

Summary of ARR & BSP Filings

Submitted by

OPGC

For

FY 2019-20

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GENERATION TARIFF PROPOSAL OF OPGC FOR THE FY 2019-20

1. Odisha Power Generation Corporation Limited (herein after referred as “OPGC”) is a company incorporated under the Companies Act, 1956 and having its registered office at Zone-A, 7th floor, Fortune Towers, Chandrasekharpur, Bhubaneswar, Odisha-751023. GRIDCO Limited (“GRIDCO”) had entered into Bulk Power Supply Agreement (“PPA”) with OPGC dated August 13, 1996, for purchase of power from its Generating Units 1 & 2, having capacity of 420 MW (210 MW x 2) of IB Thermal Power Station. OPGC, GRIDCO and Government of Odisha signed a Tripartite Agreement dated October 18, 1998 providing certain further amendments to existing PPA and other provisions including those concerning the establishment of Units 3 & 4 of IB Thermal Power Station by OPGC. Further, Escrow and Security Agreement dated November 30, 1998 was entered between OPGC, GRIDCO and Union Bank of India.
2. Subsequently, certain disputes had arisen between the parties on issues arising from the terms of the PPA, Tripartite Agreement and other agreements between the Parties. In order to resolve these disputes, Government of Odisha constituted a Task Force vide Resolution No. 3895 dated May 7, 2007 for resolving disputes regarding tariff and other related matters. Government of Odisha, based on the recommendations of Task Force, issued Notification No. 7216 dated June 21, 2008 for resolving all such disputes on terms and conditions contained therein in regard to Unit 1 & 2 and also in regard to setting up of Unit 3 & 4, as overall settlement of all such disputes. After that, OPGC and GRIDCO agreed to amend existing PPA and Tripartite agreement based on Government of Odisha Notification dated June 21, 2008. Accordingly, an agreement was signed on September 6, 2012 as Supplemental to the Tripartite agreement executed on October 18, 1998. Subsequently, OPGC and GRIDCO signed an amendment to existing PPA on December 19, 2012 by amending certain clauses related to Plant Load Factor, Revision in tariff, etc.
3. Hon’ble OERC vide its Order dated April 27, 2015 approved the Amended PPA and directed OPGC to file an application for determination of Generation Tariff, as per approved Amended PPA, for rest of the control period starting from FY 2016-17 onwards since tariff for FY 2014-15 and FY 2015-16 has already been approved by Hon’ble OERC in ARR of GRIDCO. The Hon’ble Commission, vide its Order dated March 21, 2016 determined the Generation Tariff of Units 1 & 2 of IB Thermal Power Station for FY 2016-17, in accordance with the terms and conditions of OERC Generation Tariff Regulations, 2014.
4. Aggrieved by the said Order, OPGC filed Appeal No. 126 of 2016 before the Hon’ble Appellate Tribunal for Electricity (“APTEL”) against the Tariff Order for FY 2016-17. Hon’ble APTEL vide its Judgment dated April 6, 2017 in the stated Appeal upheld the Commission’s Tariff Order for FY 2016-17. Aggrieved by the Judgment of Hon’ble APTEL, OPGC filed Civil Appeal No. 9485 of 2017 before the Hon’ble Supreme Court. The Hon’ble Supreme Court vide its Judgment dated April 19, 2018 in the stated Appeal set aside the Tariff Order for FY 2016-17 and remanded the matter to the Hon’ble OERC for a fresh decision. In effect, the Hon’ble Supreme Court has held that primarily the tariff norms under the PPA are to be followed in determining OPGC’s tariff.
5. Hon’ble OERC disposed of the Generation Tariff Petition for FY 2017-18 (Case No. 62/2016) vide its Order dated March 23, 2017 and Generation Tariff Petition for FY 2018-19 (Case No. 75/2017) vide its Order dated March 22, 2018 in line with its approach adopted in the tariff determination for FY 2016-17.

6. In accordance with the Hon'ble Supreme Court order, OPGC has filed the Petitions for Re-determination of Tariff for FY 2016-17, FY 2017-18 and FY 2018-19 before the Hon'ble OERC on May 25, 2018 considering the original project cost as per the approved Amended PPA.
7. Subsequently, OPGC filed a separate Petition numbered as Case No. 54 of 2018, for approval of additional capitalisation for FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 in compliance to the Commission's directive in the Tariff Order for FY 2018-19 dated March 22, 2018 and Hon'ble Supreme Court order in Civil Appeal No. 9485/2017 dated April 19, 2018. The regulatory proceedings in the said Case are in progress.
8. In line with the approach adopted in Petitions filed in Case No. 33 of 2018 and Case No. 54 of 2018, OPGC is filing the instant Petition for approval of Generation Tariff for FY 2019-20.
9. Accordingly, the instant Petition has been filed based on the following agreements entered between the parties:
 - a) Bulk Power Supply Agreement between OPGC and GRIDCO, dated August 13, 1996 ("PPA") and an agreement as Supplemental to Bulk Power Supply Agreement dated December 19, 2012 ("Amended PPA"). Both agreements were approved by the Hon'ble OERC vide its Order dated April 27, 2015.
 - b) Tripartite Agreement between OPGC, GRIDCO and Government of Odisha dated October 18, 1998 ("Tripartite Agreement")
 - c) Govt. of Orissa ("GoO") Notification No. 7216/E dated June 21, 2008.
 - d) Agreement as Supplemental to Tripartite Agreement dated September 6, 2012("Amended Tripartite Agreement") which was approved by Hon'ble OERC vide its Order dated April 27, 2015.
 - e) Escrow and Securitization Arrangement dated November 30, 1998 entered between OPGC, GRIDCO and Union Bank of India, which was approved by Hon'ble OERC vide its Order dated April 27, 2015.

Generation Tariff proposed for FY 2019-20 considering the original project cost

10. OPGC submitted that, the Annual Fixed Cost as per Clause 3.0 of Schedule II of the Amended PPA. The Annual Fixed Cost (AFC) of its 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

11. OPGC has considered capital cost of the Project as Rs. 1060 Crore for FY 2019-20 as per the Amended PPA signed between OPGC and GRIDCO..

Debt – Equity Ratio

12. OPGC has submitted that while approving the Amended PPA vide Order dated April 27, 2015, OERC has approved the equity of Rs. 450 Crore and loan of Rs. 610 Crore.

OPGC has considered actual debt: equity ratio, as approved in Amended PPA, for the purpose of determination of tariff for FY 2019-20.

Depreciation

13. As the assets corresponding to Original Capital Cost of Generating Station are fully depreciated by the financial year ending March 31, 2009, OPGC has not claimed any amount towards depreciation for FY 2019-20.

Return on Equity

14. OPGC has proposed Return on Equity considering the actual amount of equity capital of Rs. 450 Crore and Return on Equity at the rate of 16% as per Clause 8.0 (10) of Schedule II of PPA. Accordingly, OPGC claimed Return on Equity of Rs. 72 crore for FY 2019-20.

Interest on Loan Capital

15. OPGC submitted that Clause 8.0 (7) and (11) of Schedule II of the Amended PPA provides the loan amount of Rs. 610 Crore and interest on loan as per actual. Since the loan amount of Rs. 610 Crore has been fully repaid by financial year ending March 31, 2012, OPGC has not claimed any interest on loan capital for FY 2019-20.

O&M Expenses

16. OPGC submitted that Clause 3.0 (d) and (e) of Schedule II of the Amended PPA provides that O&M expenses for first year of operation at the rate of 2.5% of the capital cost which shall be escalated by 8% each year from April 1, 1996. Accordingly, OPGC has proposed **Rs. 151.19 Crore** under O&M Expenses for FY 2019-20 considering the annual escalation factor of 8% as per the methodology prescribed in Amended PPA.

Interest on Working Capital

17. OPGC claimed that, Clause 3.0 (f) of Schedule II of the Amended PPA provides the details of interest on working capital. Further OPGC Stated that Hon’ble Supreme Court in its Judgment dated April 19, 2018 ruled that for the costs not reflected in the PPA, the statutory Regulations may be applied. Since OPGC has been meeting its working capital requirement through internal accruals, the rate of interest for FY 2019-20 has been considered as 11.50% (SBI 1 year MCLR as on date @8.50%+300 basis point) in accordance with Regulation 4.26 of the OERC Generation Tariff Regulations, 2014. Accordingly OPGC claimed interest on working capital as **Rs. 18.74 Crore** for FY 2019-20. The details are given below.

Table 1: Computation of interest on working capital for FY 2019-20 (Rs. Crore)

Sr. No.	Particulars	Amount
1.	Cost of Coal for one and half months	41.92
2.	Cost of Secondary Fuel Oil for two months	6.13
3.	O&M Expenses for one month	12.60
4.	Receivables equivalent to two months	102.35
5.	Total Working Capital Requirement	162.99
6.	Interest Rate %	11.50%
7.	Interest on Working Capital	18.74

Summary of Annual Fixed Cost

18. Considering the above mentioned annual fixed cost components, OPGC proposed the Annual Fixed Cost of **Rs. 241.93 Crore** for FY 2019-20 corresponding to the original project cost. The details are given in the Table 2 below.

Table 2: Annual Fixed Cost of OPGC for FY 2019-20 (Rs. Crore)

Particulars	Amount
Return on Equity	72.00
Interest on loan capital	0.00
Depreciation	0.00
Interest on working capital	18.74
O&M expenses	151.19
Total Annual Fixed Cost	241.93

Operational Performance Parameters

19. The norms of operation proposed for FY 2019-20 by OPGC as per Clause 8 of Schedule II of the approved Amended PPA are given in Table 3 below.

Table 3: Operational Performance Parameters for FY 2019-20

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

Fuel Prices & GCV

20. During FY 2019-20, the entire coal requirement for OPGC is proposed to be met from coal supply under existing FSA with Mahanadi Coal Fields Limited. For computation of the fuel cost, OPGC has relied on the provisions of the Amended PPA which provides that the Price and Gross Calorific Value of coal and oil shall be considered as delivered to the Power Station. Further, Clause 9 of Schedule II of the PPA stipulates that the prices and GCV of oil and coal for one year shall be the base for the next year. Accordingly, OPGC has considered the actual weighted average prices and GCV of oil and coal for the period November 2017 to October 2018. Accordingly, the price and GCV of coal and oil proposed for FY 2019-20 have been given in the table below.

Table 4: Price and Gross Calorific Value of Coal and Oil proposed for FY 2019-20

Sl. No.	Particulars	Values
1	Price of Coal (Rs. /MT)	1600.13
2	Price of LDO (Rs./kL)	48291
3	Price of HFO (Rs./kL)	40826
4	Gross Calorific Value of Coal (kCal/kg)	2972
5	Gross Calorific value of LDO (kCal/ltr.)	10000
6	Gross Calorific value of HFO (kCal/ltr.)	10000

Energy charges

21. OPGC Proposed that, in accordance with Clause 7.0 of Schedule II of the Amended PPA , it has considered the norms of operation, GCV and prices of the fuel for computation of Energy Charge for FY 2019-20.. Accordingly it has proposed Variable charges of 162.74 paise/Kwh for FY 2019-20. The details are given in table 5 below.

Table 5: Computation of Energy Charge for 2019-20

Particulars	Units	Value
Auxiliary Consumption	%	9.50%
Gross Station Heat Rate	kCal/kWh	2500
GCV of Coal	kCal/kg	2972
GCV of Oil	kCal/kg	10000
Specific Coal Consumption	kg /kWh	0.83
Specific Oil Consumption-LDO	ml/kWh	0.35
Specific Oil Consumption-HFO	ml/kWh	3.15
Price of Coal	Rs. / MT	1600.13
Price of Secondary Oil-LDO	Rs. / kL	48291
Price of Secondary Oil-HFO	Rs. / kL	40826
Variable Charges (base value)	Paisa/kWh	162.74

Further OPGC submitted that any variation in energy charges during the year on account of fuel prices and calorific value will be claimed through Fuel Price Adjustment in supplementary bills on half yearly basis as per the provisions of PPA.

Reimbursement of Other Charges

22. OPGC proposed for reimbursement of the different charges and expenses which comprise of Electricity duty, water cess and charges, tax and cess on land, SOC and MOC paid to SLDC, EPRC charges, Income tax, recovery of ARR and tariff petition fees and publication expenses and contribution to Water Conservation Fund, Odisha as per Clause 10 of the approved amended PPA. The details are given in Table 6 below.

Table 6: Other Charges for FY 2019-20, (Rs. Crore)

S. No.	Particulars	Amount
1	Electricity Duty	16.50
2	Water Cess and Water Charges including Electricity Charges to OHPC	11.23
5	Tax and Cess on land	0.19
6	SOC and MOC for SLDC	0.32
7	ERPC Charges	0.16
8	Income Tax	38.67
9	Water Conservation Fund	6.13
10	Recovery of ARR & Tariff Petition Fee	0.30
	Total	73.51

23. OPGC requested to provisionally approve the other charges of **Rs. 73.51 Crore** and requested to direct GRIDCO Ltd. to reimburse the same on actual basis during the year.

Additional Capitalisation for FY 2019-20

24. OPGC submitted that it has claimed the total additional capitalisation of Rs. 128.07 Crore for FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 in Case No. 54 of

2018. Therefore, the same has not repeated again in this petition and requested to the Commission to consider the same in the respective years and subsequent year.

25. For FY 2019-20, OPGC has followed the provisions of the 2014 Tariff Regulations for claiming the proposed additional capitalisation for FY 2019-20, pending notification of Tariff Regulation applicable for the period 2019-20. It has proposed the additional capitalisation of Rs. 9.80 Crore for FY 2019-20 towards the additional works relating to compliance to Change in Law and other works which have become necessary for efficient and successful operation of the generating station. The additional capitalisation claimed for FY 2019-20 is after the cut-off date of the project and hence qualifies under Regulation 3.4 of the 2014 Tariff Regulations.

Impact of Additional Capitalisation

Debt:equity ratio

26. OPGC proposed that the closing normative debt and equity for FY 2018-19 as claimed in case No 54 of 2018 as the opening debt and equity for FY 2019-20. In accordance with the OERC Tariff Regulation 2014, Regulation 3.8, the debt-equity ratio of the proposed additional capitalisation of Rs.9.80 crore for FY 2019-20 has been considered as 70:30 ratios and accordingly it has proposed additional debt amount is Rs. 6.94 Crore and additional equity amount is Rs. 2.94 Crore for FY 2019-20.

Depreciation

27. OPGC submitted that OPGC will not be able to recover the entire depreciable value of the assets capitalised from FY 2015-16 onwards by the end of the term of the PPA if the depreciation rates as per the OERC Tariff Regulations, 2014, are applied. Therefore it has requested to allow the recovery of depreciable value of the assets (90% of total value) capitalised from FY 2015-16 onwards, by equally spreading the same during each year, from the year of capitalisation of the respective assets, upto FY 2025-26, i.e. end of term of amended PPA. Accordingly it has claimed Rs. 14.24 Crore under this head for FY 2019-20 on the normative debt amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2019-20.

Return on Equity

28. The closing Equity for FY 2018-19 as claimed in Case No. 54 of 2018 has been considered as the opening Equity for FY 2019-20, OPGC claimed the Return on Equity for each year considering the equity base for the corresponding year at the rate of 16% as per Clause 8.0 (10) of Schedule II of PPA. Accordingly, OPGC has claimed Rs. 6.38 Crore under this head for FY 2019-20 on the normative equity amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2019-20.

Table 7: Return on Equity Proposed for FY 2019-20 for additional capitalisation (Rs. Crore)

Particulars	FY 2019-20
Opening Equity corresponding to additional capitalisation	38.42
Addition to Equity during the year corresponding to 30% of additional capitalisation during the year	2.94
Closing Equity corresponding to additional capitalisation	41.36
Return on Equity corresponding to average equity towards additional capitalisation	6.38

Interest on Loan

29. The closing normative loan for FY 2018-19 as claimed in Case No. 54 of 2018 as the opening normative loan for FY 2019-20, the additional normative debt of Rs. 6.86

Crepe pertaining to additional capitalisation has been considered as loan addition during the FY 2019-20. OPGC has considered the loan repayment for the year as equal to depreciation for the year and the interest rate @ 10.55% which is the actual weighted average rate of interest (on the ongoing loan draw down for OPGC Units 3&4 being availed from PFC and REC) of the generating company as a whole for FY 2017-18. Considering the above, the interest on loan of Rs. 6.49 crore proposed by OPGC for FY 2019-20 on the normative bebt amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2019-20 is given below.

Table 8: Interest on loan Proposed for FY 2019-20 for additional capitalisation (Rs. Crore)

Particulars	Amount
Gross Loan-Opening corresponding to additional capitalisation	89.65
Cumulative repayment upto previous year	24.43
Net Loan-Opening corresponding to additional capitalisation	65.22
Addition to Loan during the year	6.86
Repayment during the year (depreciation)	14.31
Closing Loan	57.77
Average Loan	61.50
Interest Rate (%)	10.55%
Interest on Loan corresponding to additional capitalisation	6.49

Interest on Working Capital

30. OPGC had not availed any actual working capital loan till date of FY 2018-19. But in accordance with the Regulation 4.26 of 2014 Tariff Regulations, it has proposed the rate of interest @ 11.50% on working capital requirement for FY 2019-20. Accordingly it has claimed Rs. 0.53 crore under this head for FY 2019-20 on the additional working capital amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2019-20.

Additional Annual Fixed Cost corresponding to additional capitalisation

31. Summarising the above additional Annual Fixed Cost corresponding to additional capitalisation, OPGC has proposed Rs 27.64 Crore under this head for FY 2019-20. The details are summarised in the table below.

Table 9: Annual Fixed Cost for additional capitalisation (Rs. Crore)

Particulars	Amount
Depreciation	14.24
Return on Equity	6.38
Interest on loan	6.49
Interest on working capital	0.53
Total Annual Fixed Cost	27.64

32. Further OPGC requested to approve the additional income tax of Rs. 3.43 Crore (@ 34.94%) for FY 2019-20 as other charges on the aforesaid return on equity on account of proposed additional capitalisation from FY 2015-16 to FY 2019-20.

Summary of total Tariff proposed by OPGC for FY 2019-20

33. The Summary of tariff proposed by OPGC for FY 2019-20 is given in the table-10 below.

Table 10: Summary of total Tariff Proposed by OPGC for FY 2019-20

Particulars	Units	Corresponding to original project cost	Corresponding to Additional Capitalisation	Total
Depreciation	Rs. Crore	-	14.24	14.24
Return on Equity	Rs. Crore	72.00	6.38	78.38
Interest on loan	Rs. Crore	-	6.49	6.49
O&M expenses	Rs. Crore	151.19	-	151.19
Interest on working capital	Rs. Crore	18.74	0.53	19.27
Total Annual Fixed Cost	Rs. Crore	241.93	27.64	269.57
Variable Charges per kWh	Paisa/kWh	162.74	-	162.74
Other charges	Rs. Crore	73.51	3.43	76.94

Prayer

34. OPGC has prayed to the Commission to approve the following for FY 2019-20.
- Approve the additional capitalisation for FY 2019-20 as claimed in the Petition.
 - Approve the tariff, including annual fixed cost and variable charges for FY 2019-20 as claimed in the Petition.
 - Approve the variation in energy charges during the year on account of fuel prices and calorific value to be claimed through Fuel Price Adjustment in supplementary bills on half yearly basis as per the provisions of PPA.
 - Approve the other charges for FY 2019-20 as claimed in the Petition.
 - Approve the recovery of other charges on actual basis during FY 2019-20.
