

Summary of ARR & BSP Filings

Submitted by

OPGC

For

FY 2021-22

Summary of ARR & BSP Filings of OPGC for FY 2021-22

GENERATION TARIFF PROPOSAL OF OPGC FOR THE FY 2021-22

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. 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 OERC in ARR of GRIDCO. The 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 OERC for a fresh decision. In effect, the Hon'ble Supreme Court has held that primarily the tariff norms under the PPA are to be followed in determining OPGC's tariff. Further, to the extent there are tariff norms not covered by the PPA, the 2014 Tariff Regulations may be relied upon by the OERC to determine OPGC's tariff.
5. In the meantime, 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 filed the Petitions for Re-determination of Tariff for FY 2016-17, FY 2017-18 and FY 2018-19 before the OERC on May 25, 2018 considering the original project cost as per the approved Amended PPA (Case No. 33 of 2018) and the final Order was issued by the Commission on March 28, 2019.
 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 Commission has reserved the Case for final Order.
 8. In line with the approach adopted in Petitions filed in Case No. 33 of 2018 and Case No. 54 of 2018, OPGC had filed the Petition for FY 2019-20 and FY 2020-21 and the final Orders were issued by the Commission.
 9. The Commission notified the Odisha Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 ("OERC Generation Tariff Regulations, 2020") on July 15, 2020. In accordance with the provisions of OERC Generation Tariff Regulations, 2020 and in line with the approach adopted in Petitions in Case No. 33 of 2018 and Case No. 54 of 2018. OPGC has filed the instant Petition for approval of Generation Tariff for FY 2021-22.
 10. 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 OERC vide its Order dated April 27, 2015.
 - b) Tripartite Agreement between OPGC, GRIDCO and Government of Odisha dated October 18, 1998 ("Tripartite Agreement")
 - c) Govt. of Orissa ("GoO") Notification No. 7216/E dated June 21, 2008.
 - d) Agreement as Supplemental to Tripartite Agreement dated September 6, 2012("Amended Tripartite Agreement") which was approved by OERC vide its Order dated April 27, 2015.

- e) Escrow and Securitization Arrangement dated November 30, 1998 entered between OPGC, GRIDCO and Union Bank of India, which was approved by OERC vide its Order dated April 27, 2015.

Generation Tariff for FY 2021-22 considering the original project cost

11. OPGC submitted that, the Annual Fixed Cost, as per Clause 3.0 of Schedule II of the Amended PPA, shall consist of the following components:
- a. Depreciation;
 - b. Return on Equity;
 - c. Interest on Loan;
 - d. Operation and Maintenance Expenses;
 - e. Interest on Working Capital.

Capital Cost

12. OPGC has considered capital cost of the Project as Rs. 1060 Crore for FY 2021-22 as per the Amended PPA signed between OPGC and GRIDCO.

Debt – Equity Ratio

13. OPGC has submitted that while approving the Amended PPA vide Order dated April 27, 2015, the Commission has approved the equity of Rs. 450 Crore and loan of Rs. 610 Crore. OPGC has considered the debt:equity ratio, as approved in Amended PPA and considered in Tariff order for FY 2020-21, for the purpose of determination of tariff for FY 2021-22.

Depreciation

14. 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 2021-22.

Return on Equity

15. OPGC has proposed Return on Equity considering the 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 2021-22.

Interest on Loan Capital

16. 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 2021-22.

O&M Expenses

17. 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. 176.35 Crore under O&M Expenses for FY 2021-22 considering the annual escalation factor of 8% as per the methodology prescribed in Amended PPA.

Interest on Working Capital

18. OPGC claimed that, Clause 3.0 (f) of Schedule II of the Amended PPA provides the details of interest on working capital. As OPGC has started availing working capital from external sources, the actual interest rate for the Working Capital facility availed by OPGC in FY 2020-21 as on November 10, 2020 is 7.70%. Accordingly, the same has been considered for FY 2021-22. Accordingly, OPGC claimed interest on working capital as Rs. 13.19 Crore for FY 2021-22. The details are given below.

Table 1: Computation of interest on working capital for FY 2021-22 (Rs. Crore)

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

Summary of Annual Fixed Cost

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

Table 2: Annual Fixed Cost of OPGC for FY 2021-22 (Rs. Crore)

Particulars	Amount
Depreciation	0.00
Return on Equity	72.00
Interest on Loan Capital	0.00
O&M Expenses	176.35

Particulars	Amount
Interest on Working Capital	13.19
Total Annual Fixed Cost	261.54

Operational Performance Parameters

20. The norms of operation proposed for FY 2021-22 by OPGC as per Clause 3(g) and Clause 8 of Schedule II of the approved Amended PPA are given in Table 3 below.

Table 3: Operational Performance Parameters for FY 2021-22

Sr. No.	Particulars	Unit	Value
1.	Normative Availability	%	68.49%
2.	Target Plant Load Factor for incentive	%	80.00%
3.	Auxiliary Consumption	%	9.50%
4.	Station Heat Rate	kcal/kWh	2500
5.	Specific Oil Consumption	ml/ kWh	3.50

Fuel Prices & GCV

21. During FY 2021-22, the entire coal requirement for OPGC is proposed to be met from coal supply under existing FSA with Mahanadi Coal Fields Limited. In line with the Judgement of the Hon'ble Supreme Court of India dated 18.04.2018 in Civil Appeal No. 9485 of 2017, variable costs for OPGC are to be determined as per the PPA. As per the provision of PPA, the GCV of Oil and Coal is to be considered as actually delivered to the power station. Accordingly, OPGC has considered the GCV of coal and oil as actually delivered to the power station for the computation of energy charges.
22. 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 April to September 2020 for purpose of computation of tariff in the instant Petition. Accordingly, the price and GCV of coal and oil considered for FY 2021-22 have been given in the table below.

Table 4: Price and Gross Calorific Value of Coal and Oil proposed for FY 2021-22

Sl. No.	Source of Coal	Value
1	Price of Coal (Rs. /MT)	1542.30
2	Price of LDO (Rs./kL)	46344.95
3	Price of HFO (Rs./kL)	36291.93
4	Gross Calorific Value of Coal (kCal/kg)	2740.93
5	Gross Calorific value of LDO (kCal/ltr.)	10000
6	Gross Calorific value of HFO (kCal/ltr.)	10000

Energy charges

23. 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 2021-22. Accordingly, it has proposed Variable charges of 167.91 paise/kWh for FY 2021-22. The details are given in table 5 below.

Table 5: Computation of Energy Charge for 2021-22

Particulars	Unit	Value
Auxiliary Consumption	%	9.50%
Gross Station Heat Rate	kCal/kWh	2500
GCV of Coal	kCal/kg	2740.93
GCV of Oil (LDO)	kCal/ltr	10000
GCV of Oil (HFO)	kCal/ltr	10000
Specific Coal Consumption	kg /kWh	0.90
Specific Oil Consumption-LDO	ml/kWh	0.35
Specific Oil Consumption-HFO	ml/kWh	3.15
Price of Coal	Rs. / MT	1542.30
Price of Secondary Oil-LDO	Rs. / kL	46344.95
Price of Secondary Oil-HFO	Rs. / kL	36291.93
Variable Charges per kWh (base value)	Paise/kWh	167.91

Reimbursement of Other Charges

24. 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 2021-22, considering original project cost (Rs. Crore)

S. No.	Particulars	Amount
1	Electricity Duty	12.98
2	Water Cess and Water Charges	8.37
5	Tax and Cess on land	0.19
6	SOC and MOC for SLDC	0.38

S. No.	Particulars	Amount
7	ERPC Charges	0.16
8	Income Tax	38.67
9	Recovery of ARR & Tariff Petition Fee	0.30
10	Contribution towards Water Conservation Fund	6.13
	Total	67.19

25. OPGC requested to provisionally approve the other charges of **Rs. 67.19 Crore**. OPGC further requested to direct GRIDCO Ltd. to reimburse the other charges on actual basis during the year.

Additional Capitalisation for FY 2021-22

26. OPGC submitted that it has claimed the total additional capitalisation of Rs. 122.15 Crore for FY 2015-16, FY 2016-17, FY 2017-18 (all actual as claimed in Case No. 54 of 2018), and FY 2018-19 (Actual as claimed in Case No 69 of 2019). 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.
27. For FY 2019-20, OPGC has followed the provisions of the 2014 Tariff Regulations for claiming the proposed additional capitalization. The additional capitalisation of Rs. 6.41 Crore is claimed for Units 1&2 for FY 2019-20. The proposed additional capitalisation for FY 2020-21 and FY 2021-22 is claimed in accordance with the Regulation 12(4) of the OERC Generation Tariff Regulations, 2020 in the instant Petition. It has proposed the additional capitalisation of Rs. 39.96 Crore and Rs. 29.25 Crore for FY 2020-21 and FY 2021-22, respectively, 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 is after the cut-off date of the project and hence qualifies under Regulation 3.4(d) of the 2014 Tariff Regulations and Regulation 12(4) of the Generation Tariff Regulations, 2020.

Impact of Additional Capitalisation

Debt:equity ratio

28. OPGC proposed that the closing normative debt and equity for FY 2018-19 as claimed in Case No 69 of 2019 as the opening debt and equity for FY 2019-20. In accordance with the Regulation 3.8 of OERC Tariff Regulation 2014, and Regulation 16(3) of the Generation Tariff Regulations, 2020, the debt-equity ratio of the proposed additional capitalisation for FY 2019-20 to FY 2021-22 has been considered as 70:30 ratio.

Depreciation

29. OPGC submitted that it 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 and 2020, are applied. OPGC 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. OPGC has claimed Rs. 24.39 Crore in this regard for FY 2021-22.

Return on Equity

30. The closing Equity for FY 2018-19 as claimed in Case No. 69 of 2019 has been considered as the opening Equity for FY 2019-20. Subsequent yearly equity addition is considered as 30% of additional capitalization proposed for respective years. 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. 8.79 Crore under this head for FY 2021-22 on the normative equity amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2021-22.

Table 7: Return on Equity for FY 2021-22, for additional capitalisation (Rs. Crore)

Particulars	Amount
Total additional capitalisation claimed upto FY 2020-21	168.51
Opening Equity corresponding to additional capitalisation (30% of additional capitalisation)	50.55
Addition to Equity during the year corresponding to 30% of additional capitalisation during the year	8.77
Closing Equity corresponding to additional capitalisation	59.33
Rate of Return on Equity	16%
Return on Equity corresponding to average equity towards additional capitalisation	8.79

Interest on Loan

31. The closing normative loan for FY 2018-19 as claimed in Case No. 69 of 2019 is considered the opening normative loan for FY 2019-20. The normative loan pertaining to additional capitalization claimed during FY 2019-20 to FY 2021-22 has been considered as loan addition during the year. OPGC has considered the loan repayment for the year as equal to depreciation for the year and the interest rate @ 10.62% 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 2019-20. Considering the above, the interest on loan of Rs. 6.37 crore proposed by OPGC for FY 2021-22 on the

normative debt amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2021-22 is given below.

Table 8: Interest on loan Proposed for FY 2021-22 for additional capitalisation (Rs. Crore)

Particulars	Amount
Total additional capitalisation claimed upto FY 2020-21	168.51
Gross Loan-Opening corresponding to additional capitalisation (70% of additional capitalisation)	117.96
Cumulative repayment upto previous year	56.02
Net Loan-Opening corresponding to additional capitalisation	61.94
Addition to Loan during the year corresponding to 70% of additional capitalisation during the year	20.47
Repayment during the year (depreciation)	24.39
Closing Loan	58.02
Average Loan	59.98
Interest Rate (%)	10.62%
Interest on Loan corresponding to additional capitalisation	6.37

Interest on Working Capital

32. In accordance with the Clause 3.0 (f) of Schedule II of the Amended PPA, OPGC has proposed interest on working capital on two months' incremental receivables due to AFC on account of the additional capitalization. Accordingly, it has claimed Rs. 0.51 crore under this head for FY 2021-22 on the additional working capital amounts on account of proposed additional capitalisation from FY 2015-16 to FY 2021-22.

Annual Fixed Cost corresponding to additional capitalisation

33. Summarizing the above additional Annual Fixed Cost corresponding to additional capitalisation, OPGC has proposed Rs 40.07 Crore under this head for FY 2021-22. The details are summarized in the table below.

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

Particulars	Amount
Depreciation	24.39
Return on Equity	8.79
Interest on loan	6.37
Interest on working capital	0.51
Total Annual Fixed Cost	40.07

34. Further OPGC requested to approve the additional income tax of Rs. 4.72 Crore (@ 34.94%) for FY 2021-22 as other charges on the aforesaid return on equity on account of proposed additional capitalisation from FY 2015-16 to FY 2021-22.

Summary of Tariff proposal for FY 2021-22

35. The Summary of tariff proposed by OPGC for FY 2021-22 is given in the table-10 and other charges for FY 2021-22 in the table 11 below.

Table 10: Summary of Tariff Proposal of OPGC for FY 2021-22

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

Table 11: Other Charges for FY 2021-22

S. No.	Particulars	Corresponding to original project cost FY 2021-22	Corresponding to Additional Capitalisation	Total
1	Electricity Duty	12.98		12.98
2	Water Cess and Water Charges	8.37		8.37
5	Tax and Cess on land	0.19		0.19
6	SOC and MOC for SLDC	0.38		0.38
7	ERPC Charges	0.16		0.16
8	Income Tax	38.67	4.72	43.39
9	Recovery of ARR & Tariff Petition Fee	0.30		0.30
10	Contribution towards Water Conservation Fund	6.13		6.13
	Total	67.19	4.72	71.91

Prayer

36. OPGC has prayed to the Commission to approve the following for FY 2021-22.

- a. Consider the additional capitalization claimed for FY 2015-16 to FY 2017-18 and FY 2018-19 based on actual audited capitalization as claimed in Case No. 54 of 2018 and Case No. 69 of 2019 respectively.
- b. Consider the additional capitalization claimed for FY 2019-20 based on actual audited capitalization for the year as against the projected capitalisation claimed in Case No. 69 of 2019.
- c. Consider the revised proposed additional capitalization for FY 2020-21 as against the projected capitalisation claimed in Case No. 69 of 2019.
- d. Approve the additional capitalisation for FY 2019-20, FY 2020-21 and FY 2021-22 as claimed in the Petition.
- e. Approve the tariff, including annual fixed cost and variable charges for FY 2021-22 as claimed in the Petition.
- f. 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.
- g. Approve the other charges for FY 2021-22 as claimed in the Petition.
- h. Approve the recovery of other charges on actual basis during FY 2021-22.
- i. Approve the recovery of FPA in accordance with the approved PPA during FY 2021-22.