



**ODISHA POWER GENERATION CORPORATION LTD.**

(A Government Company of the State of Odisha)

CIN : U40104OR1984SGC001429

**Regd. Off. :** Zone-A, 7th Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar - 751023, Odisha  
**Ph. :** 0674-2303765 - 66, **Fax :** 0674-2303755 / 56  
**Web :** www.opgc.co.in.

Ref: OPGC / Units 1 & 2/Tariff/2020-21/ 1233

November 27, 2020

To  
**The Secretary,**  
Odisha Electricity Regulatory Commission,  
Plot No.4, Chunokoli, Sailashree Vihar  
Bhubaneswar- 751 021

**Sub: Submission of application for determination of Generation Tariff for FY 2021-22**

**Dear Sir,**

With reference to the above cited subject and letter under reference, OPGC herewith submits Original – 14 copies of the **Application for determination of Generation Tariff for FY 2021-22.**

Also as per OERC (Conduct of Business) Regulations and OERC (Fees & Charges) Regulations, we are submitting herewith a Demand Draft issued by Union Bank bearing no. **355741** dated 27-11-2020 for an amount of Rs 21,00,000/- towards tariff application fees.

You are requested to kindly acknowledge receipt of the above application and the application fees.

Thanking you  
Yours faithfully

**General Manager (C & RA)**

Encl: As above

**ODISHA POWER GENERATION CORPORATION LTD.**

(A Government Company of the State of Odisha)

CIN : U40104OR1984SGC001429



Regd. Off : Zone - A, 7th Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar - 751 023, Odisha.

Ph. : 0674-2303755 - 88, Fax : 0674 - 2303755 / 56

Web : www.opgc.co.in

Ref: OPGC/Units 1 & 2/Tariff/2020-21/1232

November 27, 2020

To,

**The Secretary,**

Odisha Electricity Regulatory Commission,

Plot No.4, Chunakuli, SailashreeVihar

Bhubaneswar- 751 021

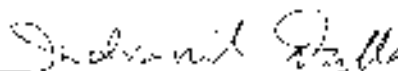
**Sub: Authorisation of Mr. Ritwik Mishra, GM (C&RA) for filing of tariff petition for FY 2021-22**

Sir,

This is to certify that Mr. Ritwik Mishra, functioning as General Manager, Commercial & Regulatory Affairs, Odisha Power Generation Corporation Ltd., posted at the corporate office at Zone-A, 7<sup>th</sup> Floor, Fortune Towers, Chandrasekharpur, Bhubaneswar-751023, Odisha, India (Petitioner), is hereby authorised to file the petition for determination of Generation Tariff of OPGC Unit 1&2 for FY 2021 - 22 and appear on behalf of the petitioner for the tariff hearing and other procedure before OERC.

Thanking you

Yours faithfully

  
(Indranil Dutta)

Managing Director

Managing Director

Odisha Power Generation Corporation Ltd.  
Bhubaneswar

27 NOV 2020

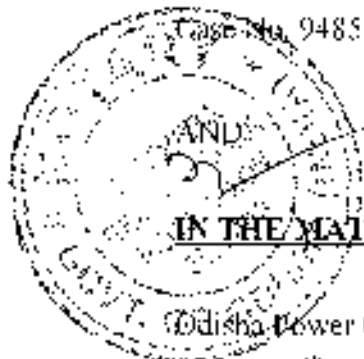
**AFFIDAVIT**

**BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION,  
BHUBANESHWAR**

FILE NO.

CASE NO. OF 2020

**IN THE MATTER OF:** Application for determination of Generation Tariff for FY 2021-22 for Odisha Power Generation Corporation Ltd. under Sections 62 & 86 of the Electricity Act, 2003 read with Approved Bulk Supply Agreement along with Supplemental Agreement (together referred to as the 'Amended PPA'), related provisions of OERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 and OERC (Conduct of Business) Regulations, 2004, and Hon'ble Supreme Court Order dated April 19, 2018 in Case No. 9485 of 2017.



**IN THE MATTER OF:**

Odisha Power Generation Corporation Ltd. (OPGC)

Zone-A, 7<sup>th</sup> Floor, Fortune Towers,

Chandrasekharpur, Bhubaneswar - 751 023

.... Petitioner

I, Ritwik Mishra, son of Shri. Muralidhar Mishra, aged about 52 years, do solemnly affirm and say as follows:



(a) That I am the General Manager (C&RA) of Odisha Power Generation Corporation Limited, the Petitioner in the above matter and am duly authorised by the said Petitioner to make this affidavit on its behalf.

(b) The statements made in paragraphs ..... of the Petition herein now shown to me are true to my knowledge and statements made in paragraphs ..... are based on information made available to me and I believe them to be true.

Deponent

Verification

I, the deponent above named do hereby verify that the contents of my above affidavit are true to my knowledge; no part of it is false and nothing material has been concealed there from.

Verified at Bhubaneswar on the 27<sup>th</sup> day of November, 2020.



*Milamani Prasad Nayak*  
27/11/2020  
MILAMANI PRASAD NAYAK  
NOTARY PUBLIC  
GOVT. OF ODISHA (INDIA)  
REGD. NO. 29/2003

*[Signature]*  
Deponent.

**ODISHA POWER GENERATION CORPORATION LIMITED**

**BIHUBANESWAR**



**OPGC**

*Power for Progress*

**PETITION FOR DETERMINATION OF TARIFF FOR  
IB TPS UNITS 1 & 2 FOR FY 2021-22**



NOVEMBER, 2020

**BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION,  
BHUBANESHWAR**

CASE No. \_\_\_\_ of 2020

**IN THE MATTER OF** Petition for determination of Tariff for IB TPS Units 1 & 2 for  
FY 2021-22

**AND**

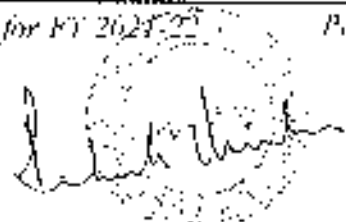
**IN THE MATTER OF** Odisha Power Generation Corporation Ltd. (OPGC Ltd.),  
**THE APPLICANT** Zone-A, 7<sup>th</sup> Floor, Fortune Towers, Chandrasekharpur,  
Bhubaneswar - 751 023, Odisha, India (Petitioner)

**ODISHA POWER GENERATION CORPORATION LIMITED ("The Petitioner")  
RESPECTFULLY SUBMITS AS FOLLOWS:**

Odisha Power Generation Corporation Limited (hereinafter referred as "OPGC" or "the Petitioner") 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. The said PPA came into force from January 1, 1995 and was approved by Government of Odisha ("GoO") in exercise of power under Section 43A of the Electricity (Supply) Act, 1948.

OPGC, GRIDCO and GoO signed a Tripartite Agreement dated October 18, 1998 ("Tripartite Agreement") providing certain further amendments to the existing PPA and other provisions including those concerning the establishment of Units 3 & 4 of IB Thermal Power Station by OPGC. Further an Escrow and Securitization Agreement dated November 30, 1998 was entered between OPGC, GRIDCO and Union Bank of India. In 2001, disputes arose between the parties in respect of the enforcement of the said Escrow and Securitization Agreement.



After resolving the disputes between the parties, OPGC and GRIDCO agreed to amend the existing PPA and Tripartite Agreement based on GoO Notification dated June 21, 2008 ("2008 Notification"). The relevant extract of the GoO's Notification dated June 21, 2008 is as follows:

- "3. After careful consideration of the recommendations of the task force, Government have been pleased to decide as under;*
- (a) In order to avoid any ambiguity with regard to tariff norms and parameters for Units 1 & 2, the provisions for calculation of incentive in the existing PPA shall stand amended to enhance the Plant Load Factor (PLF) from 68.49% to 89%. All other terms and parameters for determination of tariff for Units 1 & 2 shall be as per the existing PPA. Suitable amendments will be made in the PPA accordingly including deletion of all reference to change in tariff parameters in future. In other words, all tariff parameters will stand frozen till validity of amended PPA notwithstanding modification in tariff norms by CERC from time to time.*
- (b) The amended PPA shall be filed before the CERC for consent/approval.*
- (c) The amended PPA shall be effective with effect from 01.04.2007."*

Accordingly, an agreement was signed on September 6, 2012 as Supplemental to the Tripartite Agreement executed on October 18, 1998 (together called "Amended Tripartite Agreement"). The Amended Tripartite Agreement has been made effective from October 12, 2009.

Subsequently, OPGC and GRIDCO signed an amendment to existing PPA on December 19, 2012 regarding certain clauses (together called the "Amended PPA").

The CERC vide its Order dated April 27, 2015 approved the Amended PPA as under (with emphasis added by underlining):

- "9. The above stipulation in PPA provides for settlement of issues if any arise due to implementation of this PPA in a future date the same shall be resolved basing on mutual discussion keeping intent and objects of the PPA intact. Therefore*



the Commission has no objection to approve the PPA including its amendment between GRIDCO and OPGC for purchase of power from Unit 1 & 2 of Ib Thermal Power Station as it stands now.

...

11. Since the power purchase by GRIDCO from Unit 1 & 2 of Ib Thermal Power Station has been continuing as per mutual agreement without approved PPA and the Commission has approved the same in the ARR of GRIDCO for the concerned year there is no need to reopen the same as per the above Regulation. The parties should, therefore, settle the power purchase process for the period prior to implementation of the above Regulation taking into account the original PPA and its supplemental one as approved by us now.

Further, Hon'ble OERC in the said Order dated April 27, 2015 (Case No. 13/2002) 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 GRIDCO's ARR. The relevant extract of the Order of the Hon'ble OERC is reproduced below:



- "13. Due to the above provision in the Regulation read with Regulation 7.13 of the same Regulations, OPGC shall make an application before the Commission as per the above approved PPA each year for determination of tariff for the rest of the control period starting from FY 2016-17 onwards since the tariff for the FY 2014-15 and 2015-16 has already been approved by the Commission in the ARR of GRIDCO for the said year basing on the submission of GRIDCO."

In compliance with the above directions of the Hon'ble OERC, OPGC filed a Petition for Approval of Generation Tariff for FY 2016-17 under Section 62 and 86 of the Electricity Act, 2003 ("the Act"), approved Amended PPA and related provisions of the OERC (Terms and Conditions of Generation Tariff) Regulations, 2014 ("2014 Tariff Regulations") and OERC (Conduct of Business) Regulations, 2004, as amended from time to time. The Hon'ble OERC



vide its Order dated March 21, 2016 disposed of the above Petition (Case No. 53/2015) approving the Generation Tariff of Units 1 & 2 of IB Thermal Power Station for FY 2016-17, exclusively in accordance with the terms and conditions of the 2014 Tariff Regulations, and not the 2008 Notification or the Amended PPA.

OPGC filed an Appeal before the Hon'ble Appellate Tribunal (Appeal No. 126 of 2016) for Electricity ("APTEL") against the said Tariff Order for FY 2016-17 in Case No. 53/2015. During the pendency of the stated Appeal before the Hon'ble APTEL, OPGC filed the Petition for Approval of Generation Tariff for FY 2017-18 and the Hon'ble OERC disposed of the said Petition (Case No. 62/2016) vide its Order dated March 23, 2017 determining the Generation Tariff for FY 2017-18 in line with its approach adopted in the tariff determination for FY 2016-17. Hon'ble APTEL vide its Judgment dated April 6, 2017 in the stated Appeal upheld this Hon'ble Commission's Tariff Order for FY 2016-17.

Aggrieved by the Judgment of the Hon'ble APTEL, OPGC filed Civil Appeal No. 9485 of 2017 before the Hon'ble Supreme Court ("SC"). During the pendency of the stated Civil Appeal before the Hon'ble SC, OPGC filed the Petition for Approval of Generation Tariff for FY 2018-19 and the Hon'ble OERC disposed of the said Petition (Case No. 75/2017) vide its Order dated March 22, 2018 determining the Generation Tariff for FY 2018-19 in line with its approach adopted in the tariff determination for FY 2016-17. 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. Further, to the extent there are tariff norms not covered by the PPA, the Tariff Regulations may be relied upon by the OERC to determine OPGC's tariff. It is ~~provided~~ that the effect of the SC's Judgment is that this arrangement would apply for the ~~entire term~~ of the subsistence of the PPA viz. till 30.06.2026. The 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."

Further, Hon'ble OERC vide its Order dated May 5, 2018 in Case No. 43 of 2017 ruled as under:

4. Heard the parties at length. As the Hon'ble Supreme Court vide their order dated 19.04.2018 in Civil Appeal No. 9485/2017 has set aside the order dated 21.03.2016 passed by the Commission and remanded the matter for fresh decision, OPGC Ltd. is required to file fresh application for determination of Generation Tariff of its Unit-I & II within 15 days from date of this order. Basing on the said application of OPGC Ltd., a public notice shall be issued inviting suggestions/objections from the general public for re-determination of generation tariff for FY 2016-17 & FY 2017-18 which would be completed within one month fixing the date of hearing on 02.07.2018."



In accordance with the above, OPGC 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. The said Petition was numbered as Case No. 33 of 2018 and the final Order was issued by the Hon'ble Commission on March 28, 2019.

OPGC also 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 of 2017 dated 19.04.2018.

The Hon'ble Commission has reserved the Case for final Order.

In line with the approach adopted in Petitions in Case No. 33 of 2018 and Case No. 54 of 2018, OPGC had filed Petition for approval of Generation Tariff for FY 2019-20. The said Petition was numbered as Case No. 70 of 2018 and the final Order was issued by the Hon'ble Commission on March 29, 2019.

In line with the approach adopted in Petitions in Case No. 33 of 2018, Case No. 54 of 2018 and Case No. 70 of 2018, OPGC had filed Petition for approval of Generation Tariff for FY 2020-21. The said Petition was numbered as Case no. 69 of 2019 and the final Order was issued by the Hon'ble Commission on April 22, 2020.

The Hon'ble OERC notified the Odhisa Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 ("OERC Generation Tariff Regulations, 2020") on July 15, 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.

Regulation 7(6) of OERC Generation Tariff Regulations, 2020 stipulates as follows.

7. ...

(6) "Notwithstanding anything contained above the existing generation plants of OHPC and OPGC (Unit-I & II) may make an application as per the Format prescribed by the Commission for determination of tariff as per annual schedule, by November 30th of every year for determination of tariff in respect of the units of the generating station.



Provided that the OHPC and OPGC (Unit - I & II) shall make an application as per the prescribed Format with necessary information and explanations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or projected to be incurred during the period for which application for

*determination of tariff is filed of the generating station:*

*Provided further that application shall contain details of underlying assumptions for projected capital cost and additional capital expenditure, wherever applicable. '*

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 is filing the instant Petition for approval of Generation Tariff for FY 2021-22.

#### **Prayers to the Hon'ble OERC**

OPGC respectfully prays that the Hon'ble OERC may:

- i) Admit the instant Petition.
- ii) 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.
- iii) Consider the additional capitalization claimed for FY 2019-20 based on actual audited capitalization for the year as against the projected capitalization claimed in Case No. 69 of 2019.
- iv) Consider the revised proposed additional capitalization for FY 2020-21 as against the projected capitalization claimed in Case No. 69 of 2019.
- v) Approve the additional capitalization for FY 2019-20, FY 2020-21 and FY 2021-22 as claimed in the Petition.
- vi) Approve the tariff, including annual fixed cost and variable charges, for FY 2021-22 as claimed in the Petition.
- vii) Approve the other charges for FY 2021-22 as claimed in the Petition.
- viii) Approve the recovery of other charges on actual basis during FY 2021-22.
- ix) Approve the recovery of TPA in accordance with the approved PPA during FY 2021-22.
- x) 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



- xi) Pass such other and further Orders as deemed fit and proper in the facts and circumstances of the case.

  
Petitioner

Bhubaneswar  
November 27, 2020



## TABLE OF CONTENTS

1	Introduction	11
2	Overall Approach for Filing Petition	19
3	Generation Tariff for FY 2021-22 considering the original project cost	22
4	Additional Capitalisation for FY 2019-20, FY 2020-21 and FY 2021-22	37
5	Impact of Additional Capitalisation on Tariff for FY 2021-22	46
6	Summary of Tariff Proposal for FY 2021-22	52
7	Prayers	53



A handwritten signature in black ink, written over a circular official stamp. The signature is cursive and appears to be "S. K. Singh". The stamp is partially obscured by the signature.

## LIST OF TABLES

Table 3-1: Return on Equity corresponding to original project cost (Rs. Crore).....	24
Table 3-2: O&M Expenses for FY 2021-22 (Rs. Crore).....	25
Table 3-3: Interest on Working Capital corresponding to original project cost (Rs. Crore).....	26
Table 3-4: Annual Fixed Cost corresponding to original project cost (Rs. Crore).....	26
Table 3-5: Operational Performance Parameters for FY 2021-22.....	28
Table 3-6: Price and Gross Calorific Value of Coal and Oil.....	31
Table 3-7: Variable Charges for 2021-22.....	32
Table 3-8: Other Charges corresponding to the original project cost (Rs. Crore).....	36
Table 4-1: Summary of additional capitalisation claimed by OPGC (Rs. Crore).....	45
Table 5-1: Debt and equity of additional capitalisation.....	48
Table 5-2: Depreciation corresponding to additional capitalisation (Rs. Crore).....	49
Table 5-3: Return on Equity corresponding to additional capitalisation (Rs. Crore).....	49
Table 5-4: Interest on loan corresponding to additional capitalisation (Rs. Crore).....	50
Table 5-5: Interest on working capital corresponding to additional capitalisation (Rs. Crore).....	51
Table 5-6: Annual Fixed Cost corresponding to additional capitalisation (Rs. Crore).....	51
Table 6-1: Summary of Tariff Proposal for FY 2021-22.....	52
Table 6-2: Other Charges for FY 2021-22.....	52



## 1 Introduction

- 1.1 Odisha Power Generation Corporation Limited (herein after referred as "OPGC" or "the Petitioner") 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 - 751 023.
- 1.2 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. The said PPA came into force from January 1, 1995 and was approved by Government of Odisha ("GoO") in exercise of its power under Section 13A of the Electricity (Supply) Act, 1948.
- 1.3 OPGC, GRIDCO and GoO signed a Tripartite Agreement dated October 18, 1998 ("Tripartite Agreement") 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.
- 1.4 GRIDCO had approached the Hon'ble OERC for approval of the existing PPA in 2002. The jurisdiction of the Hon'ble OERC for approval of the existing PPA was challenged by OPGC before Hon'ble Orissa High Court, but was upheld by Hon'ble Orissa High Court. Further, aggrieved by this, OPGC filed a Special Leave Petition before Hon'ble Supreme Court ("SC"). The proceedings of the Hon'ble OERC were stayed pursuant to Interim Order of the Hon'ble SC dated April 29, 2005.
- 1.5 Subsequently, certain disputes arose 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, the parties entered into discussion and GoO constituted a Task Force vide Resolution No. 3895 dated May 7, 2007 for resolving disputes regarding tariff and other related matters. GoO based on the recommendations of Task Force, issued Notification No. 7216 dated June 21, 2008 ("2008 Notification") 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. The relevant extract of GoO 2008 Notification is as follows:

- "3. After careful consideration of the recommendations of the task force, Government have been pleased to decide as under;
- (a) In order to avoid any ambiguity with regard to tariff norms and parameters for Units 1 & 2, the provisions for calculation of incentive in the existing PPA shall stand amended to enhance the Plant Load Factor (PLF) from 68.49% to 80%. All other terms and parameters for determination of tariff for Units 1 & 2 shall be as per the existing PPA. Suitable amendments will be made in the PPA accordingly including deletion of all reference to change in tariff parameters in future. In other words, all tariff parameters will stand frozen till validity of amended PPA notwithstanding modification in tariff norms by CERC from time to time.
- (b) The amended PPA shall be filed before the OERC for consent/approval.
- (c) The amended PPA shall be effective with effect from 01.04.2007."

1.6 Pursuant to above, OPGC and GRIDCO agreed to amend existing PPA and Tripartite agreement based on GoO's 2008 Notification. Accordingly, an agreement was signed on September 6, 2012 as Supplemental to the Tripartite agreement executed on October 18, 2008 (together called as "Amended Tripartite Agreement"). The Amended Tripartite Agreement has been made effective from October 12, 2009.



1.7 Subsequently, OPGC and GRIDCO signed an amendment to existing PPA on December 19, 2012 by amending certain clauses (together called the "Amended PPA"), which was retrospectively brought to effect from April 1, 2007.

1.8 With the execution of this agreement, the Parties agreed that all pending differences have been settled and OPGC shall withdraw Special Leave Petition pending before Hon'ble SC. Further, Hon'ble SC vide its Order dated February 14, 2013 dismissed the Special

Leave Petition as withdrawn by OPGC and in the said order Hon'ble SC directed OPGC to file the Amended PPA before Hon'ble OERC and the Hon'ble OERC shall consider the same appropriately in accordance with law.

- 1.9 Hon'ble OERC vide its Order dated April 27, 2015 approved the Amended PPA, being filed before Hon'ble OERC jointly by OPGC and GRIDCO, as under (with emphasis added by underlining):

"9. *The above stipulation in PPA provides for settlement of issues if any arise due to implementation of this PPA in a future date the same shall be resolved having an mutual discussion keeping intent and objects of the PPA intact. Therefore, the Commission has no objection to approve the PPA including its amendment between GRIDCO and OPGC for purchase of power from Unit 1 & 2 of Ib Thermal Power Station as it stands now*

11. *Since the power purchase by GRIDCO from Unit 1 & 2 of Ib Thermal Power Station has been continuing as per mutual agreement without approved PPA and the Commission has approved the same in the ARR of GRIDCO for the concerned year there is no need to reopen the same as per the above Regulation. The parties should, therefore, settle the power purchase process for the period prior to implementation of the above Regulation taking into account the original PPA and its supplemental one as approved by us now "*



- 1.10 Further, Hon'ble OERC in the said Order dated April 27, 2015 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 relevant extract of the OERC Order is reproduced below:

"12. *The Regulation 2.7 of OERC (Terms and Conditions for Determination*

*of Generation Tariff) Regulations, 2014 provides as follows.*

*The existing generation plants of OHPC and OPGC may make an application as per the Format prescribed by the Commission for determination of tariff as per annual schedule, by November 30th of every year for determination of tariff in respect of the units of the generating station completed or projected to be completed within six months from the date of application.*

*Provided that the OHPC and OPGC shall make an application as per the prescribed format with necessary information and explanations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital expenditure incurred duly certified by the auditors or projected to be incurred during the period for which application for determination of tariff is filed of the generating station.*



15. *Due to the above provision in the Regulation read with Regulation 7.13 of the same Regulations, OPGC shall make an application before the Commission as per the above approved PPA each year for determination of tariff for the rest of the control period starting from FY 2016-17 onwards since the tariff for the FY 2014-15 and 2015-16 has already been approved by the Commission in the ARR of GRIDCO for the said year basing on the submission of GRIDCO."*

- 1.11 In compliance with the above directions of the Hon'ble OERC, OPGC filed a Petition for Approval of Generation Tariff for FY 2016-17 under Section 62 and 86 of the Act, approved Amended PPA and related provision of OERC (Terms and Conditions of Generation Tariff) Regulations, 2014 and OERC (Conduct of Business) Regulations, 2004, as amended from time to time. The Hon'ble OERC vide its Order dated March 21, 2016 disposed of the above Petition (Case No. 53/2015) approving the Generation Tariff of Units 1 & 2 of IB Thermal Power Station for FY 2016-17 exclusively in accordance

with the terms and conditions of the 2014 Tariff Regulations, and neither the 2008 Notification nor the Amended PPA. OPGC filed Appeal No. 126 of 2016 before the Hon'ble Appellate Tribunal for Electricity ("APTEL") against the said Tariff Order for FY 2016-17 in Case No. 53/2015. During the pendency of the stated Appeal before the Hon'ble APTEL, OPGC filed a Petition for Approval of Generation Tariff for FY 2017-18 and the Hon'ble OERC disposed of the said Petition (Case No. 62/2016) vide its Order dated March 23, 2017 determining the Generation Tariff for FY 2017-18 in line with its approach adopted in the tariff determination for FY 2016-17. Hon'ble APTEL vide its Judgment dated April 6, 2017 in the stated Appeal upheld this Hon'ble Commission's Tariff Order for FY 2016-17.

- 1.12 Aggrieved by the Judgment of the Hon'ble APTEL, OPGC filed Civil Appeal No. 9485 of 2017 before the Hon'ble SC. During the pendency of the stated Civil Appeal before the Hon'ble SC, OPGC filed the Petition for Approval of Generation Tariff for FY 2018-19 and the Hon'ble OERC disposed of the said Petition (Case No. 75/2017) vide its Order dated March 22, 2018 determining the Generation Tariff for FY 2018-19 in line with its approach adopted in the tariff determination for FY 2016-17. The Hon'ble SC 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 SC 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 provided by the PPA, the 2014 Tariff Regulations may be relied upon by the OERC to determine OPGC's tariff. It is submitted that the effect of the SC's Judgment is that this arrangement would apply for the entire term of the subsistence of the PPA viz. till 30.06.2026.

- 1.13 The relevant extract of the Judgment of the Hon'ble SC is reproduced below with relevant portion underlined:

"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 26<sup>th</sup> 2018.*

1.14 Further, Hon'ble OERC vide its Order dated May 3, 2018 in Case No. 43 of 2017 ruled as under:



1. *Heard the parties at length. As the Hon'ble Supreme Court vide their order dated 19.04.2018 in Civil Appeal No. 9485/2017 has set aside the order dated 21.03.2016 passed by the Commission and remanded the matter for fresh decision OPGC Ltd. is required to file fresh application for determination of Generation Tariff of its Unit-I & II within 15 days from date of this order. Basing on the said application of OPGC Ltd., a public notice shall be issued inviting suggestions/objections from the general public for re-determination of generation tariff for FY 2016-17 & FY 2017-18 which would be completed within one month fixing the date of hearing on 02.07.2018.*

1.15 In accordance with the above, OPGC 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. The said Petitions were numbered as Case No. 33 of 2018 and the final Order was issued by the Commission on March 28, 2019.

1.16 OPGC also 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 Hon'ble Commission has reserved the Case for final Order.

1.17 In line with the approach adopted in Petitions in Case No. 33 of 2018 and Case No. 54 of 2018, OPGC had filed Petition for approval of Generation Tariff for FY 2019-20. The said Petition was numbered as Case no. 70 of 2018 and the final Order was issued by the Hon'ble Commission on March 29, 2019.

1.18 In line with the approach adopted in Petitions in Case No. 33 of 2018, Case No. 54 of 2018 and Case No. 70 of 2018, OPGC had filed Petition for approval of Generation Tariff for FY 2020-21. The said Petition was numbered as Case no. 69 of 2019 and the final Order was issued by the Hon'ble Commission on April 22, 2020.

1.19 The Hon'ble OERC 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 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.

1.20 Regulation 7(6) of OERC Generation Tariff Regulations, 2020 stipulates as follows:



(6) Notwithstanding anything contained above the existing generation plants of OHPCL and OPGC (UNIT-I & II) may make an application as per the Format prescribed by the Commission for determination of tariff as per annual schedule, by November 30th of every year for determination of tariff in respect of the units of the generating station.

*Provided that the OHPCL and OPGC (Unit - I & II) shall make an application as per the prescribed Format with necessary information and explanations, for determination of tariff based on capital expenditure incurred duly certified by the auditors or projected to be incurred up to the date of commercial operation and additional capital*

*expenditure incurred duly certified by the auditors or projected to be incurred during the period for which application for determination of tariff is filed of the generating station;*

*Provided further that application shall contain details of underlying assumptions for projected capital cost and additional capital expenditure, wherever applicable.*

1.21 In accordance with the provisions of OI-RC 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 is filing the instant Petition for approval of Generation Tariff for FY 2021-22.

1.22 The Petition is structured in the following manner:

- Section 1 (This Section): Introduction
- Section 2: Overall Approach for Filing Petition
- Section 3: Generation Tariff for FY 2021-22 considering original project cost
- Section 4: Additional Capitalisation for FY 2019-20, FY 2020-21 and FY 2021-22
- Section 5: Impact of Additional Capitalisation on Tariff for FY 2021-22
- Section 6: Summary of Tariff Proposal for FY 2021-22
- Section 7: Prayers



## **2 Overall Approach for Filing Petition**

2.1 The instant Petition has been filed for determination of Generation Tariff for FY 2021-22 for IB Thermal Power Station of OPGC Ltd., having installed capacity of 420 MW (2 x 210 MW - Unit 1 & 2), located at Barharpalli in District Jharsuguda.

2.2 Section 86(1) of the Electricity Act, 2003 stipulates as under:

*"(1) The State Commission shall discharge the following functions:-*

*(i) determine the tariff for generation, supply, transmission and wheeling of electricity wholesale, bulk or retail, as the case may be, within the State;*  
....."

2.3 The OERC Conduct of Business Regulations, 2004 stipulates as under:

*"61. Generation Tariff:-*

.....

*(2) ..... the Generating Company may file an application by 30th November of each year to the Commission for determination of tariff for any of the generating station for the sale of energy in the State of Orissa giving the details of the fixed and variable costs associated with the generation and sale of energy from the generating station.*



.....

*(4) The Commission may determine the tariff for the sale of energy from the Generating Station of a Generating Company...."*

2.4 Regulation 19(2) of OERC Generation Tariff Regulations, 2020 stipulates as follows:

*"The Annual Fixed Cost for OHPCL and OPGCL (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."*



2.5 Considering aforesaid provisions, along with the provisions and judgements as mentioned in Chapter 1 (Introduction) of the instant Petition, i.e., Regulation 7(6) of OERC Generation Tariff Regulations, 2020, the Hon'ble Supreme Court Judgement dated April 19, 2018, 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. 7716/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.

2.6 In line with the approach adopted in Petition in Case No. 69 of 2019, OPGC is filing the instant Petition for approval of Generation Tariff for FY 2021-22 as under:

Tariff Component	Considering original project cost as per the Approved Amended PPA	Considering the additional capitalisation claimed in Case No. 64 of 2018, Case No. 69 of 2019 and in the instant petition
<b>Annual Fixed Cost</b>		
O&M expenses	✓	✓
Depreciation	✓	✓
Interest on loans	✓	✓
Interest on working capital	✓	✓

Tariff Components	Considering the original project cost as per the Approved Amended PPA	Considering the additional capitalisation as per Case No. 53 of 2018, Case No. 40 of 2019 and in the instant petition
Return on Equity	✓	✓
Variable Charges	✓	✓
Other Charges	✓	✓

2.7 In Section 3, OPGC has submitted the generation tariff for FY 2021-22 considering the original project cost as per the Approved Amended PPA. In Section 4, OPGC has submitted the details of actual additional capitalisation for FY 2019-20 and proposed additional capitalisation for FY 2020-21 and FY 2021-22. In Section 5, OPGC has submitted the impact of additional capitalisation on the Generation Tariff for FY 2021-22. In Section 6, OPGC has submitted the summary of tariff proposal for FY 2021-22.



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

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

- 3.1 As discussed earlier, the Hon'ble SC vide its Judgment dated April 19, 2018 has held that primarily the tariff parameters under the PPA are to be followed in determining OPGC's tariff. Accordingly, OPGC has considered the tariff parameters as per the provisions of PPA.
- 3.2 As per Clause 3.0 of Schedule II of the Amended PPA, the Annual Fixed Cost of OPGC 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.
- 3.3 The computation of each of the above components of the Annual Fixed Cost is detailed in the subsequent paragraphs.

#### **Capital Cost**

- 3.4 The Amended PPA signed between OPGC and GRIDCO has considered the Capital Cost of the Project as Rs. 1060 Crore. It is submitted that while approving the Amended PPA vide Order dated April 27, 2015, Hon'ble OERC has approved the capital cost of the project. Further, the Hon'ble Commission in its Tariff Order for FY 2020-21 had considered the original capital cost of the project as Rs. 1060 Crore. In view of this, OPGC has considered the capital cost of Rs. 1060 Crore for the purpose of computation of tariff for FY 2021-22.

#### **Additional Capitalisation**

- 3.5 The proposed additional capitalisation for FY 2021-22 has been discussed in Section 4 of



the instant Petition.

### **Debt : Equity Ratio**

3.6 OPGC submits that project cost of Rs. 1060 Crore as approved in Amended PPA included equity of Rs. 450 Crore and Loan of Rs. 610 Crore. It is submitted that while approving the Amended PPA vide Order dated April 27, 2015, Hon'ble OERC has approved the equity of Rs. 450 Crore and loan of Rs. 610 Crore. Further, the Hon'ble Commission in its Tariff Order for FY 2020-21 has approved the equity of Rs. 450 Crore and loan of Rs. 610 Crore. Hence, OPGC has considered actual debt : equity ratio, as approved in Amended PPA, for the purpose of determination of tariff for FY 2021-22. The debt and equity corresponding to the additional capitalisation has been discussed in Section 4 of the Petition.

### **Depreciation**

3.7 OPGC submits that Clause 3.0 (a) of Schedule II of the Amended PPA provides that depreciation charges shall be equal to 7.5% of the Capital Cost during the year. Considering the depreciation charges computed as per the provisions of the Amended PPA, the assets corresponding to Original Capital Cost of Generating Station are fully depreciated by the financial year ending March 31, 2009.

3.8 In view of the above, OPGC does not submit any claim towards the depreciation for FY 2021-22. However, the depreciation for FY 2021-22 corresponding to additional capitalisation has been discussed in Section 4 of the Petition.

### **Return on Equity**

3.9 OPGC has considered the actual amount of equity of Rs. 450 Crore for computation of Return on Equity. The Clause 8.3 (10) of Schedule II of PPA provides for Return on Equity at the rate of 16%. Further, the Hon'ble Commission in its Tariff Order for FY 2020-21 had approved the RoE for FY 2020-21 considering the original equity base of Rs. 450 Crore and rate of RoE of 16%. Accordingly, OPGC submits the Return on Equity for FY 2021-22 as under:

**Table 3-1: Return on Equity corresponding to original project cost (Rs. Crore)**

Sr. No.	Particulars	FY 2021-22
1	Actual Equity for Station	450.00
2	Rate of Return on Equity	16.00%
3	Return on Equity	72.00

3.10 OPGC humbly request the Hon'ble OERC to approve the Return on Equity of Rs. 72.00 Crore for FY 2021-22. The Return on Equity for FY 2021-22 corresponding to additional capitalisation has been discussed in Section 4 of the Petition.

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

3.11 OPGC submits 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 actuals. Considering the actual repayment made against the outstanding loan, OPGC submits that loan amount of Rs. 610 Crore has been fully repaid by financial year ending March 31, 2012. In view of the above, OPGC does not submit any claim towards the Interest on Loan Capital for FY 2021-22. However, the interest on loan capital for FY 2021-22 corresponding to additional capitalisation has been discussed in Section 4 of the Petition.

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

3.12 OPGC submits that Clause 5.0 (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 shall be escalated by 8% each year from April 1, 1996. The Hon'ble Commission in its Tariff Order for FY 2020-21 approved the O&M expenses for FY 2020-21 in line with the above stated provision of the approved Amended PPA.

3.13 Accordingly, OPGC submits the O&M Expenses for FY 2021-22 considering the escalation factor of 8% as per the methodology prescribed in Amended PPA as under:

Table 3-2: O&M Expenses for FY 2021-22 (Rs. Crore)

Sl. No.	Particulars	Legend	FY 2021-22
1	Capital Cost of Project considered for O&M Expenses as per Amended PPA	A	1030.00
2	O&M Expenses for first year @ 2.5% of Capital Cost	D-A (2.5%)	25.75
3	Escalation rate	C	8.00%
4	O&M Expenses	D-B*(1-C)*(25)	176.35

3.14 OPGC humbly requests the Hon'ble OERC to approve O&M Expenses of Rs. 176.35 Crore for FY 2021-22.

#### Interest on Working Capital

3.15 The Clause 3.0 (f) of Schedule II of the Amended PPA provides the Interest on working Capital as under:

*"(f) Interest on Working Capital will be worked out on the following basis on normative level of generation calculated at the rate of interest applicable to OPGC for its Working capital facility as on the fixed charge computation date*



- i) Coal cost for 1.5 months*
- ii) Oil cost for 2 months*
- iii) O&M expenses for 1 month*
- iv) Receivables for 2 months"*

3.16 As regards the rate of interest, the above said clause stipulates the interest rate applicable to OPGC for its Working Capital facility. 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.

3.17 Considering the Fuel Price and GCV as claimed in the below paragraphs of this section, OPGC submits the Interest on Working Capital for FY 2021-22 as under:

Table 3-3: Interest on Working Capital corresponding to original project cost (Rs. Crore)


Sr. No.	Particulars	FY 2021-22
1	Cost of Coal for one and half months	43.69
2	Cost of Secondary Fuel Oil for two months	3.37
3	O&M Expenses for one month	4.50
4	Receivables equivalent to two months	107.41
5	<b>Total Working Capital Requirement</b>	<b>171.36</b>
6	Interest Rate (%)	7.70%
7	<b>Interest on Working Capital</b>	<b>13.19</b>

3.18 OPGC humbly request the Hon'ble OERC to approve the Interest on Working Capital of Rs. 13.19 Crore for FY 2021-22. The interest on working capital corresponding to additional capitalisation has been discussed in Section 4 of the Petition.

#### Summary of Annual Fixed Cost

3.19 The Annual Fixed Cost proposed by OPGC for FY 2021-22 corresponding to the original project cost is summarised as under:

Table 3-4: Annual Fixed Cost corresponding to original project cost (Rs. Crore)

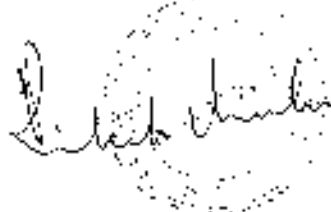


Particulars	FY 2021-22
Depreciation	0.00
Return on Equity	72.00
Interest on Loan Capital	0.00
O&M Expenses	176.35
Interest on Working Capital	13.19
<b>Total Annual Fixed Cost</b>	<b>261.54</b>

3.20 OPGC humbly requests the Hon'ble OERC to approve Annual Fixed Cost of Rs. 261.54 Crore corresponding to original project cost, for FY 2021-22.

#### Operational Performance Parameters

3.21 As discussed earlier, the Hon'ble SC vide its Judgment dated April 19, 2018 has held that primarily the tariff norms under the PPA are to be followed in determining OPGC's tariff. Accordingly, OPGC has considered the operational performance parameters as per the provisions of PPA.



3.22 OPGC has considered the following Operational Performance parameters as under:

- (a) Normative Availability
- (b) Plant Load Factor (PLF)
- (c) Gross Station Heat Rate
- (d) Specific Oil Consumption
- (e) Auxiliary Energy Consumption

3.23 OPGC in Amended PPA signed with GRIDCO has agreed upon operational performance parameters. OPGC for computation of variable charges for FY 2021-22 has considered the operational performance parameters as per Clause 8 of Schedule II of the approved Amended PPA.

**Normative Availability**

3.24 As per Clause 3.0 (g) of Schedule II of the Amended PPA, Full Fixed Charges will be paid on achievement of Normative Availability of 68.49%.


**Plant Load Factor (PLF)**

3.25 As per Clause 3.0 (g) of Schedule II of the Amended PPA, the interest on working capital will be worked out considering normative level of generation. Accordingly, OPGC has considered the PLF of 68.49%, equal to the Normative Availability for computing the coal cost, oil cost and receivables in the computation of interest on working capital.

3.26 As per Clause 3.0 (g) of Schedule II of the Amended PPA, the PLF applicable for computation of incentive shall be 80%. As per the generation plan submitted to GRIDCO, the ex-bus generation projected for FY 2021-22 is 2698.677 MU which corresponds to PLF of 81.88%.

3.27 **Gross Station Heat Rate:** Gross Station Heat Rate of 2500 kCal/kWh has been considered as per Clause 8 of Schedule II of the approved Amended PPA.

3.28 **Specific Oil Consumption:** Specific Oil Consumption of 3.5 ml/kWh has been considered as per Clause 8 of Schedule II of the approved Amended PPA.





3.29 **Auxiliary Consumption:** Auxiliary Consumption of 9.5% has been considered as per Clause 8 of Schedule II of the approved Amended PPA.

3.30 The Operational Performance parameters considered by OPGC are summarised as under:

Table 3-5: Operational Performance Parameters for FY 2021-22

Sr.No.	Particulars	Unit	FY 2021-22
1	Normative Availability	%	68.49%
2	Target PLP for incentive	%	80.00%
3	Auxiliary Consumption	%	9.50%
4	Station Heat Rate	kg/kWh	2500
5	Specific Oil Consumption	ml/kWh	3.50

#### Fuel Prices and GCV

3.31 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 ("MCL")

3.32 The Hon'ble Commission in its tariff order for the year 2020-21 in Case No. 69/2019, has provided as follows,



"85. The energy charge as approved is indicative in nature and GRIDCO shall pay to OPGC strictly as per the Clause 9 of Schedule II of the PPA which requires that the variable charge shall be settled considering the actual indexed price and GCV of oil and coal as delivered to the power station during the billing period."

3.33 Clause 7.0 of Schedule II of the existing PPA provides the computation of Fuel Cost. 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 above monthly fuel price adjustment shall be consolidated at the end of the financial year and certified by the Statutory Auditor. These prices and GCV for oil and coal for one year shall be weighted averages (base) for the next year"

3.34 Hon'ble Commission vide its Order dated October 28, 2020 in Case No. 43 of 2017 on the Petition filed by OPGC regarding the dispute on Gross Calorific Value to be considered for tariff has ruled as under:

*"13. We carefully heard the arguments and rival arguments of all the parties including opinions of experts. The bone of contention in this case is related to the calculation of Energy Charge Rate (ECR) of the power procured by GRIDCO from OPGC. After longstanding dispute in this matter, the Commission had finally redetermined the tariff for Unit-I and II of the petitioner vide case No 33 of 2018 dt.28.03.2019 for FY 2016-17, FY 2017-18 and FY 2018-19 pursuant to the judgment of the Hon'ble Supreme Court of India dated 19.04.2018 in Civil Appeal No. 9483 of 2017. The Commission in the said order had directed as follows:*

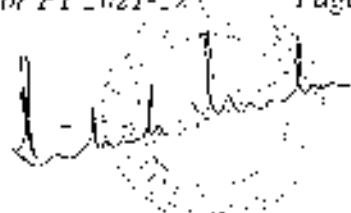
*Directives of the Commission:*

*"40. The recovery of monthly Capacity Charges as approved by the Commission here shall be made as per the methodology stipulated in the PPA and GRIDCO Ltd. shall make payment after prudence check.*

*41. The operational norms like Auxiliary Consumption, Gross Station Heat Rate, and Consumption of Oil as indicated in Clause 8 of Schedule-II of the PPA and Price and GCV of Oil and Coal actually delivered to the power station as per Clause 7 of Schedule-II of the PPA shall be considered. Accordingly claims of monthly Energy Charges shall be made by OPGC and GRIDCO Ltd. shall make payment after prudence check of all parameters of energy charges like GCV and price of Coal & Oil etc."*

The capacity charge and energy charge are to be computed as per the above order of the Commission.

*14. Heat energy contents of the coal and oil are converted to electrical energy in the power station. Heat energy content of the coal per kilogram varies at different points starting from the time of its mining till its firing in the furnace due to addition and release of moisture and other impurities during its handling. PPA between the parties at clause-7 of Schedule-II specifies that Gross Calorific Value of the coal and oil shall be determined "as delivered to the power station". It is understood from the submission of the experts and parties that the GCV of coal is measured at mines end by a third party agency named CIMFR on "equilibrated method". This is done to arrive at a standardized pricing of coal of a particular grade. But the heat energy available in the power station from the coal depends upon moisture content and other impurities. Therefore, GCV of coal measured at equilibrated method requires moisture correction for determination of heat content available for energy conversion. Therefore, if we apply a moisture correction formula on "as billed" GCV which is determined on equilibrated method, we can arrive at GCV on total moisture basis. CERC in petition No.279/GT/2014 dated 30.07.2016 has also adopted this method. This is because the*



measurement of GCV on total moisture basis at power station end is the practice generally followed by the industry and it determines the volume of coal the power station requires to generate a particular quantity of energy.

(1-TM)

GCV of coal as delivered to the power station (total moisture basis)- GCV X-----  
(1-IM)

Where:

GCV= Gross Calorific value of coal as billed by coal supplier

TM= Total moisture as per CIMFR report

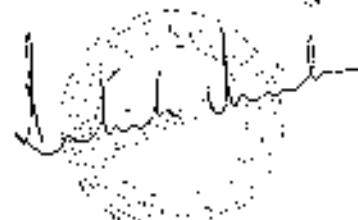
IM= Inherent moisture as per CIMFR report.

The above formula should form the basis of calculation of GCV of coal on "as delivered basis" for computation of energy charge. The above formula shall take care of total moisture in calculation of GCV which is the prevalent industry practice.

15 The old bill of OPGC should be modified accordingly from April, 2017 onwards for the entire tariff period. The value of IM and TM should be adopted from the third party CIMFR report. "

- 3.35 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. On 17.11.2020, the Hon'ble APTEL agreed for urgent hearing of OPGC's Appeal No. 189 of 2020 by allowing OPGC's I.A. No. 1633 of 2020 (for Urgent Listing). Both OPGC and GRIDCO have completed pleadings in OPGC's I.A. No. 1632 of 2020 (for Interim Relief), which is pending and is listed to be taken up for hearing on 10.12.2020 by the Hon'ble APTEL. In the hearing dated 26.11.2020 before the Hon'ble APTEL, GRIDCO undertook not to initiate any coercive action against OPGC till 10.12.2020 pursuant to this Hon'ble Commission's Order dated 28.10.2020 in Case No. 43 of 2017.

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.



3.36 As the instant Petition for tariff determination for FY 2021-22 is being filed before the end of the current year FY 2020-21, it is not possible to provide the auditor certified value of delivered price and GCV of oil and coal as part of the tariff submissions for the whole year. However, the actual delivered fuel prices and GCV of oil and coal for the period from April to September 2020, is available with OPGC, which has been considered for purpose of computation of tariff in the instant petition. The copy of the Half Yearly Fuel Price for the period April, 2020 to September, 2020 is enclosed at Annexure 1. Further, the weighted average price of Secondary Fuel Oil has been considered in the ratio of 90:10 for HFO and LDO as per the provisions of the Amended PPA.

3.37 Accordingly, GCV and Price of Coal and Oil, considered for tariff computation is summarised below:

Table 3-4: Price and Gross Calorific Value of Coal and Oil

S. No.	Source of Cost	Base for FY 2021-22
1	Price of Coal (Rs. GJt)	1542.30
2	Price of LDO (Rs. kL)	66344.95
3	Price of HFO (Rs. kL)	66392.93
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 Charge

3.38 OPGC has computed Variable Charges for FY 2021-22 as per Clause 7.0 of Schedule II of the Amended PPA. The computation of Variable Charges for FY 2021-22 is given in the Table below:



Table 3-7: Variable Charges for 2021-22

Particulars	Unit	Value
Auxiliary Consumption	%	0.50%
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	ltr/kWh	0.25
Specific Oil Consumption HFO	ltr/kWh	0.25
Price of Coal	Rs./MT	1542.30
Price of Secondary Oil-LDO	Rs./kl.	48144.95
Price of Secondary Oil-HFO	Rs./kl.	56291.93
Variable Charges per kWh (base value)	Paise/kWh	167.91

3.39 OPGC humbly requests the Hon'ble OERC to approve Base Variable Charges of 167.91 Paise/kWh for FY 2021-22. 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

3.40 Clause 10.0 of the approved Amended PPA stipulates as under:

**"10.0 LEVIES, TAXES, DUTIES, CESS ETC."**

*The above tariff is exclusive of any statutory taxes, levies, duties, cess or any other kind of impositions) 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 Generating Stations and/or on Transmission System Environmental Protection, Water etc. However electricity duty payable on energy drawn by OPGC if any shall be payable by OPGC and reimbursed by GRDCO.*

3.41 Clause 11.6 (vii) of the approved Amended PPA stipulates as under.

*"vii) Supplementary bills will be raised for the following.*

*[Signature]*

- c) Fuel price adjustment on half yearly basis*
- b) Incentive/disincentive at the end of year*
- c) Income Tax as per actual to be reimbursed as detailed in Para-6.1) of schedule II*
- d) Any other charges/taxes etc.*

3.42 Accordingly, OPGC has claimed the following other charges for FY 2021-22:

- Electricity Duty
- Water Cess and Water Charges
- Tax and Cess on Land
- System Operation Charges (SOC) & Market Operation Charges (MOC) for SLDC
- ERPC Charges
- Income Tax
- Recovery of ARR & Tariff Petition Fee and Publication Expenses
- Contribution to Water Conservation Fund, Odisha

3.43 **Electricity Duty:** Electricity Duty is payable on the auxiliary consumption of the generating station at the prevailing rates, which is currently Rs. 0.55/kWh. OPGC has claimed the reimbursement of Electricity Duty of Rs. 12.98 Crore in FY 2019-20 from GRIDCO in accordance with the PPA. OPGC requests the Hon'ble Commission to consider the same amount of Rs. 12.98 Crore provisionally in the tariff determination for FY 2021-22. The actual Electricity Duty payable shall be billed in accordance with the provisions of the approved Amended PPA.

3.44 **Water Cess and Water Charges:** OPGC claims the Water Cess and Water Charges of Rs. 7.94 Crore which is the same as actually incurred in FY 2019-20. In addition to the regular Water Cess and Water Charges being paid to WRD, Govt. of Odisha, as per the Government of Odisha letter No. 6140 dated July 31, 2012. (Copy of letter attached as **Annexure 2**). OPGC is required to pay additional charges to OHPCL for drawl of water in the form of Energy Compensation Charge (ECC). The estimated charge for FY 2021-22 is Rs. 0.43 Crore approximately in line with the invoice of FY 2018-19. OHPCL has raised invoice dated April 16, 2019 for Rs. 11,60,48,991 from FY 2005-06 till March 2019 out

of which Rs. 8,42,40,037 is towards Units 1&2 of 1b Thermal Power Station (2x210 MW) and balance Rs. 3,18,08,954 is towards Units 3&4 (2x660 MW) (Copy of OHPC Invoice is attached at **Annexure 3**). Accordingly, OPGC requests the Hon'ble Commission to issue directions to GRIDCO for reimbursement of such amount and the amount payable for the period of FY 2019-20 whenever paid to OHPC by OPGC. For FY 2021-22, OPGC requests the Hon'ble Commission to consider Rs 0.43 Crore towards reimbursement of ECC payable to OHPC.

Further, Main Dam Division, Bhub, Department of Water Resources, Govt. of Odisha has imposed a penalty on water charges (six times of the normal water charges) drawn by OPGC from Hirakud Reservoir during the period from June 12, 2013 to June 28, 2013 (16 days) amounting to Rs. 1,87,03,456/-. The interest accrued till March 2019 is Rs 6,84,35,459/- as per the latest bill. OPGC is continuously pursuing the matter with the Water Resources Department, Government of Odisha to waive the penalty along with interest. This is under active consideration by Government of Odisha. However, till date this matter has not been resolved.

Accordingly, OPGC requests the Hon'ble Commission to pass appropriate Order for reimbursement of such amount if paid by OPGC.

- 3.45 **Tax and Cess on land:** OPGC claims the tax and cess on land of Rs. 0.19 Crore, which is the same as actually incurred in FY 2019-20.
- 3.46 **System Operation Charges (SOC) & Market Operation Charges (MOC) for SLDC:** OPGC claims the amount of Rs. 0.38 Crore towards charges to be paid to SLDC for SOC and MOC, the same as per the SLDC Tariff Order for FY 2019-20.
- 3.47 **ERPC Charges:** OPGC claims the ERPC Charges of Rs. 0.16 Crore, as actually paid during FY 2019-20.
- 3.48 **Income Tax:** OPGC claims the income tax of Rs. 38.67 Crore considering the Return on Equity of Rs. 72 Crore corresponding to the original capital cost and the applicable tax rate of 34.94% on estimated basis for FY 2021-22. However, the actual income tax payable by OPGC for FY 2021-22 will depend upon several factors and OPGC will bill

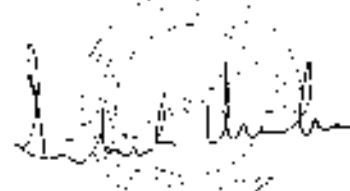
the actual income tax paid to GRIDCO for reimbursement.

3.49 **Recovery of ARR & Tariff Petition Fee and Publication Expenses:** OPGC claims the provisional amount of Rs. 0.30 Crore towards recovery of ARR & Tariff Petition Fee and Publication Expenses.

3.50 **Reimbursement of contribution towards Water Conservation Fund:** As per the Resolution of Department of Water Resources, Government of Odisha, dated May 18, 2015 (Copy attached as **Annexure 4**), OPGC is required to contribute an amount of Rs 30.65 Crore (12.26 Cusec X 2.5 Crore/Cusec) towards creation of Water Conservation Fund. Further, as per the Resolution of Department of Water Resources, Government of Odisha, dated November 3, 2015 (Copy attached as **Annexure 5**), the Government has provided the facility to industries to deposit their contribution to the Water Conservation Fund in five equal annual instalments. OPGC has also received a letter on July 14, 2015 from Main Dam Division, Burla to deposit the contribution towards Water Conservation Fund (Copy attached as **Annexure 6**). As the facility of making this payment is available in five equal annual instalments, OPGC has decided to opt for this facility and make payment in five annual instalments to reduce the burden to be passed on in tariff. Accordingly, OPGC has claimed an amount of Rs 6.13 Crore in FY 2021-22 towards contribution to Water Conservation Fund.

3.51 OPGC humbly submits that OPGC claimed the amount of Rs. 6.13 Crore towards the same in its Tariff Petition for FY 2020-21, the Hon'ble Commission ruled as under:

"93. As per the resolution of Department of Water Resources, Govt. of Odisha, dated 18.05 2015, OPGC has proposed approval of Rs. 6.13 crore towards reimbursement of contribution to WCF during FY 2020-21. Further, respondent GRIDCO in its objection has submitted that the above amounts will be reimbursed to OPGC subject necessary direction of the Commission and submission of all supporting documents with regards to payment made by OPGC. From the above submission of GRIDCO, it is understood that no payment has yet been made by OPGC towards WCF. We direct that the above amount be reimbursed by





GRIDCO) subject to verification of supporting documents of actual payment vis-a-vis the Govt. order in this regard. However, at present, we do not allow any amount on this head for reimbursement by GRIDCO during 2020-21.

3.52 OPGC humbly submits that this expense is not in control of OPGC and is payable because of Govt. Resolution. Hence, OPGC requests the Hon'ble Commission to allow reimbursement of the same.

3.53 Accordingly, the other charges claimed by OPGC for FY 2021-22 is as shown in the Table given below:

Table 3-8: Other Charges corresponding to the original project cost (Rs. Crores)

S. No.	Particulars	FY 2021-22
1	Electricity Duty	12.98
2	Water Cess and Water Charges	8.17
3	Tax and Cess on land	0.00
4	SDC and MOC for SLDC	0.18
5	LRPC Charges	0.16
6	Income Tax	58.67
7	Recovery of ARR & Tariff Petition Fee	0.10
8	Contribution towards Water Conservation Fund	6.13
	<b>Total</b>	<b>67.19</b>

3.54 OPGC requests the Hon'ble Commission to provisionally approve the other charges of Rs. 67.19 Crore. OPGC further requests the Hon'ble Commission to direct GRIDCO Ltd to reimburse the other charges on actual basis incurred during the year.

#### **4 Additional Capitalisation for FY 2019-20, FY 2020-21 and FY 2021-22**

##### **Additional Capitalisation for FY 2015-16, FY 2016-17, FY 2017-18 & FY 2018-19**

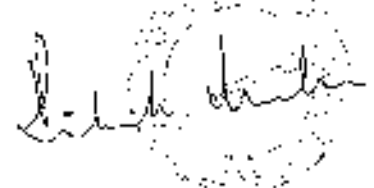
4.1 OPGC has claimed the actual additional capitalisation of Rs. 13.52 Crore, Rs. 20.94 Crore and Rs. 44.11 Crore for FY 2015-16, FY 2016-17 and FY 2017-18 respectively vide Case No. 54 of 2018. The Hon'ble Commission has reserved Case No. 54 of 2018 for Order. For the sake of brevity, the details of the additional capitalisation claimed in Case No. 54 of 2018 are not repeated in this Petition. OPGC requests the Hon'ble Commission to consider OPGC's submissions in the said Petition and approve the additional capitalisation for the respective years as claimed.

4.2 Vide Case No. 69 of 2019, OPGC had claimed the actual additional capitalization of Rs. 43.78 Crore for FY 2018-19. The Case No. 69 of 2019 was disposed of without considering additional capitalisation for FY 2018-19. The Hon'ble against it ruled as below:

"9% ....

*The Commission observed that, the separate petition filed by OPGC in Case No. 54/2018 for approval of additional capitalization made during the period from FY 2015-16 to FY 2018-19 is pending before the Commission for disposal. Hence, the Commission is of the view that the issues on additional capitalization by OPGC shall be addressed in the Case No. 54-2018 and its impact on generation tariff of OPGC shall be considered thereafter. Therefore, in the instant case the Commission has not considered the impact of proposed additional capitalization on the generation tariff of OPGC for the FY 2020-21."*

4.3 In case, if the Hon'ble Commission issues an Order in Case No. 54 of 2018 during the proceedings of the instant petition, it is requested to consider the additional capitalization for FY 2018-19 and its impact thereof for the claim of tariff for FY 2021-22. The details of additional capitalization for FY 2018-19 are enclosed as **Annexure 7** of the instant petition. Also, the Certificate issued by the Statutory Auditor providing item wise capitalisation details for Units 1 & 2 in FY 2018-19 is enclosed as **Annexure 8** of the



instant petition.

**Concepts of renovation & modernization and additional capitalisation**

4.4 OPGC submits that the regulatory concepts of renovation & modernization on the one hand, and additional capitalisation on the other, are fundamentally different, and for this reason are accorded separate and distinct treatment under the OERC Generation Tariff Regulations, 2014 and under OERC Generation Tariff Regulation, 2020. The list of works claimed by OPGC for additional capitalisation of FY 2019-20 to FY 2021-22 are not in lieu of the renovation and modernization. It is submitted that it would be appropriate if these two distinct concepts are not conflated. The works in respect of which OPGC has claimed additional capitalization are only for sustained operations of the generating station, compliance with statutory requirements and replacement of some of the obsolete equipment. There are many generating stations in the country which have been in operation for more than the useful life of 25 years without Renovation & Modernisation and providing reliable power supply to their respective procurers.

4.5 The renovation and modernization work of a thermal generating station is necessitated when the performance of the station becomes uneconomical. Despite being more than 20-year-old generating station, the operational performance of OPGC is among the best state sector generating stations in the country.



**Additional Capitalisation for FY 2019-20**

4.6 OERC Generation Tariff Regulations, 2014 define "Additional Capitalisation" as the capital expenditure incurred or projected to be incurred, after the date of commercial operation and after cut-off date of the project and admitted by the Commission after prudence check subject to Regulation 3.4 thereof.

4.7 OERC Generation Tariff Regulations, 2014 define "Expenditure Incurred" as the fund, whether equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released.

4.8 As regards additional capitalisation, the 2014 Tariff Regulations specify as under:

*"ADDITIONAL CAPITALISATION*

*3.4 The capital expenditure incurred or projected to be incurred, on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check-*

- (a) Liabilities to meet award of arbitration or for compliance of the order or decree of a Court*
- (b) Change in law*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work*
- (d) Any additional works/services, which have become necessary for efficient and successful operation of a generating station but not included in the original capital cost*

.....

4.9 It is submitted that 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.

4.10 Hon'ble OERC in its Tariff Order for FY 2016-17 dated March 23, 2016 ruled as under:

*"87. In the regulation, the additional capitalisation has been treated as capital expenditure incurred or projected to be incurred after the date of commercial operation and admitted by the Commission after prudence check subject to Regulation 3.3 & 3.4 of OERC Generation Regulations, 2014. It is stated here that the assets forming part of the project but not put to use shall not be considered for the purpose of additional capitalization as per the said Regulation. In addition to that, any expenditure on acquiring the minor items of the assets after the cut off date shall not be considered for additional capitalisation while determining the generation tariff*

*88. The petitioner has not submitted any details of work done and use of*

A handwritten signature in black ink is written over a circular official stamp. The stamp contains text that is partially obscured by the signature but appears to include 'DIRECTOR' and 'POWER'.

assets created after the cut off date to be considered as additional capitalisation in tariff. Further, the audited statement for the preceding year does not recognise the amounts on the additional capitalisation proposed by the petitioner. Therefore, the Commission is not inclined to consider this amount of Rs. 92.65 Cr. as additional capitalisation for the purpose of determination of generation tariff for FY 2016-17. In case any expenditure is incurred during FY 2013-16 satisfying the conditions of the Regulation the same shall be considered in subsequent years by the Commission.

4.11 Further, Hon'ble OERC in its Tariff Order for FY 2018-19 dated March 22, 2018 ruled as under:

"156 The Commission has already elaborated the issue of allowing additional capitalization by OPGC for truing up related to FY 2016-17. 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 FY 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."



4.12 In accordance with the Hon'ble Commission's observations as discussed in above paras, the proposed additional capitalisation for FY 2020-21 is claimed in accordance with the Regulation 12(4) of the OERC Generation Tariff Regulations, 2020 in the instant Petition in respect of assets which form part of the Project and have been put to actual use.

4.13 OPGC in its Petition in Case No. 69 of 2019 had proposed the additional capitalisation of

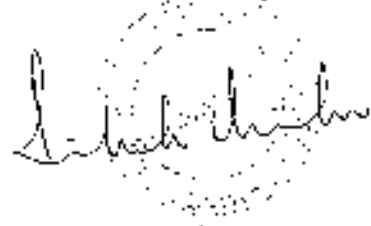
Rs. 18.52 Crore for FY 2019-20. OPGC humbly submits that the additional capitalisation proposed for FY 2019-20 in Case No. 69 of 2019 was on projection basis. As FY 2019-20 is over, the actual additional capitalisation figures are available and the same are submitted in this Petition. The Hon'ble Commission is requested to consider the same and approve the actual additional capitalisation claimed for FY 2019-20 in this Petition.

4.14 The total actual GFA addition of OPGC Units 1&2 as per the audited accounts for FY 2019-20 was Rs. 6.81 Crore. The audited annual accounts of OPGC for FY 2019-20 have been enclosed at **Annexure 9**. Out of the same, the additional capitalisation of Rs. 6.41 Crore is claimed for Units 1&2 for FY 2019-20. The claimed additional capitalisation excludes the assets pertaining to minor assets capitalised in FY 2019-20. The reconciliation statement of the assets capitalised as per the audited accounts of FY 2019-20, with the additional capitalisation claimed by OPGC along with justification is enclosed at **Annexure 10**. The Certificate issued by the Statutory Auditor providing item wise capitalization details for Units 1 & 2 in FY 2019-20 is enclosed at **Annexure 11**.

4.15 OPGC submits that the additional capitalisation claimed in the instant Petition is in respect of items covered by Regulation 3.4 of the OERC Generation Tariff Regulations, 2014. It is also clarified that the items claimed under additional capitalization are Capital in nature and are therefore capitalised in the books of accounts as they cannot be classified as being routine O&M expenses. It is further submitted that minor and sundry items have not been claimed in the additional capitalisation.

4.16 The additional capitalization has been claimed by OPGC in accordance with the 2014 Tariff Regulations. Discussions/deliberations have already been initiated with GRIDCO towards Renovation & Modernisation 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 the Hon'ble OERC at a later date as part of separate proceedings.

4.17 OPGC requests the Hon'ble Commission to approve the claimed additional capitalisation for FY 2019-20.



Additional Capitalisation for FY 2020-21 & FY 2021-22

4.18 The Hon'ble OERC notified OERC Generation Tariff Regulations, 2020 on July 15, 2020 in exercise of the powers conferred by Section 61 and Section 62 read with Section 181 of the Act. These Regulations are applicable for the MYT Control Period from FY 2020-21 to FY 2023-24.

4.19 OERC Generation Tariff Regulations, 2020 define "Additional Capitalisation" as the capital expenditure admitted by the Commission after prudence check, in accordance with the regulation.

4.20 OERC Generation Tariff Regulations, 2020 define "Expenditure Incurred" as the fund, whether equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released.

4.21 As regards additional capitalisation, the 2020 Tariff Regulations specify as under:

12.

(4) *The capital expenditure, in respect of existing generating station incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:*

(a) *Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;*

(b) *Change in law or compliance of any existing law;*

(c) *Force Majeure events;*

(d) *Need for higher security and safety of the plant as advised or directed by appropriate Indian Governmental Instrumentality or statutory authorities responsible for national or internal security;*

(e) *Deferred works relating to ash pond or ash handling system in addition to the original scope of work, on case to case basis.*



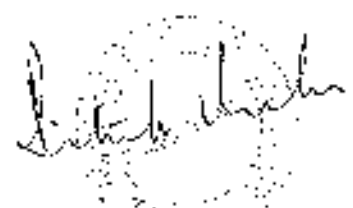
*Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation.*

*(f) Usage of water from sewage treatment plant in thermal generating station."*

4.22 The additional capitalisation claimed for FY 2020-21 and FY 2021-22 is beyond the scope of work and after the cut-off date of the project and hence qualifies under Regulation 12(4) of the 2020 Tariff Regulations.

4.23 OPGC in its Tariff Petition for FY 2020-21 had proposed the additional capitalisation of Rs. 21.58 Crore for FY 2020-21. Regarding the approval of additional capitalisation claimed for FY 2020-21, the Hon'ble Commission in its Tariff Order for FY 2020-21 ruled as under.

97 *In the present petition, OPGC has prayed for approval of the proposed additional capitalization of Rs. 18.52 Crore and Rs. 21.58 Crore for FY 2019-20 and FY 2020-21 respectively in addition to the additional capitalization of Rs. 122.15 Crore made during the period from FY 2015-16 to FY 2018-19. Considering the above additional capitalization, OPGC has claimed additional annual fixed cost of Rs.31.89 Crore for FY 2020-21 over and above the annual fixed cost based on the original project cost. Further, it has claimed additional income tax of Rs 3.90 Crore under the head of other charges on account of the above additional capitalization. The Commission observed that, the separate petition filed by OPGC in Case No. 54/2018 for approval of additional capitalization made during the period from FY 2015-16 to FY 2018-19 is pending before the Commission for disposal. Hence, the Commission is of the view that the issues on additional capitalization by OPGC shall be addressed in the Case No. 54/2018 and its impact on generation tariff of OPGC shall be considered thereafter. Therefore, in the instant case, the Commission has not considered the impact of proposed additional capitalization on the generation tariff of OPGC for the FY 2020-21."*





4.24 From the above stated ruling of the Hon'ble Commission, it is clear that the Hon'ble Commission had not gone into the merits of the proposed additional capitalisation for FY 2020-21, in its Tariff Order for FY 2020-21. OPGC has proposed the revised capitalisation for FY 2020-21 in this Petition. OPGC requests the Hon'ble Commission to consider the same. Further, OPGC submits that the impact of the revised proposed additional capitalisation for FY 2020-21 in the Tariff for FY 2020-21 has not been claimed in the instant Petition. OPGC humbly submits that the same shall be claimed based on the actual audited figures for FY 2020-21 separately.

4.25 Hon'ble Commission has concluded hearing and reserved order on OPGC's petition for approval of additional capitalisation for FY 2015-16, 2016-17 and 2017-18, in Case No.54/2018, since October 2019. In the absence of a clear order, OPGC is unable to claim additional capitalisation for the above period and subsequent years. OPGC humbly requests the Hon'ble Commission to pass appropriate orders in Case No 54/2018, prior to determining tariff petition for FY 2021-22, so that OPGC can avail tariff claims towards additional capitalisation.

4.26 OPGC has proposed the additional capitalisation of Rs. 39.96 Crore and Rs. 29.25 Crore for FY 2020-21 and FY 2021-22 respectively. The list of items of additional capitalisation claimed by OPGC for FY 2020-21 and FY 2021-22 along with the justification is enclosed at **Annexure 12** and **Annexure 13** respectively. The additional capitalisation proposed for FY 2020-21 and FY 2021-22 is towards the additional works which have become necessary for efficient and successful operation of the generating station.

4.27 OPGC requests the Hon'ble OERC to approve the additional capitalisation claimed for FY 2020-21 and FY 2021-22 under the provisors of Regulation 12(4) of the OERC Generation Tariff Regulations, 2020.

4.28 The summary of additional capitalisation claimed by OPGC is as shown in the Table below:

Table 4-1: Summary of additional capitalisation claimed by OPGC (Rs. Crore)

Year	Additional Capitalisation	Remarks
FY 2015-16	13.32	Actual as claimed in Case No. 54 of 2018 (Hearing concluded and order reserved, since October 2019)
FY 2016-17	20.84	
FY 2017-18	44.11	
FY 2018-19	13.78	Actual as claimed in Case No. 69 of 2019 (Order passed without considering additional capitalisation)
FY 2019-20	6.4	Actual as claimed in the instant Petition
FY 2020-21	10.96	Revised proposed claim in the instant Petition
<b>Sub-total</b>	<b>168.51</b>	
FY 2021-22	29.25	Proposer claim in the instant Petition
<b>Total</b>	<b>197.76</b>	



*[Handwritten signature]*

## 5 Impact of Additional Capitalisation on Tariff for FY 2021-22

- 5.1 OPGC submits that while computing the impact of additional capitalization on tariff for FY 2021-22, it has been kept a similar approach as adopted in the tariff petition for Case No. 54 of 2018 and Case No. 69 of 2019.

### Additional Capitalization

- 5.2 OPGC has considered the additional capitalisation for FY 2015-16, FY 2016-17 and FY 2017-18 as claimed in Case No. 54 of 2018 and additional capitalization for FY 2018-19 as claimed in Case No. 69 of 2019 and the actual additional capitalisation for FY 2019-20, the proposed additional capitalisation for FY 2020-21 and FY 2021-22 as claimed in this Petition.

### Debt-Equity Ratio

- 5.3 OPGC has considered the closing normative debt for FY 2018-19 as claimed in Case No. 69 of 2019, as the opening debt for FY 2019-20. OPGC has considered the closing Equity for FY 2018-19 as claimed in Case No. 69 of 2019 as the opening Equity for FY 2019-20.

- 5.4 As regards the debt-equity ratio of additional capitalisation following is submitted:

- 5.5 Regulation 3.8 of the 2014 Tariff Regulations specifies as under:

"3.8 Any expenditure incurred or projected to be incurred on or after 01-04-2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension the normative debt-equity ratio shall be considered to be 10:30 for determination of tariff."

*Provided that in case of a generating station where equity employed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan.*



*Sanjay Kumar*

*Provided also that in case of a generating station where actual equity employed is less than 30%, the actual debt and equity, shall be considered for determination of tariff."*

5.6 Regulation 16(3) of the 2020 Tariff Regulations specifies as under:

"16 . . . . .

- (3) Any expenditure incurred or projected to be incurred on or after 01/04/2020 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension; the normative debt-equity ratio shall be considered to be 70:30 for determination of tariff.

*Provided that in case of a generating station where equity employed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan,*

*Provided also that in case of a generating station where actual equity employed is less than 30% the actual debt and equity shall be considered for determination of tariff."*



5.7 The actual additional capitalisation in FY 2019-20 was funded by the internal resources of OPGC. The additional capitalisation in FY 2020-21 and FY 2021-22 is proposed to be funded by the internal resources of OPGC. Hence, in accordance with the Regulation 16(3) stated above, the debt-equity ratio of the actual additional capitalisation for FY 2019-20 and the proposed additional capitalisation in FY 2020-21 and FY 2021-22 has been considered as 70:30.

**Table 5-1: Debt and equity of additional capitalisation**

Particulars	FY 2015-20	FY 2020-21	FY 2021-22
Additional capitalisation (Rs. Crore)	6.41	39.86	29.25
Debt (%)	70%	70%	70%
Debt (Rs. Crore)	4.49	27.97	20.47
Equity (%)	30%	30%	30%
Equity (Rs. Crore)	92	11.99	8.77

5.8 As per Clause 3.6 of Schedule II of the Amended PPA, the Annual Fixed Cost of OPGC 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.



5.9 OPGC has claimed only the components of AFC corresponding to recovery of additional capitalisation viz., Depreciation, Return on Equity, Interest on Loan and Interest on Working Capital. The computation of each of the above components of the Annual Fixed Cost is detailed in the subsequent paragraphs.

### Depreciation

5.10 OERC Generation Tariff Regulations, 2020 specify the rates of depreciation for each asset class. The term of the Amended PPA is up to FY 2025-26. If the depreciation rates as per the OERC Generation Tariff Regulations, 2020 are 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 by the end of the term of the PPA. Hence, OPGC requests the Hon'ble Commission 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 capitalization of the respective assets, up to FY 2025-26. It is humbly prayed that this Hon'ble Commission exercise its power to relax in

*Subin Chandra*

accordance with Regulation 49(1) of the OERC Generation Tariff Regulations, 2020 in the unique circumstances of this case to permit OPGC to recover the depreciable value of the assets by FY 2025-26. It is submitted that if such relaxation is not permitted, OPGC will be prejudiced for no fault of its own.

5.11 Accordingly, the depreciation claimed for FY 2021-22 is as under:

**Table 5-2: Depreciation corresponding to additional capitalisation (Rs. Crore)**

	FY 2021-22
Depreciation corresponding to additional capitalisation	24.39

### Return on Equity

5.12 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. The equity portion of the additional capitalisation claimed for FY 2019-20 has been considered as equity addition during FY 2019-20. The closing equity for FY 2019-20 has been considered as the opening equity for FY 2020-21. The equity portion of the additional capitalisation for FY 2020-21 has been considered as the equity addition during FY 2020-21. The closing equity for FY 2020-21 has been considered as the opening equity for FY 2021-22. The equity portion of the additional capitalisation for FY 2021-22 has been considered as equity addition during FY 2021-22.

5.13 Clause 8.0 (19) of Schedule II of PPA provides for Return on Equity at the rate of 16%. Accordingly, OPGC submits the Return on Equity for FY 2021-22 considering the equity base for the corresponding year at the rate of 16%.


**Table 5-3: Return on Equity corresponding to additional capitalisation (Rs. Crore)**

	FY 2021-22
Total additional capitalisation claimed up to FY 2020-21	168.51
Opening Equity corresponding to additional capitalisation (35% of additional capitalisation)	50.55
Addition to Equity during the year corresponding to 35% of additional capitalisation during the year	3.77
Closing Equity corresponding to additional capitalisation	54.32
Rate of Return on Equity	16%
Return on Equity corresponding to average equity towards additional capitalisation	8.79

### Interest on Loan Capital

5.14 The closing normative loan for FY 2018-19 as claimed in Case No. 69 of 2019 has been considered as the opening normative loan for FY 2019-20. The normative loan pertaining to additional capitalisation claimed for FY 2019-20, FY 2020-21 and FY 2021-22 has been considered as loan addition during the year. The loan repayment for the respective year has been considered as equal to depreciation for the corresponding year. In accordance with Regulation 22(3) the interest rate has been considered as 10.62% which is the actual weighted average rate of interest of the generating company as a whole (on the ongoing loan draw down for OPGC Units 3&4 being availed from PFC and REC) for FY 2019-20. The interest on loan has been computed on the normative average loan for the year by applying the rate of interest.

5.15 Accordingly, the interest on loan claimed for FY 2021-22 is as under:



Particulars	FY 2021-22
Additional capitalisation claimed up to FY 2020-21	168.51
Opening Loan-Opening corresponding to additional capitalisation (70% of additional capitalisation)	117.96
Cumulative repayment up to 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	20.67
Repayment during the year (depreciation)	24.59
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

5.16 The Clause 3.0 (c) of Schedule II of the Amended PPA provides the Interest on working Capital as under:

(i) Interest on Working Capital will be worked out on the following basis on



normative level of generation calculated at the rate of interest applicable to OPGC for its Working capital facility as on the fixed charge computation date

- i) Coal cost for 1.5 months
- ii) Oil cost for 2 months
- iii) O&M expenses for 1 month
- iv) Receivables for 2 months "

5.17 OPGC would like to submit that, due to AFC on account of the additional capitalisation, there will be change in the receivables. Accordingly, OPGC is eligible for Interest on Working Capital on two months' incremental receivables, which has been claimed in the instant Petition.

5.18 Accordingly, the interest on working capital claimed for FY 2021-22 for the Annual Fixed Cost computed corresponding to additional capitalisation is as under:

**Table 5-5: Interest on working capital corresponding to additional capitalisation (Rs. Crore)**

Particulars	FY 2021-22
Interest on working capital	0.51

**Summary of Annual Fixed Cost corresponding to additional capitalisation**

5.19 The Annual Fixed Cost corresponding to additional capitalisation is summarised in the Table below:

**Table 5-6: Annual Fixed Cost corresponding to additional capitalisation (Rs. Crore)**

Particulars	FY 2021-22
Depreciation	21.39
Return on Equity	8.79
Interest on loan	6.37
Interest on working capital	0.51
<b>Total Annual Fixed Cost</b>	<b>40.07</b>

5.20 **Income Tax:** OPGC requests the Hon'ble OERC to approve the income tax of Rs. 4.72 Crore based on the Return on Equity corresponding to the additional capitalisation and income tax rate of 34.91%.



## 6 Summary of Tariff Proposal for FY 2021-22

6.1 Based on the above, the summary of Tariff Proposal for FY 2021-22 is as shown in the Table below:

Table 6-1: Summary of Tariff Proposal for FY 2021-22

Particulars	Units	Corresponding to original project cost	Corresponding to Additional Capital cost	Total
Depreciation	Rs. Crore	-	24.39	24.39
Return on Equity	Rs. Crore	72.06	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	15.19	0.51	15.71
<b>Total Annual Fixed Cost</b>	<b>Rs. Crore</b>	<b>261.54</b>	<b>40.07</b>	<b>301.61</b>
<b>Variable Charges per kWh</b>	<b>Paise/kWh</b>	<b>167.91</b>	<b>-</b>	<b>167.91</b>

6.2 The summary of other charges for FY 2021-22 is as shown in the Table below:

Table 6-2: Other Charges for FY 2021-22

Particulars	Units	Corresponding to original project cost	Corresponding to Additional Capital cost	Total
Other Charges	Rs. Crore	67.19	4.72	71.91



*[Handwritten signature]*

## 7 Prayers

OPGC respectfully prays that the Hon'ble OERC may:

- i) Admit the instant Petition.
- ii) 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.
- iii) 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.
- iv) Consider the revised proposed additional capitalization for FY 2020-21 as against the projected capitalisation claimed in Case No. 69 of 2019.
- v) Approve the additional capitalisation for FY 2019-20, FY 2020-21 and FY 2021-22 as claimed in the Petition.
- vi) Approve the tariff, including annual fixed cost and variable charges for FY 2021-22 as claimed in the Petition.
- vii) 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.
- viii) Approve the other charges for FY 2021-22 as claimed in the Petition.
- ix) Approve the recovery of other charges on actual basis during FY 2021-22.
- x) Approve the recovery of EPA in accordance with the approved PPA during FY 2021-22.
- xi) 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
- xii) Pass such other and further Orders as deemed fit and proper in the facts and circumstances of the case.

Bhubaneswar

November 27, 2020



O&M Expenses				FORM-6.1
Name of the Utility / Company : Odisha Power Generation Corporation Limited				
Name of the Thermal Power Station: BTPS Units 1 & 2				(Rs. In Crore)
S.No.	Particulars	Units	Value	
1	2	3	4	
1	Project Cost for O&M expenses	Rs. Crore	1030	
2	O&M expenses for first year 2.5% of the project cost	Rs. Crore	25.75	
3	Annual Escalation rate	%	8%	
4	O&M expenses for FY 2021-22	Rs. Crore	176.35	



FORM- 6.3		
Calculation of Interest on Loans		
Name of the Utility / Company: Odisha Power Generation Corporation Limited		
Name of the Thermal Power Station: IB TPS Units 1 & 2		
		(Rs. in Crores)
Sl. No.	Particulars	FY 2021-22
1	2	3
A	Loan-I	
1	Gross loan - Opening	117.96
2	Cumulative repayments of Loans upto previous year	56.02
3	Net loan - Opening	61.94
4	Additions during the year	20.47
5	Repayment during the year	24.39
6	Net loan - Closing	58.02
7	Average Net Loan	59.98
8	Rate of Interest on Loan	10.62%
9	Interest on loan	6.37

FORM-6.4				
Calculation of Interest on Working Capital Loan				
Name of the Utility / Company: Odisha Power Generation Corporation Limited				
Name of the Thermal Power Station: BPS Units 1 & 2				
(Rs. in Crore)				
Sl. No.	Particulars	Norms considered	FY 2021-22	
			Corresponding to original project cost	Corresponding to Additional Capitalisation
1	Coal Cost	1.5 months	41.69	0.00
2	Oil Cost	2 months	5.57	0.00
3	O & M expenses	1 month	14.70	0.00
4	Receivables	2 months	107.41	6.68
5	<b>Working capital Loan Requirement</b>		<b>171.36</b>	<b>6.68</b>
6	Rate of Interest		7.70%	7.70%
7	<b>Interest on Working Capital</b>		<b>13.19</b>	<b>0.51</b>

*Signature*



Energy Charges for Thermal Generation			
Name of the Utility / Company : Odisha Power Generation Corporation Limited			
			FORM-2.2
Particulars	Units	Reference	FY 2021-22
<b>Operational Parameters</b>			
Number of Units			
Capacity (MW)			2
Total Capacity	MW		420
Availability	%		68.49%
PL	%		68.49%
Gross Generation	MU		2519.38
Auxiliary Energy Consumption	%		9.50%
Auxiliary Energy Consumption	MU		239.79
Net Generation	MU		2280.59
Block Rate	Rs/Block		2500
<b>Fuel Parameters</b>			
<b>Calorific Value for Different Fuels</b>			
Indigenous Coal	kJ/Kg	From 7.1 (C)	2340.93
IFO	kJ/Kg	From 7.1 (C)	10630
LDO	kJ/Kg	From 7.1 (C)	10630
<b>Landed Fuel Price for different fuels</b>			
Indigenous Coal	Rs/Mt	From 7.1 (C)	1542.70
IFO	Rs/KL	From 7.1 (C)	3692.03
LDO	Rs/KL	From 7.1 (C)	4634.95
<b>Specific Fuel Consumption</b>			
Indigenous Coal	kg/kWh		0.50
IFO	kg/kWh		3.15
LDO	kg/kWh		3.35
<b>Total Fuel Consumption</b>			
Indigenous Coal	MT		2268208.82
IFO	KL		7977.51
LDO	KL		83.96
<b>Heat Content (each fuel separately)</b>			
Indigenous Coal	Million kcal		6211514
IFO	Million kcal		79375
LDO	Million kcal		8820
<b>Total Fuel Cost</b>			
Indigenous Coal	Rs Crore		349.52
IFO	Rs Crore		29.31
LDO	Rs Crore		4.09
Total Fuel Cost	Rs Crore		382.91
Energy Charges per unit	Paise/kWh		167.91

*[Signature]*

*[Circular Stamp]*



Statement of Additional Capitalisation after COD					FORM-8.4
Name of the Utility / Company : Odisha Power Generation Corporation Limited					Cost in Rs. Crores
Name of the Thermal Power Station: IN TPS Units 1 & 2					
Sl.No.	Year	Work/Equipment added Beyond Cut off Date	Amount Capitalised / Proposed to be capitalised	Justification	Admitted Cost
(1)	(2)	(3)	(4)	(5)	(6)
1	FY 2018-19	Please refer to Annexure 7	43.78	Please refer to Annexure 7	
2	FY 2019-20	Please refer to Annexure 10	6.41	Please refer to Annexure 10	-
3	FY 2020-21	Please refer to Annexure 12	39.96	Please refer to Annexure 12	-
4	FY 2021-22	Please refer to Annexure 13	29.25	Please refer to Annexure 13	-

**Return on Equity corresponding to original project cost**

Particulars	Units	FY 2021-22
Equity corresponding of original project cost	Rs. Crore	450.00
Rate of Return on Equity	%	16%
<b>Return on Equity</b>	<b>Rs. Crore</b>	<b>72.00</b>

**Return on Equity (Corresponding to Additional Capitalisation)**

Particulars	Units	FY 2021-22
Opening Equity	Rs. Crore	50.55
Additional capitalisation	Rs. Crore	29.25
Equity portion of Additional Capitalisation	Rs. Crore	8.77
Closing Equity	Rs. Crore	59.33
Rate of Return on Equity	%	16%
<b>Return on Equity</b>	<b>Rs. Crore</b>	<b>8.79</b>



**Other Charges for FY 2021-22 (Rs. Crore)**

S. No.	Particulars	Corresponding to original project cost	Corresponding to Additional Capitalisation	Total
1	Electricity Duty	12.98	0.00	12.98
2	Water Cess and Water Charges	8.37	0.00	8.37
3	Tax and Cess on land	0.19	0.00	0.19
4	SOI and MOC for SLDC	0.18	0.00	0.18
5	BRPC Charges	0.16	0.00	0.16
6	Income Tax	38.67	4.72	43.40
7	Recovery of AAR & Tariff Petition Fee	0.30	0.00	0.30
8	Contribution towards Water Conservation Fund	6.13	0.00	6.13
	<b>Total</b>	<b>67.19</b>	<b>4.72</b>	<b>71.9</b>

**Income Tax for FY 2021-22 (corresponding to original project cost)**

S. No.	Particulars	Units	Value
1	Return on Equity	Rs. Crore	72.00
2	Rate of Income Tax	%	34.91%
3	Income Tax	Rs. Crore	38.67

**Income Tax for FY 2021-22 (corresponding to additional capitalisation)**

S. No.	Particulars	Units	Value
1	Return on Equity	Rs. Crore	8.79
2	Rate of Income Tax	%	34.91%
3	Income Tax	Rs. Crore	4.72