

**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. 75/2017**

**DATE OF HEARING : 05.02.2018**

**DATE OF ORDER : 22.03.2018**

**IN THE MATTER OF: Application for truing up of FY 2016-17 and determination of Generation Tariff of Odisha Power Generation Corporation (OPGC) Ltd. for FY 2018-19 under Section 62 & 86 of the Electricity Act, 2003 read with the OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 and OERC (Conduct of Business) Regulations, 2004.**

**ORDER**

The Odisha Power Generation Corporation (OPGC) Ltd. has filed an application before the Commission for truing up of regulatory account FY 2016-17 and determination of Generation Tariff of its 2 x 210MW power stations for the financial year 2018-19.

**PROCEDURAL HISTORY (PARA 1 TO 10)**

1. OPGC Ltd. is a company which is incorporated under the Companies Act, 1956 and is also a “Generating Company” under the meaning of Section 2 (28) of the Electricity Act, 2003 (herein after referred to as ‘the Act’). Under the existing arrangement, GRIDCO Ltd. is evacuating powers from the generating stations of OPGC Ltd. and is delivering it to the four Distribution Utilities of Odisha. Till FY 2015-16, OPGC had not filed any tariff application before the Commission for determination of generation tariff challenging the jurisdiction of the Commission before the Hon’ble High Court of Orissa in 2001 for determining tariff of generating units of OPGC while PPA was existing between it and GRIDCO, which was signed on 13.08.1996, but effective from 01.01.1995. The Hon’ble High Court of Orissa in O.J.C No.13338 of 2001 upheld the jurisdiction of this Commission in determination of tariff for the power supplied by the OPGC to GRIDCO.

2. Being aggrieved by the above decision of the Hon'ble High Court, OPGC filed Special Leave Petition Nos. 6812-13/2005 before the Hon'ble Supreme Court of India. The Hon'ble Apex Court vide their interim order dated April 29, 2005 stayed the proceeding of tariff determination pending before OERC. Subsequently, disputes on certain issues arose between the parties to the PPA. Therefore, a Task Force was constituted by GoO and basing on its recommendation a Tripartite Agreement was reached between the Parties and Government of Odisha. This was notified by the State Government in their Notification No.7216 dated 21.06.2008. Thereafter, OPGC and GRIDCO amended the existing PPA on 19.12.2012 by amending certain clauses relating to PLF, incentive etc. which were retrospectively brought into effect from 01.04.2007.
3. The Hon'ble Court vide their order dated 14.02.2013 dismissed the appeals as withdrawn by OPGC and directed it to file amended PPA before OERC for consideration. OERC in its order dated 27.04.2015 approved the amended PPA and directed that the power purchase process should be settled by OPGC and GRIDCO as per original PPA and the supplement PPA as approved by the Commission for the period prior to the implementation of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014. OERC directed OPGC in the same order to file an application for determination of generation tariff as per the approved PPA each year starting from FY 2016-17 since tariff for FY 2014-15 and 2015-16 have already been approved by the Commission in the ARR of GRIDCO.
4. Accordingly, OPGC had filed its generation tariff application for determination of tariff for power supply to GRIDCO for FY 2016-17 as per Section 62 and 86 of the Electricity Act, 2003 (read with approved Bulk Power Supply Agreement and the Supplementary Agreement, together referred as 'Amended PPA'), related provisions of OERC (Determination of Generation Tariff) Regulation, 2014 and OERC (Conduct of Business) Regulations, 2004. While filing the said tariff proposal, OPGC had selectively considered the tariff parameters from the PPA & OERC Generation Tariff Regulation, 2014. However, the Commission disposed of the application of OPGC vide their order dated 21.03.2016 in Case No. 53/2015 by approving tariff of OPGC for FY 2016-17 basing only on the OERC Generation Tariff Regulation, 2014.
5. OPGC challenged above order of 21.03.2016 in Appeal No. 126/2016 before the Hon'ble APTEL stating that the Commission has erred mainly by applying Regulation norms for determination of tariff of OPGC for FY 2016-17. The said appeal was dismissed by the Hon'ble APTEL vide its Judgment of April 6, 2017 and it upheld the Commission's

Tariff Order for FY 2016-17. Aggrieved by the judgment, OPGC has filed Civil appeal No 9485 of 2017 before the Hon'ble Supreme Court, which has been admitted by the Hon'ble Supreme Court and is pending for adjudication.

6. OPGC has filed the present application on 30.11.2017 before the Commission for truing up of FY 2016-17 and determination of Generation Tariff for FY 2018-19 as per Section 62 and 86 of the Electricity Act, 2003 read with OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 and OERC (Conduct of Business) Regulations, 2004. OPGC has stated that the instant application has been filed for truing up of Regulatory Account for FY 2016-17 and determination of generation tariff for FY 2018-19 without prejudice to OPGC's rights under law and contentions taken in above mentioned Civil Appeal before the Hon'ble Supreme Court. OPGC has also submitted that the instant Petition is subject to the outcome of this Civil Appeal.
7. After due scrutiny and admission of the aforesaid application, the Commission directed OPGC Ltd. to publish its application in the approved format. 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 6 nos. of objections from the following persons /organizations:-

(1) Shri G. N. Agrawal, Convenor-cum-Gen. Secy., Sambalpur District Consumers Federation, Balaji Mandir Bhawan, Khetrajpur, Sambalpur-768003, (2) Shri Ananda Kumar Mohapatra, Power Analyst, S/o-Jachindranath Mohapatra, Plot No. L-II/68, SRIT Colony, Budharaja, Ps-Ainthapali, Dist-Sambalpur-768004., (3) Shri Ramesh Ch. Satpathy, Secretary, National Institute of Indian Labour, Plot No.302(B), Beherasahi, Nayapalli, Bhubaneswar-751012, (4) Shri P. K. Pradhan, S/o. Late Kasta Charan Pradhan, Duplex 244, Manorama Estate, Rasulgarh, Bhubaneswar-751010, (5) Shri R. P. Mahapatra, Retd. Chief Engineer & Member (Gen., OSEB), Plot No. 775(Pt.), Lane-3, Jayadev Vihar, Bhubaneswar-751013 & 7. The Chairman-cum-Managing Director, GRIDCO Limited, Janpath, Bhubaneswar-751022 were filed their suggestions/objections.

Excluding Shri G. N. Agrawal, 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 has submitted its rejoinders to the issues raised by the various objectors during hearing.

8. In exercise of the power u/S. 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 truing up of FY 2016-17 and determination of generation tariff proposal for its different power stations for FY 2018-19. The Consumer Counsel has presented views on the matter during the hearing.
9. The date of hearing was fixed as 05.02.2018 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 Government 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.
10. Accordingly, the Commission has conducted a public hearing at its premises at Bhubaneswar on 05.02.2018 and had heard the Applicant, Objectors, Consumer Counsel and the Representative of the Dept. of Energy, Government of Odisha at length. The Commission has also convened the State Advisory Committee (SAC) meeting on 20.02.2018 at 10.30 AM to discuss about the application for truing up of FY 2016-17 and determination of generation tariff proposal of the present generating company for FY 2018-19. The Members of SAC presented their valuable suggestions and views on the matter for consideration of the Commission.

**OPGC PROPOSAL FOR TRUING UP OF FY 2016-17 AND DETERMINATION OF GENERATION TARIFF FOR THE FY 2018-19 (PARA 11 TO 44)**

11. As per Regulation 2.7 and 2.13 OPGC has submitted the instant petition for truing up of FY 2016-17 and determination of Generation Tariff for FY 2018-19.
12. The summarized proposal for truing up of FY 2016-17 and generation tariff proposal for FY 2018-19 of OPGC are mentioned as under:  
**Truing Up for FY 2016-17**
13. OPGC has proposed the truing up of FY 2016-17 in accordance with the Regulation 2.13 of the OERC Generation Tariff Regulations, 2014:

### Capital cost and additional capitalization

14. OPGC has proposed that the Commission in its Tariff Order for FY 2016-17 had approved the opening capital cost of OPGC Ltd. as Rs.1060 Crore. Further OPGC has submitted that it has incurred additional capitalization of Rs. 18.13 Crore and Rs.23.62 crore during FY 2015-16 and FY 2016-17 respectively. It has proposed that out of above, Rs. Rs. 17.82 Crore for FY 2015-16 and Rs.22.04 crore for FY 2016-17 have been incurred towards efficient and successful operation of the generating station. Accordingly, OPGC has claimed that the opening and closing gross fixed asset for FY 2016-17 is Rs.1077.82 Crore and Rs.1099.86 Crore respectively and the same is proposed to be considered for truing up of FY 2016-17.

### Debt-equity Ratio

15. OPGC has submitted that the said additional capitalization during FY 2015-16 and FY 2016-17 has been funded through internal sources and in accordance with the Regulation 3.8, the debt-equity ratio of the additional capitalization in FY 2015-16 and FY 2016-17 has been considered as 70:30. The debt-equity claimed for truing up for FY 2016-17 is given in table below:

**Table - 1**  
**Truing up of Debt-Equity for FY 2016-17 (Rs. Crs.)**

Particulars	OERC Approval for FY 2016-17			OPGC Proposal for Truing up of FY 2016-17		
	Total	Debt	Equity	Total	Debt	Equity
<b>Approved Original Project Cost</b>	<b>1,060.00</b>	<b>610.00</b>	<b>450.00</b>	<b>1,060.00</b>	<b>610.00</b>	<b>450.00</b>
<b>Debt-Equity as on 31.03.2015</b>	<b>450.00</b>	<b>-</b>	<b>450.00</b>	<b>450.00</b>	<b>-</b>	<b>450.00</b>
Additional Capitalisation during FY 2015-16	-	-	-	<b>17.82</b>	12.47	5.35
<b>Opening capital for FY 2016-17</b>	<b>450.00</b>	<b>-</b>	<b>450.00</b>	<b>467.82</b>	<b>12.47</b>	<b>455.35</b>
Additional Capitalisation during FY 2016-17	-	-	-	<b>22.04</b>	15.43	6.61
<b>Closing capital for FY 2016-17</b>	<b>450.00</b>	<b>-</b>	<b>450.00</b>	<b>489.86</b>	<b>27.90</b>	<b>461.96</b>

### Return on equity

16. Based on the opening and closing equity capital estimated for FY 2016-17, OPGC has projected return on equity of Rs. 73.38 crore @ 16% on average equity of FY 2016-17. The petitioner stated that, this is in accordance with Regulations 4.5 and 4.6 of the OERC Generation Tariff Regulations, 2014 and has proposed to consider the same for truing-up of FY 2016-17 as against OERC approved return on equity of Rs.72 crore.

### Interest on loan capital

17. OPGC has proposed for truing up of interest on loan of Rs. 1.82 Crore @ 10.71% for FY 2016-17 on estimated normative loan pertaining to the additional capitalisation during FY 2015-16 and FY 2016-17. In addition to this it has claimed that Rs.9.77 crore towards Guarantee fees paid to Govt. of Odisha. Totally, Rs. 11.59 crore has been claimed for truing up of FY 2016-17 under interest on loan capital.

### Depreciation

18. OPGC has stated that, if the depreciation rates as per the OERC Generation Tariff Regulations, 2014 is applied for computing the depreciation, OPGC will not be able to recover the entire depreciable value of the assets capitalised from FY 2015-16 onwards. Therefore, OPGC has requested to allow recovery of depreciable value of the assets capitalized from FY 2015-16 onwards by equally spreading in each year from the year of capitalization and up to the end of the term of the PPA (FY 2025-26). Accordingly OPGC has proposed Rs. 3.44 Crore for truing up under depreciation for FY 2016-17 on the additional capital assets created during FY 2015-16 and FY 2016-17.

### Interest on working capital

19. OPGC has claimed interest on working capital of Rs.13.58 crore for truing up of FY 2016-17 as against Rs. 13.13 Crore approved by the Commission. The Commission approval and OPGC claim for truing up of interest on working capital for FY 2016-17 are given in the table below:

**Table - 2**  
**Truing up of Interest on working capital for FY 2016-17 (Rs. Crs.)**

Particulars	Norms	FY 2016-17		
		Approved in Tariff Order	Claimed for Truing up	Rationale for truing up claim
Cost of Coal	1 Month	27.78	27.78	<i>As approved in the Tariff Order</i>
Cost of Secondary Fuel Oil	1 Month	0.87	0.87	<i>As approved in the Tariff Order</i>
O&M expenses	1 Month	9.63	10.14	<i>Normative O&amp;M expenses as approved in the Tariff Order plus water charges</i>
Maintenance spares	20% of O&M	23.10	24.34	<i>Normative O&amp;M expenses as approved in the Tariff Order plus water charges</i>
Receivables	1 Month	45.37	47.29	<i>Based on the truing up</i>

Particulars	Norms	FY 2016-17		
		Approved in Tariff Order	Claimed for Truing up	Rationale for truing up claim
				<i>claim of AFC</i>
<b>Total Working Capital Requirements</b>		<b>106.75</b>	<b>110.43</b>	
Interest rate		12.30%	12.30%	<i>SBI Base Rate + 300 basis points</i>
<b>Interest on working capital</b>		<b>13.13</b>	<b>13.58</b>	

#### Operation and maintenance (O&M) expenses

20. OPGC has proposed that, the O&M expenses of **Rs. 115.50 Crore** as approved by the Commission for FY 2016-17, has been considered for truing up of same year.

#### Annual fixed cost for Truing up of FY 2016-17

21. Based on the aforesaid proposal, OPGC has requested for truing up of additional Annual Fixed Cost of Rs. 16.86 crore over and above the Commission approval of Rs.200.63 crore for FY 2016-17. The details of Commission approval and OPGC proposal for truing up of FY 2016-17 is given in the table below:

**Table - 3**  
**Truing up of Annual Fixed Cost for FY 2016-17 (Rs. Crs.)**

Particulars	OERC Approved for FY 2016-17	OPGC Claimed for Truing up for FY 2016-17
Return on Equity	72.00	73.38
Interest on loan capital	0.00	11.59
Depreciation	0.00	3.44
Interest on working capital	13.13	13.58
O&M expenses	115.50	115.50
<b>Total AFC</b>	<b>200.63</b>	<b>217.49</b>
<b>Under recovery</b>		<b>16.86</b>

#### Electricity Duty

22. OPGC claimed that during FY 2016-17 an amount of Rs.10.09 crore has been paid as electricity duties against which they have billed Rs.8.02 crore to GRIDCO. Therefore, OPGC has requested that the differential amounts of Rs. 2.07 crore be trued up for FY 2016-17.

#### Income tax

23. OPGC has submitted that the Commissions had approved Income Tax of Rs.37.07 crore @ 33.99% on Return on Equity of Rs.72 Crore during FY 2016-17. Considering the

OPGC proposed Return on Equity of Rs.73.38 crore and actual Income Tax rate @ 34.61%, it has requested to true up differential amount of Income tax to the tune of Rs.1.76 crore for FY 2016-17.

#### **Auxiliary Consumption**

24. OPGC has claimed for truing up of Rs 2.47 crore for FY 2016-17 towards impact of revised auxiliary consumption on energy charges in accordance with the Commission's Order dated 23.10.2017 in Case No. 35 of 2017 on the Review Petition filed by OPGC on the Tariff Order FY 2017-18. Further in addition to this, OPGC has requested the Commission to true up Rs.0.78 crore towards differential incentives on accounts of additional 0.5% auxiliary consumption during FY 2016-17.
25. Along with additional Annual fixed Cost and other impact as mentioned above, OPGC has proposed Rs. 23.94 crore towards total truing up impact for FY 2016-17. In addition to this, the petitioner has calculated and proposed the cumulative carrying cost of Rs.5.43 crore for the period of FY 2016-17 to FY 2018-19. The above carrying cost has been calculated on the proposed total truing up amounts for FY 2016-17 and by considering the Commission's approved interest rate for working capital requirements i.e., @ 12.30 % and 11.00% for FY 2016-17 and FY 2017-18 respectively and has proposed @ 10.95% for FY 2018-19. Altogether OPGC has proposed and claimed Rs. 29.37 crore under truing up for FY 2016-17. OPGC has requested the Commission to approve the truing up of its account for FY 2016-17 along with carrying cost. The same is given in the table below

**Table 4:  
Total impact of truing up for FY 2016-17 including Carrying Cost**

<b>Particulars</b>	<b>Rs Crs.</b>
Under-recovery of AFC	16.86
Under-recovery of ED	2.07
Under-recovery of income tax	1.76
Impact of Revised Auxiliary Consumption on Energy Charge	2.47
Difference in Incentive entitlement and Incentive billed during FY 2016-17 on account of additional 0.5% Auxiliary consumption	0.78
<b>Total Truing up (A)</b>	<b>23.94</b>
<b>Add: Carrying Cost</b>	
<i>FY 2016-17 (@12.30% on Rs.23.95 Cr X 50%)</i>	<i>1.47</i>
<i>FY 2017-18 (@11.00% on Rs.23.95 Cr X 100%)</i>	<i>2.64</i>
<i>FY 2018-19 (@10.95% on Rs.23.95 Cr X 50%)</i>	<i>1.32</i>
<b>Total Carrying Cost (B)</b>	<b>5.43</b>
<b>Grand Total (A+B)</b>	<b>29.37</b>



## **Generation Tariff Proposal for FY 2018-19**

26. OPGC has proposed the Generation Tariff for FY 2018-19 as per the OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014. In accordance with the said Regulation 4.3 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 and additional capitalization**

27. OPGC has proposed the closing capital cost for FY 2016-17 as opening capital cost for FY 2017-18. In addition to this, it has proposed Rs. 50.37 Crore for FY 2017-18 and Rs. 55.99 Crore for FY 2018-19 as additional capitalization to be incurred under the provision of OERC Regulations 3.4(b) and 3.4 (d) of the OERC Generation tariff Regulations, 2014

28. OPGC has submitted that the proposed additional capitalization for FY 2017-18 and FY 2018-19 are to be incurred towards compliance to the Change in Law and some other works have become necessary for efficient and successful operation of the generating station. OPGC has requested the Commission to approve the additional capitalisation claimed for FY 2017-18 and FY 2018-19 under the provisions of Regulation 3.4 (b) and (d) of the OERC Generation Tariff Regulations, 2014. The details of additional capitalization are given below.

**Table - 5**  
**Capital cost for FY 2018-19 (Rs. Crs.)**

<b>Particulars</b>	<b>FY 2017-18</b>	<b>FY 2018-19</b>
Opening capital cost	1099.86	1150.23
Additional capitalisation	50.37	55.99
Closing capital cost	1150.23	1206.22

### **Debt – Equity Ratio**

29. OPGC has proposed the debt-equity ratio as 70:30 for additional capitalization. The closing balances of gross loan and equity claimed for truing up of FY 2016-17 have been considered as the opening balances for FY 2017-18. The closing balances of gross loan and equity of FY 2017-18, after considering additional capitalization during FY 2017-18,

have been considered as the opening balances for FY 2018-19. The total debt-equity claimed by OPGC for FY 2018-19 is shown in the table below.

**Table - 6**  
**Debt-Equity for FY 2018-19 (Rs. Crs.)**

Particulars	FY 2018-19		
	Debt	Equity	Total
<b>Original Approved Project Cost</b>	<b>610.00</b>	<b>450.00</b>	<b>1060.00</b>
<b>Debt Equity as on 31.03.2017</b>	<b>27.90</b>	<b>461.96</b>	<b>489.86</b>
Proposed to add during FY 2017-18	35.26	15.11	<b>50.37</b>
<b>Debt Equity as on 31.03.2018</b>	<b>63.16</b>	<b>477.07</b>	<b>540.23</b>
Proposed to add during FY 2018-19	39.19	16.80	<b>55.99</b>
<b>Debt Equity as on 31.03.2019</b>	<b>102.35</b>	<b>493.87</b>	<b>596.22</b>

#### **Return on Equity**

30. Based on the equity capital projected by OPGC for FY 2017-18 on account of additional capitalisation, it has proposed return on equity @ 16% of the projected average equity capital of FY 2018-19. Accordingly, OPGC has claimed Rs. 77.67 Crore as return on equity for FY 2018-19.

#### **Interest on Loan Capital**

31. OPGC has proposed interest on normative loan on the additional capitalisation during FY 2015-16 and FY 2016-17 and projected additional capitalisation to be incurred during FY 2017-18 and FY 2018-19. Further it has proposed to consider the normative loan repayment equal to depreciation considered for each year. OPGC has proposed rate of interest @ 10.55% which is equivalent to the weighted average rate of interest of the generating company as a whole on the ongoing loan availed from PFC and REC for Units 3 &4 which are under construction. Accordingly, it has claimed interest of Rs. 6.54 crore on average normative loan balance for FY 2018-19. The details are given below.

**Table - 7**  
**Interest on loan for FY 2018-19 (Rs. Crs.)**

Particulars	Amounts	Amounts
<b>Projected normative loan as on 31.03.2017</b>		<b>27.90</b>
Projected normative loan to be added in FY 2017-18		35.26
Repayment equal to Depreciation during		
FY 2015-16	1.46	
FY 2016-17	3.44	
FY 2017-18	8.48	13.38
<b>Projected normative loan as on 31.03.2018</b>		<b>49.78</b>
Projected normative loan to be added in FY 2018-19		39.19
Repayment equal to Depreciation during FY 2018-19		14.78
<b>Projected normative loan as on 31.03.2019</b>		<b>74.19</b>
<b>Average normative Loan balance for FY 2018-19</b>		<b>61.99</b>
<b>Interest on normative loan balance @ 10.55%</b>		<b>6.54</b>

## Depreciation

32. OPGC has proposed to consider depreciation on the assets capitalised from FY 2015-16 onwards by equally spreading over remaining life of project as per PPA i.e upto FY 2015-26. Accordingly depreciation claimed by OPGC for FY 2018-19 is Rs. 14.78 Crore.

## Interest on Working Capital

33. OPGC has projected working capital requirement for FY 2018-19 in accordance with the OERC Generation Tariff Regulations, 2014. For computing Interest on working capital, it has proposed rate of interest @10.95% considering the prevailing MCLR of 7.95% (One Year Tenure) plus 300 basis points. Accordingly, OPGC has claimed interest on working capital of Rs. 13.87 Crore for FY 2018-19. The details are given in table below.

**Table - 8**  
**Proposed interest on working capital for FY 2018-19 (Rs. Crs.)**

Particulars	Norms	Amount
Cost of Coal	1 Month	32.41
Cost of Secondary Fuel Oil	1 Month	1.08
O&M expenses	1 Month	11.42
Maintenance spares	20% of O&M	27.42
Receivables	1 Month	54.32
<b>Total Working Capital Requirements</b>		<b>126.65</b>
Rate of Interest	(%)	10.95
<b>Interest on working capital</b>		<b>13.87</b>

## O&M Expenses

34. In accordance with Regulation 4.28 (a) and (b) of the OERC Generation Tariff Regulations, 2014, OPGC has proposed @ Rs.30.51 lakh/MW as normative O&M expenses and @ Rs.0.65 lakh/MW as special compensation allowance for the projects that have completed 20 years of useful life respectively. Accordingly O& M expenses claimed by OPGC for FY 2018-19 is Rs. 130.87 Crore.

## Summary of Annual Fixed Cost

35. Based on the above components of annual fixed cost estimations, OPGC has proposed Annual Fixed Cost of Rs.243.73 Crore for FY 2018-19. The details are given in the table below:

**Table - 9**  
**OPGC Proposed Annual Fixed Cost for FY 2018-19 (Rs. Crs.)**

Particulars	Amount
Return on Equity	77.67
Interest on loan capital	6.54
Depreciation	14.78
Interest on working capital	13.87
O&M expenses	130.87
<b>Total</b>	<b>243.73</b>

## Norms of Operation

36. OPGC has proposed the operational norms in accordance with the OERC Generation Tariff Regulations, 2014 for determination of its generation tariff for FY 2018-19. Details of these norms are given in table below.

**Table - 10**  
**OPGC proposed Operational Norms for FY 2018-19**

Particulars	Unit	Norms
Normative Annual Plant Availability Factor	%	85%
Normative Annual Plant Load Factor	%	85%
Gross Station Heat Rate	(Kcal/Kwh)	2450
Secondary fuel oil consumption	ml/Kwh)	1.00
Auxiliary consumption	%	9.00

## Fuel Prices & GCV

37. OPGC in its initial tariff application has proposed the price of coal and secondary fuel oil for FY 2018-19 to be Rs.1368.91/MT and Rs41390/KL respectively. It has claimed that in accordance with the Regulation 4.25 of OERC Generation Tariff Regulations, 2014, this has been estimated by considering the actual weighted average price of coal and secondary fuel oil for the period August, 2017 to October, 2017. Subsequently by an additional submission on dated 05.02.2018, it has again proposed the price of coal @ 1491.08/MT by stating revision of price by CIL vide its notification dated 08.01.2018. However, the Gross Calorific Value (GCV) of coal has been proposed by considering the weighted average GCV of coal for the period from November 2016 to October 2017 to avoid seasonal variation. Accordingly it has proposed before the commission to consider as fired of GCV of coal @ 2685.41 kCal/kg and GCV of Secondary fuel oil @ 10000 Kcal/Ltr.

## Computation of Energy Charges

38. Based on the operational norms and price and GCV of Coal and secondary fuel oil as mentioned above, OPGC has proposed energy charges @ Rs.1.41/ Kwh for FY 2018-19. The details are given in table below.

**Table - 11**  
**OPGC Proposed Energy Charge for FY 2018-19**

Particulars	Units	Value
Gross Generation	MU	3127.32
Auxiliary Consumption	%	9.00%
Generation after Aux. Cons.	MU	2845.86
Gross Station Heat Rate	kcal/kwh	2450.00
GCV of Coal	kcal/kg	2685.41
GCV of Oil	kcal/Ltr.	10000

Particulars	Units	Value
Specific coal consumption	kg/kwh	0.97
Specific oil consumption	ml/kwh	1.00
Price of Coal	Rs./MT	1368.91
Price of secondary fuel oil	Rs./KL	41390
Variable Charge for Coal	Rs./kwh	1.37
Variable Charge for Oil	Rs./kwh	0.05
<b>Energy Charge</b>	<b>Rs./kwh</b>	<b>1.41</b>

### Other Charges

39. Apart from the Annual Fixed Cost and Energy Charges, OPGC has requested the Commission to provisionally approve other charges and expenses of Rs.62.39 crore for FY 2018-19 which comprises of Electricity duty, water cess and charges, tax and cess on land, SOC and MOC for SLDC, EPRC charges, Income tax and recovery of ARR and tariff petition fees and publication expenses. The details are given in table below.

**Table - 12**  
**OPGC proposed Other Charges for 2018-19**

S. No.	Particulars	Rs. Crs.	
1	Electricity Duty	15.48	Rs.0.55/kwh on 9% Auxiliary Consumption of generation at 85% PLF
2	Water Cess and Water Charges	6.21	Actual of FY 2016-17
3	Tax and Cess on Land	0.18	Actual of FY 2016-17
4	SOC and MOC for SLDC	0.33	Same amounts as approved for FY 2017-18
5	ERPC Charges	0.16	Actual of FY 2016-17
6	Income Tax*	39.73	@34.61% of RoE Claimed
7	Recovery of ARR & Tariff Petition Fees & publication expenses	0.30	Tariff petition fees & publication expenses
	<b>Total</b>	<b>62.39</b>	

\* Subsequently, Rs.41.11 crore claimed while replying Commission's queries.

### Incentive

40. OPGC requested before the Commission to allow incentives, if OPGC achieves excess schedule generation (kWh) over energy generation as per NAPLF @ 85% as specified in Regulations 6.9 and 6.10 of the OERC Generation Tariff Regulations, 2014.

### Year end Adjustment

41. OPGC has requested the Commission to approve the recovery of upward or downward variation in Capacity Charge, Energy Charge, Incentive and Other Charges at the end of the FY 2018-19 in accordance with the Regulations 6.3 of OERC Generation Tariff Regulations, 2014.

**Impact of Review order dated October 23, 2017 in Case No. 35 of 2017 for FY 2017-18**

42. OPGC has requested before the Commission to allow the recovery of additional impact in Capacity Charge, Energy Charge and Incentive on account of extra 0.5% Auxiliary Consumption for induced draft cooling tower considered in OPGC review order dated October 23, 2017 in Case no 35 of 2017 for FY 2017-18 along with monthly energy bill to be raised for the month of March 2018.

**Summary of Generation Tariff proposed by OPGC for FY 2018-19**

43. Summary of Generation Tariff proposed by OPGC for FY 2018-19 is given in table below.

**Table - 13**  
**OPGC proposed Generation Tariff for 2018-19**

Sr. No.	Particulars	FY 2018-19	
		Rs. Crs.	Rs./kwh
1.	Annual Fixed Cost	243.73	0.86
2.	Energy Charges	401.92	1.41
3.	<b>Tariff for Sale of Power</b>	<b>645.65</b>	<b>2.27</b>

44. OPGC has prayed the Commission to approve the truing up of FY 2016-17 along with carrying cost, impact of review order for FY 2017-18 in Case No. 35 of 2017 and recovery of generation tariff (i.e. Annual Fixed Charges and Energy Charges) for FY 2018-19 as mentioned in the above from GRIDCO as per the terms and conditions of OERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2014. Further, OPGC has prayed to approve other charges to be recovered from GRIDCO paid on actual basis during FY 2018-19.

**VIEWS OF THE OBJECTORS ON THE GENERATION TARIFF PROPOSAL OF OPGC FOR FY 2017-18 (PARA 45 TO 108)**

All the objectors mentioned at Para 8 expressed their views on the following issues.

**Truing up for FY 2016-17**

45. Some objectors including GRIDCO submitted that the additional expenditure of Rs. 17.82 cr and Rs. 22.04 cr claimed for FY 2015-16 and 2016-17 after cut-off date as per the clause 3.4(d) of OERC Tariff Regulations, 2014, have never been informed through cost benefit analysis to GRIDCO till this application was filed by OPGC. On scrutiny of different item, it is found that all items do not qualify under clause 3.4(d) which stipulate for additional work/services which have become necessary for efficient and successful

- operation of a generating station. Instead, such expenditures could have been met from the normative O & M expenditure allowed by the Commission. Also GRIDCO submitted that such expenditures have not been justified by OPGC against each of the item.
46. Further, some objectors including GRIDCO opined that, OPGC has never carried out any renovation and modernization work at appropriate time which could have further enhanced its operational efficiency and made the plant healthier. The useful life of the plant would have been further extended beyond 2026. Instead, OPGC is incurring additional expenditures which will adversely affect the tariff structure of an already depreciated thermal plant. Therefore, the Commission may consider to carry out truing up exercise prudently, in view of useful life of 6 years left out for the thermal plant.
  47. Some objectors pointed out that as per the regulations, the equity for calculation of RoE should be Rs 318 crore (@ 30% of the approved project cost of Rs 1060 crore instead of Rs 450 crore. Further loan component of Rs 610 Crores of OPGC have been fully repaid by 31<sup>st</sup> March 2012, the claim regarding reimbursement of guarantee fee of Rs 9.77 Crores paid to Govt may not be allowed by the Commission as a direct reimbursement under truing up exercise.
  48. GRIDCO pointed out that OPGC has submitted that the additional expenditures have been funded by the internal resources. Also, all the old loans have already been repaid and no outstanding loan is existing. In this context, the rate of interest of normative loan on account of additional expenditure may be decided appropriately.
  49. As per provision at Clause 4.28(d) of OERC Tariff Regulation, 2014, O & M norms for the existing plant of OPGC will be determined by the Commission from time to time. Further, special compensation allowance was allowed to OPGC, though the same was not prayed by OPGC. Therefore, according to GRIDCO, during truing up exercise the special compensation allowance may be withdrawn.
  50. In case of interest on working capital, GRIDCO submitted that the claim of O & M expenses for one-month maintenance spare along with water charges may not be allowed and the figures as approved vide tariff order dated 21.3.2016 may be kept in truing of exercise.
  51. It is of the opinion of an objector that before allowing auxiliary consumption at 9% instead of 8.5%, as allowed earlier, OPGC needs to submit the details of auxiliary consumption and convince the Commission about the same.

52. There is a huge difference in GCV between billed end and generating end which gives rise to suspicion. It is submitted by an objector that while truing up for FY 2016-17, the Commission must allow a certain loss of GCV during transit for a pit head station from grade of coal used and ECR to be trued up accordingly.
53. GRIDCO submitted that there had been grade slippage in the GCV of coal utilized for generation of power in comparison to declared grade of G13 for FY2016-17. So, the Commission may consider the GCV of linkage coal as the base limit of grade of GCV of coal declared by MCL or actual, whichever is higher while truing up the energy charge rate.
54. For calculation base energy charge rate for FY 2017-18, the Commission considered lower limit of the grade of GCV of coal as submitted by OPGC instead of the actual GCV, considered for base ECR for FY 2016-17. Therefore, the Commission may kindly consider the declared grade of GCV of coal for FY 2016-17.
55. GRIDCO submitted that, third party sampling of coal at billing end is being done jointly by MCL and OPGC through CIMFER since December 2016. In spite of its request the said report has not been submitted to them. OPGC has been paid an amount of Rs. 110.75 Crore towards annual fuel price adjustment claim for FY 2016-17, of which the major percentage of amount was on account of differential rate paid on account of actual GCV and landed price of coal. GRIDCO had to pay 38 paise / unit on an average over and above the base price of 120.15 paise / unit. Presently, the case no. 43 of 2017 in the matter of GCV of coal and ECR is sub-judice. Therefore, GRIDCO requested that the Commission may give necessary direction for determination of actual ECR in view of grade slippage in GCV of coal during FY 2016-17.
56. One of the objectors stated that the truing up of Petition for 2016-17 expects the Commission to pass through some expenses and it does not state about the actual power generation and actual power sale to GRIDCO as per the audited Standalone Financial Statement disclosed in this application for 2016-17. It ignores the benefits it derives from other expenditure incurred by OPGC for FY 2016-17 as per audited Balance Sheet & Profit & Loss Account. Further OPGC must state the reasons of not disclosure of the benefit of 107.56 MU derived from actual power generation of 3234.88 MU as disclosed in audited financial statement as against the Commission's approval of 3127.32 MU for FY 2016-17.



57. GRIDCO submitted that the under recovery of Income Tax may be considered as per the truing up of equity component in respect of OPGC. Also, the under recovery of incentive, electricity duty and energy charge rate on account of consideration of auxiliary energy consumption of 9%, instead of 8.5%, may be considered after prudent verification without carrying cost.
58. Objector pointed out that OPGC has missed out to state the data related to expenditure relating to Total Annual Fixed Cost, Total Energy Charges & the Capacity/ Energy Charges per unit in Tabular Format as per Table No. 17 of Generation Tariff Order of OERC for FY 2016-17. In the absence of such presentation from OPGC side, it is very difficult to true up the Generation Tariff of OPGC for FY 2016-17.
59. GRIDCO submitted that OPGC filed the tariff application for FY 2016-17 by cherry picking the provisions of power purchase agreement dated 13.8.1996 and Government notification dated 21.6.2009 as well as the provisions of OERC Tariff Regulations, 2014. The Commission vide its order dated 21.3.2016 determined the tariff as per its Regulations, which was challenged by OPGC before the Hon'ble APTEL. GRIDCO submitted before the Hon'ble APTEL that the tariff of OPGC may be determined either as per provisions of PPA or as per Regulations, as OPGC digressed from the provisions of the PPA while filing the tariff application for FY 2016-17.
60. The Hon'ble APTEL pronounced the final order dated 6.4.2017, ratifying the stand of OERC to determine the tariff of OPGC as per the relevant Regulations in force. Consequently, OPGC has preferred Civil Appeal No. 9485 of 2017 before the Hon'ble Apex Court challenging the judgment of the Hon'ble APTEL and the matter is sub-judice at present.
61. GRIDCO submitted that the truing up exercise for FY 2016-17 shall be as per provisions under Regulations 2.12 and other relevant provisions of the Regulations.

#### **Generation tariff for FY 2018-19**

##### **Capital cost**

62. Objectors submitted that while determining the Capital Cost for FY 2017-18 the Commission should do prudent verification while truing up for FY 2016-17 and also cost benefit analysis needs to be submitted by OPGC for additional capitalization since useful life of the plant will be over by 2026.

### **GRIDCO's view regarding additional capitalization**

63. Based on the truing up application for FY 2016-17, a capital cost may be considered for FY 2017-18 after prudent verification. The cost benefit analysis of proposed additional expenditure of Rs. 50.37 cr has not been submitted by OPGC, which is required for accessing the requirement of each of the expenditure and its impact on tariff, so the same may not be allowed during present tariff determination process unless OPGC submits detailed cost benefit analysis.
64. The estimated additional capitalization of Rs. 55.99 cr during FY 2018-19 is not acceptable to the GRIDCO at this stage. The Commission may consider to take prudent view in backdrop of the fact that any additional investment by OPGC through debt is difficult to be recovered through a normally escalated tariff within the limited remaining useful life of the plant, till 2026. Therefore, any further additional capitalization allowed during short period of remaining life may lead to a surge in tariff of power procured from OPGC by GRIDCO and which will be ultimately passed on to the consumers of the state.
65. If substantial amount of additional capitalization is considered for efficient operation, then OPGC is requested to come up with a separate detailed application for renovation and modernization with the proposal of life extension. In this way benefit can be derived both by the generator and consumer for an extended period of useful life of thermal plant, which is presently operating just above the normative plant load factor.
66. OPGC has not submitted sufficient justification in support of the provisions of regulation 3.4(b) and (d) of OERC tariff regulation, 2014 under which the additional capitalization has been claimed and therefore, the figure mentioned by OPGC are not acceptable to GRIDCO.

### **Debt and equity**

67. GRIDCO requested to consider its submissions regarding additional capitalization while arriving at appropriate debt and equity component for determination of tariff for FY 2018-19.
68. GRIDCO requested that equity component may be prudently verified and considered in truing up exercise for FY 2016-17 as per the provisions of the regulation which shall be the base for opening equity for FY 2017-18 and FY 2018-19.
69. The Commission may decide upon the loan component allowable to the OPGC mainly on account of additional capitalization. Further, the rate of interest of 10.55% is not

acceptable to GRIDCO because it is the weighted average rate of interest of the generating company as a whole. This may be scrutinized by the Commission, if at all any loan component is considered in tariff determination.

### **Depreciation**

70. GRIDCO submitted that OPGC had not claimed any amount under depreciation head in its tariff application for FY 2017-18 and the Commission had not allowed any amount under depreciation. However, the present claim of depreciation arises only if additional capitalization claimed by OPGC is considered to be allowed from FY 2015-16 onwards.

### **Interest on working capital**

71. GRIDCO requested the Commission to consider the following points in case of determination of the interest on working capital as per the provisions under clause 4.24 and 4.25 of the tariff regulations.
- (a) The cost of coal for one month may be determined based on the GCV and landed price of linkage coal, keeping in view the grade of GCV supplied by the supplier. The GCV of coal may be considered as per the final outcome of case no. 43 of 2017.
  - (b) The O & M expenses for one month may be considered as per provisions under 4.28(d) of tariff regulation.
  - (c) Water charges may not be considered as it is not a component of working capital.
  - (d) Cost of oil may be considered taking into account the actual specific fuel oil consumption by the OPGC instead of normative, if actual is lower than the normative.

### **O&M cost**

72. GRIDCO pointed out that as per Regulation 4.28(d), O & M norms for the existing plants of OPGC will be determined by the Commission. Hence, the audited figures of O & M expenses may be scrutinized.

### **Energy generation and PLF**

73. GRIDCO submitted that the Commission may direct the OPGC to submit the actual norms of operation in respect of unit 1 and 2 of OPGC, prior to determination of the operational norms for FY 2018-19.
74. OPGC has proposed PLF reduction but all thermal power stations of the state such as IPPs, and central sector NTPC projects are now generating at more than 85 to 90% PLF.

Objector requested the Commission to pass order by directing OPGC to be functional with more than 85% PLF.

75. One of the objectors requested OPGC to clarify why they are not able to cross PLF above 90% as PLF for age old TTPS is 93.61% and OPGC has projected PLF of 87.02% for FY 2018-19.

### **Auxiliary Consumption**

76. Objectors raised that, OPGC proposed auxiliary consumption at the rate of 9.0% whereas central thermal power stations like NTPC achieve auxiliary consumption of as low as 5.5% and so, auxiliary consumption needs to be considered prudently by the Commission.
77. One of the objectors submitted that the auxiliary consumption to be allowed is maximum 9 % or actual whichever is lower.
78. OPGC has claimed the auxiliary consumption of 9% in its tariff application for FY 2018-19. GRIDCO submitted that the auxiliary consumption for FY 2017-18 may be scrutinized by comparing the actual figure as per clause 5.3 (e) (ii) of OERC Tariff Regulations, 2014.

### **Fuel Consumption and Cost**

79. OPGC proposed coal consumption per unit (kg/kWh) as 0.91 in instant petition but in previous petition, for FY 2017-18, it was 0.94 kg/kWh. OPGC needs to comply the variance. Similarly, oil consumption (ML/kWh) is 1 ML/kWh in instant petition but in previous petition it was 3.5 ML/kWh. OPGC needs to state reason for same.
80. Objectors pointed out that the specific oil consumption to be allowed is 0.5 ml as their actual specific oil consumption is less.
81. Another objector stated that oil price proposed by OPGC is Rs 41,390.00 /KL in instant petition but in previous petition it was Rs 29649.64/KL. Also total oil consumption stated by OPGC is 3127 KL in instant petition but in previous petition for FY 2017-18 it was 10695.80 KL. OPGC is urged upon to state the reason behind such huge variance in oil consumption.
82. One of the objectors pointed out that the Cost of Coal per MT stated by OPGC in the instant Petition is Rs 1368.91 per MT whereas in previous petition it had stated Rs 1645.04 per MT. OPGC has to state the reason for inflated coal cost by Rs. 276.13 per MT in the previous petition of FY 2017-18.

83. Objectors submitted that OPGC has not submitted the Invoices/Bills, grade of coal, relating to purchase of Coal from MCL and so they are unable to analyze “the receive” GCV, “the billed” GCV of coal, a parameter for determination of generation tariff as per regulation, 2014. Also, tax / cess / contribution to funds / royalties paid by the consumers on account of purchase of coal from MCL cannot be ascertained without details of bills. Even the OPGC does not state anything about the mines from which it procures coal.
84. The fired value of coal as stated in the instant petition is 2685.41 Kcal/Kg which is applicable for G-16 Grade coal as notified by Coal India Limited dated 29<sup>th</sup> May 2016. This poor quality of coal is neither available in Orissa nor is produced by MCL. The data of production of coal by MCL in October 2017 reveals that MCL produced the coal grades ranging from G-7 to G-14. So the coal GCV of 2685, G-16 grade, is not produced by MCL.
85. One of the objector submitted that CERC considers the “as received” GCV of coal which is equivalent to “as billed” GCV of coal for pit head stations. OPGC has tried to mislead by denying in the fact that billed value or received value of coal does not applicable to generating stations. Subsequently, the Delhi High Court also ordered in favour of CERC for consideration of “as billed” GCV of coal. So, the objector urged to consider the “as billed” and “as received” GCV of coal consumed by OPGC while determining the generation tariff of OPGC in light of tariff order of TSTPP by CERC dated 16<sup>th</sup> Feb 2017 and 31<sup>st</sup> Aug 2017.
86. The OPGC has benefited from revision of Grade of Coal and GCV value of Coal value by MCL for the FY 2017-18 and has to state the benefits it accrues from such degradation of coal vide notification dated 7<sup>th</sup> April 2017. The grade slippage matter can be referred to CMPDIL and it was requested to the Commission to ask OPGC about their course of action in this matter.
87. One of the objectors submitted that OPGC in the instant application has proposed coal consumption of 2.87 Million Tonnes (MTPA) @ Rs 1368.91 Per Tonne for ensuing FY 2018-19 which is very high as national standard regulated by CERC. The proposed requirement of Coal for ITPS of OPGC is very high in comparison to TTPS and TSTPP of NTPC Ltd located in Odisha. The objector has calculated the annual coal requirement of OPGC as 1.73 MTPA by considering the coal consumption approved by CERC for 2000 MW TSTPP. The objector requested to the Commission to take a pragmatic view on the coal consumption and determine the coal consumption of OPGC.

88. Revised Price notification of coal dated on 9th January 2018 says that the Pithead Run of Mine(ROM) prices of all grades of non-coking coal produced by Coal Companies of Coal India Private Limited are being revised. The said Notification clears that price of some grades of coal have increased while some have decreased. Commission has to take into record the notification before determination of generation tariff of OPGC.
89. OPGC is receiving Grade 14 Coal from MCL by MGR for a distance of 11 km where GCV ranges b/w 3100- 3400 Kcal/Kg for FY 2017-18. GRIDCO accepts the GCV in Kcal/Kg on “As Fired” basis which is 2650 at a loss of 650 Kcal/Kg for a distance of 11 km which is not acceptable to the objector.
90. GRIDCO submitted that the actual price and GCV of coal and oil for last three months may be considered. The Commission may also consider the joint third party sampling of coal report done by CIMFER at billing end for FY 2017-18 vis-à-vis grade of coal supply declared by MCL. The Commission may consider the GCV of coal in respect of OPGC in view of final order in case no. 43 of 2017 and amply clarify the GCV matter so as to avoid any case of dispute.
91. GRIDCO has also submitted that OPGC may be directed to furnish joint third party sampling of coal report at billing end along with monthly energy bill.
92. OPGC has not submitted the details of GCV and price of oil utilized for generation of power and therefore, GRIDCO requested that OPGC may furnish the consolidated statement regarding the same for FY 2017-18.
93. One of the objectors pointed out that OPGC has admitted before the Commission about dissatisfaction which is the result of third party sampling by CIMFR but has never objected in writing to MCL.

### **Generation Tariff**

94. Another issue was that OPGC is including a number of other expenses for determining the fixed cost and these require detailed scrutiny by the Commission.
95. One of the objectors stated that OPGC seeks the Commission’s approval for determining generation tariff of Rs 2.27 p/u for FY 2018-19 which is less by Rs. 0.37 p/u than in FY 2017-18. The major reason behind this is the decrease in proposed energy charges for FY 2018-19 by Rs. 101.13 Crore. The reasons for decrease have to be analyzed.
96. Objectors urged that while determining the generation tariff of FY 2018-19 of OPGC the Commission is humbly requested to consider the clauses 61(c), (d), (e) of EA-2003.

97. Another submission was the Commission may determine the generation tariff for power generated by OPGC based on the norms as specified in OERC regulations, 2014.

**Other charges**

98. GRIDCO has actually paid Rs. 16.32 cr to OPGC during FY 2017-18 (up to Dec 17) for other charges like electricity duty, water cess and water charges, SOC and MOC, ERPC charges and income tax. The Commission may allow the other charges accordingly and income tax may be allowed based on the provision under clause 4.7 and 4.8 of Tariff Regulations.

**Other Issues**

99. One of the objectors submitted that the matter of OPGC so passed by the Commission has been confirmed by the Hon'ble ATE and licensee is to act accordingly.
100. An objector submitted that OPGC has not come forward to the Commission for rest of the units, which needs to be augmented. So also the past profits so accrued needs to be invested in the units and for its up-gradation.
101. OPGC should be directed to have proper working and arrange funds of its own or from the state instead of depending upon the tariff.
102. One of the objector submitted that the applicant on behalf of OPGC acquainted with engineering and lacks expertise and competency in accountancy and commerce to file ARR and tariff application and that cannot be considered as true. So, the submission of OPGC that the statements and facts of the applications are not true because of the illegal, untruth declaration and incompetency of the applicant. Therefore, the Commission may revoke under Sections 94 & 95 of the Electricity Act, 2003 for penal action as assigned by law.
103. 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.
104. Objector requested the Commission to direct to OPGC to produce
- (i) The number of the force outage & reason for such in FY 2016-17 and since July 2017.
  - (ii) Month wise cash flow statement showing sources of inflow and outflow of cash from the FY 2010-11 to 2017-18.

- (iii) Detail 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 has 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, 2016-17, and 2017-18 and year wise dividend paid to government since 2000-01 to 2017-18.
  - (vii) The details information relating to share allocation of the joint venture with OHPC i.e. OCPL and other details on the workers working, their salary, grade & other work assigned to the workers working under OCPL.
105. 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 full well PPA is separate and tariff hearing is separate.
106. The instant petition of OPGC reveals the weakness of Teamwork between OPGC, MCL, OPTCL & GRIDCO.
107. Objector has urged before the Commission to implement Multi-Year Tariff(MYT) Principles, a mandate of EA-2003 in determining the tariff, charges, fees etc of various licensees of Odisha.
108. OPGC has moved to the Hon'ble Supreme Court by preferring an Appeal after conceding defeat before the Hon'ble APTEL in the matter of determination of Generation Tariff of OPGC for FY 2016-17 by OERC. Government of Odisha holds 51% share in OPGC. Objector requested OPGC to clarify if it has authority to appeal without consent of Government of Odisha.

#### **VIEWS OF CONSUMER COUNSEL (PARA 109)**

109. WISE, Pune on behalf of the Consumers made a presentation on the Analysis of ARR and tariff filing of OPGC for FY 2018-19. The Consumer Counsel's observations/suggestions are as below:
- a) OPGC has claimed the additional capitalization since FY 2015-16. OPGC claimed majority of capitalization as per Clause 3.4 (d), i.e. which have become necessary for efficient and successful operation of a generating station. OPGC has not submitted any detailed justification regarding necessity of work. Also, some expenditure seems to be O&M in nature, so, those expenditures should be reviewed.



- b) The claim of RoE, interest on loan, and depreciation are linked to proposed additional capitalization; therefore, the additional capitalization claim should be reviewed thoroughly.
- c) Additional capitalization has been claimed for FY 2017-18 and FY 2018-19 under the provisions of Regulation 3.4 (b) and (d) of the 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.
- d) The equity of additional capitalization is considered as 30% of capitalization and RoE is calculated as 16% on proposed equity base for FY 2018-19. The RoE claim should be verified with the approval of 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. The Commission may review the loan details pertaining to the generating company.
- f) In case of one-month O&M expenses in working capital calculation, along with normative O&M expenses water charge are also considered by OPGC. This should 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. The last eight years' actual average O&M expenses is Rs.114.85 crore. These can be considered for calculating the O&M expenses of OPGC.
- h) Now, OPGC proposes the PLF as 85%, as per Regulations. However, the actual PLF for FY 2016-17 was 87.92%. The old plants like TTPS's PLF is more than 90%, although it is an older plant. So, the Commission can appropriately decide the PLF.
- i) In case of GCV of coal, in FY 2017-18 order, the Commission approved the GCV as 3400 kCal/kg; however, OPGC proposes the same as 2685 kCal/kg for FY 2018-19. In Para 114 of last year order the Commission opined that: "OPGC should ensure all quality checks in procurement of coal. GRIDCO should also satisfy itself of the quality of coal and its price against the specified standards. The GCV of coal for which the price is being paid by OPGC should not be less than the minimum of the range of GCV specified in the standard." The same principle should be continued for present tariff determination process also.

- j) The weighted average coal price for FY 16-17 was 1565.60 Rs/ MT and thereafter, it has been continuously decreasing in FY 2017-18. Latest price of coal is Rs 1368.51 / MT as on November 2017. So, the Commission should finalise the price accordingly.
- k) In earlier years, oil was used as a mix of FO and LDO in the ratio of 90:10. This year the proposal is to use LDO only. OPGC should give justification of only LDO use. Also, the cost is very higher compared to earlier years. This should be reviewed also.
- l) Electricity duty is calculated @ Rs 0.55 / kWh on auxiliary consumption of 9%, whereas last year it was Rs 0.30 / kWh. The Commission should review the electricity duty claim as per present rate. Income tax can be approved on the basis of approved RoE, which is again based on equity to be approved by the Commission.

#### **OBSERVATION OF THE STATE ADVISORY COMMITTEE (SAC) (PARA 110)**

110. The Commission convened the State Advisory Committee (SAC) meeting on 20.02.2018 at 10.30 AM. 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 111)**

111. Govt. of Odisha vide their Letter No. ELC-OERC-03/2018/ 2253 dated 12.03.2018 have communicated their views/suggestions on various issues involving tariff setting for FY 2018-19. Govt. has not given any specific views on generation tariff of OPGC for FY 2018-19.

#### **OPGC's RESPONSE TO THE OBJECTORS (PARA 112 TO 149)**

##### **Truing up for FY 2016-17**

112. OPGC submitted that the truing up details of FY 2016-17 has been filed in accordance with clause 2.13 of OERC Generation Tariff Regulations, 2014 and accordingly, the truing up of capital expenditure has been claimed. OPGC has also submitted that the stakeholders failed to mention any specific capital expenditure as being inadmissible and merely made bald averments. The actual additional capital expenditure incurred during a year is allowable in accordance with the provisions of Regulations. Hence, prior intimation to GRIDCO does not arise as the same is not warranted as per Regulations. The list of works for which the additional capitalization has been claimed are of capital in nature. Also, the additional capitalization incurred in FY 2015-16 has been claimed along with justification.

113. OPGC denied the GRIDCO's contention that OPGC has cherry picked the provisions of amended PPA and Regulations. No such finding has been arrived by the Hon'ble APTEL and OPGC had adopted a consistent position and adopted the norms as per the amended PPA.
114. OPGC submitted that renovation and modernization and additional capitalization are fundamentally different and for this reason are accorded separate and distinct treatment under the OERC Generation Tariff Regulations, 2014. The list of works claimed for additional capitalization are not in lieu of the renovation and modernization or not intended to enhance the life. Such works are only for sustained operation compliance to statutory requirements and replacement of the obsolete equipment. The renovation and modernization is required when the performance become uneconomical. Despite being more than 20 years old, the operational performance of OPGC is among the best generating stations in the country. Per unit cost of power procurement from OPGC is significantly lower than all central generating stations, located in Odisha in particular.
115. OPGC strongly refuted the statement of GRIDCO of not carrying out renovation and modernization work at appropriate time which could have further enhanced its operational efficiency and made the plant healthier. Further, the discussion with GRIDCO has been initiated towards renovation and modernization for enhancement of plant life and will be taken up for implementation on receiving concurrence from the respective Boards of OPGC and GRIDCO and approval of OERC.
116. The Commission in its tariff order for FY 2016-17 had approved the debt and equity of Rs 610 Crore and Rs 450 Crore, respectively. Hence the issue of opening base equity for FY 2016-17 has attained finality and cannot be reopened now. Further, OPGC has considered the debt-equity ratio, as already consistently approved, and claimed debt-equity as 70:30 for additional capitalization in tariff calculation although the same has been funded from internal sources. The opening equity base for FY 2016-17 is Rs 455.35 Crore which includes the equity portion of additional capitalization during FY 2015-16.
117. The guarantee fee deposited by the OPGC during loan tenure was based on outstanding as on 1<sup>st</sup> April; however, the Government calculated the same on the basis of total loan amount. Due to this different method, demand notice of Rs 9.77 Crore was raised, although OPGC is not accepting the method. However, it was linked to release of equity to OPGC, and OPGC paid the same as it was beyond the control of OPGC.

118. OPGC has denied to accept the view of GRIDCO that since the loan has already been repaid, guarantee commission related to such loan need not be reimbursed in FY 2016-17. The amount was under reconciliation for long and paid only in FY 2016-17 (although related to earlier years). If OPGC deposited the amount without reconciliation in the concerned year, the same would have been reimbursed by GRIDCO along with portion of guarantee commission already reimbursed. OPGC confirmed that several rounds of discussion evolved in accordance with the June 2003 notification and finally OPGC deposited the amount based on the letter dated 8.2.2017.
119. OPGC has submitted that O&M expenses allowed under the Regulations are inadequate to meet the additional expenditure. The total additional expenditure claimed from FY 2015-16 to FY 2018-19 is Rs 146.22 Crore, i.e. Rs 0.34 Crores / MW. Hence, the apprehension that it may influence the tariff to a large extent is misplaced.
120. OPGC has filed the tariff petition for FY 2016-17 as per amended approved PPA and hence not claimed any special allowance. However, as per Regulations, the Commission approved the special compensation allowance. So, OPGC has prayed for not to disallow the allowance.
121. OPGC has submitted that as per provisions under 4.28 (e), water charges are a part of total O&M expenses allowable to a thermal generating station. Hence water charges should also be included while computing one-month O&M charges and capital spares @20% of O&M expenses for working capital requirement.
122. The Commission has approved the auxiliary consumption as 9% and OPGC claimed the same. The annual average auxiliary consumption of the OPGC plant is 10.3%. OPGC shall be obliged if the Commission is pleased to consider the higher of the actual or the normative auxiliary consumption.
123. The Case No. 43 of 2017 pertains to billing dispute on account of non-implementation of the Commission's tariff order. The present petition has been filed without prejudice to OPGC's rights under law and contentions taken in the said case.
124. As per the Supreme Court order in the case of PTC India Limited vs CERC [(2010) 4 SCC 603], OPGC submitted that when statutory regulations such as Tariff Regulations cover the field, it is not open to any respondents to advance any contentions contrary to the express terms of such regulations. Thus when Regulations 4.33 expressly stipulates the measurement of GCV on an 'as fired' basis, the contentions that GCV should be measured on any other basis is wholly without merit and deserves to reject.

125. The actual generation in FY 2016-17 was higher than that of approved by the Commission and OPGC denied the fact that the incremental energy was generated without any additional expenditure, as submitted by the stakeholder. OPGC has recovered only the allowable charges, in accordance with Regulations, for the actual energy sold to GRIDCO.
126. GRIDCO's submission of truing up of ECR has been rejected by OPGC as it is contrary to settled law and OERC Tariff Regulations, 2014. ECR is not subjected to true up anywhere in the country and true up process is conducted for capital expenditure incurred in tariff period. Hence, any attempts to re-open the settled payments of ECR in previous years ought to be summarily rejected as not maintainable in law.
127. OPGC has expressed that it is a well settled principle that carrying cost is admissible on the truing up amount for a particular year on account of time difference between the year for which such entitlement pertains to and the year in which the recovery is allowed.
128. OPGC has also submitted that imported power from grid would be settled on net basis, every month, in accordance with the practice being followed as per the approved PPA.

#### **Generation tariff for FY 2018-19**

129. OPGC has submitted that the present petition has been filed according to the OERC Tariff Regulations, 2014. The instant petition is being filed without prejudice of OPGC's right under law and its contentions taken in civil appeal no 9485 of 2017 before the Supreme Court in respect of the applicability of terms and conditions of tariff set out in the amended PPA.
130. OPGC has denied the fact that the number of other expenses are part of fixed cost and claimed the capital cost as per Regulations.
131. OPGC has submitted that disallowance of additional capitalization at the time of tariff determination puts financial stress on OPGC as the recovery of the same would be deferred by 2 years till the truing up exercise. OPGC requested to allow the same in tariff determination process for FY 2018-19.
132. The interest on loan has been computed by OPGC on the normative average loan for the year by applying the rate of interest.
133. For tariff petition for FY 2016-17 and FY 2017-18, additional capitalization was claimed as reimbursement without claiming depreciation, as per amended PPA. However, as the Commission has adopted Tariff Regulations, now the same is followed by OPGC.

However, the additional capitalization cannot be recovered as per the depreciation rate given in the regulations. So, OPGC has requested to allow the recovery of depreciable value of asset from FY 2015-16 onwards, by equal spread during each year, from the year of capitalization and up to FY 2025-26.

#### **Performance parameters**

134. PLF for FY 2018-19 is projected after considering the outages. Comparison with other power stations would lead to distorting the facts. Also, the PLF of a particular year depends of schedule maintenance outages and other operating conditions beyond control of OPGC.
135. Auxiliary consumption of 9% is taken as per provisions of Regulations. The reference to auxiliary consumption of central generating stations is misplaced as they are governed by separate Regulations of CERC.
136. OPGC has expressed that stakeholders cannot cherry pick the provisions of the Regulations which are beneficial to it. Any scrutiny of actual performance parameters should also take into account key parameters, which are detrimental for estimation of tariff.

#### **O&M expenses**

137. OPGC has submitted that it has claimed normative O&M expenses as per Regulations and no additional expenses has been claimed towards employee cost.

#### **Fuel consumption and fuel cost**

138. OPGC has submitted that the energy charges as proposed for FY 2017-18 is not relevant to this present application and the same was based on the material facts at that point of time. Revisiting the energy charges for FY 2017-18 is not warranted now.
139. OPGC has also submitted that it does not have the choice of sourcing coal from any specific mine of MCL as per the terms of long term linkage.
140. OPGC has submitted that it has coal supply agreement, dated 17 November 2009, with MCL for 20 years for grade of G-13. However, due to depletion of availability of good quality coal, MCL has revised the coal quality to G-14. The price and GCV of coal are beyond the control of OPGC, although the agreement provides compensatory provisions regarding coal quality. OPGC referred a case filed before Competition Commission of India against CIL, dated 9 December 2013, where it was established that the FSA leans towards protecting the interest of Coal Company as against the requirement of coal users.

141. The 'as fired' GCV of coal is the actual value for the coal fired into the boiler and significantly lower than the 'as billed' GCV due to the fact that coal is fired under normal ambient conditions having presence of moisture and other extraneous substances. However, the 'as billed' GCV is higher because coal sample is prepared under laboratory condition to ascertain the grade of coal supplied by CIL/MCL. The GCV as indicated in the price notification is only for billing purposes against the declared coal grade as per the FSA.
142. OPGC has computed the energy charge for estimation of working capital requirement for FY 2018-19 by considering 'as fired' GCV of coal as given in Regulations 4.33.
143. OPGC also has submitted that measuring GCV 'as fired' basis is not only followed by OPGC, but other state and central sector projects including IPPs. CERC considered 'as received' GCV with total moisture compensation to derive ECR. 'As billed' GCV for the purpose of estimating ECR is not followed by any regulator or generator.
144. OPGC has denied the fact that it has accrued huge benefit due to revision of grade of coal. OPGC further clarified that the Regulations allow pass through of any increase or decrease in the energy charge rate on account of change in cost and quality of the fuel.
145. Also the coal requirement of OPGC and its comparison with other power plants, on the basis of installed capacity, is not acceptable to OPGC as the requirement is dependent on different parameters of the power plants.

**Other issues**

146. OPGC has stated that it has submitted all the relevant information in the requisite formats in the petition as well as the queries raised by the Commission.
147. The work of upcoming units 3 and 4 is in progress and OPGC will submit a separate petition for determination of tariff of units 3 and 4 in accordance with the provisions of OERC Tariff Regulations, 2014. OPGC is meeting its obligations towards equity contribution for the upcoming units 3 and 4 from its past profits / reserves and fresh infusion of funds by the stakeholders.
148. OPGC has denied that it seeks any additional funds through tariff for augmentation of the additional units. OPGC has filed the petition for approval of tariff in accordance with the approved amended PPA, Electricity Act 2003 and OERC Tariff Regulations, 2014.
149. OPGC has submitted that the petition has been filed by a company, which is a separate legal entity from an individual. OPGC is empowered to authorize a competent person to

sign any document including the petition. Further, the filing of petition involves inputs from various departments.

OPGC submitted that being a Govt. Company, its books of accounts are audited through C&AG of India.

### **COMMISSION'S OBSERVATIONS AND ANALYSIS OF OPGC'S PROPOSAL (PARA 150 TO 191)**

150. The Commission has been determining Generation Tariff of OPGC since 2016-17 on the basis of OERC (Terms and Conditions for Determination of Generation Tariff) Regulation, 2014.

#### **Truing up for FY 2016-17**

151. In accordance with the Regulation 2.13 of the OERC Generation Tariff Regulations, 2014, OPGC in its proposal has requested the Commission to approve Rs. 23.94 crore as truing up amount for FY 2016-17 and its related carrying cost of Rs.5.43 crore for the period FY 2016-17 to FY 2018-19. Altogether, it has proposed Rs. 29.37 crore towards truing up for FY 2016-17. The details of components of truing up are given below:

#### **Additional Capitalization**

- OPGC has submitted that, it has incurred additional capitalization of Rs. 18.13 Crore and Rs.23.62 crore during FY 2015-16 and FY 2016-17 respectively. Out of which, it has claimed that Rs. 17.82 Crore and Rs.22.04 crore respectively have been incurred during the same period towards efficient and successful operation of the generating station as per OERC Tariff Regulation 3.4(d) and should be considered for truing up of account for FY 2016-17. The rest of the amount has been spent for creation of minor assets which the Petitioner has not claimed. The Commission requires evidential information from OPGC for prudence check and detail scrutiny. During public hearing, almost all the objectors requested the Commission to treat the expenditure on additional capitalization as expenditure on repair and maintenance. Therefore, this matter requires a separate hearing. OPGC may file a separate application in this regard. Since Truing Up of debt-equity ratio, Return on Equity, loan capital, depreciation, interest on working capital, income tax and carrying cost etc. are related to additional capitalization and can be considered once the additional capitalization is approved by the Commission, therefore, Truing Up amount claimed on the Annual Fixed cost for FY 2016-17 is not accepted now.



### **Guarantee Commission**

- Reimbursement of guarantee commission for loan incurred during the period prior to 2016-17 relates to the period when tariff was being guided as per the PPA. Therefore, if it is reimbursed by GRIDCO, the Commission shall appropriately adjust the same in GRIDCO's ARR, if claimed by GRIDCO.

### **Electricity Duty**

- OPGC has claimed that during FY 2016-17, it has paid electricity duty of Rs.10.09 crore against which Rs.8.02 crore has been billed to GRIDCO. It has now requested the Commission to pass on Rs.2.07 crore in ARR since same has not been paid by GRIDCO in terms of reimbursement. The Commission finds that electricity duty is not a truing up item and it can be reimbursed from GRIDCO on actual basis after its payment.

### **Auxiliary Consumption**

- OPGC proposed for truing up of Rs.2.47 crore for FY 2016-17 towards impact of revised auxiliary consumption on energy charges consequent to the Commission's review order dated 23.10.2017 on tariff order for FY 2017-18. In that order the Commission has held that the auxiliary consumption shall be considered 9% of gross generation instead of 8.5% which is in line with Generation Tariff Regulation. The petitioner is directed to submit month wise tariff impact to GRIDCO due to rise in auxiliary consumption and GRIDCO shall reimburse the same after scrutiny as arrear bill of FY 2016-17.

### **GENERATION TARIFF FOR FY 2018-19 AND COMMISSION'S DECISIONS**

152. The Commission has been determining the generation tariff of two generating units of OPGC starting from FY 2016-17 as per the OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014.
153. As per clause 4.1 of OERC (Terms and Conditions of Determination of Generation Tariff) Regulations, 2014 the tariff for supply of electricity from a thermal generating station comprises of two parts, (a) Capacity Charges (recovery of annual fixed cost) & (b) Energy Charges (recovery of primary and secondary fuel cost).

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

154. As per clause 4.3 of OERC (Terms and Conditions of Determination of Generation Tariff) Regulations, 2014, the Capacity Charges (recovery of annual fixed cost) consists of the following :
- a. Return on Equity;
  - b. Interest on loan Capital;
  - c. Depreciation;
  - d. Interest on Working Capital;
  - e. Operation and Maintenance Expenses

### **Capital Cost and additional capitalization**

155. In the present petition, OPGC has proposed that the closing capital cost for FY 2016-17 should be considered as opening capital cost for FY 2017-18. In addition to this, it has proposed Rs. 50.37 Crore for FY 2017-18 and Rs. 55.99 Crore for FY 2018-19 as additional capitalization to be incurred towards compliance of Change in Law and some other works which have become necessary for efficient and successful operation of the generating station under the provision of Regulations 3.4(b) and 3.4 (d) of the OERC Generation tariff Regulations, 2014. Accordingly OPGC has requested the Commission to approve the additional capitalization claimed for FY 2017-18 and FY 2018-19 for determination of its generation tariff of FY 2018-19.
156. The Commission has already elaborated the issue of allowing additional capitalization claimed by OPGC for truing up related to FY2016-17. Additional capitalization requires prudence check of all related issues as per Regulation and has to be determined separately. Since the matter shall be considered through a separate application of Petitioner we do not consider the same towards capital cost at present. The additional capitalization proposed for FY 2017-18 and 2018-19 shall be considered separately by the Commission. It is directed that if any future capital investment is required in the generating station as per Regulation, OPGC should obtained prior approval from the Commission. Thereafter, deviation if any from proposed investment based on Commission's approval and actual investment shall be considered for truing up.
157. The project cost of Rs.1060 crore has been approved and accepted by the Commission in earlier tariff orders. The same shall be considered for determination of Generation Tariff of OPGC for FY 2018-19. This Project cost of Rs.1060 crore includes equity of Rs.450 Crore and Loan of Rs.610 Crore which are utilised for determination debt equity ratio.

### Debt – Equity Ratio

158. Regulations 3.7 of OERC (Terms & Conditions for Determination of Generation Tariff) Regulation, 2014 provides that, “in case of the generating stations declared under commercial operation prior to 01-04-2014, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31-03-2014 shall be considered.”
159. The generating Station IB TPS I & II of OPGC have achieved COD in the year 1996 & 1997 respectively. As stated earlier we have already considered debt equity ratio of the project. This will also be applicable for FY 2018-19 also.

### Return on Equity (RoE)

160. As per clause 4.5 of OERC (Terms & Conditions for Determination of Generation Tariff) Regulation, 2014, RoE shall be computed in rupee terms, on the equity base determined in accordance with regulation 3.7 of said provisions @ 16% of the Equity Capital. Accordingly, the Commission allows return on equity @ 16% on the equity capital of Rs.450 crores which comes to Rs.72 crores for FY 2018-19.

### Interest on Loan Capital and Depreciation

161. Since the normative loan has already been paid and asset has fully depreciated, the Commission does not allow anything on this account.

### O&M Expenses

162. In the instant petition, OPGC has proposed O&M expenses on normative basis @ Rs.30.51 lakh/MW and @ Rs.0.65 lakh/MW as special compensation allowance for the projects those have completed twenty years of useful life respectively under the head O&M expenses for FY 2018-19 in accordance with Regulation 4.28 (a) and (b) of the OERC Generation Tariff Regulations, 2014. The Commission approves the same and allows Rs.130.87 crore (Rs.30.51 lakh/MW x 420 + Rs.0.65 lakh/MW x 420) towards O&M expenses. The detailed calculations are given in the table below:

**Table -14**  
**Calculation of Operation & Maintenance Expenses of OPGC for FY 2018-19**  
**(Rs. in Crs.)**

Sl. No	Particulars	OERC Approval for FY 2017-18	OPGC Proposal for FY 2018-19	OERC Approval for FY 2018-19
1	Normative O&M Expenses	<b>120.54</b> <i>(420 MW x Rs.28.70 Lakh / MW for FY 2017-18)</i>	<b>128.14</b> <i>(420 MW x Rs.30.51 Lakh / MW for FY 2018-19)</i>	<b>128.14</b> <i>(420 MW x Rs.30.51 Lakh / MW for FY 2018-19)</i>

2	Special Compensation Allowance	2.73 (420MW x Rs.0.65 lakh/MW for Station IBTPS I and II respectively)	2.73 (420MW x Rs.0.65 lakh/MW for Station IBTPS I and II respectively)	2.73 (420MW x Rs.0.65 lakh/MW for Station IBTPS I and II respectively)
	<b>Total</b>	<b>123.37</b>	<b>130.87</b>	<b>130.87</b>

### Interest on Working Capital

163. Regulation 4.24 (a) and Regulation 4.26 of the OERC Generation Tariff Regulations, 2014 stipulate the norms for determination of working capital requirement and permissible rate of interest on working capital. In line with to norms of the regulations, OPGC has projected the working capital requirement and considered rate of interest on working capital @10.95% (prevailing MCLR at 7.95% for one year tenure plus 300 basis points) and accordingly, OPGC has claimed an interest of Rs. 13.87 crore on working capital for FY 2018-19.
164. Considering the norms of the regulations, the Commission has determined working capital requirement and also the interest thereon. The detailed working capital requirements and interest on working capital calculated by the Commission are given in the table below:

**Table: 15**  
**Calculation of Interest on Working Capital of OPGC for FY 2018-19**

Sl No	Particulars	OERC Approval for FY 2017-18	Proposed by OPGC for FY 2018-19		OERC Approval for FY 2018-19	
		Amts (In Crs.)	Norms	Amts (In Crs.)	Norms	Amts (In Crs.)
1	Cost of Coal	28.78	One month	32.41	One month	30.66
2	Cost of Secondary Fuel Oil	0.72	One month	1.08	One month	0.45
3	O& M Expenses	10.27	One month	11.42	One month	10.91
4	Maintenance Spare	24.65	20% of O&M	27.42	20% of O&M	26.17
5	Receivables	46.92	One month	54.32	One month	49.82
<b>6</b>	<b>Total Working Capital Requirements</b>	<b>111.34</b>		<b>126.65</b>		<b>118.01</b>
7	Interest Rate (prevailing MCLR for one year tenure +300 basis points)	11.00%		10.95%		10.95%
<b>8</b>	<b>Interest on working Capital</b>	<b>12.25</b>		<b>13.87</b>		<b>12.92</b>

Hence, the Commission approves Rs.12.92 crore towards interest on working capital against OPGC proposal of Rs.13.87 crore for FY 2018-19.

### Summary of Total Annual Fixed Cost

165. On the basis of the above estimations, the Commission approves of Rs.215.79 crore towards total annual fixed cost of OPGC plants against Rs.243.73 crore proposed by Petitioner for FY 2018-19. The annual fixed cost charges are summarized in the table below:

**Table - 16**  
**Annual Fixed Cost of OPGC for FY 2018-19**

(Rs. in Crs.)

Sl. No.	Particulars	OERC Approval for FY 2017-18	OPGC Proposal for FY 2018-19	OERC Approval for FY 2018-19
1.	Return on Equity	72.00	77.67	72.00
2.	Depreciation	0.00	14.78	0.00
3.	Interest on Loan Capital	0.00	6.54	0.00
4.	Interest on Working Capital	12.25	13.87	12.92
5.	O&M Expenses	123.37	130.87	130.87
6.	<b>Total Annual Fixed Cost</b>	<b>207.52</b>	<b>243.73</b>	<b>215.79</b>

### Operational Norms

166. OPGC in its tariff proposal has submitted Plant Load Factor (PLF) @ 85.00%, Auxiliary Consumption @ 9.0%, Station Heat Rate @2450 kCal/kwh & Secondary Fuel Oil Consumption @ 1.00ml/Kwh in accordance with the norms of the OERC Generation Tariff Regulations, 2014.
167. From the audited accounts filed by OPGC, the Commission observes that during FY 2014-15 onwards actual PLF and rate of Secondary fuel oil consumption are gradually improving above the stipulated norms in regulations which can be seen from the table below.

**Table - 17**

Financial Year	Gross Generation (MU)	PLF (%)	Oil Consumption (ml/Kwh)
2014-15	2798.92	76.07	0.58
2015-16	3117.32	84.73	0.43
2016-17	3234.88	87.92	0.28

168. As per norms mentioned in chapter 5 of the OERC Generation Tariff Regulations, 2014, the Commission can determine PLF, Station Heat Rate, Secondary fuel oil consumption rate and Auxiliary Consumption rate for existing Thermal Generating Stations of OPGC from time to time. In its tariff proposal for FY 2018-19, GRIDCO has proposed PLF @87.02% for OPGC whereas OPGC has achieved a PLF of 87.92% in 2016-17. Therefore, the Commission considering the actual available PLF data for FY 2016-17 and

noting increasing trend of PLF over past several years has estimated PLF of OPGC at 87% for 2018-19. The same is considered along with incentive as per Chapter 6 of the OERC Generation Tariff Regulations, 2014. The Commission also adopts the auxiliary consumption @ 9% of the gross generation and station heat rate @ 2450 kcal/kwh as per the Regulation. The secondary fuel oil consumption is studied for the last three completed years and weighted average @0.42 ml/Kwh is taken for ECR calculation.

### Generation of Power

169. By taking the above parameters of PLF and auxiliary consumption the Commission calculates a gross generation of 3200.90 MU and 2912.82 MU of net generation.

### GCV & Price of Coal

170. While approving the previous year tariff of FY 2017-18, the Commission had approved a GCV of 3400 kCal/kg which is the lowest value of GCV range of G-13 grade of Coal. In the present application OPGC has requested the Commission to consider weighted average value of 'as fired' GCV of coal for a period from November, 2016 to October, 2017 to avoid seasonal variation of GCV. Subsequently OPGC has stated that Mahanadi Coalfields Limited (MCL) has revised grade of coal from G-13 to G-14 with effect from 01.04.2017 with concomitant change in price. Accordingly OPGC has requested the Commission to consider higher price of coal @ 1491.00/MT for G-14 grade coal. OPGC has further stated that though the GCV range of G-14 grade coal is from 3100 kcal/kg to 3400 kcal/kg, M/s. MCL is supplying coal below that GCV range i.e. at 2685.41 Kcal/kg on weighted average basis from October, 2016 to November, 2017. The trend of GCV and price of coal for FY 2016-17 and first eight month of current financial year 2017-18 are shown below:

**Table - 18**  
**Trend of Price and GCV of Coal**

Months	FY 2016-17				FY 2017-18			
	Consumption (MT)	Price (Rs./MT) for Grade - 13	% Change in Price over base month	GCV (kCal/Kg)	Consumption (MT)	Price (Rs./MT) for Grade - 14	% Change in Price over base month	GCV (kCal/Kg)
April	2,57,452.00	1,439.70	-	2,686.00	2,53,827.00	1510.53	-	2440.00
May	1,80,711.00	1,406.80	(2.29)	2,690.00	2,47,361.00	1459.69	(3.37)	2612.00
June	2,30,373.00	1,497.41	4.01	2,765.00	2,38,128.00	1454.72	(3.69)	2993.00
July	2,60,546.00	1,520.80	5.63	2,614.00	2,57,062.00	1383.17	(8.43)	2616.00
August	2,54,281.00	1,532.55	6.45	2,622.00	1,77,950.00	1364.08	(9.70)	2482.00
September	2,53,081.00	1,537.15	6.77	2,435.00	1,08,774.00	1373.97	(9.04)	2744.00

Months	FY 2016-17				FY 2017-18			
	Consumption (MT)	Price (Rs./MT) for Grade - 13	% Change in Price over base month	GCV (kCal/Kg)	Consumption (MT)	Price (Rs./MT) for Grade - 14	% Change in Price over base month	GCV (kCal/Kg)
October	2,55,976.00	1,538.95	6.89	2,544.00	2,36,169.00	1369.19	(9.36)	2446.00
November	2,31,567.00	1,539.45	6.93	2,586.00	1,34,491.00	1368.51	(9.40)	2981.00
December	2,55,721.00	1,539.58	6.94	2,701.00				
January	2,45,818.00	1,539.60	6.94	2,978.00				
February	2,29,319.00	1,735.70	20.56	2,906.00				
March	2,59,346.00	1,871.94	30.02	2,716.00				
<b>Wtg Avg.</b>	<b>2,42,849.25</b>	<b>1,561.63</b>	<b>8.47</b>	<b>2,684.00</b>	<b>2,06,720.25</b>	<b>1,419.00</b>	<b>(6.06)</b>	<b>2,642.00</b>

171. 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. Now for tariff computation purpose we adopt 3100 Kcal/kg as GCV and price of the coal at Rs.1491/MT of corresponding grade.

#### **Price & GCV of Secondary Fuel oil**

172. OPGC has proposed to use LDO as secondary fuel oil having GCV of 10,000 Kcal/liter and price of Rs.41,390/Kl basing on the last three months weighted average rate before the filing of the Petition. The Commission adopts the same.

#### **Summary of Norms & parameters approved for computation Energy Charges of OPGC for FY 2018-19.**

173. In Accordance with OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2014 and parameters arrived in this order we summarise the operational norms to be utilised for determination of tariff for FY 2018-19. The details are given in the table below:

**Table-19**  
**Operational Parameters for FY 2018-19**

Sl. No	Particulars	Unit	OERC Approval for FY 2017-18	OPGC Proposal for FY 2018-19	OERC Approval for FY 2018-19
1.	Plant Load Factor	%	85.00	85.00	87.00
2.	Gross Generation	MU	3,127.32	3127.32	3200.90
3.	Auxiliary Consumption	%	8.50	9.00	9.00
4.	Net Generation	MU	2,861.50	2845.86	2912.82

Sl. No	Particulars	Unit	OERC Approval for FY 2017-18	OPGC Proposal for FY 2018-19	OERC Approval for FY 2018-19
5.	Station Heat Rate	kcal/ kWh	2,450	2450	2,450
6.	Specific Fuel Consumption	ml/ kWh	1.00	1.00	0.42
7.	Price of Coal	(Rs. /MT)	1539.00	1368.91	1491.00
8.	Price of Secondary Oil	(Rs./KL	27,730.00	41,390.00	41,390.00
9.	Gross Calorific Value of Coal (GCV)	(kCal/ kg)	3,400.00	2685.41	3,100.00
10.	Gross Calorific value of Secondary Oil	(kCal/ KL)	10,000	10,000	10,000

#### Computation of Energy charges

174. During FY 2017-18, the Commission had approved energy charges @ 123.74 paise/kwh against OPGC proposal of @181.90 paise/kwh. In the present petition OPGC has proposed an energy charges @ 141.23 paise/kwh for FY 2018-19. After consideration of the factors mentioned above, the Commission now approves energy charge of OPGC @ 131.18 paise/kwh for FY 2018-19. The details are given in the table below :

**Table - 20**  
**Computation of Energy Charge for 2018-19**

Particulars	Unit	OERC Approval for FY 2017-18	OPGC Proposal for FY 2018-19	OERC Approval for FY 2018-19
Gross Generation of Power	MU	3,127.32	3,127.32	3200.90
Auxiliary Consumption	MU	265.82	281.46	288.08
Generation After Aux. Cons.	MU	2,861.50	2,845.86	2912.82
GCV of Coal	kCal/kg	3,400.00	2,685.41	3100.00
GCV of Oil	kCal/kg	10,000	10,000	10,000
Specific Coal Consumption	kg /kWh	0.72	0.91	0.79
Specific Oil Consumption	ml/kWh	1.00	1.00	0.42
Price of Coal	Rs./MT	<b>1,539.00</b>	<b>1368.91</b>	<b>1491.00</b>
Price of Secondary Oil	Rs./KL	27,730.00	41,390.00	41,390.00
Variable Charge for Coal	Paise/kwh	120.71	136.68	129.17
Variable Charge for Oil	Paise/kwh	3.03	4.55	1.91
<b>Energy Charge</b>	Paise/kwh	<b>123.74</b>	<b>141.23</b>	<b>131.18</b>
<b>Total Energy Cost</b>	Rs. Crs.	<b>354.08</b>	<b>401.92</b>	<b>382.10</b>



### **Reimbursement of Other Charges**

175. Apart from the Annual Fixed Cost and Energy Charges, OPGC has proposed to consider other charges of Rs.63.77 Crore for FY 2018-19 as part of the reimbursement from GRIDCO. These are examined one by one as mentioned below.

### **Electricity Duty**

176. OPGC has proposed Electricity Duty of Rs.15.48 crore @ 0.55 per unit on 9% auxiliary Consumption of Gross Generation of 3127.32 MU at normative PLF @85% as per provisions of OERC tariff regulations. Since the Commission has estimated Gross generation of OPGC to be 3200.90 MU at normative PLF @ 87% for FY 2018-19, after considering 9% auxiliary Consumption of Gross Generation of 3200.90MU, the Commission approves Electricity duty of Rs.15.84 crore for FY 2018-19 as per Regulation 7.10 to 7.12 of OERC generation tariff Regulation 2014.

### **Water Cess & Water Charges:**

177. OPGC had proposed water cess & water charges of Rs.6.21 crore (water charges of Rs. 6.13 crore & water cess of Rs.0.08 crore) basing on actual amount incurred during FY 2016-17. Therefore the Commission provisionally allows water cess & water charges of Rs.6.21 crore for FY 2018-19 as per clause 7.10 to 7.12 of OERC generation tariff Regulation 2014.

### **Tax and Cess on land:**

178. The Commission allows tax and cess on land basing on the actual amount incurred by the Petitioner during the FY 2016-17. Accordingly, an amount of Rs.0.18 crore is allowed as tax and cess on land for FY 2018-19 as per Regulation 7.10 to 7.12 of OERC generation tariff Regulation 2014.

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

179. OPGC has proposed Rs.0.33 crore towards SoC & MoC charges for SLDC as the same was approved in the tariff order dated 23.03.2017 for FY 2017-18. The Commission now approves Rs.0.37 crore @ Rs.8922.26/MW/year as approved in our SLDC Charges order for FY 2018-19 in Case No. 78/2017.

### **ERPC Charges:**

180. OPGC proposed Rs.0.16 crore to be paid to them as ERPC charges for FY 2018-19 similar to the actual payment made by them during FY 2016-17. The Commission

accepts the same amount for FY 2018-19 as per clause 7.10 to 7.12 of OERC Generation Tariff Regulation 2014 towards ERPC charges.

**Income Tax:**

181. OPGC has proposed Rs.41.11 crore towards income tax @ 34.61% on pre-tax return on equity for FY 2018-19. The Clause 4.7 & 4.8 of OERC Generation Tariff Regulations, 2014 has stipulated that, the actual income tax paid by the generating company shall be recovered from the beneficiaries on account of generating business income only. 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 additional 1% Cess in Union Budget 2018) for FY 2018-19.

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

182. The Commission, at Clause 7.9 of the OERC (Terms & Conditions of Generation Tariff) Regulation, 2014 under the head Application & Publication Expenses has stipulated the following:

*“The application fees and the expenses incurred on publication of notices in the application for approval of Tariff, may in discretion of the Commission, be allowed to be recovered by the generating company, directly from the beneficiaries”*

Accordingly the Commission approves Rs. 0.30 crore (@Rs.5000/MW for 420 MW plus publication expenses) towards tariff petition fees & publication expenses proposed by OPGC for FY 2018-19.

**Incentives**

183. OPGC has filed its tariff application by considering the exact normative PLF @85% in accordance with the provisions of OERC tariff Regulations, 2014. Therefore, for FY 2018-19, OPGC had not proposed any amount under the head Incentives. Since the Commission approves a PLF @87% for FY 2018-19, accordingly OPGC will be entitled to get incentive as per Regulation 6.9 & 6.10 of OERC generation tariff Regulations, 2014. Accordingly the Commission provisionally approves incentives of Rs.3.35 crore under other charges for FY 2018-19.

**Summary of Other Charges including Incentives:**

184. A comparative summary statement of OPGC proposal on reimbursement of other charges and approval of the Commission including incentives is given below:

**Table - 21**  
**Reimbursement of Other Charges for 2018-19 (Rs. in Crs.)**

Sl. No.	Particulars	OERC Approval for FY 2017-18	OPGC Proposal for FY 2018-19	OERC Approval for FY 2018-19
1	Electricity Duty	7.97	15.48	15.84
2	Water Cess and Water Charges	6.35	6.21	6.21
3	Tax and Cess on land	0.22	0.18	0.18
4	SOC and MOC for SLDC	0.33	0.33	0.37
5	ERPC Charges	0.16	0.16	0.16
6	Income Tax	37.07	41.11	38.67
7	Recovery of ARR and Tariff Petition Fees	0.21	0.30	0.30
8	Incentives	0.21	-	3.35
	<b>Total</b>	<b>52.31</b>	<b>63.77</b>	<b>65.08</b>

Since the above charges are reimbursable do not constitute the part of ARR of OPGC. The charges due to their nature shall be reflected in the ARR of GRIDCO. OPGC is directed to reimburse the above fee, charges and expenses and incentive as mentioned in the above Table - 21 as per Regulation 7.10 and Regulation 6.09 & 6.10 respectively from GRIDCO as and when incurred with appropriate documentary evidences.

**Summary of Generation Tariff Proposal and Approval of the Commission for OPGC for FY 2018-19**

185. The details of two part generation tariff proposed by OPGC and approved by the Commission for FY 2018-19 are depicted in the table below:

**Table - 22**  
**Generation Tariff Proposal of OPGC & Approval of OERC for FY 2018-19**

Sr. No.	Particulars	Unit	FY 2017-18		FY 2018-19	
			Proposed by OPGC	Approved by OERC	Proposed by OPGC	Approved by OERC
<b>1</b>	<b>Net Generation</b>	<b>MU</b>	<b>2765.63</b>	<b>2861.50</b>	<b>2845.86</b>	<b>2912.82</b>
<b>2</b>	Total Annual Fixed Cost	Rs Cr	226.80	207.52	243.73	215.79
<b>3</b>	Total Energy Charges	Rs Cr	503.05	354.08	401.92	382.10
<b>4</b>	<b>Total Generation tariff (2+3)</b>	Rs Cr	<b>729.85</b>	<b>561.60</b>	<b>645.65</b>	<b>597.89</b>
<b>5</b>	Capacity Charges per Unit (2/1)	Paise/kwh	82.00	72.52	85.64	74.08
<b>6</b>	Energy Charges per Unit (3/1)	Paise/kwh	181.90	123.74	141.23	131.18
<b>7</b>	<b>Total Generation tariff excluding yearend charges tariff (5+6)</b>	<b>Paise/kwh</b>	<b>263.90</b>	<b>196.26</b>	<b>226.87</b>	<b>205.26</b>

**DIRECTIVES OF THE COMMISSION:**

186. The Commission has not considered the expenditure incurred by OPGC due to additional capitalization in this order. As stated in this order OPGC is directed to file separate petition for approval of additional capitalization. After the approval of additional capitalization by the Commission, the petitioner may file Truing Up application for the past years as per OERC Generation Tariff Regulations, 2014.
187. The recovery of Capacity Charges and the Energy Charges for a calendar month shall be made as per the Regulations 4.30 to 4.33 of OERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2014 and GRIDCO Ltd shall make payment after prudence check.
188. The Commission has also provisionally approved for reimbursement of other charges including incentives for Rs.65.08 Crore. The above charges have been included in GRIDCO's ARR to be reimbursed to OPGC on production of documentary evidence.
189. Rebate and late payment surcharge will be applicable as per Regulations 6.6 to 6.8 of OERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2014.
190. The tariff now approved shall be effective from 01.04.2018 and shall be in force until further orders.
191. The application of OPGC in Case No. 75 of 2017 for approval of its Generation tariff of IBTPS I & II units for the FY 2018-19 and Truing Up proposal for FY 2016-17 are accordingly disposed of.

**Sd/-**

**(S. K. PARHI)  
MEMBER**

**Sd/-**

**(A. K. DAS)  
MEMBER**

**Sd/-**

**(U. N. BEHERA)  
CHAIRPERSON**