have claimed an amount of Rs.12.98 Crore (@ Rs.0.55/kWh) towards reimbursement of electricity duty from GRIDCO during the FY 2019-20 in accordance with PPA. On that basis it has requested the Commission to approve provisionally the same amount for the FY 2021-22. Since the Commission has followed the PPA norms, i.e. 9.50% of auxiliary Consumption on normative generation at 68.49% PLF for determination of generation tariff, we now provisionally approve Rs.12.98 Crore @ Rs.0.55/kWh towards electricity duty for FY 2021-22.

Water Cess & Water Charges:

96. OPGC has submitted that, during the FY 2019-20, it has actually incurred an expenditure of Rs.7.94 Crore towards water cess and water charges and accordingly claimed the same amount to be allowed for reimbursement in the ARR for the FY

2021-22. OPGC has further submitted that in addition to the above, it has to pay an additional charge to OHPC for drawal of water in the form of Energy Compensation Charges (ECC) based on Govt. of Odisha letter dated 31.07.2012. The estimated charge on this account is Rs. 0.43 Crore approximately in line with the invoice raised by OHPC for the FY 2018-19. OHPC has raised invoice of Rs.11.60 Crore from FY 2005-06 till March, 2019 towards energy compensation, out of which Rs. 8.42 Crore is towards Unit-I&II and balance Rs. 3.18 Crore towards Unit-III&IV. Accordingly OPGC has requested the Commission to issue directions to GRIDCO for reimbursement of such amount along with amount payable for the FY 2019-20 whenever paid to OHPC by OPGC. However, OPGC has requested the Commission to consider Rs.0.43 Crore towards reimbursement of ECC payable to OHPC and Rs.7.94 Crore towards reimbursement of water charges payable to Water Resources Department, totalling to Rs. 8.37 Crore. Based on the above proposal of OPGC, the Commission provisionally approves the amount of Rs.8.37 Crore towards water cess/water charges and ECC for FY 2021-22 and direct OPGC to produce proper justification of payment of such charges along with relevant documents while claiming reimbursement from GRIDCO. The Commission also direct GRIDCO to verify the documents while making payment to OPGC.

Tax and Cess on Land:

97. OPGC has submitted that it has actually incurred an expenditure of Rs. 0.19 Crore towards tax and cess on land during the FY 2019-20 and claims the same amount to be reimbursed from GRIDCO during FY 2021-22. The Commission allows reimbursement of tax and cess on land basing on the actual amount incurred by the Petitioner. Accordingly, an amount of Rs.0.19 Crore is provisionally approved for reimbursement from GRIDCO during FY 2021-22 towards payment of tax and cess on land by OPGC.

System Operation Charges (SOC) & Market Operation Charges (MoC) for SLDC

98. OPGC has claimed Rs.0.38 Crore towards SoC & MoC charges payable to SLDC which is same as SLDC Tariff Order for FY 2020-21. The Commission approves Rs. 0.34 Crore (@ Rs.8056.89/MW/year) towards SoC & MoC charges of OPGC payable to SLDC in SLDC Charges and Fees order for FY 2021-22.

ERPC Charges:

99. OPGC has proposed an amount of Rs.0.16 Crore towards reimbursement against ERPC charges which has been actually paid by OPGC during FY 2019-20. The

Commission provisionally approves the same amount towards reimbursement by GRIDCO during FY 2021-22.

Income Tax:

100. OPGC has proposed an amount of Rs. 38.67 crore towards reimbursement of income tax for the FY 2021-22 considering the RoE of Rs. 72 Crore corresponding to the original capital cost and the applicable tax rate of 34.94% on pre-tax RoE. As per Clause 6 of Schedule II of the PPA, Income tax on the income for supply of power will be passed on to GRIDCO. Since the Commission has allowed RoE of Rs. 72 Crore (@ 16% on Equity Capital Rs.450.00 crore) and by considering the same as generating business income of OPGC, the Commission provisionally approves Income tax of Rs.38.67 Crore @ 34.94% (including 4% Cess) for FY 2021-22. However, Income tax shall be reimbursed by GRIDCO on actual basis as per the applicable provisions in PPA.

Reimbursement of contribution towards Water Conservation Fund (WCF)

101. As per the resolution of Department of Water Resources, Govt. of Odisha, dated 18.05.2015, OPGC has proposed approval of Rs. 6.13 Crore towards reimbursement of contribution to WCF during FY 2021-22. Further, respondent GRIDCO in its objection has submitted that the above amounts will be reimbursed to OPGC subject necessary direction of the Commission and submission of all supporting documents with regards to payment made by OPGC. This issue has been raised last year and from the submissions of GRIDCO, it is understood that no payment has yet been made by OPGC towards WCF. We direct that the above amount be reimbursed by GRIDCO subject to verification of supporting documents of actual payment vis-a-vis the Govt. order in this regard. However, at present, we allow Rs 6.13 Crore on this head for reimbursement by GRIDCO during 2021-22 subject to verification of documents by GRIDCO.

Recovery of ARR and Tariff Petition Fees & Publication Expenses:

102. The Commission provisionally approves an amount of Rs. 0.30 Crore for FY 2021-22 towards recovery of ARR and Tariff petition fees & publication expenses as proposed by OPGC.

Summary of Other Charges:

103. A summary of reimbursement of other charges for the FY 2021-22 on provisional basis allowed by the Commission is given in the table below:

Table – 12
Reimbursement of Other Charges for 2021-22

(Rs. in Crore)

Sl. No.	Particulars	OPGC Proposal	OERC Approval
1	Electricity Duty	12.98	12.98
2	Water Cess and Water Charges	8.37	8.37
3	Tax and Cess on land	0.19	0.19
4	SOC and MOC for SLDC	0.38	0.34
5	ERPC Charges	0.16	0.16
6	Income Tax	38.67	38.67
7	Recovery of ARR and Tariff Petition Fees	0.30	0.30
8	Water Conservation Fund	6.13	6.13
	Total	67.19	67.15

104. Since the above charges are reimbursable, these shall be reflected in the ARR of GRIDCO. As per Clauses 10 & 11(vii) of Schedule II of the PPA, GRIDCO is directed to reimburse the charges as mentioned in the above table on actual basis as and when claimed by OPGC with appropriate documentary evidences.

Additional Capitalization

105. In the present petition, OPGC has prayed for approval of the proposed additional capitalization of Rs. 29.25 Crore in addition to the additional capitalization of Rs. 168.51 Crore made during the period from FY 2015-16 to FY 2020-21. Considering the above additional capitalization, OPGC has claimed additional annual fixed cost of Rs. 40.07 Crore for FY 2021-22 over and above the annual fixed cost based on the original project cost. Further, it has claimed additional income tax of Rs. 4.72 Crore under the head of other charges on account of the above additional capitalization. The Commission observed that, the separate petition filed by OPGC in Case No. 54/2018 for approval of additional capitalization made during the period from FY 2015-16 to FY 2018-19 is pending before the Commission for disposal. Hence, the Commission is of the view that the issues on additional capitalization by OPGC shall be addressed in the Case No. 54/2018 and its impact on generation tariff of OPGC shall be considered thereafter. Therefore, in the instant case, the Commission has not considered the impact of proposed additional capitalization on the generation tariff of OPGC for the FY 2021-22.

Summary of Approved Generation Tariff of OPGC for FY 2021-22

106. The summary of generation tariff for OPGC as approved by the Commission for FY 2021-22 is given in Table below:

Table - 13
Summary of Approved Generation Tariff of OPGC for 2021-22

Particulars	Units	OPGC Proposal	OERC Approval
Annual Fixed Cost	Rs. Crore	261.54	260.76
Variable Charges	Paisa/Kwh	167.91	152.81

Directives of the Commission

107. The recovery of monthly Capacity Charges approved by the Commission shall be made as per the methodology stipulated in the PPA and GRIDCO shall make payment after prudence check. The Annual Capacity Charge (Fixed cost) of OPGC approved in this order is for the entire FY 2021-22 and accordingly has been given effect to in the ARR and BSP order of GRIDCO for the FY 2021-22. Since this order has been made applicable w.e.f. 04.04.2021 instead of 01.04.2021 due to delay in Tariff Notification for obtaining clearance from Election Commission on account of declaration of by-election of Pipili constituency in Odisha, it may affect the ARR of both OPGC and GRIDCO for the FY 2021-22. However, the Commission observe that since the monthly energy bill of OPGC is being raised to GRIDCO on the 1st day of the next month, the monthly energy bill of April, 2021 is likely to be raised by OPGC on the 1st day of May, 2021. Therefore, to avoid the above discrepancy, the Commission directs OPGC to raise the monthly energy bill of its power station for the entire month of April, 2021 as per the new capacity charge approved in this order, since the ARR has been approved for the whole FY 2021-22.
108. Basing on the operational norms like Auxiliary Consumption, Gross Station Heat Rate and specific secondary Oil consumption as indicated in Clause 8 of Schedule-II of the PPA and Price and GCV of Oil and Coal as actually delivered to the power station as per Clause 7 of Schedule-II of the PPA, bills shall be prepared by OPGC and it shall be paid by GRIDCO after verification.

109. Incentives/Disincentives, other charges, supplementary bills etc. are to be recovered by OPGC from GRIDCO as per Clause 10 and 11 (vii) of the PPA on production of documentary evidence.
110. Rebate and late payment surcharge if any will be applicable as per the clause 8.24 & 8.25 of the PPA.
111. The Tariff now approved shall be effective from **04.04.2021** for energy sold to GRIDCO and shall be in force until further orders. The application of OPGC in Case No. 71 of 2020 for determination of Generation tariff of IBTPS I & II units for the FY 2021-22 is accordingly disposed of.

Sd/-
(G. MOHAPATRA)
MEMBER

Sd/-
(S. K. PARHI)
MEMBER

Sd/-
(U. N. BEHERA)
CHAIRPERSON