

Petition for approval of Generation Tariff of IB TPS Units 1 & 2 for FY 2023-24 (Case No 75/2022)



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Agenda for Presentation

- 1. Background**
- 2. Approach for Filing Petition**
- 3. Tariff Filings for FY 2023-24**
- 4. Compliance to directives**
- 5. Prayers**

- Hon'ble Odisha Electricity Regulatory Commission (OERC) vide its Order dated April 27, 2015 (Case No. 13/2002) had approved the following agreements entered into between OPGC Ltd. and GRIDCO Ltd.:
 - Bulk Power Supply Agreement between OPGC and GRIDCO, dated August 13, 1996 and an agreement as Supplemental to Bulk Power Supply Agreement dated December 19, 2012.
 - Tripartite Agreement between OPGC, GRIDCO and Government of Odisha dated October 18, 1998 and an agreement as Supplemental to Tripartite Agreement dated September 6, 2012.
 - Govt. of Odisha (GoO) Notification No. 7216/E dated June 21, 2008.
 - Escrow and Securitization Arrangement dated November 30, 1998 entered between OPGC, GRIDCO and Union Bank of India.
- As per the direction of Hon'ble OERC in its Order dated April 27, 2015 (Case No. 13/2002), OPGC has been filing the Annual Tariff Petitions for Determination of Tariff of OPGC 1&2 since FY 2016-17.

- Hon'ble Supreme Court of India in Civil Appeal No. 9485 of 2017, on April 19, 2018 directed for determination of OPGC's Tariff in accordance with the terms of PPA. Relevant extract of the Judgment of the Hon'ble SC is reproduced below:

- “6. We are of the view that the Commission vide Order dated 27.04.2015 on the joint application of the parties dated 26.02.2014 rightly fixed the tariff but the view taken in subsequent order dated 21.03.2016 which has been upheld on appeal is unsustainable.*
- 7. Accordingly, we set aside the impugned order and remand the matter to the State Commission for fresh decision. The State Commission may take into account the Notification dated 21.06.2008 for the fixed costs, the PPA for the variable costs specified therein and for other costs not reflected in the PPA, statutory Regulations may be applied.*
- 8. The appeal shall stand disposed of as indicated above.*
- 9. The parties may appear before the State Commission for further proceedings on 2.07.2018.”*

Background ...3/4



- Pursuant to Supreme Court's Judgment in Civil Appeal No. 9485 of 2017, the following Tariff Orders have been issued by Hon'ble OERC.

Date	Case No	Description
March 28, 2019	Case No. 33/2018	Hon'ble Commission issued the Order on Tariff Redetermination for FY 2016-17, FY 2017-18 and FY 2018-19
March 29, 2019	Case No. 70/2018	Tariff Order issued for FY 2019-20.
April 22, 2020	Case No. 69/2019	Tariff Order issued for FY 2020-21.
March 26, 2021	Case No. 71/2020	Tariff Order issued for FY 2021-22.
March 24, 2022	Case No. 104/2021	Tariff Order issued for FY 2022-23.

Background4/4



Date	Case No.	Description
November 30, 2022	Case No. 75/2022	OPGC filed the Petition for approval of Tariff for FY 2023-24
December 26, 2022	-do-	Hon'ble Commission sought additional information on the Tariff Petition
January 12, 2023	-do-	OPGC submitted the additional information sought by the Hon'ble Commission (Filing-2)
January 17, 2023	-do-	OPGC submitted the replies to the stakeholders' objections/suggestions (Filing-3)
February 06, 2023	-do-	OPGC submitted the replies to GRIDCO's objections / suggestions (Filing-4)

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Approach for Filing of Petition...1/2

- Hon'ble Commission has been determining the Tariff in accordance with the SC Order in Civil Appeal No 9485/2017 dated April 19, 2018.
- Hon'ble Commission vide its Order dated October 28, 2020 in Case No. 43 of 2017 has decided the methodology of considering GCV for computation of Energy Charge Rate.
- OPGC has filed Appeal No. 189 of 2020 before the Hon'ble APTEL against this Hon'ble Commission's Order dated October 28, 2020.
- Hon'ble Commission vide order dated May 21, 2021, in Petition No. 54 of 2018 disallowed additional capitalisation for FY 2015-16, to FY 2018-19.
- OPGC has filed an Appeal before Hon'ble APTEL on November 15, 2021, as Appeal No. 335/2021 against this Hon'ble Commission's Order.
- In this Petition, OPGC has not claimed tariff towards additional capitalization. Based on the outcome of the Appeal, OPGC will approach the Hon'ble Commission for approval of actual additional capitalisation and consequential tariff through a separate petition.

Approach for Filing of Petition...2/2

- **Regulation 7(6)** of OERC Generation Tariff Regulations, 2020 stipulates for making an application for ***determination of tariff as per annual schedule, by November 30th of every year*** in respect of the units 1&2 of the generating station.
- The Tariff Petition for FY 2023-24 has been filed in line with the Supreme Court judgement, and approach adopted in the previous years including Case No. 104 of 2021 for FY 2022-23.

Tariff components	Considering original project cost as per the approved Amended PPA
Annual Fixed Cost	
O&M expenses	✓
Depreciation	×
Interest on loans	×
Interest on working capital	✓
Return on Equity	✓
Variable Charges	✓
Other Charges	✓

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Annual Fixed Cost (AFC)

- **Regulation 19(2)** of OERC Generation Tariff Regulations, 2020 stipulates as follows:
“The Annual Fixed Cost for OHPC and OPGC (Unit-I & II) will be determined by the Commission by taking into account the notification(s) issued by the Government of Odisha from time to time and their PPAs.”

- In accordance with **Clause 3 of Schedule II of the PPA**, AFC comprises of the following:
 1. Depreciation
 2. Return on Equity
 3. Interest on loan capital
 4. O&M expenses
 5. Interest on working capital

Methodology of Computing AFC



Particulars	Provisions of the PPA	Corresponding to <u>Original Project Cost</u>
Depreciation	7.5% of the Capital Cost	Fully depreciated asset and hence, no depreciation claimed
Return on Equity (RoE)	RoE allowable @ 16% on the equity capital of Rs. 450 Crore	RoE computed in accordance with the PPA
Interest on Loan	As per actuals	Loan is fully repaid hence no interest on loan claimed
O&M expenses	O&M expenses @ 2.50% of Rs. 1030 Crore for FY 1996-97 escalable @ 8% p.a.	O&M expenses computed in accordance with the PPA
Interest on working capital (IoWC)	<p>Normative working capital requirements include:</p> <ul style="list-style-type: none"> • 1.5 months coal cost; • 2 months oil cost; • O&M expenses for 1 month • Receivables for 2 months. <p>Rate of IoWC @ rate of interest applicable to OPGC for its working capital facility</p>	<p>Normative working capital requirements computed in accordance with the PPA;</p> <p>Actual interest rate for Working Capital (7.95%) as on September 2022 has been considered.</p>

O & M Expenses



Particulars	Legend	Rs Crore
Capital Cost of Project considered for O&M Expenses as per Amended PPA	A	1030.00
O&M Expenses for first year @ 2.5% of Capital Cost	$B=A*2.5\%$	25.75
Escalation rate	C	8.00%
O&M Expenses	$D=B*((1+C)^{27})$	205.69

Interest on Working Capital



Particulars	Units	Value
Cost of Coal for one and half months	Rs. Crore	43.96
Cost of Secondary Fuel Oil for two months	Rs. Crore	9.37
O&M Expenses for one month	Rs. Crore	17.14
Receivables equivalent to two months	Rs. Crore	116.74
Total Working Capital Requirement	Rs. Crore	187.21
Interest Rate %	%	7.95%
Interest on Working Capital	Rs. Crore	14.88

Annual Fixed Cost (AFC)

Particulars	Units	Value	PPA Ref.
Depreciation	Rs. Crore	-	-
Return on Equity	Rs. Crore	72.00	Clause 3(b) of Schedule II
Interest on loan	Rs. Crore	-	-
O&M expenses	Rs. Crore	205.69	Clause 3(d) & 3(e) of Schedule II
Interest on working capital	Rs. Crore	14.88	Clause 3(f) of Schedule II
Total Annual Fixed Cost	Rs. Crore	292.58	

Norms of Operation



Particulars	Provisions of the PPA	Methodology adopted
Normative Availability	68.49%	Considered as per the PPA
Auxiliary consumption	9.50%	Considered as per the PPA
Station Heat Rate	2500 kcal/kWh	Considered as per the PPA
Specific oil consumption	3.5 ml/kWh	Considered as per the PPA

- The rate of **variable charges (base value)** for FY 2023-24 has been computed considering the **norms of operation as per the PPA**.
- The **actual fuel prices and GCV for the period April 2022 to September 2022** has been considered for projecting the base variable charge for FY 2023-24 **in line with to Cl.9, Sch.II of the PPA**

- As per terms of the Amended PPA, GCV of coal shall be considered as delivered to the power station.
- Hon'ble Commission vide its Order dated October 28, 2020 in Case No. 43 of 2017, issued certain directions regarding the basis of calculation of GCV of coal on "as delivered basis" for computation of tariff *i.e*, Energy Charge Rate.
- OPGC has filed **Appeal No. 189 of 2020 before the Hon'ble APTEL** against this Hon'ble Commission's Order dated October 28, 2020 in Case No. 43 of 2017 on the GCV to be considered for tariff computation.
- Pleadings have been completed in the above Appeal. In the hearing dated 26.11.2020 before the Hon'ble APTEL, GRIDCO undertook not to precipitate the matter pursuant to this Hon'ble Commission's Order dated 28.10.2020 in Case No. 43 of 2017. This interim relief is being continued vide APTEL's various daily orders in the above matter.

- Pending decision on the APTEL appeal, OPGC has considered the following, as also done for previous year tariffs, to adopt GCV value.
 - *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, which implies **GCV measured at the 'boiler end' on a Total Moisture basis.** Accordingly, OPGC has considered the **GCV of coal and oil for the computation of energy charges.***

Variable Charges (Energy Charge Rate)

Particulars	Unit	FY 2022-23
Auxiliary Consumption	%	9.50%
Gross Station Heat Rate	kCal/kWh	2500
GCV of Coal	kCal/kg	2865.76
GCV of Oil	kCal/kg	10000
Specific Coal Consumption	kg /kWh	0.86
Specific Oil Consumption-HFO/LDO (90:10)	ml/kWh	3.50 (3.15:0.35)
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
Variable Charges per kWh(base value)	Paisa/kWh	178.86

Break up of ECR: Coal: 154.20 Paisa/kWh
Oil: 24.66 Paisa/kWh

SUMMARY OF PROPOSED TARIFF FOR FY 2023-24



Particulars	Unit	Approved for FY 2022-23	Proposed Tariff for FY 2023-24
Annual Fixed Cost			
O & M Expenses	Rs. Crore	190.46	205.69
Depreciation	Rs. Crore	-	-
Interest on Term Loans	Rs. Crore	-	-
Interest on Working Capital	Rs. Crore	12.29	14.88
Return on Equity	Rs. Crore	72.00	72.00
AFC	Rs. Crore	274.74	292.58
Rate of Energy Charge	Paise/kWh	161.09	178.86
<i>Per Unit cost @ 80% PLF</i>	<i>Paise/kWh</i>	<i>264.23</i>	<i>288.69</i>

Other Charges...1/2



- **Clause 10 of the approved Amended PPA** provides for reimbursement of statutory taxes, levies, duties, cess or any kind of imposition(s) whatsoever imposed/charged by any Government (Central/State) and/or any other local bodies/authorities on generation of electricity including auxiliary consumption or any other type of consumption, transmission, sale or on supply of power/energy and/or in respect of any of its installations associated with the Generating Stations and/or on Transmission System, Environmental Protection, Water etc.

Other Charges...2/2



Particulars	Unit	Approved for FY 2022-23	Proposed for FY 2023-24
Electricity Duty	Rs. Crore	14.42	14.94
Water Cess and Water Charges	Rs. Crore	8.58	9.22
Energy Compensation Charges	Rs. Crore	0.71	0.78
Tax and Cess on land	Rs. Crore	0.05	0.25
SOC and MOC for SLDC	Rs. Crore	0.36	0.36
ERPC Charges	Rs. Crore	0.16	0.16
Annual inspection fees	Rs. Crore	-	0.16
Income Tax	Rs. Crore	-	38.67
Recovery of ARR & Tariff Petition Fee	Rs. Crore	0.30	0.30
Water Conservation Fund	Rs. Crore	6.13	6.13
Total	Rs. Crore	30.71	70.97
<i>Per Unit cost @ 80% PLF</i>	<i>Paise/kWh</i>	<i>11.53</i>	<i>26.64</i>

The other charges have been proposed based on the actual expenses incurred in FY 2021-22.

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Directive No. 1: Efforts made for ash disposal/utilization

- Reclamation of low lying areas with ash in the vicinity of plant.
- Constructed 100 m of green concrete road inside the plant with fly ash.
- No red bricks are used in ITPS for construction activity.
- Supply of fly ash to ash brick plants & Cement Plant by road and Indian Railways.
- Centre for Fly Ash Research & Management (C-FARM) is engaged for scientific and technical advice to obtain “Consent for mine void filling with fly ash”.
- Efforts is in place for securing allotment of mine voids of MCL for back filling.
- Discussions in place with IIT Chennai for use of fly ash in agriculture sector.

Compliance to directives...2/3

Directive No. 2: Safety Measures in line with CEA (Safety Requirements for Construction, Operation and maintenance of Electric Plants and Electric Lines) Regulation as amended from time to time

- General Safety guidelines – Complied
- Fire Safety guidelines – Complied
- BTG Safety guideline – Complied
- BOP Safety guideline – Complied

Compliance to directives...3/3



Directive No. 3: Solar Power Plant within plant boundary

- 39 kW of Rooftop Solar PV installed and in service.
- Proposal to set up 50 MW SPV plant on top of capped ash pond B under consideration.

Directive No. 4: Improvement in performance

- Regular performance monitoring.
- RCA & trip analysis.
- AOH/COH are being taken as per schedule.
- Loss minimization by operational control.
- Capital expenditure focused on improved performance.
- Renovation & Modernization under progress.

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Prayers

- i. *Admit the instant Petition.*
- ii. *Approve the tariff, including annual fixed cost and variable charges for FY 2023-24 as claimed in the Petition.*
- iii. *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.*
- iv. *Approve the recovery of FPA in accordance with the approved PPA during FY 2023-24.*
- v. *Allow OPGC to file a separate Petition regarding additional capitalisation from FY 2015-16 to FY 2023-24 after the Hon'ble APTEL Judgment is issued in Appeal No. 335/2021 filed by OPGC on Hon'ble Commission's Order dated May 21, 2021 in Case No. 54 of 2018.*
- vi. *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*
- vii. *Pass such other and further Orders as deemed fit and proper in the facts and circumstances of the case.*

Thank You

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