

**ODISHA ELECTRICITY REGULATORY COMMISSION  
BIDYUT NIYAMAK BHAWAN  
PLOT NO.-4, CHUNAKOLI, SHAILASHREE VIHAR  
BHUBANESWAR - 751 021  
\*\*\*\*\***

**Present:        Shri U. N. Behera, Chairperson  
                     Shri S. K. Parhi, Member**

**Case No. 54/2018**

M/s. OPGC Ltd.	.....	Petitioner
Vrs.		
DoE, GoO & Others	.....	Respondents

**In the matter of:**        **An application as per order dated 22.03.2018 of the Commission passed in Case No.75 of 2017 in respect of determination of generation tariff of Units 1 & 2 having capacity of 420MW of IB Thermal power Station of OPGC Ltd., wherein the Commission has directed it to file separate application for approval of additional capitalization for FY 2015-16, 2016-17, 2017-18 and FY 2018-19.**

**For Petitioner:**        Mr. Sitesh Mukharjee, Advocate and Mr. Arjun Agarwal, Advocate on behalf of OPGC Limited.

**For Respondents:**    Shri P. K. Das, Sr. GM (PP), Shri S. S. Nayak, CGM (PP) and Ms. Susmita Mohanty, AGM (Elect.) of GRIDCO Ltd., Shri P. K. Pradhan, Shri R. P. Mahapatra and Ms. Niharika Pattnayak, ALO, DoE, GoO are present.

Nobody is present on behalf of CESU, WESCO, NESCO and SOUTHCO Utilities, Shri Ramesh Satpathy, Shri Prashanta Kumar Das, Shri Ananda Mohapatra, Shri G. N. Agarwal and Shri Aditya Kumar Mishra.

**ORDER**

**Date of hearing: 01.10.2019**

**Date of order: 21.05.2021**

In its ARR application for the FY 2018-19, OPGC had claimed for approval of additional capitalization for investment made during FY 2015-16 and FY 2016-17 in its IB thermal power station having installed capacity 420 MW (2 x 210 MW). The Commission in its order dated 22.03.2018 had not considered the said additional capitalization and ruled that the matter requires a separate application to be filed which would be heard separately. Accordingly, OPGC has filed the instant petition for approval of additional capitalization for the investment made during FY 2015-16, 2016-17, 2017-18 and FY 2018-19.

2. In its submission OPGC has stated that the Commission in its BSP order dated 23.03.2012 of GRIDCO for FY 2012-13 had approved an amount of Rs. 3 Crore towards cost of environmental protection equipment installation as year-end charges for the FY 2012-13, as one time reimbursement to OPGC. But GRIDCO had not reimbursed the same citing the requirement of regulatory approval of OERC. Further, the Commission in its subsequent tariff orders for different years had not approved any quantum towards additional capitalisation stating that details as per regulation has not been filed by the petitioner. OPGC has submitted that as regards additional capitalisation, the OERC Generation Tariff Regulations, 2014 specify as under:

“ADDITIONAL CAPITALISATION

2.4 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

3. OPGC has stated that the items claimed under additional capitalisation are capital in nature as they cannot be classified under routine O&M expenses and therefore capitalized in its books of account. The works in respect of which OPGC has claimed additional capitalisation of are only for sustained operations of the generating station, compliance with statutory requirements and replacement of some obsolete equipment. OPGC further stated that IB Thermal Power station is situated in the critically polluted industrial cluster in IB Valley area. As per Central Pollution Control Board (CPCB), the calculated Comprehensive Environmental Pollution Index (CEPI) score of IB Valley area is 74 and that of Jharsuguda is 73.34 which is above the limit of 70. State Pollution Control Board (SPCB) had prepared the action plan for abatement of pollution in critically polluted industrial cluster in IB Valley area in 2011 and directed

OPGC to submit its plans to comply the action points prepared by SPCB. In order to comply the same OPGC has undertaken the following schemes for environmental protection equipments installation:

- i. Effluent monitoring system and real time data transfer to SPCB and CPCB Servers for effluent monitoring and online transmission of data. This constitutes a change in law by a competent statutory authority covered by OERC Generation Tariff Regulation, 2014.
- ii. OPGC has also incurred capital expenditure for increasing ash pond height in order to maintain efficient operation of the project. As per the MoEF guidelines all power plants are required to achieve 100% ash utilisation. Due to remote location of the plant and limited avenues for supplying ash for other uses, OPGC had to store the ash in ash pond as per the CEA guideline. Hence, the ash pond capacity needs to be enhanced from time to time to accommodate the ash generated, to the extent it is not used. Without creation of such increased facility and limited options for ash utilisation, the OPGC plant would not be able to operate in compliance with the prevalent environmental laws and will have to be shut down. OPGC submitted that the existing ash pond namely Ash Pond-A and Ash Pond-B were being used for the purpose of Units 1 & 2. Ash Pond-B was already exhausted and capped. Ash Pond-A is presently in use and in the instant petition additional capitalisation has been claimed for raising the height of Ash Pond-A in order to enhance its life and also for establishment of new Ash Pond-C. The requirement of enhancing the height of the Ash Pond-A and construction of Ash Pond-C were on account of increase in operating condition of the Units-1&2, as originally the plant was envisaged to operate at a normative PLF of 68.49%. SPCB in its consent to establish dated November 12, 2012 at special Condition No-1, has also mentioned that construction of Ash Pond-C was not in the original scheme of things as approved by MOEF. Similarly, it is required to raise the height of Ash Pond-A from RL 202.0 to 205.0M and 205.0 M to 208.0 M in two stages. SPCB in its consent to establish dated February 5, 2015 at special Condition No. 1, has mentioned the same as not being part of the original scheme of things as approved by MOEF.

- iii. Modification of PRDS system: It is a known design criteria in thermal power plants that the heat rate undergoes progressive de-gradation over the years of operation. The modification of the PRDS system taken up by OPGC was to reduce the rate of heat rate de-gradation as a measure for efficient and successful operation of the project.
4. For the FY 2015-16 OPGC has claimed an amount of Rs. 13.32 Crore for additional capitalisation, which includes as under:

<b>Sl. No.</b>	<b>Description</b>	<b>Claim for additional capitalisation (Rs.)</b>
1	CEMS Room for Unit-I&II	3, 78, 862/-
2	PRDS	3, 74, 01, 805/-
3	Construction of Road at Ash Pond junction to Ash pond	17, 28, 900/-
4	Land Premium paid to Lakhanpur Tahasildar	1, 09, 57, 500/-
5	Continuous Emission Monitoring System	16, 63, 210/-
6	Capitalisation of ESP Hopper Level Switch at ESP	2, 87, 883/-
7	Online Effluent Monitoring System	11, 93, 000/-
8	Ash Pond-A	5, 21, 16, 863/-
9	Ash Pond-A	2, 74, 71, 107/-
	<b>Total</b>	<b>13, 32, 00, 131/-</b>

5. For the FY 2016-17 OPGC has claimed an amount of Rs. 20.94 Crore towards additional capitalisation as given hereunder:

<b>Sl. No.</b>	<b>Description</b>	<b>Claim for additional capitalisation (Rs.)</b>
1	Ash Recycling T/F 4.5 MVA, 33 KV/6.9 KV, 50 Hz	40, 47, 280/-
2	Ash Pond-A	7, 17, 38, 655/-
3	Construction-CT Effluent Collection Tank	5, 59, 802/-
4	Ash Disposal Line	2, 18, 47, 675/-
5	SAP LAN and Network	2, 75, 97, 362/-
6	SAP Software	8, 36, 12, 004/-
	<b>Total</b>	<b>20, 94, 02, 779/-</b>

6. For the FY 2017-18 OPGC has claimed an amount of Rs. 44.10 Crore towards additional capitalisation as given hereunder:

<b>Sl. No.</b>	<b>Description</b>	<b>Claim for additional capitalisation (Rs.)</b>
1	Ash Pond-A	3, 76, 81, 213/-
2	Construction of Ash Pond-C	33, 61, 70, 787/-
3	Ash Pond-C Restoration/dismantling Cost	2, 36, 06, 687/-
4	MGR Type Wagon Superstructure/Body	2, 24, 28, 766/-
5	MGR Type BOBR Wagon Complete of Payload of 63.75	1, 12, 80, 197/-
6	Construction of balance road from Ash Pond	23, 62, 098/-

<b>Sl. No.</b>	<b>Description</b>	<b>Claim for additional capitalisation (Rs.)</b>
	Junction to Ash Pond	
7	25 Nos. of SAP Professional User	25, 66, 500/-
8	Procurement of 300 nos. of ESS User License	17, 70, 000/-
9	Implementation of GST in SAP ERP System	32, 09, 592/-
	<b>Total</b>	<b>41, 10, 75, 840/-</b>

7. In its present petition OPGC has proposed an amount of Rs. 49.70 Crore towards additional capitalisation for the FY 2018-19 as given hereunder:

<b>Sl. No.</b>	<b>Description</b>	<b>Additional capitalisation proposed (Rs.)</b>
1	ESP Up-gradation	43.00 Crore
2	Material Up-gradation of existing Ash Slurry Disposal System	3.40 Crore
3	Raising of Pond-A	0.80 Crore
4	Construction of Ash Mound	2.50 Crore
	<b>Total</b>	<b>49.70 Crore</b>

However, in its tariff petition for the FY 2020-21, OPGC has submitted that the proposed additional capitalisation for the FY 2018-19 was on projection basis. But after completion of the year the actual additional capitalisation is Rs.43.78 cr. as per the audited account which is to be considered by the Commission. The details are as given hereunder:

<b>Sl. No.</b>	<b>Description</b>	<b>Revised claim of additional capitalisation as per audited accounts (Rs.)</b>
1	ESP Up-gradation	36.66 Crore
2	Change the pipes of Ash slurry lines	0.87 Crore
3	Installation of Dry fog dust Suppression system at CHP	2.73 Crore
4	Installation of Conveyor guarding at CHP	1.15 Crore
5	Installation of fire detection system at CHP	0.69 Crore
6	Installation of Dust conditioner and Rotary feeder	0.15 Crore
7	Online Effluent Quality Monitoring System	0.15 Crore
8	Ash Pond-A	1.38 Crore
	<b>Total</b>	<b>43.78 Crore</b>

8. In its rejoinder, in replying to the queries of the respondents, the petitioner has submitted that there are fundamental conceptual differences among the expenditures under O&M, R&M and Additional Capitalisation. OERC Generation Tariff Regulations, 2014 have separate treatments for these works. O&M is defined under Regulation 1.7 (cc) of the said Regulations, 2014 and none of the petitioner's claims fall under any of the heads covered under O&M. Similarly, R&M is covered by

Regulations 3.9 to 3.11 of the OERC Generation Tariff Regulations, 2014. R&M claim is to be made for extension of life of the generating units beyond the useful life and involves cost-benefit analysis by the Commission. As per Regulation 5 (1) of the CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010, the useful life of a thermal generating station is not less than 25 years. Hence, “useful life” is not reflective of maximum life of a generating station, but is in fact the minimum life expectancy of a generating station. There are many generating stations which have been in operation for more than 25 years without R&M works. The R&M work of a thermal generating station is necessitated when the performance of the station becomes un-economical. However, OPGC is already in process of carrying out RLA through external agency in view of the requirement to incur high cost for FGD installation in order to meet the revised environmental norms of MoEF issued in December, 2015. Along with this, OPGC will submit a composite proposal before the Commission for approval of R&M of the power station needed towards life extension beyond 2026. On the other hand, the present petition concerns additional capitalisation covered by Regulation 3.3 and 3.4 of the OERC Generation Tariff Regulations, 2014, for recovery of cost of additional capitalisation works made beyond the cut-off date. Accordingly, the additional capitalisation claims have been made by the petitioner under Regulation 3.4 (b) and (d) of the OERC Generation Tariff Regulations, 2014 for compliance with change in law and for efficient and successful operation of the plant.

9. The Commission vide interim order dated 26.08.2019 had directed the petitioner to submit the original scope of work along with the details of the estimate of expenditure for the project. The petitioner in its rejoinder has submitted that the final Detailed Project Report (DPR) could not be traced as damage had been caused to the office records initially during a fire mishap in the year 1992 and subsequently during the Super Cyclone in October, 1999. However, the petitioner has submitted the following documents:-
  - a. An interim DPR of December, 1992 indicating the then estimated project cost of Rs. 933.58 Crore.
  - b. Department of Energy, Government of Odisha Letter dated 17.12.1994 approving the project cost of Rs. 1060 Crore for Unit-I&II of OPGC.

- c. OPGC letter dated 19.06.2001 to CEA mentioning the detailed project cost of Rs. 1134.27 Crore.
10. Regarding the project cost of Rs. 1134.27 Crore as submitted by the petitioner to CEA, the petitioner has submitted that as per the approved PPA for Unit-I&II, the capital cost for tariff purposes is Rs. 1060 Crore only. But the project cost actually incurred for Unit-I&II is around Rs. 1135 Crore (Rs. 1060 Crore + Rs. 75 Crore). As per Clause 9 of the Tripartite Agreement dated 18.10.1998, an amount of Rs. 75 Crore being the additional project cost over Rs. 1060 Crore included in PPA of Unit-I & II is to be added to the project cost of Unit-III & IV. The details of the capitalisation are duly certified by the statutory auditor for the respective years. The generating station has been in operation for more than 22 years and additional capitalisation claimed is after the cut-off date. Accordingly, the petitioner's claim in so far as ash pond related works are concerned, is admissible subject to prudence check by the Commission. Consequently the production of original scope of work is not necessary for approval of an additional capitalisation claimed under the provisions of OERC Generation Tariff Regulations.
11. The petitioner has submitted that the Government of Odisha Notification in 2008 only froze the tariff parameters for recovery of Annual Fixed Charges, but not the capital cost. Therefore, in terms of the judgment of the Hon'ble Supreme Court dated 19.04.2018, the additional capitalisation claim of the petitioner has to be judged based on provisions of the PPA or where the PPA is silent, in terms of the Regulations of this Commission. In view of the forgoing, the contention of the stakeholders that the present additional capitalisation claim is barred by operation of 2008 Government Notification is utterly misconceived and untenable.
12. Regarding objection of re-capitalisation of the works already capitalised in original capital cost, the petitioner has stated that an Engineering Drawing prepared by M/s. RITES dated 29.03.1994 shows that the height of Ash Pond A was originally 202 meters. But the height of Ash Pond A has now been increased to 205 meters first and subsequently to 208 meters, for which claims are being made in the present petition. Ash Pond C is a new ash pond as borne by the State Pollution Control Board's consent (dated 10.11.2012) to establish. , Ash Pond B has been discontinued.

13. The reply of the petitioner to the item-wise queries of the respondent GRIDCO is indicated in the table below:

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
<b>FY 2015-16</b>				
1	Pressure Reducing and Desuper-heating System (PRDS)	3.740  (claimed under Reg.3.4(d))	The cost may be included under O&M expenses. Clarification required how it is necessary for efficient and successful operation of the plant. Details of work and consequent improvement parameter to be explained. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	This expenditure is not of O&M nature and therefore capitalized. PRDS was installed to improve reliability. Claimed under Regulation 3.4 (d) The modification of the PRDS system was to reduce the rate of heat rate degradation and improve station heat rate as a measure for efficient and successful operation. The modification was done to supply steam to PRDS system from CRH (Cold Reheat) line instead of MS (Main Steam) supply with a spray supply from CEP discharge instead of BFP discharge. The purpose of doing this modification is to reduce heat/energy loss from the system.
2	Construction of road at Ash pond junction to Ash pond	0.173  (claimed under Reg.3.4(d))	Clarification required how it is necessary for efficient and successful operation of the plant. Such expenditure may be met from O&M expenses or for the benefit drawn by OPGC in the revised tariff as per PPA with relaxed norm.	As per the statutory requirements of OSPCB, regular maintenance of the embankment of ash pond is very necessary for safety of ash pond. Particularly during rainy season, it is very essential to keep a close watch and ward of the dyke of ash pond. Again, for ash utilization purpose heavy ash loaded vehicles are required to be transported from ash pond. Considering the above, black topping of the road has been done. As the regular maintenance and ash utilization



Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
				<p>are essential requirements for successful operation of the plant, the above work was taken up.</p> <p>Initially the approach to ash pond was through a kutcha road. For movement of maintenance vehicles and equipments as well as ash loaded vehicles for Ash utilization, black topping of the road was done.</p> <p>The details of work is given in the annexed work order.</p>
3	Land premium paid to Lakhanpur Tahasildar	1.096 (claimed under Reg.3.4(d))	The item ought not to be allowed as it has no contribution towards efficient and successful operation of the plant.	<p>Land premium is required to be paid for continuing operations of the generating station.</p> <p>Land premium was paid to the Tehsildar towards reinstatement of AES India Private Limited's land in favour of OPGC</p>
4	Continuous Emission Monitoring System	0.166 (claimed under Reg.3.4(b) & 3.4(d))	The cost may be included under O&M expenses. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	<p>This expenditure is not of O&amp;M nature and therefore capitalized.</p> <p>State Pollution Control Board letter no. 3625 dated 26.02.2011 directed the installation of "real time ambient air quality monitoring" by 31.3.2011.</p> <p>Same requirement is reflected in CPCB's Comprehensive Environmental Pollution Index (CEPI) Action plan.</p> <p>Consent to operate dated 10.06.2013 sets out a condition whereby time bound compliance with CPCB's CEPI action plan to bring down PM emission below 50 mg/Nm<sup>3</sup></p> <p>Hon'ble CERC Orders (all allowing under change in law): Petition No. 288/GT/2014, order dated 12.4.2017, paras-</p>

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
				<p>45-47 Rs. 93.99 Lakhs allowed under Regulation 14 (3) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2014.</p> <p>Petition No. 342/GT/2014, Order dated 24.02.2017, paras-13-15. Rs. 34.37 + 2.38 Lakhs allowed under Regulation 14 (3) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2014</p> <p>Petition No. 148/GT/2013, Order dated 13.05.2014, paras-22. Rs. 32 Lakhs allowed under Regulation 9 (2) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2009</p> <p>Petition No. 285/GT/2014, Order dated 18.04.2017, paras-14-16. Rs. 80.5 Lakhs allowed under Regulation 14 (3) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2014</p> <p>The details of work is given in the annexed work order.</p>
5	Online Effluent Monitoring System	0.119 (claimed under Reg.3.4(b) & 3.4(d))	The cost may be included under O&M expenses. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	<p>The expenditure is not of O&amp;M nature and therefore capitalized.</p> <p>State pollution control board letter no. 3625 dated 26.02.2011 directed the installation of online monitoring with real time display facility" by 30.06.2011. Same requirement reflected in CPCB's CEPI action plan.</p> <p>Consent to operate dated 10.06.2013 sets out a condition whereby time bound compliance with CBCB's</p>

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
				<p>CEPI action plan to bring down PM emission below 50 mg/Nm<sup>3</sup></p> <p>Hon'ble CERC Orders (all allowing under change in law): Petition No. 285/GT/2014, order dated 18.4.2017, paras-14-16 Rs. 10 + 36 Lakhs allowed under Regulation 14 (3) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2014.</p> <p>Petition No. 180/GT/2015, Order dated 17.02.2017, paras-22-24. Rs. 25 Lakhs allowed under Regulation 14 (3) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2014.</p> <p>The details of work is given in the annexed work order.</p>
6	Ash Pond-A	7.959 (5.212 + 2.747)  (claimed under Reg.3.4(d))	<p>Original scope of work has not been provided by OPGC to carry out the prudent check.</p> <p>Details of works corresponding to the claimed amount are not specified.</p> <p>Size and capacity Ash pond-A and quantity of ash removed for making ash mounds on Ash Pond-B is not specified. Expenditure on removing the ash has making ash mounds should be included under O&amp;M expenses.</p> <p>Date on which Ash Pond-B is exhausted and capped, details of ash pond closure plan and steps taken for 100% ash utilisation and reclamation of Ash Pond-B to be submitted.</p> <p>Relevant documents containing details of</p>	<p>Ash Pond A Size: 150 Acres, and Capacity: 6714500 MT</p> <p>Removed ash from Ash Pond A for ash mound construction: FY 2015-16: 3,23,572 Cum</p> <p>The purpose of removal; of ash from ash pond A and making ash mounds in ash pond B is to create more space in ash pond A.</p> <p>The capacity enhancement of ash pond A is a capex project.</p> <p>Disposal of ash slurry to ash pond B has been closed since 31.08.2007. Earth capping has been done on ash pond B.</p> <p>However, dry disposal of ash in the form of ash mound is in progress over ash pond B.</p> <p>Technical study regarding stability and further use of ash pond B is continuing by our consultant IIT, Madras.</p> <p>The details of work is given in</p>

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
			procurement procedure order placed and expenditure made to be submitted.	the annexed work order.
<b>FY 2016-17</b>				
1	Ash Recycling T/F 4.5 MVA 33kV/6.9kV 50 Hz	0.405 (claimed under Reg.3.4(d))	Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted. As the root cause of failure is traced to manufacturing defect, whether OPGC was duly compensated by the manufacturer.	The failure mode suggested that improper winding construction or transformer design inadequacy to handle the switching duty could be the probable reasons for transformer failure. This is to be noted here that these transformers had been installed long ago i.e. in 2003 and warranty and guarantee conditions are no longer applicable. The details of work is given in the annexed work order.
2	Ash Pond-A	7.134 (claimed under Reg.3.4(d))	Original scope of work has not been provided by OPGC to carry out the prudent check. Cost corresponding to raising the bund height, removing the ash and cost corresponding to making ash mounds on Ash Pond-B are not segregated in the total claim. Quantity of ash removed from Ash pond-A and quantity of removed ash for making ash mounds on Ash Pond-B is not specified. Expenditure on removing the ash has making ash mounds should be included under O&M expenses. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	Capacity increase by raising bund height of ash pond A: Rs. 11800283.69 Construction of ash mound over ash pond B: Rs. 3,36,26,567.69 Consultancy of ash pond for raising of height of ash pond and construction of ash mound Rs. 15,57,235.96 Ash utilization by using pond ash: Rs. 24754568.00 Total quantity of Ash removed from Ash Pond A: 713821 Cum Details are as follows: (a) Quantity of ash used for making ash mound over ash pond B: 3,20,000 Cum (b) Quantity of ash utilization: 3,93,821 Cum (1,17,854 Cum for Dyke Construction, 1,16,660 for road construction, 1,59,307

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
				Cum for reclamation of low land) The details of work is given in the annexed work order.
3	AD (Ash Disposal) line	2.185  (claimed under Reg.3.4(d))	Details of ash disposal line not submitted. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	There are four numbers of Ash disposal lines which transport lean slurry from Ash slurry pump house (plant site) to Ash pond. The approx length of each ash disposal line is about 8 km. The ash disposal lines were renewed for expending the life. The details of work is given in the annexed work order.
4	SAP LAN & Network	2.760  (claimed under Reg.3.4(d))	The item ought not to be allowed as it has no contribution towards efficient and successful operation of the plant. The cost may be included under O&M expenses.	The hardware network and server were installed as a part of SAP implementation process. SAP was implemented for improving business process.
5	SAP Software	8.361  (claimed under Reg.3.4(d))	The item ought not to be allowed as it has no contribution towards efficient and successful operation of the plant. The cost may be included under O&M expenses.	This expenditure is not of O&M nature and therefore capitalized. This expenditure is not of O&M nature and therefore capitalized. Hon'ble CERC orders (all allowing under efficient and successful operation of generating station) Petition No. 123/2009, Order dated 11.01.2010, paras-25 (b). Rs. 5.88 Crores allowed under Regulation 18 (2) (iv) of the CERC (Terms and Conditions of Tariff) Regulations, 2004 Review Petition No. 11/2011, in Petition No. 150/2009, Order dated 22.02.2012, paras-10-11. Rs. 2.25 Crores allowed under Regulation 18 (2) (iv) of the CERC (Terms and Conditions of Tariff) Regulations, 2004 Petition No. 141/2009, Order

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
				<p>dated 11.01.2010, paras-33 (b), 33(c). Rs. 308.75 + 21.2 Lakhs allowed under Regulation 18 (2) (iv) of the CERC (Terms and Conditions of Tariff) Regulations, 2004</p> <p>Petition No. 182/2009, Order dated 20.01.2011, paras-36 (a). Rs. 1.83 Crores allowed under Regulation 18 (2) (iv) of the CERC (Terms and Conditions of Tariff) Regulations, 2004</p> <p>Petition No. 232/GT/2014, Order dated 16.08.2016, Sl. NO. 25, Pg. 43. Rs. 1.71 Lakhs allowed under Regulation 9 (2) (iv) of the CERC (Terms and Conditions of Tariff) Regulations, 2009.</p> <p>Petition No. 237/GT/2014, Order dated 04.09.2015, Sl. No. 6, Pg. 44. Rs. 10 Lakhs allowed under Regulation 14 (3) (vii) of the CERC (Terms and Conditions of Tariff) Regulations, 2009.</p>
<b>FY 2017-18</b>				
1	Ash Pond-A 2017-18	3.768  (claimed under Reg.3.4(d))	<p>Original scope of work has not been provided by OPGC to carry out the prudent check.</p> <p>Details of work and cost breakup not furnished.</p> <p>Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.</p>	The details of work is given in the annexed work order.`
2	Construction of Ash Pond-C	33.617  (claimed under Reg.3.4(d))	<p>Original scope of work has not been provided by OPGC to carry out the prudent check.</p> <p>The item should not be considered as it is not put to</p>	<p>These assets form part of the project and are put to use .</p> <p>Ash pond C Size: 115 Acres capacity: 5764040 MT</p> <p>The details of work is given in the annexed work order.</p>

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
			use now. Details of ash pond size and capacity not known. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	
3	Ash Pond-C restoration/dismantling cost	2.361  (claimed under Reg.3.4(d))	Original scope of work has not been provided by OPGC to carry out the prudent check. The item should not be considered as it is not put to use now. When the Ash Pond-C is new, it is meaningless to claim for restoration/dismantling of the same. Details of ash pond size and capacity not known. Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted.	These assets form part of the project and are put to use. As per Ind AS-16, the cost of decommissioning/dismantling obligation arises on acquiring of a property plant and equipment required to be capitalized at its present value. Here decommissioning cost is the final reclamation cost of ash pond C which will be incurred at the end of the life of ash pond C, as per statutory guidelines of OSPCB. The details of work is given in the annexed work order.
4	MGR type wagon superstructure/body	2.243  (claimed under Reg.3.4(d))	Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted. However, the Commission may prudently decide upon the matter.	The details of work is given in the annexed work order.
5	MGR type BOBR wagon complete of	1.128  (claimed under Reg.3.4(d))	Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted. However, the Commission may prudently decide upon the matter.	The details of work is given in the annexed work order.
6	Cont. of balance road	0.236	Relevant documents containing details of	The details of work is given in the annexed work order.

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
	from ash pond junction to ash pond	(claimed under Reg.3.4(d))	procurement procedure order placed and expenditure made to be submitted. However, the Commission may prudently decide upon the matter.	
7	25 nos. of SAP professional user	0.257  (claimed under Reg.3.4(d))	The item ought not to be allowed as it has no contribution towards efficient and successful operation of the plant. The cost may be included under O&M expenses.	SAP was implemented for improving business process Hon'ble CERC order (allowing under Efficient and successful operation of the generating station): Petition No. 149/2009, Order dated 08.01.2010, Para-34. Rs. 1.71 Crores allowed under Regulation 18 (2) (iv) of the CERC (Terms and Conditions of Tariff) Regulations, 2004.
8	Procurement of 300 nos. of ESS User License	0.177  (claimed under Reg.3.4(d))		
9	Implementation of GST in SAP ERP System	0.321  (claimed under Reg.3.4(d))		
FY 2018-19				
1	ESP Upgradation	43.00  (claimed under Reg.3.4(b))	Relevant documents containing details of procurement procedure order placed and expenditure made to be submitted. The cost may be included in O&M expenses. However, the Commission may prudently decide upon the matter.	This expenditure is not of O&M nature and therefore capitalized. This expenditure is not of O&M nature and therefore capitalized. SPCB letter no. 3625 dated 26.02.2011 directed the installation of "ESP/BP to meet emission start of 50 mg/Nm3 with one spare field" for existing plants by 31.03.2012. Same requirement reflected in CBCB's CEPI action plan. Consent to operate dated 10.06.2013 at Fl. Sl. No. 1 sets out the obligation to take all steps to improve ESP performance and at Fl. Sl. No.2 sets out a condition whereby time bound compliance with CBCB's CEPI action plan to bring down PM emission below 50



Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
				<p>mg/Nm<sup>3</sup>.</p> <p>The upgradation was required for ensuring to provide a new pass in each of the existing ESP for better SPM, as per statutory requirement.</p> <p>CERC orders (all allowing under change in law):</p> <p>SAP was implemented for improving business process</p> <p>CERC order (allowing under Efficient and successful operation of the generating station):</p> <p>Petition No. 339/GT/2014, Order dated 10.03.2017, Para-14-19. Rs. 260 Crores spread across 5 years, allowed under Regulation 14 (3) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2014.</p> <p>Petition No. 243/GT/2013, Order dated 21.12.2015, Para-19-24. Rs. 5.46 Crores allowed under Regulation 9 (2) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2009.</p> <p>Petition No. 207/GT/2014, Order dated 20.07.2016, Para-16-19. Rs. 3.85 Crores allowed under Regulation 9 (2) (ii) of the CERC (Terms and Conditions of Tariff) Regulations, 2009.</p> <p>The details of work is given in the annexed work order.</p>
2	Material upgradation of existing of Ash slurry disposal system	3.40 (claimed under Reg.3.4(d))	<p>The item has already been included in FY 2016-17 (Item-4 ash disposal line). Therefore, it should not be allowed for FY 2018-19.</p> <p>Original scope of work has not been provided by OPGC to carry out the prudent</p>	<p>The projected expenditure for FY 2018-19 is in addition to the actual expenditure incurred in FY 2016-17</p>

Sl. No	Description	Amt. Claimed for approval (Rs. Cr.)	GRIDCO's Comments	OPGC's Reply
			check.	
3	Raising of Pond A	0.80 (claimed under Reg.3.4(d))	The item has already been included in FY 2015-16, 2016-17 and 2017-18. Therefore, it should not be allowed for FY 2018-19. Original scope of work has not been provided by OPGC to carry out the prudent check.	The projected expenditure for FY 2018-19 is in addition to the actual expenditure incurred in FY 2015-16, 2016-17 and FY 2017-18.
4	Construction of Ash mound	2.50 (claimed under Reg.3.4(d))	The item has already been included in FY 2015-16, 2016-17 and 2017-18. Therefore, it should not be allowed for FY 2018-19. Original scope of work has not been provided by OPGC to carry out the prudent check.	The projected expenditure for FY 2018-19 is in addition to the actual expenditure incurred in FY 2015-16, 2016-17 and FY 2017-18.

14. The respondent-GRIDCO has submitted that the petitioner vide its letter dated 29.05.2017 had given the proposal on Environmental Retrofit including R&M of existing units (2x210 MW) Ib thermal power station in order to meet the revised emission limit in accordance with the guidelines issued by MoEF vide their notification SO-3305 dated 07.12.2015. As per the said notification based on different criteria and level of emission of sulphur dioxide and oxides of nitrogen to atmosphere, installation of Flue Gas Desulphurization (FGD) is required to be installed. As per the said notification it is required for the existing coal fired power plants commissioned before 31.12.2003, to meet the revised emission limit within a span of two years from the date of notification. If FGD installation is not possible then those thermal stations shall be phased out latest by 2022. The useful life of Unit-I&II OPGC power stations will be completed in the year 2026. The matter was discussed and deliberated and the petitioner had furnished that there shall be a tentative expenditure of Rs. 269 to Rs. 275 Crore for environment retrofit/FGD installation. The petitioner's plant has already depreciated and loan repayment has been over. Hence any additional capitalisation shall have to be passed to tariff of the consumers of the State and since the useful life

is up to 2026, the impact may result in abnormal tariff hike due to recovery of cost within the limited remaining useful life of plant. If the substantial amount of the additional capitalisation is considered, then OPGC may come up with an application for R&M for an extended period of useful life of the thermal plant.

15. GRIDCO has submitted that the petitioner's claim of additional capitalisation is not justified. Any additional capitalisation ought to have taken prior approval of the Commission, but OPGC has not taken prior approval for additional capitalisation of the items claimed in the petition. The petitioner has not given sufficient justification in support of the provisions of Regulations 3.4 (b) and (d) of OERC Generation Tariff Regulations, 2014 under which the proposed additional capitalisation has been claimed and therefore, the figures claimed by the petitioner are not acceptable to GRIDCO. The views of GRIDCO on different items as claimed by OPGC for additional capitalisation is indicated in the previous table:

16. In its additional submission, the respondent GRIDCO has stated that the Regulation 3.4 of OERC (Generation Tariff) Regulations, 2014 provides as follows:-

*"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-*

*X x x x x x x*

*(c) Deferred works relating to ash pond or ash handling system in the original scope of work*

*(d) Any additional works/service, which have become necessary for efficient and successful operation of a generating station but not included in the original cost.*

*x x x x x x x x x*"

17. Further, the Commission vide its interim order dated 26.08.2019 passed in the present case had directed OPGC to submit the original scope of work of the project along with details of expenditure. In compliance to the above direction of the Commission, OPGC has submitted the following documents:-

- d. Government of Odisha Letter dated 17.12.1994 approving the project cost of Rs. 1060 Crore for Unit-I&II of OPGC.
- e. OPGC letter dated 19.06.2001 to CEA mentioning the detailed project cost of Rs. 1134.27 Crore.
- f. Interim detailed project report of December, 1992.

Since, OPGC has not provided the original scope of work; it is difficult on the part of GRIDCO to ascertain the justification of additional cost incurred in respect of ash pond/ash handling system. Moreover, the generating units of OPGC is running efficiently delivering high performance vis-a-vis operation parameters laid down in the PPA and about to complete 24 years (by the year 2020) without any R&M work. Further, in the tariff re-determined for the FY 2016-17, 2017-18 and 2018-19 by the Commission vide its order dated 28.03.2019 passed in Case No. 33/2018, the petitioner has been allowed relaxed norms as per PPA in spite of actually operating at improved norms. If all such facts are collectively considered, the petitioner can continue to operate till 2026 without any additional capitalisation which is specifically required for efficient and successful operation of the generating station.

18. GRIDCO has submitted that Hon'ble Supreme Court of India vide their judgment dated 19.04.2018 has directed as follows:-

*'x x x x x The State Commission may take in to 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.'*

As per Clause 3 (a) of the Government Notification dated 28.06.2008, "All other terms and parameters for determination of tariff for Unit-I&II shall be as per existing PPA".

Hence, the capital costs of the projects for the purpose of tariff has been freezed vide the said government notification, based on which the amended PPA was executed on 19.12.2012. In case any additional capitalisation is allowed to the petitioner, the capital cost shall undergo change and consequently it will lead to deviation from subsisting PPA provisions and also the order dated 19.04.2018 of the Hon'ble Supreme Court.

19. GRIDCO has further submitted that as per the Clause 12.4 of the original PPA dated 13.08.1996, "*x x x x x x. The tariff calculations pertaining to this Agreement is based on the principles and norms stipulated in the notification dated 30.03.1992 (as amended from time to time) of Ministry of Power, Government of India. x x x x x.*" Further, as per Clause 1.2 of the said notification dated 30.03.1992, "*Provided further that where a power purchase agreement entered between the generating company and the Board provides a ceiling on capital expenditure, the capital expenditure shall not exceed such ceiling.*" Hence in the present case, the ceiling

capital cost is Rs. 1060 Crores as per the PPA. However, due to determination of tariff as per PPA for the FY 2016-17, 2017-18 and 2018-19 with relaxed norms thereon instead of extant Tariff Regulations of OERC, the total benefit to the petitioner works out to be Rs. 98.61 Crore, Rs. 27.69 Crore and Rs. 11.34 Crore respectively totalling to Rs. 137.64 Crore. Such benefits appropriated by the petitioner may be prudently utilised for meeting the claim of additional capitalisation to the tune of Rs. 128.07 Crore for the period from FY 2015-16 to 2018-19.

20. GRIDCO has submitted that the expenditure pertaining to construction of road at ash pond junction to ash pond and Ash Pond-A claimed under Regulation 3.4(d) is required to be prudently verified by the Commission in view of provisions under Regulation 3.4 (c) of the OERC Tariff Regulations, 2014 which stipulates as follows:-

*“3.1 (c) x x x x x x x. Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.”*

21. In view of the above GRIDCO has prayed the Commission that,
- a. Any additional capitalisation cost allowed to the petitioner shall lead to change of capital cost of the project in deviation to Government Notification dated 21.06.2008 based on which Amended PPA dated 19.12.2012 was executed, wherein such cost has been freezed. Hence, prudent decision may be taken by the Commission in this regard.
  - b. The petitioner may be directed to meet its additional capitalisation expenditure from its O&M expenditure as well as from the benefits drawn from determination of tariff as per the PPA.
  - c. The petitioner may be directed to file report of the RLA Study being carried out in respect of Unit-I & II to enable the Commission in taking a prudent decision in the present matter.
  - d. Expenditure incurred for business improvement may be directed to be considered under O&M expenditure.

22. The respondent Shri R. P. Mahapatra has submitted that the Hon'ble Supreme Court of India in their judgment dated 19.04.2018 have directed as given below:

*“7. Accordingly, we set aside the impugned order and remand the matter to the State Commission for fresh decision. The State Commission may take in to 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.”*

In accordance to the above judgment of the Apex Court, capital cost including additional capitalisation which forms a part of “fixed cost” is to be determined by the Commission based on the notification dated 21.06.2008. In this notification dated 21.06.2008 there is no provision for additional capitalisation. Therefore, the submissions of the petitioner under the heading “overall approach for filing the petition” are not relevant to the present case, to consider the same based on the provisions under OERC (Generation Tariff) Regulations, 2014, as it is contrary to the judgment dated 19.04.2018 of the Hon’ble Supreme Court. If the Commission thinks that it is permissible under the said judgment of the Hon’ble Supreme Court, then before considering the proposal for additional capitalisation, the Commission has to verify the original capital cost estimate of the project in accordance with Regulation 3.4 (c) and (d) of OERC (Generation Tariff) Regulations, 2014. Further, many of the claims made by the petitioner come under O&M activities.

23. He further submitted that replying to the queries as per the interim direction of the Commission in the present case, the petitioner has submitted the following documents:-
  - a. Government of Odisha Letter dated 17.12.1994 intimating that the capital cost has been revised from Rs. 933.58 Crore to Rs. 1060 Crore for Unit-I&II of OPGC for the purpose of calculation of tariff.
  - b. The cost of Rs. 933.58 Crore is based on the detailed project estimate of December, 1992 of OPGC.
  - c. OPGC letter dated 19.06.2001 to CEA to record the approval of completed cost estimate for Unit-I&II.
24. The petitioner has not made any submission regarding approval of project cost by CEA, but stated that *“it is apposite to mention herein that relevant document like the final detailed project report could not be traced as damage has been caused to office records initially during a fire mishap which occurred in the office complex in the year 1992 and subsequently during the Super Cyclone in October, 1999.”* This submission is irrelevant as the final project report or the completion report must have

been/were prepared only after 1996/2001. Therefore, the estimated completion cost of the 1<sup>st</sup> phase of the projects (2x210 MW) is not substantiated.

25. The petitioner has claimed the additional capitalisation based on the OERC Tariff Regulations, 2014 on the ground that the PPA has no provision for additional capitalisation. This argument of the petitioner is totally incorrect as the additional capitalisation is related to the fixed cost which has been determined based on the State Government Notification dated 21.06.2008. The petitioner is trying to take benefits on the ground of “known industry practice” relating to construction of ash pond as well as GCV of coal.
26. Further, as per the Generation Tariff Regulations any additional works/services, which have become necessary for efficient and successful operation of a generating station should not be included in the original capital cost. The petitioner has not submitted as to the efficiency improvement which will occur due to execution of works under proposed additional capitalisation and benefit of the consumers due to reduction in tariff. The petitioner is continuing to derive benefits of determination of tariff based on secondary fuel oil consumption, Station Heat Rate, Plant Load Factor, additional O&M expenses, additional RoE based on the judgment of the Hon’ble Supreme Court. Further, many of the works proposed are in nature of O&M activities. Recovery of capital cost within the remaining 5 to 6 years of the plant life will also result in undue burden on the consumer. Therefore, he prayed the Commission to direct the petitioner to file the petition for R&M and life extension of the Units-I&II of its power station.
27. The respondent Shri P. K. Pradhan has submitted that Unit-I of OPGC power station was installed on 21.12.1994 and the Unit-II was installed on 20.06.1996. Hence, the completion of useful life of Units-I&II are in the year 2019 and 2021 respectively. However, as stated by GRIDCO the useful life of the power plant will be over during 2026. But in coal supply agreement executed between MCL and OPGC it has been mentioned differently, which may be verified by an appropriate agency.
28. Further, in order to meet the revised emission limit in accordance with the guideline issued by MoEF, the plant had to install FGD with a cost of around Rs. 270 Crore as indicated in their submissions. If FGD is not possible then those thermal stations shall

be phased out latest by 2022. As per PPA with GRIDCO, the useful life of the plant will be over by 2026.

29. As per the judgment of the Hon'ble Supreme Court, for determination of tariff of OPGC power stations, the Commission may take into account the government notification dated 21.06.2008 for the fixed cost, the PPA for variable cost specified therein and for other cost not reflected in PPA statutory regulation may be applied. As per the amended PPA the capital cost is Rs. 1060 Crore including IDC for the purpose of calculation of fixed cost. Hence, at this stage no further additional capitalisation can be made as per notification. The additional capitalisation claimed by OPGC for different financial years can be met from the O&M expenses allowed by the Commission in respective years. However, after the Remaining Life Assessment (RLA) is completed, OPGC can come up with a proposal for R&M of its power station. During that period, the capital cost along with the life span of the units will change and PPA will be amended accordingly. At present both the units of OPGC are running with a PLF much higher than 68.49% for full recovery of fixed cost. As such there is no requirement of additional capitalisation at this stage.
30. That the RLA is very much important, as at this stage the life span declared in different places are different and contradicting.
  - i. As per the regulation of the Commission life span of a thermal generating plant is 25 years means the units will complete its life period by 2020-21.
  - ii. As per PPA the life span is 30 years and this will end in FY 2025-26. Date of commissioning of Unit-I-01.01.1995 and Unit-II- 01.07.1996.
  - iii. As per FSA of OPGC with MCL the life span of Unit-I is 31.03.1934 and Unit-II is 31.03.2036.
31. He submitted that if the Commission considered the proposal of additional capitalisation by the petitioner its impact will be very high on the fixed cost of the tariff as the period of recovery is very less. Therefore, the Commission should direct OPGC to study the RLA of the plant and file a petition for Renovation and Modernisation of the plant with proposed useful life extension along with installation of FGD and construction of another Ash Pond, so that the consumer of the State will be benefited.



32. The Commission heard the parties. As per judgement of Hon'ble Supreme Court dated 19.04.2018 the norms for variable cost shall be as per PPA and the notification of the State Government dated 21.06.2008 shall be used for fixed cost. For other costs not reflected in the PPA, the statutory Regulation may be applied. The two power generating units have been in operation since 1994 and 1996 respectively. They will complete their useful life by the year 2026 unless it is extended as per PPA. The Petitioner has also not submitted the Residual Life Assessment study. Therefore, a few years are left for life of the power plant to come to an end. If FGD is not installed then power station shall be phased out much earlier as per the MOEF guideline. As per the judgement of Hon'ble Supreme Court from the point of view of fixed cost the Government notification dated 21.06.2008 is only to be considered. However, Hon'ble Court has given relaxation in the variable cost by mentioning that if anything is not reflected in the PPA then statutory Regulation shall apply. Proposal for additional capitalisation as submitted by the Petitioner shall have impact on the fixed cost of the power station. However, this has been frozen by Government notification which has been concurred by Hon'ble Supreme Court. Therefore, it is not possible on our part to consider expenditure incurred by the Petitioner in different areas as additional capitalisation rather they would come under relaxed O&M norms of PPA. After incurring the expenditure of Rs.122.15 crore the PLF of the plant has not improved substantially which can be seen from the following table.

<b>Year</b>	<b>PLF</b>
2016-17	86.01%
2017-18	74.18%
2018-19	82.42%
1919-20	69.73%

Therefore, expenditure is of the nature of Operation and Maintenance or some sort of renovation and modernization. The petitioner has also not sought the prior approval of the Commission for incurring expenditure which is required for Additional Capitalisation similar to that they have sought for FGD installation in unit III and IV. Moreover, original project report is also not available to justify that the present work is additional in nature particularly the extension of height of Ash pond etc. However, if the life of the plant is extended further, this expenditure can be capitalized under the head of Renovation and Modernization. The petitioner, however, has not given any

proposal for life extension. RLA study is yet to be carried out. The petitioner is at liberty to do so and come up with such proposal. Therefore, Additional capital expenditure for a plant which is going to be phased out soon should not be allowed. Hence, the expenditure proposed by the petitioner may be met from Operation and Maintenance Expenditure. The O&M norm as per PPA for Unit-1 and 2 is highly relaxed with escalation of 8% every year from the base value in the year 1996 as per PPA which is higher than norms of OERC Regulation. Therefore, any additional expenditure can be accommodated there.

33. With the above observation, the case is disposed of.

Sd/-  
**(S. K. Parhi)**  
Member

Sd/-  
**(U. N. Behera)**  
Chairperson