

***Summary of ARR & BSP  
Filings (unit 1&2)***

Submitted by

***OPGC***

For

***FY 2023-24***

## **Summary of OPGC ARR & BSP Filings for FY 2023-24**

### **GENERATION TARIFF PROPOSAL OF OPGC FOR THE FY 2023-24**

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, 7<sup>th</sup> 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. The 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 the 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. The 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 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 capitalization for FY 2015-16, FY 2016-17, FY 2017-18 and FY 2018-19 in compliance to the Commission's directive in the Tariff Order for FY 2018-19 dated March 22, 2018 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 August 26, 2020 in exercise of the powers conferred by Section 61 and Section 62 read with Section 181 of the Act. As per these Regulations, the Tariff Period is for four years, i.e., FY 2020-21 to FY 2023-24. In accordance with the provisions of OERC Generation Tariff Regulations, 2020 and in line with the approach adopted in Petitions in Case No. 70 of 2018, Case No. 33 of 2018, Case No. 54 of 2018 and Case No. 69 of 2019, OPGC has filed a Petition for approval of Generation Tariff for FY 2021-22. The said Petition was numbered as Case no. 71 of 2020 and the final Order was issued by the Commission on March 26, 2021.
  10. Further, the Commission vide order dated May 21, 2021 in Petition No. 54 of 2018 disallowed actual additional capitalization for FY 2015-16 to FY 2017-18 and proposed additional capital expenditure for FY 2018-19. OPGC has filed an Appeal before Hon'ble Appellate Tribunal for Electricity (APTEL) on November 15, 2021, as DFR No. 407/2021 against this the Commission's Order dated May 21, 2021 in Case No. 54 of 2018.
  11. 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 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 the 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 the OERC vide its Order dated April 27, 2015.

**Generation Tariff for FY 2023-24 considering the original project cost**

12. 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**

13. OPGC has considered capital cost of the Project as Rs. 1060 Crore for FY 2023-24 as per the Amended PPA signed between OPGC and GRIDCO.

**Debt – Equity Ratio**

14. 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 actual debt: equity ratio, as approved in amended PPA and considered in Tariff order for FY 2022-23, for the purpose of determination of tariff for FY 2023-24.

**Depreciation**

15. 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 2023-24.

**Return on Equity**

16. 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 2023-24.

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

17. 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 2023-24.

#### **O&M Expenses**

18. 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. 205.69 Crore under O&M Expenses for FY 2023-24 considering the annual escalation factor of 8% as per the methodology prescribed in amended PPA.

#### **Interest on Working Capital**

19. 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 2022-23 as on September 2022 is 7.95%. Accordingly, the same has been considered for FY 2023-24. Accordingly, OPGC claimed interest on working capital as Rs. 14.88 Crore for FY 2023-24. The details are given below.

**Table 1: Computation of interest on working capital for FY 2023-24 (Rs. Crore)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2023-24</b>
1	Cost of Coal for one and half months	43.96
2	Cost of Secondary Fuel Oil for two months	9.37
3	O&M Expenses for one month	17.14
4	Receivables equivalent to two months	116.74
5	<b>Total Working Capital Requirement</b>	<b>187.21</b>
6	Interest Rate (%)	7.95%
7	<b>Interest on Working Capital</b>	<b>14.88</b>

### Summary of Annual Fixed Cost

20. Considering above mentioned annual fixed cost components, OPGC proposed the Annual Fixed Cost of Rs. 292.58 Crore for FY 2023-24 corresponding to the original project cost. The details are given in the Table 2 below.

**Table 2: Annual Fixed Cost of OPGC for (Rs. Crore)**

Particulars	FY 2023-24
Depreciation	0.00
Return on Equity	72.00
Interest on Loan Capital	0.00
O&M Expenses	205.69
Interest on Working Capital	14.88
<b>Total Annual Fixed Cost</b>	<b>292.58</b>

### Operational Performance Parameters

21. The norms of operation proposed for FY 2023-24 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 2023-24**

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

22. During FY 2023-24, 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.
23. 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. OPGC has filed

Appeal No. 189 of 2020 before the Hon'ble APTEL against this the Commission's Order dated October 28, 2020 in Case No. 43 of 2017 on the GCV to be considered for tariff computation. However, as the matter is sub judice before Hon'ble APTEL, OPGC has considered the GCV of coal and oil as actually delivered to the power station for the computation of energy charges.

24. Accordingly, OPGC has considered the actual delivered fuel prices and GCV of oil and coal for the period April to September 2022 for purpose of computation of tariff in the instant Petition. Accordingly, the price and GCV of coal and oil considered for FY 2023-24 have been given in the table below.

**Table 4: Price and Gross Calorific Value of Coal and Oil proposed for FY 2023-24**

Sr. No.	Source of Coal	Base for FY 2023-24
1	Price of Coal (Rs. /MT)	1622.39
2	Price of LDO (Rs./kL)	80561.66
3	Price of HFO (Rs./kL)	61885.46
4	Gross Calorific Value of Coal (kCal/kg)	2865.76
5	Gross Calorific value of LDO (kCal/ltr.)	10000
6	Gross Calorific value of HFO (kCal/ltr.)	10000

#### Energy charges

25. 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 2023-24. Accordingly, it has proposed Variable charges of 178.86 paise/kWh for FY 2023-24. The details are given in table 5 below.

**Table 5: Computation of Energy Charge for FY 2023-24**

Particulars	Unit	FY 2023-24
Auxiliary Consumption	%	9.50%
Gross Station Heat Rate	kCal/kWh	2500
GCV of Coal	kCal/kg	2865.76
GCV of Oil (LDO)	kCal/ltr	10000.00
GCV of Oil (HFO)	kCal/ltr	10000.00
Specific Coal Consumption	kg/kWh	0.86
Specific Oil Consumption-LDO	ml/kWh	0.35
Specific Oil Consumption-HFO	ml/kWh	3.15
Price of Coal	Rs./MT	1622.39
Price of Secondary Oil-LDO	Rs./ kL	80561.66
Price of Secondary Oil-HFO	Rs./ kL	61885.46

Particulars	Unit	FY 2023-24
Variable Charges per kWh (base value)	Paisa/kWh	178.86

#### Reimbursement of Other Charges

26. OPGC proposed for reimbursement of the different charges and expenses which comprise of Electricity duty, water cess and charges, energy compensation charges, tax and cess on land, SOC and MOC paid to SLDC, EPRC charges, annual inspection fees, 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 2023-24, considering original project cost (Rs. Crore)**

Sr. No.	Particulars	FY 2023-24
1	Electricity Duty	14.94
2	Water Cess and Water Charges	9.22
3	Energy Compensation Charges	0.78
5	Tax and Cess on land	0.25
6	SOC and MOC for SLDC	0.36
7	ERPC Charges	0.16
8	Annual inspection fees	0.16
9	Income Tax	38.67
10	Recovery of ARR & Tariff Petition Fee	0.30
11	Contribution towards Water Conservation Fund	6.13
	<b>Total</b>	<b>70.97</b>

27. OPGC requested to provisionally approve the other charges of **Rs. 70.97 Crore**. OPGC further requested to direct GRIDCO Ltd. to reimburse the other charges on actual basis during the year.

#### Additional Capitalization for FY 2023-24

28. OPGC submitted that the claim of additional components of Annual Fixed Charges towards additional capitalization for FY 2015-16 to FY 2021-22 and projected additional capitalization for FY 2022-23 and FY 2023-24 will be claimed by OPGC through a separate petition based on the outcome of the Appeal registered as Appeal No. 335/2021 before Hon'ble APTEL.

#### Summary of Tariff proposal for FY 2023-24

29. The Summary of tariff proposed by OPGC for FY 2023-24 is given in the table-10 and other charges for FY 2023-24 in the table 10 below.

**Table 7: Summary of Tariff Proposal of OPGC for FY 2023-24**

<b>Particulars</b>	<b>Units</b>	<b>FY 2023-24</b>
Depreciation	Rs. Crore	-
Return on Equity	Rs. Crore	72.00
Interest on loan	Rs. Crore	-
O&M expenses	Rs. Crore	205.69
Interest on working capital	Rs. Crore	14.88
<b>Total Annual Fixed Cost</b>	<b>Rs. Crore</b>	<b>292.58</b>
<b>Variable Charges per kWh</b>	<b>Paisa/kWh</b>	<b>178.86</b>

**Table 11: Other Charges for FY 2023-24**

<b>Particulars</b>	<b>Units</b>	<b>FY 2023-24</b>
Other Charges	Rs. Crore	70.97

30. The Petitioner has provided compliance of directives of the Commission with regard to following points in the petition:
- Efforts being made for ash disposal/ utilization in line with MOEF&CC Notification dated 31.12.2021 and MoP Notification No.9/7/2011-ST.TH (Vol. IV) dated 22.02.2022.
  - Measures relating to safety being taken in line with CEA (Safety Requirements for Construction, Operation and maintenance of Electrical Plants and Electric Lines) Regulation as amended from time to time.
  - The feasibility for development of solar power plant within the existing power plant area and other steps being taken in this regard.
  - Steps being taken to improve performance and availability of IB TPS.

**Prayer**

31. OPGC has prayed to the Commission to approve the following for FY 2023-24:
- Admit the instant Petition.
  - Approve the tariff, including annual fixed cost and base variable charges for FY 2023-24 as claimed in the Petition.

- c. Approve the other charges for FY 2023-24 as claimed in the Petition and recovery of other charges on actual basis during FY 2023-24.
- d. Approve the recovery of FPA in accordance with the approved PPA during FY 2023-24.
- e. Allow OPGC to file a separate Petition regarding additional capitalization from FY 2015-16 to FY 2023-24 after the APTEL Judgment is issued in Appeal No 335/2021 filed by OPGC on the Commission's Order dated May 21, 2021 in Case No. 54 of 2018.
- f. Condone any inadvertent omissions, errors, short comings and permit OPGC to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date; and
- g. Pass such other and further Orders as deemed fit and proper in the facts and circumstances of the case.

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