

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

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

CASE NO. 69/2019

Date of Hearing : 04.02.2020

Date of Order : 22.04.2020

IN THE MATTER OF: Application for determination of Generation Tariff of Odisha Power Generation Corporation (OPGC) for FY 2020-21 Ltd. under Section 62 & 86 of the Electricity Act, 2003 read with Approved Bulk Supply Agreement along with Supplemental Agreement (together referred to as the Amended PPA), related provisions of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 and OERC (Conduct of Business) Regulations, 2004, and Hon'ble Supreme Court Order dated April 19,2018 in Case No. 9485 of 2017.

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 (2 x 210 MW) for FY 2020-21.

PROCEDURAL HISTORY (PARA 2 TO 7)

2. The present petition has been filed on 29.11.2019 for determination of Generation Tariff for FY 2020-21 under Sections 62 and 86 of the Electricity Act, 2003 read with approved power purchase agreement, supplemental agreement and related provisions of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2014, OERC (Conduct of Business) Regulations, 2004 and Hon'ble Supreme Court's order in CA No. 9485 of 2017 dated 19.04.2018.
3. After due scrutiny and admission of the aforesaid application, the Commission directed OPGC Ltd. to publish its application in the approved format in the newspaper and in the website. In compliance to the same, public notice was given in leading and widely circulated newspapers and was also posted in the website of the Commission and OPGC 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 nos. of objections from the following persons /organizations:

(1) Er. (Dr) P. K. Pradhan, Duplex 244, Manorama Estate, Rasulgargh, Bhubaneswar-751010, (2) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour, Plot No. 302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (3) Shri R. P. Mahapatra, Retd. Chief Engineer and Member (Gen., OSEB), Plot No. 775(Pt.), Lane-3, Jayadev Vihar, Bhubaneswar-751013, (4) The General Manager, GRIDCO Limited, Janpath, Bhubaneswar-751022.

4. The date of hearing was fixed as 04.02.2020 at 11.00 AM 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 Government of Odisha through the Department of Energy informing them about the date and time of hearing and requesting to send the Government's authorized representative to take part during the proceedings and offer the views/suggestion/proposal of the Govt. as a stakeholder.
5. As the part of the consultative process, the Commission conducted a public hearing at its premises at Bhubaneswar on 04.02.2020 and heard the Applicant, Objectors and the Representative of the Dept. of Energy, Government of Odisha at length. 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 has submitted its reply to the issues raised by the various objectors.
6. In exercise of the power under Section 94(3) of the Electricity Act, 2003 and to protect the interest of the consumers, the Commission had 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 the financial year 2020-21. The Consumer Counsel presented its views on the said matter during the hearing.
7. The Commission had also convened the State Advisory Committee (SAC) meeting on 26.02.2020 at 10.30 AM to obtain advices on the application for determination of generation tariff proposal of the present generating company for FY 2020-21. 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 2020-21 (PARA 8 TO 26)

8. OPGC has stated that they had entered into Bulk Power Supply Agreement with GRIDCO dated 13.08.1996 (“PPA”) to sale 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 and came into force from 01.01.1995. Further, a Tripartite Agreement was signed between OPGC, GRIDCO and Government of Odisha on dated 18.10.1998 (“Tripartite Agreement”) providing certain amendments to the existing PPA. Further, 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 dated 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&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 had determined the generation tariff of OPGC for the FY 2016-17 and 2018-19 based on the OERC (Generation Tariff) Regulations, 2014. In accordance with the judgment of the Hon’ble Supreme Court, OPGC had filed petitions before this Commission for re-determination of tariff for the FY 2016-17, 2017-18 and 2018-19, which was registered in Case No. 33/2018 and the Commission vide its order dated 28.03.2019 passed in this case had re-determined the

generation tariff of OPGC for the aforesaid years based on the original project cost as per the approved amended PPA. Based on the same principle, the generation tariff for the FY 2019-20 has also determined by the Commission vide its order dated 29.03.2019 passed in Case No. 70/2018. In line with the approach adopted by the Commission for determination of tariff for the FY 2019-20, now OPGC has filed the instant petition for approval of its generation tariff for the FY 2020-21.

Computation of Annual Fixed Cost

9. OPGC submitted the Annual Fixed Cost as per Clause 3.0 of Schedule II of the Amended PPA. The Annual Fixed Cost (AFC) of a generating station comprises of the following components:

- Return on Equity;
- Interest on loan capital;
- Depreciation;
- Interest on working capital;
- Operation and maintenance expenses.

Capital Cost

10. OPGC submitted that, it has considered capital cost of the Project as Rs. 1060 Crore for FY 2020-21 as per the Amended PPA signed between OPGC and GRIDCO and approved by OERC vide its Order dated April 27, 2015.

Debt – Equity Ratio

11. OPGC has considered the equity of Rs. 450 Crore and loan of Rs. 610 Crore of the original project cost of Rs.1060 crore as approved by the OERC earlier.

Depreciation

12. 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. But OPGC has not claimed any amount towards depreciation on the original project cost as the assets of the generating Stations are fully depreciated by the financial year ending March 31, 2009.

Return on Equity

13. OPGC has submitted that Clause 8.0 (10) of Schedule II of PPA provides for Return on Equity 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 2020-21.

Interest on Loan Capital

14. 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 considered any amount towards Interest on loan capital for determination of generation tariff of FY 2020-21.

O&M Expenses

15. 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 expenses proposed by OPGC for generation of tariff for FY 2020-21 is Rs. 163.29 Crore.

Interest on Working Capital

16. OPGC has considered the components of working capital requirement as per the Clause 3.0 (f) of Schedule II of the Amended PPA. OPGC submitted that, it has started availing working capital from external sources, and the actual interest rate for the Working Capital facility availed by OPGC in FY 2019-20 is 8.60%. Accordingly, the same rate has been considered by OPGC for FY 2020-21. Accordingly, OPGC claimed interest on working capital as Rs. 14.01 Crore for FY 2020-21. The detailed calculation of working capital requirement and interest on working capital is given in Table - 1 below.

Table - 1
OPGC Proposed interest on working capital for FY 2020-21

(Rs. Crore)

Sr. No.	Particulars	Amount
1.	Cost of Coal for one and half months	40.47
2.	Cost of Secondary Fuel Oil for two months	6.67
3.	O&M Expenses for one month	13.61
4.	Receivables equivalent to two months	102.17
5.	Total Working Capital Requirement	162.91
6.	Interest Rate %	8.60%
7.	Interest on Working Capital	14.01

Summary of Annual Fixed Cost

17. Considering the above annual fixed cost components, OPGC has proposed the total Annual Fixed Cost for FY 2020-21 corresponding to the original project cost as Rs. 249.30 Crore. The details are given in the Table - 2 below.

Table - 2
Annual Fixed Cost Proposed by OPGC for FY 2020-21 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	163.29
Interest on working capital	14.01
Total Annual Fixed Cost	249.30

Operation Performance Parameters

18. 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 2020-21. Details of these norms are given in Table - 3 below.

Table - 3
Operational Performance Parameters Proposed by OPGC for FY 2020-21

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

19. OPGC submitted that, Price & Gross Calorific Value (GCV) of Coal and Secondary fuel oil will be considered as per Clause 7 of Schedule-II of the 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. 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 2019-20, OPGC has considered the actual weighted average prices and GCV of oil and coal for the period April to September 2019 for purpose of computation of energy charges for FY 2020-21. Details of these parameters are given in Table below.

Table - 4
OPGC Proposed Price and GCV of Coal and Oil for FY 2020-21

Sl. No.	Particulars	Unit	Values
1	Price of Coal	(Rs. /MT)	1603.68
2	Price of LDO	(Rs./kL)	53188.79
3	Price of HFO	(Rs./kL)	44493.67
4	Gross Calorific Value of Coal	(kCal/kg)	3077
5	Gross Calorific value of LDO	(kCal/ltr.)	10000
6	Gross Calorific value of HFO	(kCal/ltr.)	10000
7	Specific Coal Consumption	(kg /kWh)	0.80
8	Specific Oil Consumption-LDO	(ml/kWh)	0.35
9	Specific Oil Consumption-HFO	(ml/kWh)	3.15

Energy charges

20. 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 159.50 paisa/kwh for FY 2020-21 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, EPRC charges, Income tax, recovery of ARR and tariff petition fees and contribution to Water Conservation Fund etc 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 2020-21 considering original project cost (Rs. Crore)

S. No.	Particulars	Amount
1	Electricity Duty	15.01
2	Water Cess and Water Charges including Electricity Charges to OHPC	7.80
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	68.65

22. Accordingly, OPGC has requested to provisionally approve the above charges amounting to Rs. 68.65 Crore considering the original project cost and direct GRIDCO Ltd. to reimburse the other charges on actual basis during the FY 2020-21.

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. 40.11 Crore for the FY 2015-16, 2016-17 and FY 2017-18 were on actual basis based 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 figures are now available to the tune of Rs. 43.78 Crore. Hence, the total additional capitalization from FY 2015-16 to FY 2018-19 is Rs. 122.15 Crore in place of Rs. 128.07 Crore 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.
24. In its ARR and Tariff Application, now OPGC, in addition to the above additional capitalization, has proposed the additional capitalization of Rs. 18.52 Crore and Rs. 21.58 Crore for FY 2019-20 and FY 2020-21 respectively. Pending notification of Tariff Regulations applicable for the period from April, 2019, OPGC has followed the provisions of the Tariff Regulations, 2014 for claiming the proposed additional capitalization. Accordingly, in the ARR for the FY 2020-21, OPGC has claimed additional annual fixed cost of Rs. 31.89 Crore and other charges of Rs.3.90 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 2020-21
(Rs. Crore)

Particulars	Amount
Additional Annual Fixed Cost	
Depreciation	17.93
Return on Equity	7.27
Interest on loan	6.23
Interest on working capital	0.46
Total	31.89
Other Charges –Additional Income Tax	3.90

Summary of Tariff proposal for FY 2020-21

25. Considering the approved original project cost and proposed additional capitalization, the summary of tariff proposed by OPGC for FY 2020-21 is given in the Table below:

Table - 7

Summary of Tariff Proposal of OPGC for FY 2020-21

Particulars	Units	Corresponding to original project cost	Corresponding to Additional Capitalisation	Total
Depreciation	Rs. Crore	-	17.93	17.93
Return on Equity	Rs. Crore	72.00	7.27	79.27
Interest on loan	Rs. Crore	-	6.23	6.23
O&M expenses	Rs. Crore	163.29	-	163.29
Interest on working capital	Rs. Crore	14.01	0.46	14.47
Total Annual Fixed Cost	Rs. Crore	249.30	31.89	281.18
Variable Charges per kWh	Paisa/kWh	159.50	-	159.50
Other charges	Rs. Crore	68.65	3.90	72.55

26. OPGC has prayed to the Commission to approve the additional capitalization, annual fixed cost and variable charges, other charges as proposed for FY 2020-21 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 2020-21 (PARA 27 TO 46)

27. One of the objectors submitted that as directed by the Hon'ble Supreme Court, the Commission while determining the tariff in respect of OPGC (2X210 MW) power plant may take into consideration (a) the notification dated 21.06.2008 of Department of Energy, Govt. of Odisha while determining the fixed cost, (b) the PPA, for variable cost, and (c) for other costs, not reflected in the PPA, statutory regulations may be applied. But, from Para- 3 of the Government Notification dated 21.06.2008 and para- 9, 10 and 11 of the Commission's order dated 27.4.2015 in case of 13/2002, it can be observed that the Commission has approved the PPA as such to close the issues prior to FY 2014-15 and tariff is to be determined from FY 2015-16 onwards basing on OERC (Terms and Conditions for Determination of Generation Tariff) Regulations 2014. The objector submitted that as per the order of Apex Court, the matter has been remanded to

the State Commission for fresh decision. The Commission may consider critically and decide whether approval of the PPA in case no 13/2002 is to be reopened for review or not.

28. Another objector stated that generation tariff of units 1& 2 of IB Thermal power station of OPGC for FY 2020-21 should be determined taking into account the norms specified in the amended PPA and anticipated cost of coal and oil.
29. GRIDCO submitted that the Commission has to determine the tariff for OPGC for FY 2020-21 in accordance with the principle adopted for redetermination of tariff for the previous years, FY 2016-17 to FY 2019-20, in compliance to the order of the Hon'ble Supreme Court dated 19.04.2018.

Additional capitalization

30. One of the objectors submitted that the new Regulations for determination of generation tariff by the Commission for the control period FY 2019-24 is yet to be notified. So it is not desirable to consider any additional capitalization as submitted by OPGC till the new regulation is notified.
31. Another objector submitted that OPGC while filing the ARR has asked for allowing capital investment as per Generation Tariff Regulations, 2014. Usually capital investment is required to enhance the efficiency level such that the fixed cost is fully recovered. In case of OPGC, since the fixed cost is recovered at 68.49% PLF as per PPA and OPGC is already operating at more than 80% PLF, there is no need to allow any capital investment. In case the PLF of OPGC goes below 68.49%, the Commission may consider the capital investment for increase the efficiency.
32. Some of the Objectors stated that OPGC has not carried out any R&M work for enhancement of efficiency of the plant, but instead incurred additional expenditures which will affect the tariff structure for the already depreciated thermal plant. The additional capitalization may not be allowed at present. The Commission may direct OPGC to file the proposal of additional capitalization under R&M after the study of Remaining Life Assessment (RLA) study.
33. GRIDCO submitted that the Commission has to determine the additional capitalization expenditure incurred/ to be incurred under appropriate provision of the OERC Tariff Regulations, 2014, subject to final order in Case no. 54 of 2018.

Energy Generation and PLF

34. OPGC has proposed PLF of. 81.46%, but the same for all thermal power stations of the State and central sector NTPC Stations, is being considered at 85% and more. The objector requested that the Commission to pass order directing OPGC to operate with more than 85% PLF.

Auxiliary Consumption

35. One of the objectors submitted that OPGC proposed auxiliary consumption at the rate of 9.50% whereas central thermal power stations have auxiliary consumption of 5.50%.

Norms of Operation

36. In the interest of the consumers, the Commission may consider to direct OPGC and GRIDCO to mutually discuss and find a solution specially in case of station heat rate, specific oil consumption and plant load factor for calculation of fixed cost of OPGC, as the present claims of OPGC will have an adverse impact on GRIDCO vis-a-vis on the consumers of the State.
37. The Commission should strictly determine the fixed cost and variable cost as per the PPA and GRIDCO should be directed to take up the matter with OPGC for PLF and specific oil consumption.
38. GRIDCO submitted that the Commission may prudently fix the operational parameters for FY 2020-21 in respect of the Units #1 & #2 of OPGC. Further, Plant Availability Factor (%) and Plant Load Factor (%) shall have to be certified by SLDC on month to month basis.

GCV of Coal

39. One of the objectors submitted that there is a wide gap between the GCV of coal, i.e. while purchasing and billing. It is unfortunate that prior to notification of Generation Tariff Regulations, 2014, OPGC had never raised the bill to GRIDCO on GCV 'as received' at power station and rather they have raised the bill for GCV 'as fired' basis as done by NTPC. The difference of GCV as billed and as fired was found even to the tune of 700 to 800 kCal/kg. Since the GCV of the coal has not been measured by OPGC at power house end and the transportation of the coal from pit head to OPGC is for a small distance, there may be a negligible loss in GCV between the MCL and OPGC end. So, the objector requested the Commission to consider the GCV 'as billed' while

computing the energy charges. The inefficiency in the part of OPGC, claiming low GCV at higher cost and not even complaining to MCL regarding the difference between the GCV of coal 'as billed' and 'as received' at the power house end, cannot be passed on to the consumers.

40. Some of the Objectors requested the Commission to kindly consider GCV 'as billed' for computing the energy charges. They further stated that the GCV of coal on equilibrated condition at the loading point of MGR as determined by CIMFR can be considered towards cost of coal.
41. Another Objector proposed that the variable cost for FY 2020-21 may be determined on the basis of the data submitted by MCL relating to GCV of coal at the loading point, vide submissions in case No. 43 of 2017.
42. GRIDCO submitted that the Commission should direct OPGC for submission of third party joint sampling report done by CIMFER at billing point in respect of coal procured from MCL. OPGC has to provide as well as consider 'as received' GCV of coal and actual specific fuel oil consumption for determining the monthly energy charge rate.

Other Issues

43. OPGC, having 51% government stake, has to audit their receipt and expenditure account through CAG, Government of India. OPGC has to produce all the relevant CAG report before Commission. The objector stated that the Commission should direct to the Secretary, Department of Energy, Govt. of Odisha to conduct details audit of the receipts and expenditure of OPGC for the FY 2015-16, 2016-17, 2017-18, 2018-19 and 2019-20.
44. One of the Objectors requested the Commission to direct to OPGC to produce the following:
 - (i) The number of the forced outage during FY 2016-17 to FY 2018-19 and reasons for such outage.
 - (ii) Month-wise cash flow statement showing sources of inflow and outflow of cash from the FY 2010-11 to 2019-20.
 - (iii) Detail action plan of OPGC for development of mini-hydro projects now under their disposal.

- (iv) Salary structure in the company along with the benefits achieved by paying higher salary.
 - (v) The number of cases pending before different courts and amount paid for legal expenses of the said cases from 2015-16 to 2019-20 and year-wise, dividend paid to Government since 2000-01 to 2019-20 and the dividend received by AES Company till date.
 - (vii) The details information relating to share allocation of the joint venture company formed with OHPC i.e. OCPL and details on the employees, their salary, grade & other work assigned to the workers working under OCPL.
45. The claims made by OPGC regarding additional charges payable to OHPC for drawl of water in the form of energy compensation to be reimbursed by GRIDCO should be met from its O&M expenses.
46. GRIDCO has requested the Commission to give necessary direction regarding DSM charges payable by OPGC in case of deviation between its scheduled generation and actual export to GRIDCO.

VIEWS OF CONSUMER COUNSEL (PARA 47)

47. WISE, Pune on behalf of the Consumers made a presentation on the proposed ARR and Tariff filed by OPGC for FY 2020-21. The Consumer Counsel's observations/suggestions are as given below:
- a) OPGC has proposed interest on working capital @8.60% based on actual interest rate for working capital for FY 2019-20. 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 2018-19 was 83.86%. As per Tariff Regulations, NAPLF of thermal power stations is considered as 85%. So, the Commission can appropriately decide the PLF for FY 2020-21.

- d) OPGC has submitted the specific oil consumption as 3.5 ml/kWh for FY 2020-21 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 2019-20, has approved the GCV as 3100 kCal/kg. But OPGC now proposes the same as 3077 kCal/kg for FY 2020-21, indicating the actual GCV of 3048 kCal/kg for FY 2018-19 and 3032 kCal/kg in FY 2019-20 (upto November, 2019). In Para 88 of last year order the Commission opined that; “Basing on the Commission’s queries, OPGC has submitted that, the MCL has revised the Grade of Coal from G-13 to G-14 vide notice No. 75 dated 07.04.2017. Accordingly, the Commission has adopted 3100 Kcal/kg as GCV Coal for tariff computation purpose which is the minimum value of GCV of that grade.” The GCV of presently declared grade by MCL can be considered for present tariff determination process.
- f) The weighted average coal price for FY 2018-19 was 1631.29 Rs/ MT and in FY 2019-20 the average coal price was 1595.48 Rs/MT (up to November, 2019). So, the latest available price of coal, Rs 1455.41 / MT (in Sept., 2019), may be considered.
- g) Along with water cess and water charges, energy compensation to OHPC is proposed by OPGC for FY 2020-21. This charge should be reviewed on the basis of actual payment made to OHPC, if any. Further, contribution towards Water Conservation 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) OPGC has claimed the additional capitalization since FY 2015-16. The additional capitalization Petition is pending before the Commission for approval. OPGC’s claim for yearly additional capitalization submitted in tariff petition for FY 2019-20 and submitted in the present tariff petition for FY 2020-21 have certain differences, which should be reviewed before finalization of yearly additional capitalization.

- j) The claim for additional capitalization for FY 2020-21 is based on Clause 3.4 (b) and 3.4 (d) of OERC Generation Tariff Regulations, 2014. The claim may be included after due scrutiny and only if reflected in the audited accounts at the time of true-up, not in the present tariff determination process.
- k) 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 true-up only.
- l) While computing interest on loan in case of additional capitalization, OPGC has considered the interest rate of 10.63%, 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 2018-19. 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 48 TO 76)

Statutory provisions for determination of generation tariff

- 48. OPGC has submitted that the tariff norms in the PPA have been frozen. The tariff does not indicate that GRIDCO or the consumers of the state are affected because of OPGC. In the garb of 'consumer interest', a generator should not be put to financial distress. Hence, the issue of re-opening of tariff parameters like station heat rate, specific fuel oil consumption and PLF is denied by OPGC.
- 49. OPGC submitted that the instant Petition for approval of Generation Tariff for FY 2020-21 has been filed in accordance with the approved Amended PPA pursuant to the Hon'ble Supreme Court's Order dated April 19, 2018 in Civil Appeal No. 9485 of 2017 and the Commission's Orders dated March 28, 2019 and March 29, 2019 in Case Nos. 33 of 2018 and 70 of 2018 respectively.
- 50. The Hon'ble Supreme Court vide its Judgment dated April 19, 2018 set aside the Tariff Order for FY 2016-17 and remanded the matter to OERC for a fresh decision taking into consideration the Government Notification, Amended PPA and matters not covered under the Amended PPA to be dealt as per Regulations. The relevant extract of the Judgment of the Apex Court is reproduced below:

“6. We are of the view that the Commission vide 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.”

51. In effect, the Hon’ble Supreme Court has held that the tariff norms under the PPA are to be followed in determining OPGC’s tariff. The Amended PPA provides for tariff norms to be considered for determination of Annual Fixed Charge and Energy Charge for each year along with the provisions for reimbursement of taxes, duties, cess etc. OPGC has only relied on Regulations for claiming additional capitalisation, which is not covered explicitly in the Amended PPA. Hence, the context with which GRIDCO has referred to the Tariff Regulations, 2014 is mis-conceived. The effect of the Apex Court’s Judgment is that this arrangement would apply for the entire term of the subsistence of the PPA viz. till 30.06.2026. The provisions of 2014 Tariff Regulations do not apply for tariff determination process in the present case and hence cannot be relied upon.

Additional capitalization

52. OPGC has filed a separate Petition, 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. The Case has been reserved for final Order. Last year OPGC had filed Petition (Case no. 70 of 2018) for approval of Generation Tariff for FY 2019-20 considering the additional capitalization. But the Commission in its order on March 29, 2019, had held that since separate petition bearing Case No.54/2018 is pending for adjudication, the present claim is not being considered. Therefore, OPGC in its present Petition for approval of Generation Tariff for FY 2020-21, has requested the Commission to consider the claim additional capitalization.
53. OPGC submitted that the regulatory concepts of renovation & modernization on the one hand, and additional capitalization on the other, are fundamentally different and therefore, accorded separate and distinct treatment under the Tariff Regulations, 2014.

The works claimed by OPGC for additional capitalization are not in lieu of the renovation and modernization, but for sustained operations of the generating station, compliance of statutory requirements and replacement of some of the obsolete equipment. The R&M works of a thermal generating station is necessitated when the performance of the station becomes uneconomical. There are many generating stations in the country which have been in operation for more than the useful life of 25 years without R& M and providing reliable power supply to their respective procurers. Despite being more than 20-year-old, the operational performance of OPGC is best among the state sector generating stations in the country.

54. As submitted by the objectors, additional capitalization is required for fixed cost recovery by operating at higher efficiency and they have further submitted that OPGC is operating at 80% PLF (efficiency), which justifies that the additional capital incurred by OPGC for operating the plant at higher efficiency and hence, the additional capitalization claimed should be allowed. On the other hand, they have submitted that there is no need to allow additional capitalization as OPGC is recovering the fixed cost at 68.49%. OPGC submitted that after recovering full fixed cost at 68.49%, the additional generation at 80% PLF is available to the State at variable cost / ECR, which is in the interest of GRIDCO and the consumers of the state.
55. OPGC has already initiated process for installation of FGD in order to comply with the revised emission guidelines issued by MoEF & CC and taking up R&M together in order to extend the life of the plant and to rationalize the tariff. For this purpose, RLA through third party consultant has been completed and provisional cost estimates carried out. The works will be taken up for implementation on receiving concurrence from the respective Boards of OPGC and GRIDCO and subsequent approval of the Commission, as part of separate proceedings.

O&M Expenditure

56. OPGC has submitted that the information of salary structure sought by the stakeholder is not relevant as OPGC has claimed only normative O&M expenses as per the approved Amended PPA and has not asked for any additional O&M towards employee cost.

Generation and PLF

57. OPGC submitted that the target export of power to GRIDCO for the FY 2020-21 is 2743.56 MU, which is equivalent to a PLF of 82.39%. The actual PLF of the plant depends on scheduled maintenance outages and other operating conditions beyond the control of OPGC and varies accordingly from year to year. Even OPGC in FY 2016-17 had achieved PLF of 87.92% ranking first among the thermal stations in state sector.

Auxiliary consumption

58. The normative auxiliary consumption claimed by OPGC is 9.50% 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 CERC. Further, the auxiliary consumption of 5.5% is for super critical units with capacity of 660 MW and above, not for the OPGC unit capacity of 210 MW.

GCV and Fuel cost

59. OPGC has submitted that as per terms of the Amended PPA, GCV of coal shall be considered 'as delivered' to the power station. The CEA Notification of 1992 based on which the Amended PPA has been structured, clearly provides for considering GCV of coal 'actually burnt' for purposes of determining energy charge. Since implementation of the PPA from 1996, OPGC has been providing the GCV of coal on 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.
60. OPGC further submitted that, regarding the GCV of coal, the Commission vide its Order dated March 28, 2019 in Case No. 33 of 2018 ruled as under:

“32. The issue of methodology of determination of GCV which was raised by the petitioner now, was neither raised before Hon’ble APTEL nor before Hon’ble Supreme Court. Hon’ble Courts have also not given any observation regarding this. The issue of methodology of determination of GCV relates to bill dispute between GRIDCO and OPGC and is subject matter of Case No. 43/2017 which is pending before the Commission for adjudication. Therefore that matter shall be dealt with in that case.”

61. The Commission in its interim order dated 13/03/2018 in Case No.43/2017, has rightly held as follows:

“9. We carefully heard the arguments and counter arguments of both the parties.....The Gross Calorific Value of coal is nothing but the amount of heat energy contained by the coal. Heat energy contents of coal and oil are

converted to electrical energy in the power station. The heat energy content is unlocked from the coal during the process of burning of the same inside the furnace. Therefore the heat energy content of the coal can only be known when it is released inside the furnace and becomes available for energy conversion process. Heat energy content of the coal per kilogram varies at different points 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. Only heat energy content available during firing inside the furnace is utilised for energy conversion. Therefore, the Regulation has emphasised the calorific value of the coal during firing (as fired) since this is the energy which is converted to electrical energy basing on the Gross Station Heat Rate (GSHR) of that particular power station.

10. Since it is not practically possible to determine ‘as fired’ calorific value of coal inside the furnace, it should be measured outside. At present OPGC is determining the calorific value in the bunker and is treating it as ‘as fired’ value.....”

62. Further, the Commission in its tariff order for the year 2019-20 in Case No.70/2018, has observed as follows:

“90. The energy charge as approved is indicative in nature and GRIDCO shall pay to OPGC strictly as per the Clause 9 of Schedule – II of the PPA which requires that the variable charge shall be settled considering the actual audited price and GCV of oil and coal as delivered to the power station during the billing period.”

63. Clause 7.0 of Schedule II of the existing PPA provides the computation of Fuel Cost, wherein it is indicated that the Price and Gross Calorific Value of coal and oil shall be considered as delivered to the Power Station. OPGC relied on these provisions of the PPA. Further, as per the Clause 9 of Schedule II (Tariff) of the approved Amended PPA, the prices and GCV for Oil and Coal for one year shall be the weighted average (base) for the next year. In compliance to the queries raised by the Commission, OPGC has already provided the monthly weighted average as billed GCV based on the sampling report of CIMFR for the period April-2018 to November-2019. Therefore, the submission made by GRIDCO for considering base GCV of 3400 kcal/kg is misplaced and partial representation of the conditions of the PPA and hence should be rejected. OPGC has requested to consider the actual GCV of coal as provided by OPGC for base ECR, till finalization of Case No. 43/2017.
64. OPGC has further submitted that the GCV information provided by OPGC is based on the Billed GCV of coal as per CIMFR report- EM basis at mine loading point and GCV of Coal –TM basis as delivered to Plant at Power Plant end. Hence, the calculation of % moisture by GRIDCO is fundamentally wrong. The sample testing at the different points not only gives the GCV data but also gives the information on moisture contents.
65. OPGC has submitted that as there is no arrangement for use of HFO in OPGC #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 which is also submitted as Annexure -1 in the main Petition filed by OPGC.

66. OPGC has submitted that the Commission vide its orders in Case No. 33 of 2018 (Para-42) and Case No.70/2018 (Para-105) directed OPGC to claim the Fuel Price Adjustment and other charges through supplementary bills, which is being followed by OPGC. Now, 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.

Other issues

67. The per unit cost of power purchase from OPGC is significantly lower than that from CSGS (thermal) from whom GRIDCO is procuring power.
68. OPGC submitted that being a Government Company, its books of accounts are audited through C&AG of India. OPGC have submitted that the annual reports as sought by the Commission.
69. OPGC submitted that the information sought on OCPL is not relevant to the present petition for determination of tariff for Units-1 & 2 of OPGC. OCPL is a subsidiary of OPGC meant for development of coal mines for its expansion Units 3 &4.
70. As per the Government of Odisha letter No. 6140 dated July 31, 2012, OPGC is required to pay additional charges to OHPC for drawal of water in the form of Energy Compensation Charge (ECC). The invoice raised by OHPC is for the total amount of Rs. 11.60 Crore. Out of this amount, an amount of Rs. 8.42 Crore pertains to Units 1&2 which has been claimed in the present petition. OHPC has not raised separate invoices for Units 1&2 and Units 3&4. OPGC has requested the Commission to issue directions to GRIDCO for reimbursement of such amount and the amount payable for the period of FY 2019-20 which is to be paid to OHPC by OPGC.
71. Clause 10 of the approved Amended PPA stipulates as under:

“10.0 LEVIES, TAXES, DUTIES, CESS ETC. :

The above tariff is exclusive of any statutory taxes, levies, duties, cess or any other kind of imposition(s) whatsoever imposed/charged by any Government (Central/State) and/or any other local bodies/authorities on generation of electricity including

auxiliary consumption or any other type of consumption, transmission, sale or on supply of power/energy and/or in respect of any of its installations associated with Generating Stations and/or on Transmission System, Environmental Protection, Water etc. However electricity duty payable on energy drawn by OPGC if any shall be payable by OPGC and reimbursed by GRIDCO.”

72. 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.
73. 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. Therefore, OPGC has requested the Commission to pass appropriate Order for reimbursement of such amount if paid by OPGC.
74. 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 installments. 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 installments, OPGC has decided to opt for this facility to reduce the burden to be passed on in tariff. Accordingly, OPGC has claimed an amount of Rs 6.13 Crore in FY 2020-21 towards contribution to Water Conservation Fund. OPGC submitted that this expense is not in control of OPGC and is payable because of Government Resolution.
75. OPGC submitted that 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 appropriate provision for considering the tariff

for power imported by OPGC for black start up along with its settlement. Hence, OPGC submitted that settlement of the imported power should be in accordance with the approved PPA.

76. OPGC submitted that 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.

OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA-77)

77. The Commission convened the State Advisory Committee (SAC) meeting on 26.02.2020. The Members of SAC deliberated on different issues related to power sector and the Annual Revenue Requirement of various licensees. However, no specific view was offered 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 2020-21 (PARA-78 TO 104)

78. That the present petition for determination of generation tariff for FY 2020-21 has been filed by OPGC as per Hon'ble Supreme Court Order dated April 19, 2018 in Case No. 9485 of 2017 and 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, 2014 and OERC (Conduct of Business) Regulations, 2004.
79. Basing on the Hon'ble Supreme Court of India judgement dated 19.04.2018 in Civil Appeal No 9485 of 2017, the Commission had re-determined the generation tariff of OPGC for FY 2016-17 to FY 2018-19 as per PPA norms and passed order in Case No 33 of 2018. The Commission has also disposed of the tariff petition of OPGC for the FY 2019-20 based on the judgement dated 19.04.2018 of the Hon'ble Supreme Court of India.
80. 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 2020-21 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 2020-21.
- (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 2020-21.
- (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 2020-21.
- (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 2020-21.
- (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 2020-21.

- (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.163.29 crore towards O&M expenses. Accordingly, the Commission approves the same amount of Rs.163.29 crore $\{Rs.1030 \text{ cr} \times 2.5\% \times (1.08)^{24}\}$ towards O&M expenses for determination of generation tariff for FY 2020-21.
- (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 8.60% in the FY 2019-20. The same has been considered for the FY 2020-21. 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 2020-21 is given in table below:

Table-8
Interest on working capital Approved by Commission for determination of Generation Tariff for FY 2020-21

Particulars	Norms	FY 2020-21	
		OPGC Proposal	OERC Approval
Cost of Coal	1.5 Months	40.47	38.87
Cost of Secondary Fuel Oil	2 Month	6.67	6.67
O&M expenses	1 Month	13.61	13.61
Receivables	2 Month	102.17	100.00

Particulars	Norms	FY 2020-21	
		OPGC Proposal	OERC Approval
Working Capital Requirements	Rs.Cr	162.91	159.15
Rate of Interest	(%)	8.60	8.60
Interest on working capital	Rs Cr	14.01	13.69

Accordingly the Commission approves Rs.13.69 crore towards interest on working capital for determination of generation tariff of OPGC for FY 2020-21 as against OPGC proposal of Rs. 14.01 crore.

Summary of Annual Fixed Cost

81. 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 2020-21, the total AFC comes to Rs.248.97 crore as against OPGC proposal of Rs. 249.30 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-09
Total Annual Fixed Cost Approved by Commission for determination of Generation Tariff of OPGC for FY 2020-21

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	163.29	163.29
Interest on working capital	14.01	13.69
Total	249.30	248.97

Computation of Energy Charges:

Operational Performance Parameters:

82. 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 2020-21

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

83. As per Clause 7 of Schedule-II of the PPA, Gross Calorific Value (GCV) of Secondary Oil and Coal to be considered “as delivered” to the power station. Similarly the price of Oil and Coal are to be considered on “as delivered” basis to the power station. OPGC, while replying to the queries, has furnished the audited figures of coal data of last three years. It is observed from these data that the actual GCV of coal for the FY 2018-19 is 3048 kcal/kg and OPGC has computed the same as 3032 kcal/kg for the FY 2019-20 (upto November, 2019). 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. Further as per Clause 8 (19) & (20) of Schedule-II of the PPA, Oil and Coal cost will be as per administered price notified by Govt. of India. Considering the above operational norms and parameters of the PPA, for the purpose of computation of Tariff of OPGC for the FY 2020-21, the Commission has taken GCV of Oil and Coal as per the present grade classification and the price of Oil and Coal basing on the actual figures for the period from August, 2019 to November, 2019 as submitted by OPGC.
84. Considering all the above operational norms and price and GCV of Coal and Secondary fuel oil parameters of PPA, the Commission determines indicative Energy charges @ 153.91paise/kwh for OPGC as against its proposal of @ 159.50 paise/kwh for FY 2020-21. 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 2020-21

Particulars	Unit	OPGC Proposal	OERC Approval
Price of Coal	(Rs./MT)	1603.68	1552.00
Price of LDO	(Rs./KL)	53188.79	53188.79
Price of HFO	(Rs./KL)	44493.67	44493.67
GCV of Coal	(Kcal/Kg)	3077	3100
GCV of Oil	(Kcal/Kg)	10000	10000
Consumption of Coal	(Kg/kwh)	0.80	0.80
Secondary Fuel Oil Consumption (LDO10% & HFO-90%)	(ml/kwh)	3.50	3.50
Energy Charges	(Paise/Kwh)	159.50	153.91

85. The energy charge as approved above is indicative in nature and GRIDCO shall pay to OPGC strictly as per the Clause 9 of Schedule-II of the PPA which requires that the variable charge shall be settled considering the actual audited price and GCV of oil and coal as delivered to the power station during the billing period.

Reimbursement of Other Charges

86. 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.68.65 Crore for FY 2020-21 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:

87. OPGC has submitted that, they have claimed an amount of Rs.15.01 crore (@ Rs.0.55/Kwh) towards reimbursement of electricity duty from GRIDCO during the FY 2018-19 in accordance with PPA. On that basis it has requested the Commission to approve provisionally the same amount for the FY 2020-21. 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.13.17 crore @ Rs.0.55/Kwh towards electricity duty for FY 2020-21.

Water Cess & Water Charges:

88. OPGC has submitted that, during the FY 2018-19, it has actually incurred an amount of Rs.7.37 crore towards water cess and water charges and accordingly claimed the same amount to be allowed for reimbursement in the ARR for the FY 2020-21. OPGC has further submitted that in addition to the above, it has to pay an additional charges 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. 7.37 Crore towards reimbursement of water charges payable to Water Resources Department, totalling to Rs. 7.80 Crore. Based on the above proposal of OPGC, the Commission provisionally approves the amount of Rs.7.80 Crore towards water cess/water charges and ECC for FY 2020-21 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:

89. OPGC has submitted that it has actually incurred payment of Rs. 0.19 Crore towards tax and cess on land during the FY 2017-18 and claims the same amount to be reimbursed from GRIDCO during FY 2020-21. 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 2020-21 towards payment of tax and cess on land by OPGC.

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

90. OPGC has proposed an amount of Rs.0.38 Crore towards payment of SoC & MoC charges to SLDC during FY 2020-21. The Commission approves Rs.0.29 Crore (@ Rs.7015.55/MW/year) towards SoC & MoC charges of OPGC payable to SLDC as approved by the Commission in SLDC Charges and Fees order for FY 2020-21 passed in Case No. 73/2019.

ERPC Charges:

91. OPGC has proposed an amount of Rs.0.16 crore towards reimbursement against ERPC charges which has been actually paid by OPGC during FY 2018-19. The Commission provisionally approves the same amount towards reimbursement by GRIDCO during FY 2020-21.

Income Tax:

92. OPGC has proposed an amount of Rs. 38.67 crore towards reimbursement of income tax for the FY 2020-21 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 2020-21. 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)

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.

Recovery of ARR and Tariff Petition Fees & Publication Expenses:

94. The Commission provisionally approves an amount of Rs. 0.30 crore for FY 2020-21 towards recovery of ARR and Tariff petition fees & publication expenses as proposed by OPGC.

Summary of Other Charges:

95. A summary of reimbursement of other charges for the FY 2020-21 on provisional basis allowed by the Commission is given in the table below:

**Table – 12
Reimbursement of Other Charges for 2020-21 (Rs. in Crore)**

Sl. No.	Particulars	OPGC Proposal	OERC Approval
1	Electricity Duty	15.01	13.17
2	Water Cess and Water Charges	7.80	7.80
3	Tax and Cess on land	0.19	0.19
4	SOC and MOC for SLDC	0.38	0.29
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	-
	Total	68.65	60.58

96. 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 as and when claimed by OPGC with appropriate documentary evidences.

Additional Capitalization

97. In the present petition, OPGC has prayed for approval of the proposed additional capitalization of Rs. 18.52 Crore and Rs. 21.58 Crore for FY 2019-20 and FY 2020-21 respectively in addition to the additional capitalization of Rs. 122.15 Crore made during the period from FY 2015-16 to FY 2018-19. Considering the above additional capitalization, OPGC has claimed additional annual fixed cost of Rs.31.89 Crore for FY 2020-21 over and above the annual fixed cost based on the original project cost. Further, it has claimed additional income tax of Rs.3.90 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 2020-21.

Summary of Approved Generation Tariff of OPGC for FY 2020-21

98. The summary of generation tariff for OPGC as approved by the Commission for FY 2020-21 is given in Table below:

Table - 13
Summary of Approved Generation Tariff of OPGC for 2020-21

Particulars	Units	OPGC Proposal	OERC Approval
Annual Fixed Cost	Rs. Crore	249.30	248.97
Variable Charges	Paisa/Kwh	159.50	153.91

Directives of the Commission

99. 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. Since the Annual Capacity Charges (Fixed cost) approved in this order is for the entire FY 2020-21 and this order has been made applicable w.e.f. 01.05.2020 due to COVID-19 situation, the differential capacity charges for the month of April,

2020 (new capacity charges approved in this order to be billed for April, 2020 minus capacity charge already billed in old rate i.e. @ FY 2019-20) shall be paid by GRIDCO to OPGC during the FY 2020-21 when such bill is raised by OPGC.

100. 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.
101. 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.
102. Rebate and late payment surcharge if any will be applicable as per the clause 8.24 & 8.25 of the PPA.
103. The Tariff now approved shall be effective from 01.05.2020 and shall be in force until further orders. The application of OPGC in Case No. 69 of 2019 for determination of Generation tariff of IBTPS I & II units for the FY 2020-21 is accordingly disposed of.

Sd/-

(S. K. PARHI)
MEMBER

Sd/-

(U. N. BEHERA)
CHAIRPERSON