

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

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

**CASE NO. 70/2018**

**DATE OF HEARING: 04.02.2018**

**DATE OF ORDER : 29.03.2019**

**IN THE MATTER OF: Application for determination of Generation Tariff of FY 2019-20 of Odisha Power Generation Corporation (OPGC) 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**

**PROCEDURAL HISTORY (PARA 1 TO 8)**

The Petitioner, M/s. Odisha Power Generation Corporation (OPGC) Ltd. has filed an application before the Commission for determination of Generation Tariff of its power station of 420 MW (2 x 210 MW) for FY 2019-20. Earlier the principle of tariff determination was sub-judice before the Hon'ble Apex Court. The said court vide their judgement in CA No. 9485 of 2017 dated 19.04.2018 had directed as follows:

- “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.*
8. *The appeal shall stand disposed of as indicated above.*
9. *The parties may appear before the State Commission for further proceedings on 2.07.2018.”*

2. Accordingly, OPGC had filed a petition vide case No 33 of 2018 for redetermination of generation tariff of its generating stations for FY 2016-17, FY 2017-18 and FY 2018-19. The matter was heard as per the direction of Hon'ble Court and the Commission disposed of the matter in Case No. 33 of 2018 in accordance with the guidelines of the Hon'ble Court while determining tariff of the petitioner's generating plant for FY 2016-17, FY 2017-18 and FY 2018-19.
3. Now OPGC has filed the present petition for determination tariff for FY 2019-20 which shall also be determined by us in accordance with the principle already laid down by the Hon'ble Apex Court.
4. The present petition has been filed on 30.11.2018 for determination of Generation Tariff for FY 2019-20 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.
5. 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 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 5 nos. of objections from the following persons /organizations:

(1) The Chairman-cum-Managing Director, GRIDCO Limited, Janpath, Bhubaneswar-751022, (2) Er. (Dr) P. K. Pradhan, Duplex 244, Manorama Estate, Rasulgargh, Bhubaneswar-751010, (3) Shri Ananda Kumar Mohapatra, Power Analyst, S/o-Jachindranath Mohapatra, Plot No. 639/1021, Laxmi Vihar, Basuaghai, Badagada, Tankapani Road, Ps.-Badagada, Bhubaneswar, Dist-Khurda-751002, (4) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour, Plot No. 302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (5) Shri R. P. Mahapatra, Retd. Chief Engineer and Member (Gen., OSEB), Plot No. 775(Pt.), Lane-3, Jayadev Vihar, Bhubaneswar-751013. 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 were also considered by the Commission. The applicant submitted its reply to the issues raised by the various objectors during hearing.

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 2019-20. The Consumer Counsel presented its views on the said matter during the hearing.
7. The date of hearing was fixed as 04.02.2019 at 3.00 PM 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.
8. As the part of the consultative process, the Commission conducted a public hearing at its premises at Bhubaneswar on 04.02.2019 and heard the Applicant, Objectors, Consumer Counsel and the Representative of the Dept. of Energy, Government of Odisha at length. The Commission had also convened the State Advisory Committee (SAC) meeting on 20.02.2019 at 3.00 PM to obtain advices on the application for determination of generation tariff proposal of the present generating company for FY 2019-20. 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 2019-20 (PARA 9 TO 26)**

9. OPGC has stated that the agreement between GRIDCO and themselves consists of the following.
  - a) Bulk Power Supply Agreement or PPA between OPGC and GRIDCO, dated August 13, 1996 ("PPA") and an agreement as Supplemental to Bulk Power Supply Agreement dated December 19, 2012 ("Amended PPA") approved by the OERC vide its Order dated April 27, 2015.

- b) Tripartite Agreement between OPGC, GRIDCO and Government of Odisha dated October 18, 1998 (“Tripartite Agreement”)
- c) Govt. of Orissa (“GoO”) Notification No. 7216/E dated June 21, 2008.
- d) Agreement as Supplemental to Tripartite Agreement dated September 6, 2012 (“Amended Tripartite Agreement”) which was approved by OERC vide its Order dated April 27, 2015.
- e) Escrow and Securitization Arrangement dated November 30, 1998 entered between OPGC, GRIDCO and Union Bank of India, which was approved by OERC vide its Order dated April 27, 2015.

#### **Computation of Annual Fixed Cost**

- 10. OPGC submitted that, as per Clause 3.0 of Schedule II of the Amended PPA, the Annual Fixed Cost of its generating station comprises of the following components:
  - a) Depreciation;
  - b) Return on Equity;
  - c) Interest on loan;
  - d) Operation and maintenance expenses;
  - e) Interest on working capital.

#### **Capital Cost**

- 11. OPGC submitted that, it has considered the capital cost of the Project as Rs. 1060 Crore for FY 2019-20 as per the Amended PPA signed between OPGC and GRIDCO and approved by the OERC vide its order dated 27.04.2015.

#### **Debt – Equity Ratio**

- 12. OPGC has considered the equity of Rs.450 crore and debt of Rs.610 crore of the original project cost of Rs.1060 crore as approved by the OERC earlier.

#### **Depreciation**

- 13. 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 it 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 (RoE)**

14. 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 2019-20.

### **Interest on Loan Capital**

15. 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 2019-20.

### **O&M Expenses**

16. OPGC has submitted that, as per clause 3 (d) & (e) of Schedule-II of the amended PPA, for the purpose of O&M expenses capital cost is to be taken as Rs.1030crore and accordingly O & M Expense for the first year of operation shall be @ 2.5% and it shall be escalated by @ 8% each year from 01.04.1996. Considering the above methodology it has proposed Rs.151.19 crore towards O&M expenses for determination of generation tariff for FY 2019-20.

### **Interest on Working Capital**

17. OPGC has considered the components of working capital requirement as per Clause 3.0 (f) of Schedule II of the Amended PPA. OPGC has further submitted that above working capital requirement has been managed from internal accruals and the rate of interest on working capital has been considered as 11.50% (SBI 1 year MCLR as on date i.e. 8.50%+300 basis point) in accordance with the Regulation 4.26 of the OERC Generation Tariff Regulation, 2014 and in line with Hon'ble APEX Court judgment dated 19.04.2018. Accordingly, OPGC has claimed interest on working capital of Rs. 18.74 Crore for determination of generation tariff for FY 2019-20. The detail 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 2019-20**  
**(Rs. Crore)**

<b>Particulars</b>	<b>Norms</b>	<b>FY 2019-20</b>
Cost of Coal	1.5 Months	41.92
Cost of Secondary Fuel Oil	2 Month	6.13
O&M expenses	1 Month	12.60
Receivables	2 Month	102.35
<b>Total Working Capital Requirements</b>		<b>162.99</b>
Rate of Interest	(%)	11.50%
<b>Interest on working capital</b>		<b>18.74</b>

**Summary of Annual Fixed Cost**

18. Considering the above annual fixed cost components, OPGC has proposed total annual fixed cost of Rs.241.93 crore for determination of generation tariff of FY 2019-20. The details are given in the table-2 below:

**Table-2**  
**OPGC Proposed Total Annual Fixed Cost for FY 2019-20**

<b>Particulars</b>	<b>Amounts</b> (Rs. Crore)
Depreciation	0.00
Return on Equity	72.00
Interest on Loan Capital	0.00
O&M Expenses	151.19
Interest on working capital	18.74
<b>Total Annual Fixed Cost</b>	<b>241.93</b>

**Operational Performance Parameters**

19. 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 2019-20. Details of these norms are given in table-3 below.

**Table-3**  
**OPGC Proposed operational norms for FY 2019-20**

<b>Particulars</b>	<b>Unit</b>	<b>FY 2019-20</b>
Plant Load Factor (PLF)-Normative	%	68.49
Auxiliary consumption	%	9.50
Gross Station Heat Rate	(Kcal/Kwh)	2,500
Secondary fuel oil consumption	(ml/Kwh)	3.50

### **Price & GCV of Coal and Secondary Fuel Oil**

20. 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. Accordingly, it has proposed the actual weighted average prices and GCV of coal and oil for the period November 2017 to October 2018 for determination of energy charge for FY 2019-20. Details of these parameters are given in table-4 below.

**Table- 4**  
**OPGC Proposed Price and GCV of Coal & Oil for FY 2019-20**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Unit</b>	<b>Amount</b>
1	Price of Coal	(Rs. /MT)	1,600.13
2	Price of Oil-LDO	(Rs./kL)	48,291
3	Price of Oil-HFO	(Rs./kL)	40,826
4	GCV of Coal	(kCal/kg)	2,972
5	GCV of Oil (Both LDO &HFO)	(kCal/ltr.)	10,000
7	Consumption of Coal	(Kg/kwh)	0.83
8	Consumption of LDO	(ml/kwh)	0.35
9	Consumption of HFO	(ml/kwh)	3.15

### **Energy Charges**

21. 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 162.74 paise/kwh for FY 2019-20 of it 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**

22. Apart from the Annual Fixed cost and Energy Charges, OPGC proposed for reimbursement of the different charges and expenses such as Electricity duty, water cess and charges, tax and cess on land, SOC and MOC paid to SLDC, EPRC charges, Income tax, recovery of ARR and tariff petition fees and publication expenses and contribution towards 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**  
**OPGC Proposal of Other Charges for FY 2019-20**  
**(Rs. Crore)**

S. No.	Particulars	Amount
1	Electricity Duty	16.50
2	Water Cess and Water Charges including Electricity Charges to OHPC	11.23
5	Tax and Cess on land	0.19
6	SOC and MOC for SLDC	0.32
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
	<b>Total</b>	<b>73.51</b>

23. Accordingly, OPGC requested OERC to provisionally approve the other charges of Rs.73.51 Crore considering the original project cost and direct GRIDCO to reimburse the above charges on actual basis during the FY 2019-20.

**Additional Capitalization for FY 2019-20**

24. OPGC has claimed that, it has incurred additional capitalization of Rs.128.07 Crore during FY 2015-16 to FY 2018-19 and the same has been filed separately before the Commission in Case No. 54 of 2018. Therefore, the same has not been repeated again in this petition and OPGC has requested the Commission to consider in the said petition and approve the same for the respective years as claimed. Apart from the above, in the present petition, OPGC has further proposed additional capitalization of Rs.9.80 crore to be incurred during FY 2019-20 on account of the additional works required in compliance with the Change in Law and for efficient and successful operation of the generating station. Considering the above additional capitalization incurred and to be incurred, OPGC has calculated additional annual fixed cost and claimed in this petition for the FY 2019-20 as per Regulations OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 and norms of PPA wherever necessary. Accordingly, OPGC has claimed additional annual fixed cost of Rs.27.64 crore and Rs.3.43 crore (@ 34.94% of Rs.6.38 Crore) towards additional income tax on additional Return on Equity on account of the aforesaid proposed additional capitalization of Rs.137.87 crore (Rs.128.07 cr + Rs.9.80 Cr). The details are given in Table - 5 below:



**Table- 6**  
**OPGC Proposal on account of Additional Capitalization for FY 2019-20**

Sl. No.	Particulars	Amounts (Rs. Crore)
1	<b>Additional Annual Fixed Cost</b>	
	Depreciation	14.24
	Return on Equity	6.38
	Interest on Loan	6.49
	Interest on Working Capital	0.53
	<b>Total</b>	<b>27.64</b>
2	<b>Other Charges –Additional Income Tax</b>	<b>3.43</b>

**Summary of Tariff proposal for FY 2019-20**

25. Considering the approved original project cost and additional capitalisation as proposed above, the summary of tariff proposed by OPGC for FY 2019-20 is given in the table-7 below:

**Table -7**  
**Summary of Tariff Proposal of OPGC for FY 2019-20**

Particulars	Units	Corresponding to original project cost	Corresponding to Additional Capitalization	Total Proposal for FY 2019-20
<b>Total Annual Fixed Cost</b>	Rs. Crore	<b>241.93</b>	<b>27.64</b>	<b>269.57</b>
<b>Variable Charges</b>	Paisa/kWh	<b>162.74</b>	-	<b>162.74</b>
<b>Other charges</b>	Rs. Crore	<b>73.51</b>	<b>3.43</b>	<b>76.94</b>

26. OPGC prayed to the Commission to approve the additional capitalization, annual fixed cost, variable charges and other charges on actual basis during FY 2019-20. Also OPGC prayed to approve the 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 as per the provisions of PPA.

**VIEWS OF THE OBJECTORS ON THE GENERATION TARIFF PROPOSAL OF OPGC FOR FY 2019-20 (PARA 27 TO 51)**

27. All the objectors mentioned at Para 12 expressed their views on the following issues:

**Statutory provisions to be followed for determination of generation tariff**

28. One of the objector submitted that as directed by the Supreme Court, the Commission while determining the tariff in respect of OPGC (2X210 MW) power plant may take into consideration (a) the notification dated 21.6.2008 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. Further he submitted that, as per serial no. 3 of the notification no. 7216 dated 21.6.2008 and serial no. 9, 10 and 11 of the order in Case No. 13/2002 dated 27.4.2015, it can be observed that the Commission has approved the PPA and as such closed the issues prior to FY 2014-15 and thereafter the tariff for FY 2015-16 onwards for control period of FY 2014-19 should be determined as per the OERC (Terms and Conditions for Determination of Generation Tariff) Regulations 2014. Thus in the letter and spirit, the Govt. Notification dated 21.6.2008 was approved by the Commission till the order dated 27.4.2015 and therefore, has lost its relevance thereafter as the tariff for the FY 2015-16 onwards is to be determined as per the regulations. Further he 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, examine critically and decide whether approval of the PPA in Case No. 13/2002 is to be reopened for review or not.

29. Another objector pointed out that OPGC has filed three cases before the Commission and all the above cases are associated with the mechanism, process and procedure of determination of generation tariff where OPGC sought Commission's approval on generation tariff basing on amended PPA, and based on regulations where the PPA clauses are insufficient. The cherry picking attitude on the part of the petitioner is an outright act to make the Regulations and laws of electricity defunct which cannot be allowed. Unless the said cases are finalized in Commission's end, the instant petition of OPGC to determine generation tariff for FY 2019-20 cannot be taken up for hearing and order.
30. Another objector submitted that the Commission is already hearing an application of OPGC for re-determination of tariff for FY 2016-17, 2017-18, 2018-19 registered as 33/2018 as per direction of the Hon'ble Supreme Court order dated 19.4.2018. The Case No. 33/2018 is being heard and therefore the submission of the applicant to determine the tariff for the FY 2019-20 shall be subject to the orders of the Commission interpreting the direction of the Hon'ble Supreme court. In view of the above, the present application of OPGC Ltd cannot be considered for determination of generation tariff for FY 2019-20. He further submitted that determination of generation tariff based on present application will give rise to tariff shock to the consumers of the State.

Therefore, the objector requested that the present application may be rejected and generation tariff approved for FY 2018-19 may continue for the FY 2019-20.

#### **Additional capitalization**

31. One of the objectors submitted that as per Generation Tariff Regulations 2014, OPGC while filing the ARR has asked for allowing capital investment, which is yet to be passed on to OPGC. Usually additional capital investment is required to keep up the efficiency level such that their fixed cost is totally recovered. 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 additional capital investment. In case the PLF of OPGC will go below 68.49%, the Commission should consider allowing the additional capital investment for increase in efficiency such that the fixed cost is fully recovered.
32. Another objector submitted that the expenditure which is incurred for life extension of the project through renovation, modernization, or reconstruction is called capital expenditure. However, there is no disclosure on life extension, renovation, modernization, or reconstruction in the instant petition. So, OPGC needs to state the same against the capitalization proposal. The petitioner is keeping Commission in dark in the matter of de-capitalization. So, OPGC must disclose the de-capitalization figure in support of his claims of additional capitalization. The objector requested OPGC to submit the details on account of disposal of scraps, which constitute a fair parameter in the calculation of de-capitalization.
33. Another objector requested the Commission to initiate necessary action in order to distinguish the Gross Block of Asset into grants and non-grants asset so as to make electricity business sustainable.

#### **Interest on working capital**

34. One objector submitted that for working capital OPGC has considered the cost of coal for one and half month, but physically OPGC coal stock is not more than 15 days. Accordingly, cost of coal for working capital may be considered for 15 days. Further Working capital of OPGC is purely part of the in-house financial management. Therefore, the commission may allow saving bank rate of interest instead of high rate of interest as claimed by OPGC. The objector also submitted that OPGC should declare the available stock period of secondary fuel oil and accordingly consider secondary oil requirement for working capital calculation.

### **O&M cost**

35. One of the objector submitted that the O&M expenditure needs scrutiny by Commission considering the Annual Price Index rate notified by various institutions. Allowing 8% flat escalation requires attention of the Commission. The arbitrary flat rate to inflate base year price is illegal in the eyes of law and cannot be allowed by the Commission. OHPC is proposing its O&M expenses considering price escalation of 5.72%, whereas the petitioner is claiming 8%. The controllable cost cannot be passed on by Commission as per OERC Tariff Regulations, 2014.
36. Official Wholesale Price Index for all Commodities shows annual rate of inflation, based on monthly WPI, that stood at 4.64% (provisional) for the Month of November 2018 (over November 2017) as compared to 5.28% (provisional) for the previous month and 4.02% during the corresponding month of previous year. Therefore, the Objector urged the Commission to take 4.64% escalation rate for computation of O&M expenses for FY 2019-20 and reject the arbitrary rate of 8% flat escalation rate.

### **Energy generation and PLF**

37. One objector submitted that OPGC has submitted to GRIDDCO the generation plan by considering auxiliary consumption of 10.43% and PLF of 83.64%. OPGC has not mentioned any schedule regarding planned outage period. From the projection it is found that there would be generation of only 42.16 MU for U#1 during July 2019 and no reasons for such low generation has been furnished. So, OPGC needs to state clearly about its generation plan for determination of generation tariff. OPGC has proposed reduced PLF i.e. 81.46% but all thermal power stations of the state such as IPPs and central sector NTPC plants are now generating at more than 85% to 90% PLF. The objector requested that the Commission should pass order directing OPGC to be functional with more than 85% PLF.

### **Norms of operation**

38. One objector submitted that norms of operation specified in clause 7.2 of Generation Tariff Regulations 2014 of OERC, are the ceiling norms and shall not preclude the generating company and the beneficiaries from agreeing to improved norms of operation and in case the improved norms are agreed to, such improved norms shall be applicable for determination of tariff. In the interest of the consumers, the Commission may direct GRIDCO to mutually discuss a solution that needs to be evolved specially in

case of station heat rate, specific oil consumption and plant load factor for calculation of fixed cost as the claim of OPGC has an adverse impact on GRIDCO and on the consumers of state.

39. One Objector further submitted that the Commission may consider Gross station heat rate as per actual or 2500 kCal/kwh whichever is low. Similarly secondary oil consumption should also be considered on actual basis or 3.5 ml/kWh whichever is low.

#### **Auxiliary Consumption**

40. One Objector submitted that auxiliary consumption may be considered on actual basis or 9.50% whichever is lower. Further, another objector submitted that OPGC proposed auxiliary consumption at the rate of 9.5% whereas central thermal power stations like NTPC have auxiliary consumption of 5.5% only.

#### **GCV, Fuel availability and Fuel Cost**

41. One Objector submitted that there is a wide gap between the GCV of coal, i.e. during purchase and billing. It is unfortunate that prior to notification of Generation Tariff Regulations, 2014, M/s. OPGC has never raised the bill to GRIDCO on GCV at power station and rather they have raised the bill for GCV on 'as Fired' basis which is done by NTPC. The difference of GCV between as billed and as fired has reached even to the tune of 700 to 800 kCal/kg. Since the GCV of the coal has not been measured by OPGC at powerhouse 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 has requested the Commission to consider the GCV as billed while computing the energy charges. The inefficiency on the part of OPGC, claiming low GCV at higher cost and not even complaining to the MCL regarding the difference between the GCV of coal as billed and as received at the powerhouse, cannot be passed on to the consumer. Till an Automatic Mechanical Auger is installed at the power station, for taking samples for computation of GCV by equilibrated method for calculating the variable cost, GCV as billed is to be considered only.
42. Another objector submitted that the coal production report of MCL reveals absolutely no problem of short supply of coal for power generation. According to Form 7.1 (C) monthly average consumption of coal is 0.210 MMT whereas the average stock of coal as calculated by the objector is 0.102 MMT, which is less than 15 days coal consumption. Below 15 days stock of coal at coal handing plant is considered low stock

level. OPGC needs to state clearly what is their minimum stock level and whether their CHP is sufficient to keep at least one-month stock of coal.

43. The proposed coal consumption is very high as per national standard. The proposed requirement for OPGC is very high in comparison to TTPS and TSTPP. Considering the coal consumption for TSTPP stage 2 (2000 MW) at 85% of plant availability, the calculated annual coal consumption of OPGC is 1.73 MTPA for FY 2019-20. However, OPGC has projected 2.56 MTPA, which is more by 0.83 MTPA. As per data submitted to GRIDCO, coal consumption of OPGC is 0.83 kg /kWh. The average coal consumption should be 0.61 kg/kWh as per CERC order. Therefore, in consideration of emission and other anti-environment factors of coal including wastage thereon, the Objector urged OERC to take a pragmatic view on above facts and determine the annual coal consumption.
44. Another objector submitted that OPGC has not attached the bills / invoices relating to purchase of coal from MCL. So, it is not possible to analyze “as received GCV”, “the billed GCV”, as well as component of tax / cess /contribution to funds / royalties etc paid by the consumers of Odisha on account of purchase of coal from MCL. OPGC should submit invoice / bill copies of coal procured.
45. CERC in its order dated 16.2.2017 for TSTPP has overruled the contention of NTPC that the fired value of coal (GCV) cannot be considered in the process of determination of tariff specially because the TSTPP is a pit head power station. CERC considers the “as received” GCV of coal which is equivalent to “as billed” GCV of coal for pit head power stations.

#### **Other Issues**

46. One objector submitted that OPGC has not included the truing up petition for FY 2017-18 unlike the previous year petition. So the OPGC should state the reasons behind the failure in filing the same and how the instant petition can be considered in the absence of truing up petition.
47. OPGC is silent over the proposed power generation from Stage-II of IB TPS in the instant petition. GRIDCO is having entitlement of 50% contracted capacity at CERC determined tariff. It is surprising to note that the generation tariff of Stage-II will be determined by CERC. The objector does not support such provision in PPA.

48. OERC was following MYT principle before enactment of Tariff Policy – 2006 and followed the same till FY 2009-10 only to overcome the volatile situation of economy. Determining tariff every year is not good for economy specially because of unstable situations. Therefore, it is requested to re-implement MYT principle, a mandate of the Act and Policies in determining the tariff, charges and fees of various licensees.
49. 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 reports before the Commission. The objector proposed that the Commission should direct the Energy Secretary, Govt. of Odisha to conduct detailed audit of the receipt and expenditure of OPGC for FY 2015-16, 2016-17, 2017-18 and 2018-19.
50. Objector requested the Commission to direct OPGC to produce
- (i) The number of the forced outage & reason for such since FY 2016-17.
  - (ii) Month wise cash flow statement showing sources of inflow and outflow of cash from the FY 2010-11 to 2018-19.
  - (iii) Detailed action plan they have prepared for development of mini-hydro projects now under their disposal.
  - (iv) Salary structure in the company along with the benefits that have been achieved by paying higher salary.
  - (v) The number of cases pending before different courts and amount paid for legal expenses of the said cases for 2015-16, 2016-17, 2017-18 and 2018-19 and year wise dividend paid to government since 2000-01 to 2018-19.
  - (vii) The detailed information relating to share allocation of the joint venture with OHPC i.e. OCPL and other details on the workers, their salary, grade & other work assigned to the workers working under OCPL.
51. One of the objectors submitted that OPGC in their ARR application have mentioned their functioning as per the PPA signed between GRIDCO and OPGC knowing fully well that tariff hearing and PPA issues are separate.

## **VIEWS OF CONSUMER COUNSEL (PARA 52)**

52. WISE, Pune on behalf of the Consumers made a presentation on the Analysis of ARR and tariff filing of OPGC for FY 2019-20. The Consumer Counsel's observations /suggestions are as below:

- a) OPGC has claimed the additional capitalization since FY 2015-16. OPGC's claim for yearly additional capitalization submitted in tariff petition for FY 2018-19 and that claimed in the present tariff petition for FY 2019-20 have difference. The difference of claim should be reviewed before finalization of yearly additional capitalization.
- b) The claim for additional capitalization for FY 2019-20 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 account at the time of true-up, not in the present tariff determination process.
- c) 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.
- d) OERC has approved the equity of Rs. 450 Crore and loan of Rs. 610 Crore, i.e approved debt-equity ratio was 57.5:42.5 for original project cost. For additional capitalization 70:30 ratio is proposed by OPGC. The same ratio may be considered with respect to approved additional capitalization, if any.
- e) OPGC has calculated the interest on normative loan on the basis of interest rate of 10.55%, 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 2017-18. The Commission may review the loan details pertaining to the generating company in the perspective of recent downward trend of interest rate.
- f) OPGC has been meeting its working capital requirement through internal accruals and had not availed any actual working capital loan. Therefore, interest on working capital @ 11.5% may be reviewed by the Commission.
- g) According to regulations 4.28 (d), O&M norms for the existing plants of OPGC and OHPC will be as determined by the Commission from time to time. However, 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 referred in this regard.

- h) Now, OPGC proposed the PLF as 68.49%, as per Amended PPA. However, the actual PLF for FY 2016-17 was 87.92%. Also, as per Regulations, NAPLF of thermal power stations is considered as 85% and last year approval was 87%. So, the Commission can appropriately decide the PLF for FY 2019-20.
- i) Specific oil consumption of 0.42 ml/kWh was approved in last year order; although, OPGC has submitted the same as 3.5 ml/kWh for FY 2019-20 as a mix of HFO 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.
- j) In case of GCV of coal, in FY 2018-19 order, the Commission approved the GCV as 3100 kCal/kg; however, OPGC proposes the same as 2972 kCal/kg for FY 2019-20. The actual data of FY 2018-19 show average GCV in the range of 2930 - 3136 kCal/kg. In Para 114 of last year order the Commission opined that: “The Commission feels that OPGC must make endeavours to avail compensation for this grade slippage from M/s. MCL as per FSA and pass the same to GRIDCO. However, GRIDCO shall pay the bill on ‘as fired’ basis of GCV as per Regulations.” The same principle should be continued for present tariff determination process also.
- k) The weighted average coal price for FY 17-18 was 1549.80 Rs/ MT and in FY 2018-19 it was in the range of 1577-1678 Rs/MT. So, the Commission should finalize the coal price accordingly.
- l) Along with water cess and water charges, compensation to OHPC is proposed by OPGC for FY 2019-20. This charge should be reviewed on the basis of actual payment made to OHPC, if any.
- m) 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.

- n) Water contribution fund should be reviewed based on actual payment made. Similarly, SOC and MOC for SLDC can be allowed as per Commission's approved order for FY 2019-20.

**OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA 53)**

53. The Commission convened the State Advisory Committee (SAC) meeting on 20.02.2019 at 3.00 PM. 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.

**VIEWS OF THE GOVT. OF ODISHA (PARA 54)**

54. Govt. of Odisha vide their Letter No. 2283 dated 12.03.2019 have communicated their views/suggestions on various issues involving tariff setting for FY 2019-20. Govt. has observed that in the meanwhile 2x660 MW OPGC expansion power project is nearing completion and will supply to the State Grid in near future which will ultimately fulfill the power demand security of the State for coming years.

**OPGC's RESPONSE TO THE OBJECTORS (PARA 55 TO 82)**

**Statutory provisions for determination of generation tariff**

55. OPGC submitted that the Commission vide its Order dated April 27, 2015 in Case No. 13/2002 approved the PPA along with its Amendment between GRIDCO and OPGC. The Supreme Court in its Judgment dated April 19, 2018 in Civil Appeal No. 9485 of 2017 upheld the stated Order of the Hon'ble Commission which is reproduced as 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 .....

56. OPGC submitted that in light of the Apex Court upholding the Commission's Order on approval of PPA, the reopening of the said Order of the Commission, which has attained finality, is unwarranted.
57. OPGC further submitted that the Supreme Court has held that primarily the tariff norms under the PPA are to be followed in determining OPGC's tariff. The effect of the Hon'ble Supreme Court Judgment is that this arrangement would apply for the entire

term of the subsistence of the PPA viz., till 30.06.2026. Any contrary interpretation would violate Regulation 4.4 of the 2014 Tariff Regulations.

58. In line with the approach adopted in Petitions in Case No. 33 of 2018 and Case No. 54 of 2018, OPGC has filed the instant Petition for approval of Generation Tariff for FY 2019-20. The Commission can take up the instant Case for hearing and Orders as there is no approved tariff for the period commencing from April 1, 2019.
59. OPGC submitted that the present Petition for approval of Generation Tariff for FY 2019-20 has been filed in accordance with the approved Amended PPA pursuant to the Supreme Court's Order dated April 19, 2018 in Civil Appeal No. 9485 of 2017.
60. OPGC further submitted that the Supreme Court had set aside the Commission's Tariff Order for FY 2016-17. The Tariff Order for FY 2018-19 was also issued on similar lines of the Tariff Order for FY 2016-17. The continuation of the tariff based on the principles which has been held as unsustainable by the Supreme Court is inappropriate and unnecessary at this point of time as the Commission had reserved the Case No. 33 of 2018 for Orders on January 29, 2018.

#### **Additional capitalization**

61. OPGC pointed out that beyond the target Availability factor of 68.49% for recovery of full AFC, there is no incentive for generation unless the actual PLF is more than 80%. Still, OPGC had endeavored to generate maximum possible energy because of which power at significantly lower cost was made available to the electricity consumers. The statement of the stakeholder to allow additional capitalisation only if the PLF goes below 68.49% is without merit. The additional capitalisation claimed by OPGC is both for sustained operations of the generating station as well as compliance to the statutory conditions imposed by relevant authorities.
62. OPGC submitted that the regulatory concepts of renovation & modernization on the one hand, and additional capitalisation on the other, are fundamentally different, and for this reason are accorded separate and distinct treatment under the OERC Tariff Regulations, 2014. The list of works claimed by OPGC for additional capitalisation are not in lieu of the renovation and modernization. It would be appropriate if these two distinct concepts are not conflated. The works in respect of which OPGC has claimed additional capitalisation are only for sustained operations of the generating station, and compliance with statutory requirements. There are many generating stations in the

country which have been in operation for more than the useful life of 25 years without Renovation & Modernisation and providing reliable power supply to their respective procurers. 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.

63. OPGC has submitted the list of items for which the additional capitalisation has been claimed for FY 2019-20. The assets created by the additional capitalisation proposed for FY 2018-19 do not render any existing asset as scrap and hence the apprehension of the stakeholder regarding de-capitalization is misplaced.

#### **O&M Expenditure**

64. The normative O&M expenses for FY 2019-20 have been proposed in accordance with the provisions of the approved Amended PPA.
65. OPGC 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.

#### **Interest on working capital**

66. OPGC submitted that the normative interest on working capital has been claimed for FY 2019-20 in accordance with the provisions of the approved Amended PPA. The normative working capital requirements are allowable based on the normative level of generation. The actual coal stock has no bearing on the determination of interest on working capital on normative basis. Therefore, OPGC requested the Commission to approve the normative interest on working capital for FY 2019-20 as claimed in the instant Petition.
67. The working capital requirements of OPGC are being met from internal accruals. The Supreme Court in its Judgment dated April 19, 2018 ruled that for the costs not reflected in the PPA, the statutory Regulations may be applied. Further, the APTEL in its Judgment dated May 28, 2009 in Appeal No. 111 of 2008 ruled in favor of charging interest on working capital met from internal accruals. Considering the rulings, OPGC requested the Commission to approve the interest on working capital considering the rate as claimed in the Petition.

### **Generation and PLF**

68. OPGC submitted that the instant Petition has been filed for determination of tariff of OPGC 1&2 for FY 2019-20 for sale of power to GRIDCO under the Amended PPA approved by the Commission vide its Order dated April 27, 2015 in Case No. 13/2002. The tariff for sale of power comprises of (1) Annual Fixed Cost and (2) Variable Charges. The power generation plan for the ensuing year has no bearing on tariff as the tariff is determined at the normative performance parameters. Therefore, the apprehension of the stakeholder that it is not prudent to determine the tariff in the absence of generation data for FY 2019-20 is misplaced. The generation plan for FY 2019-20 had been furnished to GRIDCO which has been considered in its ARR Petition for FY 2019-20.
69. 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. Even, OPGC in FY 2016-17 achieved PLF of 87.92% ranking first among the thermal generating stations in state sector.

### **Auxiliary consumption**

70. 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, OPGC submitted that the auxiliary consumption of 5.5% mentioned is for super critical units with capacity of 660 MW and above, not for units with capacity of 210 MW.

### **Norms of operation**

71. The norms of operation for tariff determination need to be considered as per the provisions of the approved Amended PPA. OPGC had placed its detailed submissions regarding the same during the regulatory proceedings in Case No. 33 of 2018 (tariff determination for FY 2016-17, FY 2017-18 and FY 2018-19). In light of the same, OPGC requested the Commission to consider the norms of operation for tariff determination, as per the approved Amended PPA.

72. The observations of the stakeholder that the claim of OPGC on account of station heat rate, specific oil consumption and Plant Load factor has an adverse impact on GRIDCO are unfounded. The per unit cost of power purchased from OPGC is significantly lower than that from CSGS (thermal), which can be evidenced from the per unit power procurement cost approved by the Commission as given in table-8 below.

**Table -8**  
**Comparison of per unit power purchase cost of OPGC with CGS**

Particulars	Approved per unit cost of power purchase from OPGC	Approved per unit cost of power purchase from CSGS (thermal)
	Paise/kWh	Paise/kWh
GRIDCO's Tariff Order for FY 2018-19	205.26	319.61
GRIDCO's Tariff Order for FY 2017-18	196.26	313.44
GRIDCO's Tariff Order for FY 2016-17	190.26	330.85
GRIDCO's Tariff Order for FY 2015-16	210.85	323.36
GRIDCO's Tariff Order for FY 2014-15	212.24	330.73
GRIDCO's Tariff Order for FY 2013-14	200.17	325.15
GRIDCO's Tariff Order for FY 2012-13	195.15	376.32
GRIDCO's Tariff Order for FY 2011-12	179.22	331.05

**GCV and Fuel cost**

73. Regarding the GCV of coal, OPGC had placed its detailed submissions before the Commission during the proceedings in Case No. 33 of 2018. In light of the same, OPGC requested the Commission to consider the GCV of coal as claimed by OPGC in the instant Petition for tariff determination for FY 2019-20.
74. OPGC submitted that the instant Petition has been filed for tariff determination for FY 2019-20 at normative performance parameters. Also, OPGC nowhere in the instant Petition has submitted that there is short supply of coal. The actual coal stock at the generating station has no bearing on the tariff determination for FY 2019-20, sought in the present Petition.
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 TTPS is 2850 kcal/kWh and for TSTPP Stage I is 2375 kcal/kWh. The comparison made by the stakeholder about coal consumption is without a comprehensive understanding of the underlying factors leading to coal requirement for power generation.

76. OPGC has submitted all the information sought by the Commission regarding the GCV of coal. The same information has been provided to the stakeholders who have bought the copy of the Petition from the Petitioner. Also the information is uploaded in its website.
77. OPGC submitted that the calorific value to be considered for tariff determination shall be based on the provisions regarding the Variable Charges and not on whether the generating station is pit-head or non-pit-head. The generating stations of NTPC are governed by the Tariff Regulations of the Central Electricity Regulatory Commission and hence the reference to the same is misplaced.

#### **Other issues**

78. OPGC submitted that the instant Petition has been filed for tariff determination for Units 1 & 2 for FY 2019-20. Therefore, any reference to tariff of Units 3 & 4 in the instant Petition is unwarranted. The construction activities of Units 3 & 4 are in advance stages of completion with both the Units expected to achieve COD during the current year. OPGC has filed a separate Petition for approval of Capital Cost and Tariff from anticipated CODs upto March 31, 2019 for OPGC Unit #3 & #4.
79. OPGC submitted that it being a Govt Company, its books of accounts are audited through C&AG of India. OPGC also submitted the annual report as sought by the Commission.
80. OPGC submitted that the audited annual accounts for FY 2017-18 have been submitted to the Commission along with the Tariff Petition on November 30, 2018 and the information regarding cash flow sought by the stakeholder is not relevant for tariff determination.
81. OPGC further submitted that the information about mini hydro projects sought by the stakeholder is not relevant for tariff determination.

82. OPGC submitted that the information about joint venture Company sought by the stakeholder is not relevant to the instant petition with regard to the determination of tariff of Unit-1 & 2. OCPL is a subsidiary of OPGC meant for development of Coal mines for its expansion Units 3 & 4 being the end user.

**COMMISSION'S OBSERVATIONS AND ANALYSIS OF OPGC'S PROPOSAL FOR DETERMINATION OF GENERATION TARIFF FOR FY 2019-20 (PARA 83 TO 107)**

83. That the present petition for determination of generation tariff for FY 2019-20 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, OERC (Conduct of Business) Regulations, 2004.
84. Basing on the Hon'ble Supreme Court of India judgement dated 19.04.2018 in Civil Appeal No 9485 of 2017, the Commission has 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.
85. 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 2019-20 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 2019-20 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 2019-20.



- (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 2019-20.
- (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 2019-20.
- (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 and accordingly the Commission approves the same amount of Rs.72 crore towards RoE for determination of generation tariff for FY 2019-20.
- (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 and accordingly the Commission does not approve any amount towards interest on loan capital for determination of generation tariff for FY 2019-20.
- (f) **O&M Expenses:** As per clause 3 (d) & (e) of Schedule-II of the amended PPA, for the purpose of O&M expenses capital cost is to be taken as Rs.1030 crore and accordingly O & M Expense for the first year of operation shall be @ 2.5% of the capital cost and it shall be escalated by @ 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.151.19 crore towards O&M expenses and the

Commission approves the same amount of Rs.151.19 crore {Rs.1030 cr x 2.5% x (1.08)<sup>23</sup>} towards O&M expenses for determination of generation tariff for FY 2019-20.

- (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 been managing working capital requirement from internal accrual sources, and therefore it has considered the rate of interest on working capital as per Regulation 4.26 of the OERC Generation Tariff Regulation, 2014 in line with Hon'ble APEX Court judgment dated 19.04.2018. Considering judgement of Hon'ble APEX Court and the PPA norms of normative level of generation @ 68.49%, the Commission has estimated working capital requirement and interest on working capital. 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 2019-20 is given in table-9 below:

**Table-9**  
**Interest on working capital Approved by Commission for determination of Generation Tariff for FY 2019-20**

Particulars	Norms	FY 2019-20	
		OPGC Proposal	OERC Approval
Cost of Coal	1.5 Months	41.92	38.37
Cost of Secondary Fuel Oil	2 Month	6.13	6.11
O&M expenses	1 Month	12.60	12.60
Receivables	2 Month	102.35	97.43
<b>Working Capital Requirements</b>	Rs.Cr	<b>162.99</b>	<b>154.51</b>
Rate of Interest	(%)	11.50	11.50
<b>Interest on working capital</b>	Rs Cr	<b>18.74</b>	<b>17.77</b>

Accordingly the Commission approves Rs.17.77 crore towards interest on working capital for determination of generation tariff of OPGC for FY 2019-20 as against OPGC proposal of Rs. 18.74 crore.

### Summary of Annual Fixed Cost

86. Based on the above component wise approval, the summarised total Annual fixed cost approved by the Commission for determination of generation tariff of OPGC for FY 2019-20 is Rs.240.96 crore as against OPGC proposal of Rs. 241.93 crore. The details are given in the table-10 below:

**Table-10**  
**Total Annual Fixed Cost Approved by Commission for determination of Generation Tariff of OPGC for FY 2019-20**

Particulars	OPGC Proposal	OERC Approval
Depreciation	-	-
Return on Equity	72.00	72.00
Interest on Loan Capital	-	-
O&M Expenses	151.19	151.19
Interest on working capital	18.74	17.77
<b>Total</b>	<b>241.93</b>	<b>240.96</b>

### Computation of Energy Charges:

### Operational Performance Parameters:

87. Regarding operational parameter the Commission adopts the norm mentioned in the PPA. Details of these parameters are given in table-11 below.

**Table-11**  
**Operational norms approved by OERC in accordance with PPA for Determination of Generation Tariff of OPGC for FY 2019-20**

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)	2,500	2,500
Secondary fuel oil consumption	(ml/Kwh)	3.50	3.50

### Price & GCV of Coal and Secondary fuel oil

88. As per Clause 7 of Schedule-II of the PPA, it is mentioned that Gross Calorific Value (GCV) of Secondary Oil and Gross Calorific Value (GCV) of 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. 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. 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, the Commission has taken GCV of Oil and Coal as per the present grade classification and the price of Oil and Coal as proposed by OPGC for FY 2019-20.

89. 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 @ 150.68 paisa/kwh for OPGC as against its proposal of @ 162.73 paisa/kwh for FY 2019-20. Details of these operational norms and parameters for calculation of energy charges are given in table-12 below.

**Table-12**  
**Computation of Energy Charges for determination of Generation**  
**Tariff of OPGC for FY 2019-20**

<b>Particulars</b>	<b>Unit</b>	<b>OPGC Proposal</b>	<b>OERC Approval</b>
Price of Coal	(Rs./MT)	1600.13	1532.00
Price of LDO	(Rs./KL)	48291.00	48291.00
Price of HFO	(Rs./KL)	40826.00	40826.00
GCV of Coal	(Kcal/Kg)	2972	3100
GCV of Oil	(Kcal/Kg)	10000	10000
Consumption of Coal	(Kg/kwh)	0.83	0.80
Consumption of Oil-LDO (10%)	(ml/kwh)	0.35	0.35
Consumption of Oil – HFO (90%)	(ml/kwh)	3.15	3.15
<b>Energy Charges</b>	<b>(Paisa/Kwh)</b>	<b>162.73</b>	<b>150.68</b>

90. 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**

91. 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.73.51 Crore for FY 2019-20 as part of the reimbursement from GRIDCO. These are to be examined one by one by GRIDCO basing on their paid bills with appropriate rules regarding those charges. However, provisionally the following expenditure is being allowed now.

**Electricity Duty:**

92. OPGC submitted that, it has paid Rs.16.50 crore (@ Rs.0.55/Kwh) towards electricity duty during the FY 2017-18. On that basis it has requested the Commission to approve provisionally the same amount for the FY 2019-20. Since the Commission has followed the PPA norms, i.e. 9.5% of auxiliary Consumption of normative generation of 68.49% for determination of generation tariff, we now provisionally approve Rs.13.17 crore @ Rs.0.55/Kwh towards electricity duty for FY 2019-20.

**Water Cess & Water Charges:**

93. OPGC submitted that, during the FY 2017-18 it has incurred Rs.6.86 crore towards water cess and water charges and accordingly the same amount should be allowed to be reimbursed for the FY 2019-20. In addition to the above, it has submitted that, OHPC has raised invoice of Rs.3.75 crore till August 2018 towards energy compensation based on Govt. of Odisha letter dated 31.07.2012. Further it has proposed another Rs.0.62 crore for FY 2019-20 towards energy compensation in line with the invoice raised by OHPC for FY 2017-18. Accordingly OPGC requested the Commission to approve altogether Rs.11.23 crore towards reimbursement under this head. Based on the above proposal of OPGC, the Commission provisionally approve Rs.6.86 crore towards water cess and water charges for FY 2019-20 and regarding others, the Commission direct OPGC to produce proper justification of such charges before it is reimbursed from GRIDCO.

**Tax and Cess on land:**

94. The Commission allows tax and cess on land basing on the actual amount incurred by the Petitioner during the FY 2017-18. Accordingly, an amount of Rs.0.19 cr. is provisionally approved as tax and cess on land for FY 2019-20.

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

95. OPGC has proposed Rs.0.32 crore towards SoC & MoC charges for SLDC for FY 2019-20. As against this, the Commission approves Rs.0.38 crore (@ Rs.9101.21/MW/year ) towards SoC & MoC charges for OPGC payable to SLDC as approved by the Commission in SLDC Charges order for FY 2019-20 in Case No. 72/2018.

**ERPC Charges:**

96. OPGC has proposed Rs.0.16 crore to be paid to them as ERPC charges for FY 2019-20 similar to the actual payment made by them during FY 2017-18. The Commission provisionally approve the same amount towards ERPC charges for FY 2019-20.

**Income Tax:**

97. OPGC has proposed Rs.38.67 crore towards income tax @ 34.94% on pre-tax return on equity for FY 2019-20. 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 approve Income tax of Rs.38.67 crore @ 34.94% (including 4% Cess) for FY 2019-20. However, OPGC should be reimbursed the amount on actual basis by GRIDCO.

**Reimbursement of contribution towards Water Conservation Fund (WCF)**

98. As per the resolution of Department of Water Resources, Govt. of Odisha, dated 18.07.2015, OPGC has proposed approval of Rs.6.13 crore towards reimbursement of contribution to WCF for FY 2019-20. Further, respondent GRIDCO in its objection at Para 26 has submitted that the above amounts will be reimbursed to OPGC subject to necessary direction of the Commission and submission of all supporting documents with regards to payment made by OPGC. Basing on the above submission of GRIDCO, we direct that the above amount shall be reimbursed by GRIDCO subject to its verification vis-a-vis the Govt. order in this regard. Therefore, we have not allowed anything on this head at present.

**Recovery of ARR and Tariff Petition Fees & Publication Expenses:**

99. The Commission provisionally approve Rs. 0.30 crore towards recovery of ARR tariff petition fees & publication expenses as proposed by OPGC for FY 2019-20.

**Summary of Other Charges:**

100. A comparative summary statement of reimbursement of other charges on provisional basis allowed by the Commission is given in the table – 13 given below:

**Table – 13**  
**Reimbursement of Other Charges for 2019-20 (Rs. in Crore)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>OPGC Proposal</b>	<b>OERC Approval</b>
1	Electricity Duty	16.50	13.17
2	Water Cess and Water Charges	11.23	6.86
3	Tax and Cess on land	0.19	0.19
4	SOC and MOC for SLDC	0.32	0.38
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	-
	<b>Total</b>	<b>73.51</b>	<b>59.73</b>

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 – 13 above to OPGC as and when claimed with appropriate documentary evidences.

**Additional capitalization**

101. OPGC has filed a separate application vide Case No. 54 of 2018 for an amount of Rs.128.07 crore towards additional capitalization incurred and to be incurred during the period FY 2015-16 to FY 2018-19. Further in this petition, OPGC has proposed for additional capitalization of Rs.9.80 crore to be incurred during FY 2019-20. Considering the above additional capitalization of Rs.137.87 crore (Rs.128.07 cr + Rs.9.80 Cr), OPGC has claimed additional annual fixed cost of Rs.27.64 crore for FY 2019-20 over and above the annual fixed cost stated in Table – 10. Further, it has claimed additional income tax of Rs.3.43 crore (@ 34.94% of Rs.6.38 Crore) on return on equity of additional capitalisation under the head of other charges. Based on the above proposal of OPGC, the Commission observe that, since a separate petition is pending before the Commission for disposal of additional capitalization, it is not to be considered now in this order.

**Summary of Approved Generation Tariff of OPGC for FY 2019-20**

102. The summary of generation tariff for OPGC as approved by the Commission for FY 2019-20 is given in Table -14 below:

**Table - 14**  
**Summary of Approved Generation Tariff of OPGC for FY 2019-20**

<b>Particulars</b>	<b>Units</b>	<b>OPGC Proposal</b>	<b>OERC Approval</b>
Annual Fixed Cost	Rs. Crore	269.57	240.96
Variable Charges	Paisa/Kwh	162.74	150.68

**Directives of the Commission**

103. 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.
104. 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.
105. Incentives/Disincentives, other charges, supplementary bills etc. are to be recovered by OPGC from GRIDCO on production of documentary evidence as per Clause 10 and 11(vii) of the PPA.
106. Rebate and late payment surcharge if any will be applicable as per the clause 8.24 & 8.25 of the PPA.
107. The Tariff now approved shall be effective from 01.04.2019 and shall be in force until further orders. The application of OPGC in Case No. 70 of 2018 for determination of Generation tariff of IBTPS I & II units for the FY 2019-20 are accordingly disposed of.

**Sd/-**  
**(S. K. PARHI)**  
**MEMBER**

**Sd/-**  
**(A. K. DAS)**  
**MEMBER**

**Sd/-**  
**(U. N. BEHERA)**  
**CHAIRPERSON**