

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 251/GT/2017

Coram:

**Shri P.K.Pujari, Chairperson
Dr. M.K. Iyer, Member
Shri I.S.Jha, Member**

Date of Order: 22nd January, 2020

In the matter of

Petition for determination of tariff of Udupi Thermal Power Plant (1200 MW) for the period from 1.4.2014 to 31.3.2019

And

In the matter of

Udupi Power Corporation Limited
1st Floor, Lotus Towers No. 34,
Devaraja Urs Road,
Bengaluru- 560001

.....Petitioner

Vs

1. Power Company of Karnataka Ltd.
KPTCL Building, Kaveri Bhavan, K.G.Road,
Bengaluru- 560009
2. Bangalore Electricity Supply Company Ltd.
K.R.Circle, Bengaluru- 560001
3. Mangalore Electricity Supply Company Limited
Corporate Office, MESCOM Bhavan, First floor,
Kavoor Cross Road, Bijai,
Mangalore- 575004
4. Gulbarga Electricity Supply Company Limited
Station Main Road, Gulbarga- 585102
5. Hubli Electricity Supply Company Limited
Corporate Office, Navanagar, PB Road,
Hubli- 580025
6. Chamundeshwari Electricity Supply Company Limited
No. 29, Kaveri Grameena Bank Road, Vijayanagara 2nd stage,
Hinkal, Mysore- 570017
7. Punjab State Power Corporation Limited
The Mall, Patiala- 147001

.....Respondents



Parties present

Shri Hemant Sahai, Advocate, UPCL
Shri Nitish Gupta, Advocate, UPCL
Ms. Parichita Chowdhury, Advocate, UPCL
Shri Harish Priyani, APL
Shri M.G.Ramachandran, Senior Advocate, PCKL & PSPCL
Ms. Poorva Saigal, Advocate, PSPCL
Shri Shubham Arya, Advocate, PSPCL
Shri Arunav Patnaik, Advocate, PCKL
Shri Shikhar Saha, Advocate, PCKL
Shri Ramesh Gudi, PCKL
Shri Madhu Mali, PCKL
Shri Akash Chatterjee, Advocate, BESCO
Shri Balaji Srinivasan, BESCO

ORDER

The Petitioner, Udupi Power Corporation Limited has filed this petition for approval of tariff of Udupi Thermal Power Station (2 x 600 MW) (“the generating station”) for the period from 1.4.2014 to 31.3.2019, in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The Petitioner has set up a 1200 MW thermal power station in Udupi district in the State of Karnataka. The project has been developed as a Mega Power project in line with the policy guidelines issued by the Ministry of Power, Government of India and is the first thermal power plant designed for 100% imported coal. The date of commercial operation of Unit-I is 11.11.2010 and that of Unit-II is 19.8.2012.

3. The Commission vide its order dated 20.2.2014 in Petition No. 160/GT/2012 had approved the tariff of Unit-I for the period from 11.11.2010 to 31.3.2014 and for Unit-II from 19.8.2012 to 31.3.2014. Aggrieved by the said order, the discoms of Karnataka and also the Petitioner, filed appeals before the Appellate Tribunal for Electricity (‘the Tribunal’) on various issues. The Tribunal by its common judgment



dated 15.5.2015 disposed of these appeals, with a direction to the Commission to re-determine the tariff of the generating station based on its findings on the issues which were allowed. Against the above judgment of the Tribunal dated 15.5.2015, the Respondents PCKL with the discoms of Karnataka filed Review Petition No. 19/2015 and the Petitioner also filed Review Petition No. 22/2015 on various grounds. Meanwhile, in compliance with the directions of the Tribunal in its judgment dated 15.5.2015, the Commission by its order dated 10.7.2015 in Petition No. 160/GT/2012 re-determined the annual fixed charges of the generating station. Thereafter, the Petitioner filed Petition No. 7/GT/2016 for revision of tariff of the generating station for the period from 11.11.2010 to 31.3.2014 and the Commission vide its order dated 24.3.2017 revised the tariff of the generating station for the said period after truing-up exercise.

4. Subsequently, the Tribunal vide its common judgment dated 6.2.2019 disposed of the Review Petition Nos. 19/2015 and 22/2015 filed by the parties as aforesaid. While Review Petition No. 22/2015 was partly allowed on issues namely, (i) Disallowance of Gross Station Heat Rate (GSHR) of 2400 kcal/kwh; and (ii) Disallowance of ₹141.91 crore on account of “Error in calculation of EPC cost”, Review Petition No. 19/2015 was partly allowed only on the issue of ‘Erection, Testing & Commissioning expenses’. Accordingly, the Commission was directed by the Tribunal to re-determine the tariff of the generating station in terms of findings in the judgment. In terms of this, the Commission by its order dated 27.6.2019 in Petition No.160/GT/2012 revised the annual fixed charges of the generating station for the period 2009-14 as under:

Present Petition

5. The Petitioner vide affidavit dated 8.11.2017 has filed this petition and has



sought approval of tariff for 2014-19, in accordance with the provisions of the 2014 Tariff Regulations. Accordingly, the capital cost and the annual fixed charges claimed by the Petitioner in Form-1(i) and Form 1 respectively for the period 2014-19 are as under:

Capital Cost

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	534475.76	537800.62	538102.62	542236.54	577951.54
Add: Additional Capital Expenditure	3324.86	302.00	4133.93	35715.00	0.00
Closing Capital Cost	537800.62	538102.62	542236.54	577951.54	577951.54
Average Capital Cost	536138.19	537951.62	540169.58	560094.04	577951.54

Annual Fixed Charges

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	28274.37	28374.06	28479.37	29470.56	30368.24
Interest on Loan	44028.77	40324.40	36643.22	34584.64	32198.48
Return on Equity	25870.29	26102.83	26233.95	27411.81	28467.48
O&M Expenses	19836.33	21303.74	22604.68	24143.59	25624.28
Interest on Working Capital	13978.98	13831.21	13818.40	13886.58	13968.64
Total	131988.74	129936.25	127779.63	129497.19	130627.13

6. In compliance to the directions of the Commission, the Petitioner has filed the additional information and has served copies on the Respondents. Replies have been filed by the Respondents, PCKL and PSPCL and the Petitioner has filed its rejoinder to the said replies. The Commission after hearing the matter on 19.3.2019 directed the parties to file their written submissions and accordingly reserved its order in the petition. In compliance, the Petitioner and the Respondents PCKL & PSPCL have filed written submissions. Thereafter, pursuant to the submissions made by the learned senior counsel for the Respondent PCKL and the learned counsel for the Petitioner on 30.5.2019, the Commission directed the matter to be listed again for hearing. Subsequently, the matter was heard on 25.7.2019 and the Commission after directing the Petitioner to file certain additional information, reserved its order in the petition. In compliance with the

above directions, additional information has been filed by the Petitioner and the Respondents have filed their replies. The Petitioner has filed its rejoinder to the said replies. We now proceed to examine the claim of the Petitioner on prudence check, based on the submissions and the documents available on record, as stated in the subsequent paragraphs.

Capital Cost as on 1.4.2014

7. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check, in accordance with this regulation, shall form the basis of determination of tariff for existing and new projects. Clause (3) of Regulation 9 of the 2014 Tariff Regulations provides as under:

“9(3) The Capital cost of an existing project shall include the following:

(a) The capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;

(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(c) Expenditure on account of renovation and modernization as admitted by this Commission in accordance with Regulation 15.”

8. The annual fixed charges claimed in the petition are based on opening capital cost of ₹534475.76 lakh (as admitted in order dated 24.3.2017 in Petition No. 7/GT/2016) as against ₹551286.09 lakh admitted as on 31.3.2014, in order dated 27.6.2019. Further, the Petitioner has furnished the value of capital cost and liabilities as on 1.4.2014 as per books at Form-9E. The details of liabilities and capital cost have been reconciled with the information available on records as shown below:

	<i>(₹ in lakh)</i>		
	As per Form-9E	As per details available with Commission	Differences
Capital cost as on 1.4.2014, as per books	625467.00	617344.00	8123.00
Liabilities included above	0.00	0.00	0.00

9. The above statement shows that there is variance in the capital cost position as on 1.4.2014 as per books and details available with Commission. The Petitioner is directed to furnish the reason for the variance at the time of truing up. The Commission vide order dated 27.6.2019 in Petition No. 160/GT/2012 had revised the closing capital cost for the period 2009-14, based on the findings in the judgment dated 6.2.2019 of the Tribunal as under:

	(₹ in lakh)				
	2010-11 (11.2010 to 31.3.2011)	2011-12	2012-13 (1.4.2012 to 18.8.2012)	2012-13 (19.8.2012 to 31.3.2013)	2013-14
Opening Capital Cost	271126.99	271126.99	271126.99	544375.09	551286.09
Add: Additional capital expenditure	0.00	0.00	0.00	6911.10	0.00
Closing Capital Cost	271126.99	271126.99	271126.99	551286.09	551286.09
Average Capital Cost	271126.99	271126.99	271126.99	547830.59	551286.09

10. Accordingly, the closing capital cost of ₹551286.09 lakh as on 31.3.2014 has been considered as the opening capital cost as on 1.4.2014 for determination of tariff for the period from 1.4.2014 to 31.3.2019.

Additional Capital Expenditure

11. Regulation 14 of the 2014 Tariff Regulations provides as under:

“14. Additional Capitalization and De-capitalization:

(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Un-discharged liabilities recognized to be payable at a future date;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and

(v) Change in law or compliance of any existing law:

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.”

(2) The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work **after the cut-off date** may be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and
- (iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.

(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, **incurred or projected to be incurred on the following counts after the cut-off date**, may be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;
- (vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;
- (viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;
- (ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system,

insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:

Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.”

12. The Petitioner in this petition has claimed actual additional capital expenditure for the years 2014-15, 2015-16, 2016-17 and projected additional capital expenditure for the year 2017-18 in Form 9A. The Petitioner has sought relaxation of the cut-off date and submitted that the project could not adhere to the cut-off date for the reason of protracted litigation between the Petitioner and the beneficiaries right from the date of COD till receiving clarity in the matter through judgment of the Tribunal and implemented by the Commission by its order dated 10.7.2015. The Petitioner has stated that it could not have carried out the envisaged works as the finalization of original capital cost was under litigation and additional expenditure could have resulted in unwarranted disputes. It has further stated that Independent Consultant was engaged and important capital works to be taken up to ensure the statutory, safety, environment compliance and efficient operation of the plant has been recommended. Accordingly, the Petitioner has prayed that the Commission may grant suitable relaxation in cut-off date to

complete the balance essential works by relaxation of provisions of Regulations 14(1) and 14(3) read with Regulation 54 of the 2014 Tariff Regulations.

13. The Commission vide ROP of the hearing dated 27.2.2018 had directed the Petitioner, amongst others, to submit the following:

“(iv) Justification of each and every asset claimed towards the projected additional capital expenditure along with relevant clauses under Regulation 14 of the 2014 Tariff Regulations”

14. In compliance with the above, the Petitioner vide affidavit dated 19.3.2018 has furnished justification for each asset claimed towards projected additional capital expenditure along with relevant clauses under which they are claimed. Subsequently, the Petitioner vide its letter dated 20.3.2018 had sought withdrawal for the submissions made in the aforesaid affidavit on the ground that the proposal for additional capitalization submitted by the Petitioner was under consideration of the Respondent PCKL. The Petitioner had also submitted that fresh submissions would be made after communication by the Respondent. Accordingly, the Commission allowed the withdrawal of the said affidavit and granted time to the Petitioner to furnish additional information.

15. During the hearing of the petition on 18.12.2018, the Petitioner submitted that it has sought consent of the Procurers with regard to additional capital expenditure to be incurred during January 2017 and the same was pending for consideration by the Respondent PCKL. The Petitioner while pointing out that it was unable to incur the capital expenditure, sought direction on the Respondent to produce on record the report with regard to approval of the Petitioner’s proposal for additional expenditure. In response, the Respondent PCKL had submitted that the claim of the Petitioner for additional capitalization is to be considered by the Board in meeting to be held in due course. During the hearing on 19.3.2019, the

Petitioner has made submissions categorizing the claims for additional capitalization under the following heads:

- (a) Additional capitalization pursuant to the Commission's orders dated 20.2.2014 & 3.12.2014 and costs incurred towards compliance of statutory directions;
- (b) Costs incurred on essential and critical items described in the report of technical consultant (Lahmeyer report);
- (c) Additional capitalization to be incurred as per Lahmeyer report;
- (d) Cost to be incurred on installation of sea water intake system; and
- (e) Other important issues

16. Subsequently, the Commission vide ROP of the hearing dated 25.7.2019 had directed the Petitioner, amongst others, to file additional information as under:

“(a) Revised Form 9A with details stating the regulations and sub-clauses under which the additional capital expenditure is claimed”

17. In compliance with said directions, the Petitioner vide its affidavit dated 19.8.2019 has filed the revised Form-9A containing the actual additional capital expenditure for the period 2014-17 along with the additional capital expenditure to be incurred during the next control period i.e. 2019-24. The actual additional capital expenditure incurred for the period 2014-17 are detailed as under:

(₹ in lakh)

Sl. No.	Package Name	Actual/Projected Capital Expenditure			
		2014-15	2015-16	2016-17	Total
1	M.S. Sea Water Return Pipe	3230.52	0.0	0.0	3230.52
2	Extension of culvert at NH-66	94.34	0.0	0.0	94.34
3	Compensation paid to fishermen as per Karnataka State Human Rights Commission	0.0	302.00	0.0	302.00
4	Silt settling chamber in sea water intake pump house.	0.0	0.0	293.52	293.52
5	Over ground piping for fire fighting system	0.0	0.0	886.17	886.17
6	On-line DGA for all GTs	0.0	0.0	127.66	127.66
7	Quick erect Scaffolding	0.0	0.0	1196.98	1196.98
8	Sewage Treatment Plant	0.0	0.0	70.80	70.80
9	Construction of new store shed at port	0.0	0.0	53.28	53.28



10	Sea Water intake system reliability	0.0	0.0	1222.60	1222.60
11	Installation of Rack and pinion lift-jetty 9 in ICHP, Silo 1 & 2 in ECHP	0.0	0.0	41.33	41.33
12	NDCT and Chimney Concrete Treatment	0.0	0.0	54.45	54.45
13	Purchase of Vibration diagnostic analysis	0.0	0.0	187.12	187.12
		3324.86	302.00	4133.93	7760.79

18. The Respondent PCKL in its replies and written submissions has mainly contended as under:

(a) The relaxation or removal of difficulties sought by the Petitioner are contrary to the explicit terms of the regulations and therefore impermissible under law. The prayer for such relaxation is contrary to the basic principles of law as regards relaxation. Judgments of the Hon'ble Supreme Court in State of Odisha & ors vs Sukanti Mohapatra & ors [1993 SCC (2)486] and M.U. Sinai vs UOI [1975 (2) SCR 640] were referred to.

(b) The relaxation sought by the Petitioner or on account of factors attributable to the Petitioner and/ or its own acts and omissions. It is the responsibility of the Petitioner to manage its expenditure and deadlines in accordance with the applicable regulations and the distribution licensees and consumers cannot be burdened for the same. Hence, relaxation or removal or difficulties as prayed for by the Petitioner may not be allowed.

(c) The Petitioner has to first identify under which head of Regulation 14(3) its claims are being made and thereafter give the detailed justification to meet the test laid down in the sub-regulation. The Petitioner has to justify each expenditure and show to the satisfaction of the Commission that the Petitioner is mandated to incur the said expenditure and whether it gives any benefit to the beneficiaries and consumers.

(d) The submissions of the Petitioner that it had already capitalized few works in books of accounts is unacceptable. The execution of works without necessary approval cannot be considered under any conditions considering the provisions of Section 4.1(d) of the PPA. Most of the additional capital expenditure works proposed as per recommendations of M/s Lahmeyer International (I) Pvt Ltd are already part of the original EPC contract.

(e) The Petitioner has constantly changed its claims with regard to regulation under which additional capital expenditure is being claimed. The Petitioner in its submissions has either not relied upon any regulation at all for its claim for additional capitalization or has placed vague and general reliance on Regulation

14(3) without relying on any specific sub-clause and the same is not permissible under law.

(f) The relaxation of cut-off date sought on the ground of pendency of litigation cannot be permitted as mere pendency of litigation cannot be a reason to claim any exemption. In any case, the Petitioner delayed filing of the present petition till November 2017 and therefore it cannot claim that the disposal of earlier tariff petitions had any impact. The wholesale relaxation sought by the Petitioner for its own failure is impermissible and is contrary to the explicit terms of the regulations.

(g) Relaxation as claimed by the Petitioner for de-capitalization de hors the regulation and for blanket extension of cut-off date would defeat the very purpose of the regulations and cannot be allowed. It is fundamental to the regulations that additional capitalization after the cut-off date i.e. 31.3.2015 can be claimed only in certain very specific conditions.

(h) The powers of this Commission to remove difficulties can only be invoked to round off angularities and smoothen the joints or remove minor obscurities to make it workable, but it cannot change, disfigure or do violence to the basic structure and primary features of the regulation. The Petitioner has sought to completely disfigure the basic structure of the regulations by way of broad and vague claims for additional capitalization and relaxation of cut-off date.

(i) None of the case laws cited by the Petitioner on the point of extension of cut-off date are applicable in the facts and circumstances of the present case. This Commission had allowed extension of cut-off date only in exceptional circumstances when the delay has been on account of reasons not attributable to the Petitioner and the Petitioner has been diligent on its part. In the present case, the Petitioner has failed to demonstrate as to how the delay was beyond its control or as to how it had taken diligent steps.

Accordingly, the Respondent has submitted that the prayer of the Petitioner for relaxation and / or removal of difficulties of regulations may not be permitted.

19. The Respondent PCKL has mainly submitted the following:

(a) The additional capitalization after the cut-off date is restricted to the specific provisions contained in Regulation 14(3) of the 2014 Tariff Regulations. Thus, if the capital expenditure of the generating station does not fall under specific clauses, there cannot be any additional capitalization allowed. The objective is to freeze the claim for additional capitalization for cut-off date. The only monetary relief granted to the generating station is compensatory allowance as provided in Regulation 17 of the 2014 Tariff Regulations.

(b) This Commission has been consistently rejecting such claim for additional capitalization beyond the cut-off date in the case of many generating stations whose tariff is determined under Section 62 read with Section 79 of the 2003 Act. The reasons for relaxation of cut-off date on the grounds of (i) non-finalization of capital cost on account of pending litigation between the parties and (ii) reason of study undertaken after the change in controlling shareholding of Udupi Power from Lanco group to Adani Group and it was felt necessary to incur such expenditure to ensure safety, statutory compliances etc. or totally misplaced and is liable to be rejected. It is settled law that pendency of litigation cannot be a ground for extension of time and change in shareholding of Udupi power does not in any manner affect rights and obligations of the parties to the PPA.

(c) The Commission while notifying the regulations, as a matter of policy decided that no additional capital expenditure be allowed after the cut-off date and only relief to which the Petitioner would be entitled is the compensatory allowance. There is no provision in Regulation 14(3) of a general nature such that the additional capital expenditure may be considered for any other reason as may be considered appropriate by the Commission.

Accordingly, the Respondent has submitted that the prayer for allowing additional capital expenditure under power to relax or power to remove difficulties in the facts and circumstances of the case is totally misplaced.

20. The Petitioner in its rejoinder and written submissions has clarified as under:

(a) The project could not adhere to the cut-off date for the reasons of protracted litigation between the Petitioner and the beneficiaries right from the date of COD till receiving final clarity in the matter which had come through the judgment of the Tribunal and implemented by this Commission by order dated 10.7.2015. in view of this, the Petitioner could not have carried out the envisaged works as the finalization of original capital cost was under litigation and any expenses incurred could have resulted in unwarranted disputes.

(b) Pursuant to the change in ownership of the Company, the Petitioner has undertaken comprehensive study to ascertain the required capital expenditure. The Petitioner had engaged Independent Consultant which recommended important capital works to be taken up to ensure the statutory, safety, environmental compliance and for efficient operation of the plant. In the light of this, the Commission may grant suitable relaxation in cut-off date for execution of the additional capital expenditure allowed by the Commission in its order dated 20.2.2014 and additional capital works proposed by M/s Lahmeyer by invoking Regulation 54 of the 2014 Tariff Regulations.

(c) The Respondent PCKL has taken more than two years to process the in-principle request of the Petitioner on 19.1.2017 for approval of the additional capitalization required for the generating station considering the various safety, Statutory, environmental norms in term so the report of the Independent Consultant. By withholding approval for the said claims, the Respondent has ensured that the Petitioner cannot complete the capex scheme during the period 2014-19. Accordingly, the Commission may consider the proposed additional capital expenditure on merits and not on technicalities.

(d) Without prejudice to its primary contentions that all its claims for additional capital expenditure are either covered under regulation 14(1)(v) or relates to original scope of work and covered under Regulation 14(1) by extending the cut-off date in exercise of the inherent powers under Regulations 54 & 55, the claims are also covered under Regulation 14(3) whereby additional capitalization is allowed after the cut-off date read with the inherent power under Regulations 54 & 55 of the 2014 Tariff Regulations.

(e) Besides the aforesaid, the Independent Consultant M/s Lahmeyer had suggested certain other works which are essential and critical for the safe and efficient operation of the power plant. Since the same were not emergent in nature, the Petitioner had not executed the same.

(f) The additional capital expenditure claimed has been incurred prudently and diligently in order to make sure that the burden on the end consumer is minimal. While incurring the said expenditure, the Petitioner has made sure that it follows best available practices in the market and ensured that the works are executed at best possible prices. Considering that the additional works were emergent in nature to ensure safe and efficient operation of the plant, it is a fit case for this Commission to exercise its inherent powers to permit the capitalization of the expenditure claimed in the petition.

Accordingly, the Petitioner has prayed that the additional capital expenditure claimed may be allowed.

21. The matter has been examined. The cut-off date of the generating station is 31.3.2015. The Petitioner in this petition has claimed additional capitalization of the expenditure in terms of the provision of Regulation 14(1) and 14(3) read with Regulations 54 & 55 of the 2014 Tariff Regulations. The relaxation has been sought mainly on the plea that there has been change in shareholding pattern after the

plant has been acquired by Adani group from the erstwhile Lanco group and that the capital cost of the project could not be finalized due to pending litigation between the parties. Per contra, the Respondents PCKL & PSPCL have objected to the above and have submitted that the invocation of power to relax and power to remove difficulties is totally misplaced and liable to be rejected.

22. Regulations 54 & 55 of the 2014 Tariff Regulations provide as under:

“54. Power to Relax. The Commission, for reasons to be recorded in writing, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

55. Power to Remove Difficulty: If any difficulty arises in giving effect to the provisions of these regulations, the Commission may, by order, make such provision not inconsistent with the provisions of the Act or provisions of other regulations specified by the Commission, as may appear to be necessary for removing the difficulty in giving effect to the objectives of these regulations.”

23. As regards the exercise of Power to Relax, the Tribunal vide its judgment dated 25.3.2011 in Appeal No. 130/2009 (RGPP v. CERC & anr) has observed the following:

“18.1 The Regulations of the Central Commission and the decision of the Tribunal and the Supreme Court confer the judicial discretion to the Central Commission to exercise power to relax in exceptional case. However, while exercising the power to relax there should be sufficient reason to justify the relaxation and non-exercise of discretion would cause hardship and injustice to a party or lead to unjust result. It has also to be established by the party that the circumstances are not created due to act of omission or commission attributable to the party claiming relaxation. Further, the reasons justifying relaxation have to be recorded in writing.”

24. In our view, the pendency of litigation between the parties and the change in the shareholding pattern of the Petitioner Company cannot be a ground for extension of cut-off date of the generating station. It is noticed that the Petitioner has vide letter dated 12.7.2016 requested the Respondent PCKL for appointment of technical consultant for assessing the requirement of additional capitalization during the period 2014-19. The Respondent PCKL by its affidavit dated 26.3.2018 has submitted that based on the request of the Petitioner, the Respondent had

requested the Director (Technical), Karnataka Power corporation Ltd. to carry out detailed analysis and report on the same is awaited. It is however noticed that in the absence of any communication from the Respondent, the Petitioner had appointed M/s Lahmeyer International (I) Pvt Ltd as Independent Consultant to carry out the assessment of the additional capital expenditure required to be incurred by the Petitioner to adhere to various safety, statutory and environmental norms. It is observed that the Respondent PCKL had taken more than two years to process the in-principle request for approval of the expenditures. In the above background and considering the fact that the expenditure has been incurred by the Petitioner towards environmental requirement, safety & security and statutory compliance, we are inclined to consider the claim of the Petitioner for capitalization of expenditures on various heads, on prudence check of the submissions of the parties, in line with the observations of the Tribunal in the aforesaid judgment, as stated in subsequent paragraphs.

2014-15

(A) M.S. Sea Water Return Pipe

25. The Petitioner has claimed additional capital expenditure of ₹3230.53 lakh for this item under Regulation 14(1)(v) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the replacement of GRP Sea Water pipeline with MS pipe is for maintaining the environmental parameters in compliance with the letter dated 9.7.2013 of the Karnataka State Pollution Control Board (KSPCB). The Petitioner has further submitted that this expenditure is carried out in compliance with the environmental laws and relates to the original scope of work carried out within the cut-off date. The Petitioner has pointed out that the expenditure has been claimed in accordance with the Commission's order

dated 3.12.2014 in Petition No. 14/RP/2014, wherein liberty was granted to the Petitioner to claim additional capitalization for installation of the said item during the period 2014-19.

26. The Respondent PCKL has submitted that no in-principle approval has been given by the Commission in its order dated 3.12.2014 and therefore any claim for additional capitalization will have to be assessed in terms of Regulation 14 of the 2014 Tariff Regulations. It has also submitted that the replacement of an existing capital asset does not come within the scope of additional capitalization as the letter of KSPCB directs the Petitioner to replace the existing GRP pipeline due to leakage and does not mandate any additional capitalization. The Respondent has further submitted that the Petitioner had executed the work by 17.5.2014 and claimed an amount of ₹27.56 crore in the original petition for the said asset and whereas the amount claimed by the Petitioner in the present petition is ₹32.30 crore without any valid justification for increase in price. Also, the submission of the Petitioner that increase in price is due to change in price index is only unacceptable as the work was completed by May 2014.

27. The matter has been examined. It is observed that an expenditure of ₹27.56 crore was claimed by the Petitioner towards the replacement of return GRP seawater pipeline and the same was rejected by the Commission vide order dated 20.2.2014 in Petition No.160/GT/2012 as under:

“Further, it is observed that an expenditure of Rs. 27.56 crore is proposed to be incurred for replacement of return GRP Sea Water pipeline with M.S. pipeline for improving and maintaining the environmental parameters. The Petitioner has furnished the original cost of GRP pipeline as Rs19.5 Crore inclusive of erection cost. However, the capitalization of Rs 27.56 crore has not been considered as the Petitioner has not furnished any documentary evidence in support of its claim that this has been necessitated due to environmental requirement.”

28. Aggrieved by the said order dated 20.2.2014, the Petitioner had filed Petition

No. 14/RP/2014 and the Commission vide order dated 3.12.2014 disposed the same as under:

“13. Firstly, the prayer of the Petitioner for grant of in-principle approval of the cost of MS pipes cannot be accepted since the provisions of the 2009 Tariff Regulations, in terms of which the tariff of the generating station had been determined by order dated 20.2.2014, do not provide for the grant of in principle approval of the expenditure. Secondly, the work for replacement of GRP pipes with MS pipes had been completed on 17.5.2014 and accordingly, the capitalization of the actual expenditure would be guided by the provisions of the CERC (Terms and Conditions of Tariff) Regulations, 2014 applicable for the period 2014-19 and not the 2009 Tariff Regulations. In view of this, we are not inclined to consider the prayer of the Petitioner in this petition. However, the Petitioner may claim the capitalization of this expenditure towards replacement of GRP pipes in the tariff petition to be filed in respect of the generating station for the tariff period 2014-19 and the same would be considered in accordance with the provisions of the 2014 Tariff Regulations.”

29. Thus, the Commission in the above order, while rejecting the prayer of the Petitioner for grant of in-principle approval towards the cost of MS pipes, had granted liberty to the Petitioner to claim capitalization of the said asset in accordance with the provisions of the 2014 Tariff Regulations. In line with this, the Petitioner has claimed the additional capitalization of this asset under Regulation 14(1)(v) of the 2014 Tariff Regulations i.e. compliance with the existing law and has stated that the same is in compliance with the directions of the KSPCB and is within the cut-off date. It is observed that KSPCB vide letter dated 9.7.2013 had granted consent for work of installation of the M.S. Sea Return Pipe for completion by June, 2014. The relevant portion of letter is extracted hereunder:

“Work of installing the MS return water pipeline shall be completed latest by June 2014. Till such time the industry shall ensure that there shall not be any leakage from the existing pipe.”

30. We notice from the above letter that KSPCB, while directing the Petitioner to ensure that there was no leakage from the existing pipe, had directed the Petitioner to install MS return water pipeline by June 2014. The Petitioner has completed the said work by 17.5.2014. The contention of the Respondent PCKL that the expenditure cannot be capitalized on the ground that the asset has only

been replaced, cannot be accepted considering the fact that KSPCB had directed the Petitioner to install the said asset by June 2014. Since the expenditure has been incurred by the Petitioner in compliance with the directions of KSPCB and is an environmental requirement, we allow the actual additional capital expenditure in terms of Regulation 14(1)(v) of the 2014 Tariff Regulations. As regards the increase in price, we notice that the Petitioner in Petition No. 160/GT/2012 had furnished the original cost of GRP pipeline as ₹1950 lakh inclusive of erection cost. Since, M.S Return water pipeline has been installed by the Petitioner, the original cost of GRP pipe of ₹1950 lakh has been de-capitalized. Accordingly, an amount of ₹1280.52 lakh is allowed for capitalization of this asset.

(B) Cost incurred towards Extension of culvert at NH-66

31. The Petitioner has claimed actual additional capital expenditure of ₹94.34 lakh in 2014-15 under Regulation 14(1)(v) of the 2014 Tariff Regulations for the said asset. In justification of the same, the Petitioner has submitted that the culvert for passing sea intake pipeline in NH-66 became essential for safety of pipeline as NH-66 widening was in progress. It has also stated that the actual additional capital expenditure is related to sea water intake pipeline which form part of the original scope of the project and is claimed within the cut-off date. The Respondent PCKL has pointed out that the Commission in its order dated 20.2.2014 had disallowed the cost of ₹5 crore claimed by the Petitioner for the period 2009-14 for this work. It has therefore stated that claim of the Petitioner under Regulation 14(3)(vii) read with Regulations 54 & 55 cannot be considered.

32. The matter has been examined. It is noticed that the Commission in its order dated 20.2.2014 in Petition No. 160/GT/2012 had disallowed the additional capital expenditure of ₹5 crore claimed by the Petitioner in 2013-14 on the ground that

the same was not justifiable. The Petitioner has neither filed any review nor appeal challenging the decision of the Commission denying the capitalization of this item. Since the decision of the Commission has attained finality, the claim of the Petitioner for the actual additional capital expenditure of ₹94.34 lakh in the present petition has been disallowed.

2015-16

(A) Compensation paid to fishermen

33. The Petitioner has claimed actual additional expenditure of ₹302.00 lakh in 2015-16 towards compensation paid to fisherman in terms of the directions of Karnataka State Human Rights Commission (KSHRC) under Regulation 14(1)(v) read with 14(3)(ii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the Govt. of Karnataka vide its letter dated 20.3.2014 had directed the Petitioner to deposit ₹302 lakh for disbursement of compensation to 302 fisherman families and in compliance with the said directives, the Petitioner deposited the said compensation and intimated the same to the Udupi District Commissioner by letter dated 26.12.2015. The Respondent PCKL has submitted that ₹5.00 crore was included as a part of the project cost for Corporate Social Responsibility (CSR) and the project cost also includes R&R cost of ₹9.89 crore. The Respondent has also stated that the Petitioner has not provided any details as utilization of these funds as these expenses ought to be made out from these amounts.

34. The matter has been examined. The Deputy Commissioner, Udupi district, Govt. of Karnataka in its letter dated 20.3.2014 has referred to the meeting which took place on 20.3.2010 with the Chief Minister of Karnataka with regard to the payment of compensation to fishermen families for loss caused to fisherman due to

linking of the project pipeline to sea and discharge of hot water to sea. In the said letter, the Petitioner has been directed to take suitable action in terms of the representation made by the Fishermen society for disbursement of ₹302 lakh to the 302 families. Consequent upon this, the Petitioner vide its letter dated 26.12.2015 had deposited the amount of ₹302 lakh before the Deputy Commissioner, Udupi district, Govt. of Karnataka. Considering the fact that the letter dated 20.3.2014 is in nature of statutory direction for compliance by the Petitioner, the actual additional capital expenditure of ₹302 lakh in 2015-16 incurred by the Petitioner as payment of compensation to the fishermen is allowed under Regulation 14(3)(i) of the 2014 Tariff Regulations.

2016-17

35. As stated, the Petitioner has identified certain additional works to be carried out based on the report of the Independent Consultant for which it has incurred additional expenditure. The Petitioner has submitted that these additional works as recommended by the technical consultant are necessary to ensure the statutory, safety and environmental compliances. The Petitioner has further submitted that the 27 additional capital works as suggested by the independent consultant were undertaken on an urgent basis and accordingly the total additional capital expenditure of ₹4133.93 lakh incurred by the Petitioner during this year may be allowed under the provisions of Regulation 14(1) & 14(3) read with Regulations 54 & 55 of the 2014 Tariff Regulations. The details of the cost incurred on essential and critical items in terms of the report of the independent consultant (Lahmeyer report) as claimed by the Petitioner is as under:

Particulars	Amount (in lakh)
Silt settling chamber in sea water intake pump house	293.52
Ensuring sea water intake reliability	1222.60
Over-ground piping for fire fighting system	886.17
On-line DGA (Dissolved Gas Analyzer) for all GTs (Generator Transformer)	127.66
Quick Erect scaffolding	1196.98
Construction of new store shed at port	53.28
Purchase of vibration diagnostic analysis	187.12
Sewage treatment plant	70.80
Installation of rack & pinion lift	41.33
NDCT, chimney concrete treatment	54.45
Total	4133.93

36. The Respondents PCKL & PSPCL have objected to capitalization of the above assets and have stated that the generating company would be entitled to relief under compensatory allowance in terms of Regulation 17 of the 2014 Tariff Regulations. The Respondent PCKL has submitted that as per Clause 12, Section IV Part B-1 of the EPC Contract provision as already been made for an elaborate sewage water treatment plant to be executed as per relevant IS Standards. It has stated that the reports stating that the system has degraded within 6 years of execution shows that the workmanship and materials used in execution being substandard, has necessitated additional investment towards the work. Moreover, the claim for additional capitalization under Regulation 14 (3) (ii) based on Change in Law or compliance with the existing law is not applicable in the present case and hence may not be allowed.

37. We have examined the submissions. As stated, the Petitioner has claimed additional capitalization under the provisions of Regulation 14(1) & 14(3) read with Regulations 54 & 55 of the 2014 Tariff Regulations. Regulation 14(1) provides for capitalization of expenditure incurred or projected to be incurred in respect of a new project or an existing project in respect of works within the original scope of

the project after the COD and up to the cut-off date of the generating station. The Petitioner in the present case has claimed capitalization of the aforesaid assets, which do not form part of original scope of the project and beyond the cut-off date of the generating station. Regulation 14(3) provides that the capitalization of expenditure incurred or projected to be incurred may be admitted by the Commission, after the cut-off date, subject to prudence check, on various grounds as mentioned therein.

38. The Petitioner has claimed additional capital expenditure of ₹293.52 lakh for silt settling chamber in sea water intake pump house and ₹12.23 lakh towards sea water intake system reliability on environmental requirements. It has also claimed additional capital expenditure of ₹886.17 lakh towards over-ground piping for fire fighting system, on the ground that the said work is towards environmental compliances. Further, the Petitioner has claimed an expenditure of ₹70.80 lakh in 2016-17 towards cost for construction of 4 sewage treatment plant (out of 5 required) under Regulation 14(1)(v) or 14(3)(ii) read with Regulations 54 & 55 of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the said asset has been recommended to control the quality of affluent since the existing sewage system has completely degraded. The Petitioner has further submitted that the additional work has been undertaken to comply with the existing directions of KSPCB in the 'Consent to Operate' granted on 18.8.2010. The Petitioner has stated that the said work was executed at cost of ₹70.00 lakh, including IDC and other miscellaneous cost for 4 sewage plants. For the remaining one sewage treatment plant, the Petitioner has proposed to capitalize the same during the next control period, but has projected an amount of ₹25.51 lakh to undertake the said work, subject to approval of the Commission. It is

however noticed that the Petitioner has not furnished any documentary evidence justifying that the requirement of the above said assets / works is towards environmental requirement, safety & security of the plant and for statutory compliances in terms of directions of the statutory authorities/ agencies. In the above background, we are not inclined to allow the prayer of the Petitioner for capitalization of the aforesaid assets/ works. However, liberty is granted to the Petitioner to claim the expenditure along with documentary evidences justifying the requirement of these assets at the time of truing up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations.

39. In addition, the Petitioner has also claimed additional capital expenditure of ₹127.66 lakh for Online DGA for all GTs and ₹11.97 lakh Quick Erect Scaffolding under the provisions of Regulation 14(3) of the 2014 Tariff Regulations. As regards the claim for Quick Erect scaffolding, it is noticed that the Commission in order dated 30.7.2016 in Petition No. 302/GT/2014 [NTPC vs TPDDL & ors] had rejected the claim of the Petitioner therein for the period 2009-14. However, the provisions and Regulation 9(2) of the 2009 Tariff Regulations are similar under the provisions under Regulation 14(3) of the 2014 Tariff Regulations. As regards the claim for online DGA for all GTs, it is noticed that similar claim of NTPC for the period 2014-19 in Petition No. 327/GT/2014 [NTPC vs MPPMCL & ors] was rejected by the Commission vide its order dated 6.2.2017as under:

“25. We have considered the matter. It is observed that the Petitioner is entitled for the compensation allowance. In our view, the claim of `100.00 lakh towards online DGA analyser stage-II cannot be allowed for capitalization as these expenditure is to be met from compensation allowance.”

40. Apart from the above, the Petitioner has also claimed additional capitalization of ₹53.28 lakh for Construction of New Store at port and ₹187.12 lakh for Purchase of hardware and software Vibration Diagnostic analysis under the provisions of

Regulations 14 (1) & 14(3) read with Regulations 54 & 55 of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that these items are required for efficient functioning of the plant.

41. The matter has been considered. The prayer of the Petitioner for extension of cut-off date and capitalization of additional expenditure under regulation 14(1) has already been rejected in this order. Also, no provision exists under Regulation 14(3) for capitalization of expenditure after the cut-off date, towards efficient operation of the generating station. However, the second proviso to Regulation 14(3) of the 2014 Tariff Regulations provides that any capital expenditure, other than that of the nature specified in Regulation 14(3)(i) to (iv), in case of coal based stations shall be met out of Compensation allowance. Accordingly, the prayer of the Petitioner for additional capitalization in respect of the assets namely Online DGA, Quick erect scaffolding, Construction of New store at port, Vibration Diagnostic system analysis is not allowed. The Petitioner may meet the expenditure in respect of these assets from the Compensation allowance allowable in terms of Regulation 17 of the 2014 Tariff Regulations.

42. It is also noticed that the Petitioner, based on Lehmeier report, has claimed additional capital expenditure for ₹60629.88 lakh, in respect of assets / works, which according to the Petitioner, are to be incurred during the next tariff period (2019-24). Since the claim of ₹60629.88 lakh is for the next control period, the same shall be dealt with in accordance with the 2019 Tariff Regulations.

44. Based on the above discussions, the additional capital expenditure allowed for the period 2014-17 is as under:

(₹ in lakh)

Sl. No.	Package Name	Actual additional capital expenditure			
		2014-15	2015-16	2016-17	Total
1	M.S. Sea Water Return Pipe	1280.52	0.0	0.0	1280.52
2	Culvert	0.00	0.0	0.0	0.00
3	Compensation paid to fishermen as per Karnataka State Human Rights Commission	0.0	302.00	0.0	302.00
4	Silt settling chamber in sea water intake pump house.	0.0	0.0	0.0	0.0
5	Over ground piping for fire fighting system	0.0	0.0	0.0	0.0
6	On -line DGA for all GTs	0.0	0.0	0.0	0.0
7	Quick Erect Scaffolding	0.0	0.0	0.0	0.0
8	Sewage Treatment Plant	0.0	0.0	0.0	0.0
9	Construction of new store shed	0.0	0.0	0.0	0.0
10	Sea Water intake system reliability	0.0	0.0	0.0	0.0
11	Installation of Rack and pinion lift-jetty 9 in ICHP, Silo 1 & 2 in ECHP	0.0	0.0	0.0	0.0
12	NDCT and Chimney Concrete Treatment	0.0	0.0	0.0	0.0
13	Purchase of Vibration diagnostic analysis	0.0	0.0	0.0	0.0
Total		1280.52	302.00	0.00	1582.52

Capital Cost for 2014-9

45. Accordingly, the capital cost considered for the purpose of tariff is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	551286.09	552566.61	552868.61	552868.61	552868.61
Add: Additional capital expenditure	1280.52	302.00	0.00	0.00	0.00
Closing Capital Cost	552566.61	552868.61	552868.61	552868.61	552868.61
Average Capital Cost	551926.35	552717.61	552868.61	552868.61	552868.61

Debt-Equity Ratio

46. Regulation 19 of the 2014 Tariff Regulations provides as under:

(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- (i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- (ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- (iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.

Explanation - The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating Company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilisation made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

47. Accordingly, the gross normative loan and equity amounting to ₹415739.93 lakh and ₹135546.14 lakh respectively as on 31.3.2014, as allowed in Commission's order dated 27.6.2019 has been considered as gross normative loan and equity as on 1.4.2014. The Petitioner has not furnished the actual financing details of additional capitalisation in Form-10 and has considered debt-equity ratio of 70:30 for the purpose of funding of additional capital expenditure. Accordingly, the debt-equity ratio of 70:30 has been considered for the purpose of funding of additional capital expenditure. This is subject to true up exercise in terms of Regulation 8 of the 2014 Tariff Regulations.

Return on Equity

48. Regulation 24 of the 2014 Tariff Regulations provides as under:

(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:

(i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50% shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional ROE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee / National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning any of the Restricted Governor Mode Operaiton (RGMO) / Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirement are found lacking in a generating station based on the report submitted by the respective RLDC, ROE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional ROE shall not be admissible for transmission line having length of less than 50 kilometers.

49. Regulation 25 of the 2014 Tariff Regulations provides as under:

“25. Tax on Return on Equity:

(1)The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e. income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

(2)Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

Illustration

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.2096) = 19.610\%$

(ii) In case of generating company or the transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.

(b) Estimated Advance Tax for the year on above is Rs 240 crore.

(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore / Rs 1000 Crore = 24%

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$

(iii) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after trueing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis.

50. The Petitioner has claimed return on equity considering base rate of 15.5% and effective tax rate of 20.961% for the year 2014-15 and 21.342% for the period from 1.4.2015 to 31.3.2019. However, considering the fact that the Petition is being decided in 2019-20, MAT rates for respective years of the period 2014-19 has been considered for the purpose of tariff. Accordingly, Return on Equity has been worked out as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity-Opening	135546.14	135930.29	136020.89	136020.89	136020.89
Addition to equity on account of additional capitalization	384.16	90.60	0.00	0.00	0.00
Normative Equity - Closing	135930.29	136020.89	136020.89	136020.89	136020.89
Average Normative Equity	135738.21	135975.59	136020.89	136020.89	136020.89
Rate of Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective tax rate	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre Tax)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre Tax)- Annualized	26618.26	26793.99	26802.92	26802.92	26875.01

Interest on Loan

51. Regulation 26 of the 2014 Tariff Regulations provides as under:

“26. Interest on loan capital:

(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.



(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing. (9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of the loan.”

52. Interest on loan has been worked out as mentioned below:

- i) As stated above, gross normative loan amounting to ₹415739.96 lakh has been considered as on 1.4.2014.
- ii) Cumulative repayment amounting to ₹70819.28 lakh as on 31.3.2014 as considered in order dated 27.6.2019 has been considered as on 1.4.2014.
- iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to ₹344920.68 lakh.
- iv) Addition to normative loan on account of additional capital expenditure approved above has been considered.
- v) Depreciation allowed has been considered as repayment of normative loan during the respective year of the period 2014-19.
- vi) The opening balance of the loans as per the actual loan portfolio as considered by the Petitioner in Form-13 is not matching with the closing loan balances as on 31.3.2014. The Petitioner is directed to furnish reasons for the variance, at the time of truing-up. Further, the weighted average rate of interest as claimed by the Petitioner has been considered for the purpose of tariff. This is subject to truing up exercise.

53. Accordingly, necessary calculations for interest on loan are as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan - Opening	415739.96	416636.32	416847.72	416847.72	416847.72
Less: Cumulative repayment of loan upto previous year	70819.28	99624.30	128777.39	157926.28	187016.57
Net Normative Loan - Opening	344920.68	317012.02	288070.33	258921.44	229831.15
Add: Addition to Normative	896.36	211.40	0.00	0.00	0.00



Loan on account of additional capitalization					
Less: Repayment of loan during the year	29106.94	29153.09	29148.89	29090.29	29050.48
Add: Repayment adjustment on account of de-capitalization during the year	301.92	0.00	0.00	0.00	0.00
Net Loan Closing	317012.02	288070.33	258921.44	229831.15	200780.67
Average Loan	330966.35	302541.18	273495.89	244376.30	215305.91
Weighted Average Rate of Interest on Loan	13.6970%	13.6970%	13.6970%	13.6970%	13.6970%
Interest on Loan	45332.46	41439.07	37460.73	33472.22	29490.45

Depreciation

54. Regulation 27 of the 2014 Tariff Regulations provides as under:

27. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.

(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) alongwith justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.

55. Accordingly, the cumulative depreciation amounting to ₹70819.28 lakh as on 31.3.2014 as considered in order dated 27.6.2019 has been retained for the purpose of tariff in this order. Since, as on 1.4.2014, the used life of the generating station (i.e. 2.50 years) is less than 12 years from the effective station COD (30.9.2011), the depreciation shall be calculated applying weighted average rate of depreciation for the period 2014-19. The Petitioner has claimed depreciation considering weighted average rate of depreciation of 5.2737% for 2014-15, 5.2745% for 2015-16, 5.2723% for 2016-17, 5.2617% for 2017-18 and 5.2545% for 2018-19 and the same has been considered for the purpose of tariff, subject to truing-up. Accordingly, depreciation has been calculated as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost	551926.35	552717.61	552868.61	552868.61	552868.61
Freehold land included above	46.54	46.54	46.54	46.54	46.54
Depreciable value @ 90%	496691.83	497403.96	497539.86	497539.86	497539.86
Remaining useful life at the beginning of the year	22.50	21.50	20.50	19.50	18.50
Balance depreciable value	425872.56	397779.67	368762.48	339613.59	310523.30
Depreciation (annualized)	29106.94	29153.09	29148.89	29090.29	29050.48
Cumulative depreciation at	99926.22	128777.39	157926.28	187016.57	216067.05

the end (before adjustment for de-capitalization)					
Less: Depreciation adjustment on account of de-capitalization	301.92	0.00	0.00	0.00	0.00
Cumulative depreciation at the end	99624.30	128777.39	157926.28	187016.57	216067.05

56. It is however observed that the break-up of assets as per Form-11 does not match with the details of assets, as per audited financial statements. The Petitioner is therefore directed to furnish the reason for such variance and revise Form-11 at the time of truing-up exercise.

O & M Expenses

57. Regulation 29(1)(a) of the 2014 Tariff Regulations provides for O&M expenses norms for coal based thermal generating units for 600 MW sets and above as under:

(₹ in lakh/MW)				
2014-15	2015-16	2016-17	2017-18	2018-19
14.40	15.31	16.27	17.30	18.38

58. The Petitioner has claimed O&M expenses in respect of the generating station as under:

	(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Normative O&M expenses under Regulation 29(1)	17280.00	18372.00	19524.00	20760.00	22056.00	97992.00
Water Charges under Regulation 29(2)	47.57	50.45	42.28	44.94	47.77	233.01
O & M for additionalities	2209.21	2348.17	2495.87	2652.86	2819.72	12525.83
O & M for 6 Bays till 2016-17 and additional 2 bays (400 kV line reactor proposed during 2017-18) from 2017-18 onwards	289.44	299.04	308.98	452.24	467.24	1816.94
Electricity Tax on auxiliary consumption	10.11	234.08	233.55	233.55	233.55	944.84
Total O&M Expenses claimed	19836.33	21303.74	22604.68	24143.59	25624.28	113512.62

59. The normative O&M expenses claimed by the Petitioner as above in terms of Regulation 29(1) are in order and hence allowed for the purpose of tariff.

Water Charges

60. Regulation 29(2) of the 2014 Tariff Regulations provide as under:

“29.(2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:

Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:

Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization

61. The Petitioner has claimed Water Charges for the period 2014-19 as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
47.57	50.45	42.28	44.94	47.77

62. The Petitioner vide its affidavit dated 11.12.2018 has submitted that the generating station is an imported coal based power project and the coal required for the same is brought to plant through a dedicated captive jetty built at New Mangalore Port Trust (NMPT). The Petitioner has also submitted that the actual water charges for the years 2014-15, 2015-16 & 2016-17 includes the water cess paid to Karnataka Mangalore City Corporation for supply of water to the captive jetty at NMPT premises. It has stated that as per State Govt. of Karnataka order dated 20.7.2011, the rate applicable for water consumption for industrial / commercial category of consumer is ₹52/KL. The actual water consumption submitted by the Petitioner consists of consumption at the plant and the port. The Petitioner has further submitted that the contracted quantum of water is 10000 m³/hr and the water cess paid for plant consumption is @ ₹0.10/KL to KSPCB and water charges paid for water consumption at captive jetty at NMPT premises is @ ₹52/KL to Mangalore City Corporation.

63. As per Regulation 29(2) of the 2014 Tariff Regulation, Water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details in respect of water charges such as type of cooling water system, water consumption, rate of water charges as applicable for the period 2014-19 furnished by the Petitioner is as under:

Description	2014-15	2015-16	2016-17	2017-18	2018-19
Type of plant	Thermal				
Type of water at plant	Sea				
Type of cooling water system	Closed Cycle Cooling system				
Consumption details at plant					
Actual water Consumption (KL)	40587992	46080808	38883127	36776139	27627285
Total water Cess Paid (₹)	4058263	4606863.60	3850321	1052400	0
Consumption details at port					
Actual water Consumption (KL)	13440	8427	6569	6735	9846
Total water Charges Paid (₹)	698880	438204	341588	350220	511992
Total (Port + Plant)					
Actual water Consumption (KL)	40601432	46089235	38889696	36782874	27637131
Total water Charges Paid (₹)	4757143	5045067.60	4191909	1402620	511992

64. The Respondent PSPCL has submitted that the Petitioner has not furnished any details regarding water consumption or any receipts for having paid the said charges to KSPCB and Mangalore City Corporation. The Respondent has added that the Petitioner, in spite of the directions of the Commission, has not furnished the receipts and has attached only sample bill. Accordingly, the Respondent has prayed that in absence of furnishing requisite information, the claim of the Petitioner for Water Charges may be rejected. The Respondent PCKL has stated that the claim for Water charges cannot be allowed as the requirements of Regulation 29(2) has not been complied with by the Petitioner. It has also stated that the Petitioner has not furnished any details regarding the actual water consumed or payments made towards Water Charges. The respondent has pointed out that the claim for annual escalation of 6.29 over actuals of water charges incurred for 2016-17 to arrive at



the water charges for 2017-19 is untenable as Water charges ought to be borne on actuals.

65. The matter has been examined. It is observed that the actual water consumption of the Petitioner is below the allocated quantum of 10000 m³/hr and the rate of water cess and water charges claimed for the periods 2014-15 & 2016-17 is as per the water cess paid for plant consumption @ ₹0.10/KL and water charges paid for water consumption at captive jetty at NMPT premises is @ ₹52/KL. It is noticed that the water cess paid in 2017-18 is @ ₹0.0286/KL. Further, the Petitioner has not paid any water cess towards consumption of 27627285 KL in 2018-19. The Petitioner has however not furnished any reason for this variation. Accordingly, the Petitioner shall furnish reasons and justifications of such variation, along with the original invoices in respect of actual water consumed or amount paid towards water charges at the time of truing-up of tariff. As the amount claimed towards Water Charges is more than the water Charges actually paid to the authorities, we restrict the Water Charges, for the period 2014-19 as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
47.57	50.45	41.92	14.03	5.12

O&M for additionalities

66. In addition to the above, the Petitioner has also claimed O&M expenses towards additionalities, as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19	Total
2209.21	2348.17	2495.87	2652.86	2819.72	12525.83

67. Subsequently, the Petitioner, considering the actual expenses for the year 2013-14, has escalated the aforesaid claim @ 6.29% for each year of the period

2014-19. Accordingly, the details of additional O&M claimed by the Petitioner for the year 2014-15 are as under:

(₹ in lakh)

Details	2013-14		2014-15	
	Amount	Remarks	Amount	Remarks
De silting sea water intake	994.69	Expenditure of Lump sum amount of ₹49.74 Crore done in 2014. We have considered only 20% of the same (₹9.94 Crore) as recurring annual expenditure.	1057.26	Escalation of 6.29% considered over actuals of 2013-14
Sea Water Quality Monitoring	8.00	Based on actuals	8.50	-do-
Fees for issue of Consent For Operation	4.00	For 2014-15 actual payment is ₹6 lakh.	6.00	-do-
O & M Expenses (Jetty & ECHP)	257.43	Based on actuals	273.62	-do-
Salaries and Wages pertaining to Flue Gas Desulfurization plants (FGD)	80.23		85.28	-do-
RO and Chemistry Lab	302.44		321.46	-do-
Repair and maintenance expenses for FGD	44.42		47.21	-do-
Drift Eliminator inspection measurement & adjustment	23.37		24.84	-do-
Conditioning and Painting of External Structures	348.36		370.27	-do-
Panchayat Tax	1.36		14.76	Actual payment
TOTAL	2064.30			2209.21

68. Further, the Petitioner has submitted that the cess paid to Statutory Authorities has been included in additional O&M expenses. Accordingly, the Petitioner has revised its claim for additional O&M expenses for the year 2014-15 to ₹2249.79 lakh from the earlier claim of ₹2209.21 lakh. The difference of ₹ 40.58 lakh (₹2249.79 lakh - ₹2209.21 lakh) is on account of cess paid to Statutory Authorities. The Petitioner has also claimed annual escalation of 6.29% on the

cess paid to Statutory Authorities for the period 2014-19. Based on this, the projected additional O&M expenses claimed for the period 2014-19 are as follows:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2249.79	2391.30	2541.71	2701.59	2871.52

Submissions of Respondents

69. The Respondent PCKL has submitted that the Petitioner has not sought additional O&M expenses in its earlier tariff petitions/ true-up petition and hence the present claim is baseless and is hit by the principle of res-judicata. The Respondent has also submitted that these systems have been part of the plant since inception and no additional O&M expenses were sought by the Petitioner in the past. It has further submitted that consent for operation has to be sought by all thermal power plants and additional O&M expenses cannot be allowed to the Petitioner especially. The Respondent has further submitted that the requirements to obtain consent for operation and to pay Panchayat tax have existed but no additional O&M expenses were sought in the past. The Respondent has contended that as per details given by the Petitioner in the true-up petition, the O&M expenses claimed as per actuals for the year 2010-11, 19.8.2012 to 31.3.2013 and 2013-14 or less than the normative provided in the regulations, which indicate that the claims made by the Petitioner in this petition are incorrect. The Respondent has further contended that the Commission in the SOR to the 2014 tariff Regulations has specifically rejected the suggestion that site specific factors should be taken into consideration and additional O&M expenses should be granted. It has stated that the escalation rate of 6.29% ought not to be allowed when there is no basis for additional O&M expenses and the Petitioner has not provided any supporting documents as to the actual amount incurred for additional O&M



expenses. The Respondent has stated that the auxiliary consumption is considered by the Commission based on the capacity of the Sea Water Pump House, RO plant, FGD system and External CHP. However, all these equipment may not be required to run during entire period of generation, in particular, the external coal handling plant. In the light of the above, the Respondent has prayed that additional O&M expenses may not be allowed. The Respondent PSPCL has submitted that the Commission in its earlier orders determining the tariff of this generating station had held that the principles as per the Tariff Regulations would apply and the same has been accepted by the Petitioner. Accordingly, the Respondent has submitted that the claim of the Petitioner for additional O&M expenses is liable to be rejected.

70. In response, the Petitioner has clarified that each thermal station is unique, depending on the site conditions viz. source of water and its distance from the power house, the local environmental restrictions and the source of fuel and its handling and transport arrangement, the additional equipment required to satisfy the environmental specifications and inter-connection to the State/Central Grid. It has stated that the O & M expenses requirement of the thermal power station depends upon these considerations and additional/alternative equipment being installed for the same. The Petitioner has also submitted that though the costs for these equipments are included in the capital cost, there is no provision for the maintenance cost of this additional equipment in the norms provided in the Tariff Regulations. The Petitioner has added that the normative O & M expenses specified in Regulation 29 are not adequate to cover the expenses incurred in maintaining these additional equipment of the imported coal based power projects, as these norms have been derived mainly from O&M expenses.

71. We have examined the matter. The additional O&M claimed by the Petitioner is based on the actuals of 2013-14 and is towards the expenditure on de-silting sea water intake, sea water quality monitoring, fees for issue of consent for operation, Jetty & ECHP, salaries & wages pertaining to FGD, R&M of FGD, RO & chemistry lab, drift eliminator inspection, measurement & adjustment and conditioning & painting of external structure. We now examine the claim for additional O&M expenses in respect of each items as under:

(a) De-silting sea water intake

72. The Petitioner has submitted that the expenditure of lumpsum amount of ₹49.74 crore was done in 2014, but only 20% (i.e. ₹9.94 crore) as recurring annual expenditure has been considered. The Petitioner has clarified that this recurring annual expenditure of ₹9.94 crore as considered in 2013-14 has been escalated @6.29% p.a and has accordingly been claimed as additional O&M expenses for this work. Since the Petitioner has not clarified the basis of arriving at such claim (20% of ₹49.74 crore), we are not inclined to allow the same for want of proper justification.

(b) Sea Water Quality Monitoring

73. The Petitioner has submitted that it has incurred an expenditure of ₹8.00 lakh in 2013-14 towards sea water quality monitoring. The Petitioner has escalated the base amount of ₹8.00 lakh @6.29% per year and claimed the same as additional O&M expenses for the period 2014-19. In case of conventional plants, the water quality is maintained in the de-mineralized plant. Considering the fact that the operational cost of the de-mineralized plant is covered in the normative O&M expenses under the 2014 Tariff Regulations, the sea water quality monitoring can be accomplished with minor marginal cost. Accordingly, the claim of the Petitioner

on this count is not admissible.

(c) Fees for issue of Consent for Operation

74. The Petitioner has submitted that it has incurred an amount of ₹4.00 lakh in 2013-14 for 'Consent of Operation' from KSPCB and the actual expenditure for the year 2014-15 is ₹6.00 lakh. Accordingly, the Petitioner has claimed an amount of ₹6.00 lakh as additional O&M expenses in 2014-15. In our view, the consent for operation is a statutory requirement for operation of the project, as per the stipulated standards and terms & conditions as specified by the Pollution Control Board. The said expenditure is applicable for every generating station and is in the nature of a revenue expenditure, which is already covered under normative O&M expenses in the 2014 tariff Regulations. Accordingly, the additional O&M expenses under this head is not allowed.

(d) O & M Expenses (Jetty & ECHP)

75. The Petitioner has submitted that it has incurred an expenditure of ₹257.43 lakh in 2013-14 towards Jetty and ECHP. The Petitioner has considered the base amount of ₹257.43 lakh and has claimed the amount with an annual escalation of 6.29% for the period 2014-19. According to us, the thermal generating stations using imported coal are required to incur additional O&M expenses for operation of Jetty and transfer of coal to Railway wagons from ECHP. This additional O&M expenditure has not been included in the normative O&M expenses under the 2014 Tariff Regulations. In this background, the O&M expenses claimed under this head is allowed separately, subject to revision at actuals, at the time of truing-up exercise.

(e) Salaries & Wages and Repair & Maintenance (R&M) expenses pertaining to FGD

76. The Petitioner has submitted that it has incurred an expenditure of ₹80.23 lakh towards salaries & wages and ₹44.42 lakh towards Repair & Maintenance in 2013-14. According to the Petitioner, the expenditure incurred in year 2013-14 on this count has been considered as base and escalated annually at 6.29% for the period 2014-19. In our view, there are no defined norms/ standards pertaining to O&M expenses for FGD system under the 2014 Tariff Regulation. The Commission in its various orders determining tariff of the generating stations (regulated by this Commission) while granting in-principle approval for installation of ECS and other systems had granted liberty to claim the expenditure towards ECS and other installations, including the additional APC and O&M expenses on account of ECS, with all relevant documents. In line with this decision, the Petitioner is directed to submit the year-wise O&M expenses related to FGD system, on actual basis, at the time of truing-up exercise.

RO and Chemistry Lab

77. The Petitioner has submitted that it has incurred an amount of ₹302.44 lakh towards RO & Chemistry lab in 2013-14. Based on escalation of this amount @ 6.29%, the Petitioner has claimed amount of ₹321.46 lakh towards RO & chemistry lab for the period 2014-19. In our view, the claim of the Petitioner is not maintainable as the expenditure on this count is covered under the normative O&M allowed for the generating stations.

(f) Drift Eliminator inspection measurement & adjustment

78. The Petitioner has claimed additional O&M expenses for ₹24.84 lakh towards drift eliminator inspection measurement & adjustment for the year 2014-15, after

escalation of 6.29% over the actual amount in 2013-14. The drift eliminator is part of the cooling tower and is used for reducing the water loss in the cooling tower by preventing the water droplets and mist from escaping the cooling tower. As the normative O&M allowed for the generating station covers Cooling Tower System (which form part of the generating station), the additional O&M claimed by the Petitioner under this head is not allowed.

(g) Conditioning and Painting of External Structures

79. The Petitioner has claimed additional O&M expense of ₹370.27 lakh towards conditioning and painting of external structures in 2014-15 after escalation @ 6.29% over the actual amount in 2013-14. Since the work of conditioning and painting of external structures is recurring in nature and covered in the normative O&M expenses under Regulation 29(1) of 2014 Tariff Regulations, the claim of the Petitioner is rejected.

(h) Panchayat Tax

80. The Petitioner has claimed an expenditure ₹14.76 lakh as additional O&M for Panchayat Tax (on actuals) for the year 2014-15. As this expenditure is in the nature of revenue expenditure and is covered under the normative O&M under the 2014 Tariff Regulations, the claim is not allowed.

(i) Cess paid to Statutory Authorities

81. The Petitioner has claimed an expenditure of ₹40.58 lakh towards actual Cess paid to statutory authorities for the year 2014-15. The Petitioner has however not furnished the detailed breakup of the Cess paid to Statutory authorities. Since Cess payable is statutory in nature, we, in principle, allow the actual payments made by the Petitioner to the statutory authorities. The Petitioner is however directed to submit the year-wise actual cess paid to the authorities, at the time of truing-up of

tariff.

(j) O&M expenses towards Additional Transmission Bays

82. The Petitioner has submitted that as it is required to maintain transmission facility at the plant site, the O&M for maintenance towards the same has not been considered while determining the O&M expenses of the generating station. It has also submitted that the transmission facilities maintained include 4 Nos. of 220 kV bays and 2 Nos. of 400 kV bays. The Petitioner has further submitted that it has proposed additional capitalization towards 2 Nos. of 400 kV bus reactors in 2017-18. Accordingly, the Petitioner, considering the normative O&M expense for 400 kV and 220 kV base in terms of the 2014 Tariff Regulations and the additional requirement due to station specific additionalities has claimed the annual additional O&M expenses for the period 2014-19 as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
No. of 220 kV bays	4	4	4	4	4
Norms as per 2014 Tariff Regulation (<i>₹ in lakh/MW</i>)	42.21	43.61	45.06	46.55	48.10
O&M expense for 220 kV bays (<i>₹ in lakh</i>)	168.84	174.44	180.24	186.2	192.4
No. of 400 kV bays	2	2	2	4	4
Norms as per 2014 Tariff Regulation (<i>₹ in lakh/MW</i>)	60.30	62.30	64.37	66.51	68.71
O&M expense for 220 kV bays (<i>₹ in lakh</i>)	120.6	124.6	128.74	266.04	274.84
Total O&M expenses (<i>₹ in lakh</i>)	289.44	299.04	308.98	452.24	467.24

83. The Respondent PCKL has submitted that the transmission facilities for which additional O&M expenses are being sought by the Petitioner are part and parcel of the generating station and the 2014 Tariff Regulations do not provide for any additional O&M expenses for transmission structure bays. It has stated that Regulation 29(4) of the 2014 Tariff Regulations is applicable for transmission systems of transmission licensees and cannot be considered for arriving at the O&M



cost of the generating station governed under Regulation 29(1) of the 2014 Tariff Regulations. The Respondent has also submitted that at least 6 bays had been in existence since the setting up of the project and therefore if any additional O&M expenses for such bays were required, the same ought to have been claimed during the previous tariff period. The Respondent has therefore submitted that the claim for O&M expenses for such bays is barred by constructive res-judicata. The Respondent PSPCL has adopted the aforesaid submissions. The Petitioner in its rejoinder while denying that the transmission facility maintained by it is part and parcel of the generating station has stated it has made additional expenditure for its establishment. The Petitioner has pointed out that the normative O&M expenses for the generating station, does not cover O&M expenses towards maintenance of associated transmission facility. Accordingly, the Petitioner has prayed that the expenditure claimed as additional O&M expenses may be allowed.

84. The matter has been considered. Section-2 of the Electricity Act, 2003 and Regulation 3(30) of 2014 Tariff Regulations define the term ‘generating station’ as under:

“Generating Station’ means any station for generating electricity, including any building and plant with step-up transformer, switch-gear, switch yard, cables or other appurtenant equipment, if any, used for that purpose and the site thereof; a site intended to be used for a generating station, and any building used for housing the operating staff of a generating station, and where electricity is generated by water power, includes penstocks, head and tail works, main and regulating reservoirs, dams and other hydraulic works, but does not in any case include any sub-station”

85. It is evident from the above definition that bays and transmission system form part of the switch yard and the expenditure for the same is covered under the normative O&M expenses specified under Regulation 29(1) of 2014 Tariff Regulations. Accordingly, the prayer of the Petitioner to allow the additional expenditure towards O&M of 4 numbers of 220 kV bays and 2 nos. of 400 kV bays

for the period 2014-19 is rejected. Further, the Petitioner vide its affidavit dated 19.8.2019 has submitted that the proposed capital expenditure towards 2 nos. of additional 400 kV line reactor is in compliance with the directive issued in the 39th Standing Committee meeting of Power System, Southern Region, for the purpose of Grid security and the same was also approved in the 119th Operation Coordination Committee meeting dated 10.5.2016 held in SRPC, Bangalore on 10.5.2016 has been planned during the next tariff period (2019-24). In view of this submission, the Petitioner is at liberty to claim expenditure on this asset and the same shall be dealt with, on merits, in accordance with the provisions of the 2019 Tariff Regulations.

(k) Electricity Tax on Auxiliary consumption

86. The Petitioner has claimed expenditure towards Electricity Tax on Auxiliary Power Consumption (APC) for the period 2014-19 as under:

<i>(₹ in lakh)</i>					
2014-15	2015-16	2016-17	2017-18	2018-19	Total
10.11	234.08	233.55	233.55	233.55	944.84

87. The Petitioner has submitted that State Government of Karnataka vide gazette notification dated 24.11.2014 had notified Electricity Tax on APC and accordingly the Petitioner has been paying tax since March 2015 onwards. The Petitioner has also stated that the Electricity Tax on APC has not been considered while specifying the O&M expense norms for the period 2014-19. Accordingly, the Petitioner has submitted that it is entitled for reimbursement Electricity Tax on APC.

88. The Respondent PCKL has submitted that it has not sought reimbursement of electricity tax from discoms in the State of Karnataka. It has also stated that central generating stations like NTPC and NLC have paid electricity tax on APC for



generation of energy to the respective State Governments and have not claimed for reimbursement from their discoms in any of the years. Accordingly, the respondent has stated that there is no reason to make any exception for the Petitioner for reimbursement of Electricity Tax on APC.

89. The matter has been considered. It is noticed that the issue of reimbursement of Electricity Tax on APC was raised by the Petitioner with the State Government of Karnataka and as per the minutes of meeting held on 23.2.2017, the State Government had agreed to consider the issue. Even otherwise, there exists no provision for considering such expenses over and above the normative O&M expenses specified under the 2014 Tariff Regulations. In light of this, the claim of the Petitioner is not allowed. However, the Petitioner is at liberty to separately bill and recover the actual expenses on this count from the beneficiaries.

90. In view of the above, the total O&M expenses, including Water Charges and additional O&M expenses, are allowed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
O&M Expenses as claimed under Regulation 29(1)	17280.00	18372.00	19524.00	20760.00	22056.00	97992.00
O&M Expenses as allowed	17280.00	18372.00	19524.00	20760.00	22056.00	97992.00
Water Charges as claimed under Regulation 29(2)	47.57	50.45	42.28	44.94	47.77	233.01
Water Charges as allowed	47.57	50.45	41.92	14.03	5.12	159.09
O & M for additionalities as claimed	2209.21	2348.17	2495.87	2652.86	2819.72	12525.83
O & M for additionalities as Allowed (Jetty & ECHP etc.)	273.62	290.83	309.12	328.57	349.24	1551.38
O & M for 6 Bays till 2016-17 and additional 2 bays (400 kV Bus reactor proposed during 2017-18) from 2017-18 onwards as Claimed	289.44	299.04	308.98	452.24	467.24	1816.94
O & M for 6 Bays till 2016-17 and additional 2 bays (400 kV Bus reactor proposed during 2017-18) from 2017-18 onwards as	0.00	0.00	0.00	0.00	0.00	0.00

Allowed						
Electricity Tax on Auxiliary consumption as claimed	10.11	234.08	233.55	233.55	233.55	944.84
Electricity Tax on Auxiliary consumption as Allowed	0.00	0.00	0.00	0.00	0.00	0.00
CESS paid to Statutory Authorities	40.58	43.13	45.85	48.73	51.79	230.08
CESS paid to Statutory Authorities as allowed	0.00	0.00	0.00	0.00	0.00	0.00
Total O&M Expenses Claimed	19876.91	21346.87	22650.53	24192.32	25676.07	113382.27
Total O&M Expenses Allowed	17601.19	18713.28	19875.05	21102.60	22410.36	99702.47

Operational Norms

91. The following norms of operation have been considered by the Petitioner for the purpose of tariff:

Normative Annual Plant Availability Factor (%)	85
Heat rate (kcal/kWh)	2328
Auxiliary Power Consumption (%)	6.45
Specific Oil Consumption (ml/kWh)	0.50

Normative Annual Plant Availability Factor (NAPAF)

92. Regulation 36(A)(a) of the 2014 Tariff Regulations provides as under:

(A) Normative Annual Plant Availability Factor (NAPAF)

(a) All thermal generating stations, except those covered under clauses (b), (c), (d) & (e) - 85%

Provided that in view of shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.

The above provision shall be reviewed based on actual feedback after 3 years from 1.4.2014.

Accordingly, NAPAF of 83% for the period 2014-17 and 85% for the period 2017-19 is allowed.

Station Heat Rate

93. Regulation 36(C)(c) of the 2014 Tariff Regulations provides as follows:

(C) Gross Station Heat Rate:

(c) Thermal Generating Station having COD on or after 1.4.2009 till 31.3.2014

(i) Coal-based and lignite-fired Thermal Generating Stations

$$= 1.045 \times \text{Design Heat Rate (kCal/kWh)}$$

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure:

Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14.

94. The Petitioner has submitted that the Commission in its order 20.2.2014 had approved the Gross Station Heat Rate (GSHR) of 2340.58 kCal/kWh. It has further stated that the Tribunal vide its judgment dated 15.5.2015 in Appeal No. 108/2014 had allowed the GSHR of 2328 kCal/kWh and the same has been considered by the Commission vide its order dated 10.7.2015 in Petition No. 160/GT/2012 for the period 2010-14. The Petitioner has further submitted that GSHR is impacted adversely due to lower PLF, which exist due to uncontrollable factors attributed to Procurers and grid restrictions. The Petitioner has pointed out that the Tribunal in its judgment dated 15.5.2015 has assumed that if there was a decrease in the heat rate by 50 kCal/kWh under the 2004-09 Tariff Regulations, a similar decrease would apply to the heat rate under the 2009 Tariff Regulations. The Petitioner in the petition has prayed for consideration of the principles laid down in the Fourth Amendment of IEGC for the period 2014-17 and to allow variation to the SHR of 2333 kCal/kWh. For the years 2017-18 & 2018-19, the Petitioner has requested for consideration of SHR of 2378 kCal/kWh, without any adjustment of 50 kCal/kWh. Accordingly, the Petitioner has claimed SHR for the period 2014-19 as under:

<i>(in kCal/kWh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2426	2385	2385	2378	2378

95. The Petitioner was directed to submit the reason for variation in the boiler efficiency data (87%) indicated in Form-2 of the petition as against the boiler efficiency of 88.5% considered in Petition No. 160/GT/2012. In response, the



Petitioner has submitted that the boiler efficiency of 87% considered in Form-2 is an inadvertent error and has prayed for consideration of the same as 88.5%.

96. The Respondent PCKL has submitted that the GSHR claimed by the Petitioner is higher than the GSHR determined in accordance with the 2014 Tariff Regulations. It has stated that the IEGC further Amendment was notified on 6.4.2016 and made effective on 5.5.2017 and cannot be applied retrospectively for the period as sought by the Petitioner. Accordingly, the Respondent has submitted that the claim of the Petitioner ought not to be allowed.

97. The matter has been examined. The Petitioner has prayed for approval of relaxed norms of GSHR in exercise of power under Regulations 54 & 55 of the 2014 Tariff Regulations. The Turbine Cycle Heat Rate and Boiler Efficiency is 1945 kCal/kWh and 88.5% respectively. The Petitioner has however prayed for consideration of the heat rate of 2333.485 kCal/kWh for the period 2014-19. in compliance with the above directions of the Tribunal in its judgment dated 15.5.2015, the Commission by order dated 10.7.2015 in Petition No. 160/GT/ 2012 had re-determined the annual fixed charges of the generating station. Thereafter, the Commission vide order dated 24.3.2017 in Petition No. 7/GT/2016 revised the tariff of the generating station for the period from 11.11.2010 to 31.3.2014 after truing-up exercise. Subsequently, the Tribunal vide its judgment dated 6.2.2019 partly allowed the Review Petition No. 22/2015 on issues namely, the (i) Disallowance of ₹141.91 crore on account of 'Error in calculation of EPC cost' and (ii) Disallowance of Gross Station Heat Rate (GSHR) of 2400 kcal/kwh. The Commission was directed to re-determine the tariff of the generating station in terms of findings of the Tribunal in the said judgment. On the issue of GSHR, the Tribunal in its judgment dated 6.2.2019 in Review Petition No. 22/2015 has



decided the following:

“8.4 In view of the above, it is clear that there was no agreement on reduction of GSHR by 50 kCal/kWh. Further, there is no such provision in the PPA regarding reduction of GSHR by 50 kCal/kWh. This Tribunal relied on the submission made by PCKL which has been proven to be an inference drawn from extant CERC Tariff Regulations and provisions of the PPA. Further, it is relevant to note that both the parties after signing of the PPA had agreed that tariff parameters will be determined by Appropriate Commission and there is no mention of reduction of 50 kCal/kWh therein. It is also noted that the Respondent No. 1 did not raise this issue before the Central Commission. Had there been such agreement, the Respondent No. 1 would have raised it before the Commission.

8.5 Further, the Tribunal in its Judgment dated 08.11.2017 in Appeal No. 226 of 2016 has observed as below:

“(f)(i) The relevant extract from Section 61 of the Act is reproduced below: “Section 61. (Tariff regulations): The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:- (a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;

Section 61 of the Act empowers the Appropriate Commission to formulate tariff regulations and once the tariff regulations are notified the Appropriate Commission is bound to follow it.”

8.6 In view of the above judgment it is clear that once the Tariff Regulation is notified under Section 61 of the Electricity Act, 2003 by the Regulatory Commission, it is bound to follow that. Accordingly, the review on this issue is allowed and SHR applicable for UPCL plant shall be strictly as per Regulations of the Central Commission as agreed by the Parties in the PPA without any such reductions.”

98. In terms of the directions of the Tribunal as aforesaid, the Commission vide its order dated 27.6.2019 had determined the GSHR of the generating station for the period 2009-14 as stated below:

35. It is evident from the above observations of the Tribunal in the said judgment that the Heat Rate applicable to the Petitioner should be strictly as per regulations of the Commission as agreed by the parties in the PPA. It is pertinent to mention that the Commission in its order dated 20.2.2014 in Petition No. 160/GT/2012 had considered the GSHR of 2340.59 kCal/kWh (1945 x 1.065/0.885) based on guaranteed turbine cycle heat rate 1945 kCal/kWh, boiler efficiency of 88.5% and operating margin of 6.5 % from the guaranteed design value in terms of the 2009 Tariff Regulations. However, the Tribunal vide its judgment dated 15.5.2015 on the basis of formulation in the 2009 Tariff Regulations, had decided the Gross SHR of 600 MW of the Petitioner as 2328 kCal/kWh (2193 kCal/kWh x 1.065), considering the OEM guaranteed parameter of 2233 kCal/kWh (as referred to by PCKL) with the operating margin of 6.5% as per Regulations, less 50 kCal/kWh (as submitted by PCKL). Thus, the order of the Commission dated 20.2.2014 stood merged with the above judgment dated 15.5.2015 of the Tribunal, which was implemented by the Commission vide order dated 10.7.2015. It is pertinent to mention that the said findings of the Tribunal were specific to the circumstances of the case. By judgment dated 6.2.2019, the Tribunal has observed that the parties had not agreed for the reduction of GSHR by 50 kCal/kWh and hence the SHR of the generating station is to be allowed without such

reductions. These observations of the Tribunal in judgment dated 6.2.2019 based on the interpretation of the 2009 Tariff Regulations has modified the earlier findings of the Tribunal in judgment dated 15.5.2015. In other words, with the reduction of 50 kCal/kWh in GSHR being rectified on review, the judgment dated 15.5.2015 stood merged with the judgment dated 6.2.2019 and the same is required to be implemented. Accordingly, the GSHR of 2378 kCal/kWh (2233 kCal/kWh X 1.065) is considered for the purpose of tariff determination of the generating station for the period 2009-14.

99. Considering the Design Heat Rate of 2233 kcal/kWh as per the aforesaid order and applying the same in the formula under Regulation 36(C)(c), the SHR is worked out as 2333.485 kcal/kWh (2233 x 1.045%). This has been considered for the purpose of tariff for the period 2014-19.

Auxiliary Power Consumption

100. Regulation 36(E)(a)(i) of the 2014 Tariff Regulations provides as under:

“(E) Auxiliary Energy Consumption

(a) Coal-based generating stations except at (b) below:

	<i>With Natural Draft cooling tower or without cooling tower</i>
<i>(i) 200 MW series</i>	<i>8.5%</i>
<i>(ii) 300/330/350/500 MW and above</i>	
<i>Steam driven boiler feed pumps</i>	<i>5.25%</i>
<i>Electrically driven boiler feed pumps</i>	<i>7.75%</i>

Provided further that for thermal generating stations with induced draft cooling tower, the norms shall be further increased by 0.5%

101. The Petitioner has submitted that the Commission in its order dated 20.2.2014 in Petition No. 160/GT/2012 had considered additional APC of 1.20% on account of additional facilities such as seat water pump house, RO plant, FGD system and external CHP. The Petitioner has also submitted that restrictions on generation on account of backing down instructions resulted into higher APC. The Petitioner has pointed out that the Commission had recognized the norms of APC correspond to the availability of 83% to 85%. Accordingly, the Petitioner has prayed to consider the degradation in APC over and above 6.45% for the years 2014-15, 2015-16 & 2016-17 and to consider APC of 6.45% for the years 2017-18 & 2018-19.

102. The Respondent PCKL has submitted that the claim of the Petitioner for APC for the period 2014-16 cannot be considered as the effective date of Regulation 6.3B of IEGC Fourth Amendment Regulations 2016 is 15.5.2017. Similar submission has been made by the Respondent PSPCL. In response, the Petitioner has reiterated the submissions made in the petition as above.

103. We have considered the submissions. The Petitioner has claimed APC of 7.10% in 2014-15, 6.80% during 2015-17 and 6.45% during 2017-19, in exercise of powers under Regulation 54 & 55 of the 2014 Tariff Regulations read with the Regulation 3 of 6.3 B of CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulation, 2016. The said regulation is extracted hereunder:

“6.3B - Technical Minimum Schedule for operation of Central Generating Stations and Inter-State Generating Stations

1. Where the CGS or ISGS, whose tariff is either determined or adopted by the Commission, is directed by the concerned RLDC to operate below normative plant availability factor but at or above technical minimum, the CGS or ISGS may be compensated depending on the average unit loading duly taking into account the forced outages, planned outages, PLF, generation at generator terminal, energy sent out ex-bus, number of start-stop, secondary fuel oil consumption and auxiliary energy consumption, in due consideration of actual and normative operating parameters of station heat rate, auxiliary energy consumption and secondary fuel oil consumption etc. on monthly basis duly supported by relevant data verified by RLDC or SLDC, as the case may be.

Provided that:

(ii) In case of coal / lignite based generating stations, the following Auxiliary Energy Consumption degradation or actual, whichever is lower shall be considered for the purpose of compensation:

S. No	Unit loading (% of MCR)	% Degradation in AEC admissible
1	85-100	Nil
2	75-84.99	0.35
3	65-74.99	0.65
4	55-64.99	1.00

104. Accordingly, the claim of the Petitioner for enhanced normative APC due to part load operation cannot be considered, as the generator has to recover defined compensation as per regulation directly from the beneficiary for the period the



plant was operated on part load. The normative APC for generating plants 500 MW and above having steam driven boiler feed pump is 5.25%. The Commission vide its order dated 20.2.2014 in Petition No. 160/GT/2012 had allowed additional 1.20% of APC due to additional features like FGD, coal jetty, desalination plant. Accordingly, the APC of 6.45 % is allowed for the period 2014-19. However, the Petitioner shall furnish the actual auxiliary consumption due to additional features such as sea water pump house, RO plant, FGD system etc. from COD to 2018-19 at the time of truing up of tariff in terms of Regulation 8 of the 2014 tariff Regulations.

Specific Oil Consumption

105. Regulation 36 (D)(a) of the 2014 Tariff Regulations provides for secondary fuel oil consumption of 0.50 ml/kWh for coal based generating station. Hence, the secondary fuel oil consumption considered by the Petitioner is as per norms and is allowed.

Coal transit and handling losses

106. The Petitioner has submitted that the generating station is situated 36 km from NMPT on the west coast and the coal required for power generation is imported from Indonesia/ South Africa/Australia. The Petitioner has also submitted that there is multi modal and multiple times handling of coal, loading and unloading before the despatched coal reaches the site and fed to the bunkers/ boilers. The Petitioner has submitted that it had claimed transit loss as 1.6% during the period 2009-14 and the Commission in its order dated 20.2.2014, while recognizing the generating station as non-pit head station, had allowed transit loss of 0.8%. It has stated that the transit loss allowed as such is adequate to cover the loss which is on account of multiple handling and not on account of distance as

considered by the Commission, even though there is some transit loss when coal is transported through Indian Railways. Accordingly, it has prayed that a transit loss of 0.8% may be allowed for non-pit head stations in case of the imported coal based thermal plant of the Petitioner.

107. The Respondent PCKL has submitted that as per proviso to Regulation 30(4) of the 2014 Tariff Regulations, the transit and handling losses shall be 0.2% in case of imported coal. It has further submitted that the Petitioner has not furnished any material to substantiate its claim that it is incurring more transit and handling loss than 0.2%. The Respondent has pointed out that the transit and handling loss ought to be considered at 0.2% and in Form-15, the demurrage charges claimed need to be deducted from total transportation charges.

108. The matter has been examined. The Commission vide its order dated 20.2.2014 in Petition No. 160/GT/2012 had allowed the transit & handling losses as under:

“167. It is observed that the generating station is a Non- Pit head station as per agreement with ESCOMs of Karnataka. However, it is noticed that the distance from the coal jetty at port to the plant site is about 30 km and hence transit loss of 1.6 % cannot be considered. However, considering the fact that the generating station is a non-pit head station, the normative transit & handling losses of 0.8% is allowed for the purpose of tariff. We consider this to be sufficient to nullify the losses, if any that would occur in loading and multiple unloading at discharge port and at the plant site.”

109. Regulation 30(8) of the 2014 Tariff Regulations provides as under:

“(8) The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail / road or any other means, and, for the purpose of computation of energy charge, and in case of coal/lignite shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal or lignite dispatched by the coal or lignite supply company during the month as given below:

Pithead generating stations: 0.2%

Non-pithead generating stations: 0.8%

Provided that in case of pit head stations if coal or lignite is procured from sources other than the pit head mines which is transported to the station through rail, transit loss of 0.8% shall be applicable:

Provided further that in case of imported coal, the transit and handling losses shall be 0.2%.”

110. In the SOR to the aforesaid regulation, the Commission had observed the following:

“34.43.....With regards to transit and handling losses for imported coal the Commission observes that there is some transit and handling losses the Commission based on the five year actual data proposes to approve a norm of 0.20% as allowable transit and handling loss for imported coal.” The Commission has analyzed the actual transit loss data for NTPC stations for last five years and observed that the actual transit loss for imported coal for most of the stations was less than 0.2% with few exceptions. Hence, the Commission has specified the transit loss of 0.2% for imported coal. As the transit loss norms have been specified based on detailed analysis of actual transit loss data for last five years, the same does not require any change.”

111. Accordingly, in terms of Regulation 30(8) of the 2014 Tariff Regulations, the transit and handling losses of 0.2% is allowed for the generating station for the period 2014-19.

Limestone Consumption

112. Regulation 36(E)(d)(iv) of the 2014 Tariff Regulations provides for Limestone consumption for lignite based stations, using CFBC technology as under:

*Barsingsar - 0.056 kg/kWh
NLC TPS-II (Expansion) -0.046 kg/kWh*

113. The Petitioner was directed to furnish the specific limestone consumption considered for the purpose of tariff along with the computation of energy charge rate. In response, the Petitioner has submitted that the specific limestone consumption considered for the purpose of tariff is 1.06% of specific coal consumption in terms of the PPA is as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Specific coal consumption (kg/kWh)	0.430	0.423	0.423	0.422	0.422
Lime as % of coal consumption (%)	1.06	1.06	1.06	1.06	1.06
Consumption of lime (kg/kWh)	0.005	0.004	0.004	0.004	0.004

114. The 2014 Tariff Regulations do not provide any norms for limestone consumption for 100% imported coal based generating station with FGD for capturing SOx emissions. Accordingly, in terms of the PPA, the specific limestone consumption is 1.06% of specific coal consumption, which works out to 0.004 kg/kWh.

115. Based on the above discussions, the operational norms allowed for the generating station is summarized as under:

NAPAF	83% for 2014-17 & 85% for 2017-19
GSHR	2333.49 kcal/kWh
APC	6.45%
Transit and handling loss	0.2%
Limestone consumption	0.004 kg/kWh

Interest on Working Capital

116. Sub-section (a) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

28. Interest on Working Capital:

(1) *The working capital shall cover:*

(a) *Coal-based/lignite-fired thermal generating stations:*

(i) *Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*

(ii) *Cost of coal or lignite and limestone for 30 days for generation corresponding to the normative annual plant availability factor;*

(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(iv) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 29;

(v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and

(vi) Operation and maintenance expenses for one month.

Fuel Cost and Energy Charges in Working Capital

117. The Petitioner in Form 13B has claimed cost for fuel component for working capital for the period 2014-19 based on price and “as received” GCV of coal procured and burnt for the preceding three months of January, 2014, February, 2014 & March, 2014 and for secondary fuel oil for the preceding three months of January, 2014, February, 2014 & March, 2014 as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock (30 days)	18595.35	18280.43	18280.43	18226.66	18226.66
Cost of Coal towards Generation (30 days)	18595.35	18280.43	18280.43	18226.66	18226.66
Cost of Lime towards stock (30 days)	57.14	56.17	56.17	56.00	56.00
Cost of Lime towards Generation (30 days)	57.14	56.17	56.17	56.00	56.00
Cost of Secondary fuel oil (2 months)	400.76	401.86	400.76	400.76	400.76

118. The Petitioner in Form-15 has furnished weighted average GCV of coal “as received” for the months of January 2014, February 2014 and March 2014 as 5613.16 Kcal/kg, 5518.08 Kcal/kg and 5717.02 Kcal/kg respectively. The Commission had directed the Petitioner to clarify, amongst others, the place of measurement of “as received” GCV of coal. In response, the Petitioner vide affidavit dated 11.12.2018 has submitted that the coal samples for measuring “as received” GCV of coal for the months of January 2014, February 2014 and March 2014 were taken from the wagons at the unloading point in the site. The Petitioner

has submitted that coal is received at the generating station through BOBR type wagons, which are unloaded directly in track hopper by pneumatically operated bottom discharge gates of wagon. The Petitioner has added that each coal rake consists of 58-59 wagons of 60MT, and wagons are selected randomly as per the standards IS: 436 (Part-I) -1964 RA 2013. The Petitioner has further added that a minimum of 25% of wagons are randomly selected for drawing the sample and total 300 to 350 kg is drawn and sampling is carried out. The Petitioner has revised the weighted average GCV of coal and claimed the weighted average GCV of coal “as received” as 5590.76 Kcal/kg, 5497.85 Kcal/kg and 5615.78 Kcal/kg for the months of January 2014, February 2014 and March 2014 respectively. In justification of the same, the Petitioner has submitted that since April 2013 onwards, it has maintained details of measurement of GCV of coal at four points namely, load port, discharge port, from wagon top at plant boundary and as fired. The data of “as received” GCV furnished in form-15 along with the petition was GCV of coal at discharged port and the data furnished above is the GCV at plant boundary. Accordingly, the GCV furnished by the Petitioner from wagon top at plant boundary is considered for the computation of Energy Charge and Working Capital.

119. The Petitioner has claimed Energy Charge Rate (ECR) of 276.30 paise/kWh for 2014-15, 270.80 paise/kWh for 2015-17 and 269.00 paise/kWh for 2017-19, based on the weighted average price, GCV of coal (as received basis) & oil procured and burnt for the preceding three months of January 2014, February 2014 and March 2014. Accordingly, in terms of the 2014 Tariff Regulations, the cost for fuel components in working capital have been computed at 83% NAPAF for the period 2014-17 and 85% NAPAF for the period 2017-19 and based on “as received” GCV of coal & price of coal procured along with secondary fuel oil for the preceding three

months January 2014, February 2014 and March 2014. The cost for fuel component allowed for the purpose of tariff is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock (30 days)	17468.00	17468.00	17468.00	17888.92	17888.92
Cost of Coal towards Generation (30 days)	17468.00	17468.00	17468.00	17888.92	17888.92
Cost of Secondary fuel oil 2 months	391.33	392.40	391.33	400.76	400.76
Cost of Lime towards stock (30 days)	48.93	48.93	48.93	50.11	50.11
Cost of Lime towards Generation (30 days)	48.93	48.93	48.93	50.11	50.11

120. It is pertinent to mention that the cost of coal towards stock and generation allowed during the period 2014-19 is less than the cost claimed by the Petitioner. This is on account of the fact that there is a variation between the claim of Gross Station Heat Rate and APC for different years as claimed by the Petitioner and as allowed in this order. Further, we have allowed the transit and handling losses of 0.2% on coal as against the claim of 1.6% by the Petitioner. Further, the claim of the Petitioner for application fees of ₹116.53 lakh in the landed cost of coal has not been considered.

121. It is further noticed that the cost of secondary fuel oil for 2 months allowed during the period 2014-19 is less than the claim of the Petitioner. In this regard, it is observed that the Petitioner has considered NAPAF of 85% for the period 2014-19. However, as stated above, NAPAF of 83% for the period 2014-17 and 85% for the period 2017-19 is allowed.

Energy Charge Rate (ECR)

122. The ECR worked out based on operational norms specified in 2014 Regulations and on “as received” GCV of coal for preceding three months of the tariff period 2014, as worked out under is considered for allowing 2 (two) months Energy Charge

in Working capital:

	Unit	2014-15	2015-16	2016-17	2017-18	2018-19
Capacity	MW	1200	1200	1200	1200	1200
Gross Station Heat Rate	Kcal/kWh	2333.49	2333.49	2333.49	2333.49	2333.49
Auxiliary Energy Consumption	%	6.45	6.45	6.45	6.45	6.45
Weighted average GCV of oil	Kcal/lit	10102.44	10102.44	10102.44	10102.44	10102.44
Weighted average GCV of Coal (as Received)	Kcal/kg	5568.07	5568.07	5568.07	5568.07	5568.07
Weighted average price of oil	Rs/KL	53821.93	53821.93	53821.93	53821.93	53821.93
Weighted average price of Coal	Rs/MT	5824.95	5824.95	5824.95	5824.95	5824.95
Rate of Energy Charge ex-bus	Rs/kWh	2.640	2.640	2.640	2.640	2.640

123. The Energy Charges for 2 months, based on “as received” GCV of coal for the purpose of interest on working capital, has been worked out as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
35913.68	36012.07	35913.68	36779.07	36779.07

124. In the landed cost of coal, the Petitioner (i.e. in Adjustment (+/-) in amount charged made by the coal Company) has considered custom duty & clean energy cess, stevedoring & other expenses, survey coal sampling & analysis, wharfage charges, development cess charges-Konkan railway, pilotage & port dues, Southern Railway- realisation bonus charges, application fees, LC charges and marshalling yard charges. Except for application fees, all other charges have been considered for the computation of fuel cost and Energy charges in the working capital.

Maintenance Spares

125. The Petitioner in Form-13B has claimed following maintenance spares in the working capital:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3967.27	4260.75	4520.94	4828.72	5124.86

126. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for maintenance spares @ 20% of the O&M expenses as specified in Regulation 29. As specified in Regulation 29(2) of the 2014 Tariff Regulations, the maintenance spares @20% of the O&M expenses, including water charges and additional O&M of jetty & ECHP etc. allowed are as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3520.24	3742.66	3975.01	4220.52	4482.07

O & M Expenses (1 month)

127. O&M expenses for 1 month claimed by the Petitioner for the purpose of working capital in Form-13B are as follows:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1653.03	1775.31	1883.72	2011.97	2135.36

128. Regulation 28(a)(vi) of the 2014 Tariff Regulations provides for O&M expenses for one month for coal-based generating stations. Accordingly, O&M expenses for one month, including additional O&M of jetty & EHP etc., are allowed as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1466.77	1559.44	1656.25	1758.55	1867.53

Receivables

129. Receivables equivalent to two months of Capacity Charge and Energy Charges has been worked out and allowed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges- for two months	35913.68	36012.07	35913.68	36779.07	36779.07
Fixed Charges- for two months	21988.55	21561.70	21087.56	20654.39	20212.50
Total	57902.23	57573.78	57001.24	57433.46	56991.57

Rate of interest on working capital

130. Clause (3) of Regulation 28 of the 2014 Tariff Regulations provides as under:

“Interest on working Capital: (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later.”

131. In terms of the above regulations, SBI PLR of 13.50% (Bank rate 10.00 + 350 bps) has been considered for the purpose of calculating interest on working capital. Accordingly, Interest on working capital has been computed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of coal toward stock - 30 days	17468.00	17468.00	17468.00	17888.92	17888.92
Cost of coal towards generation - 30 days	17468.00	17468.00	17468.00	17888.92	17888.92
Cost of secondary fuel oil - 2 months	391.33	392.40	391.33	400.76	400.76
Cost of lime toward stock - 30 days	48.93	48.93	48.93	50.11	50.11
Cost of lime towards generation - 30 days	48.93	48.93	48.93	50.11	50.11
Maintenance Spares - 20% of O&M	3520.24	3742.66	3975.01	4220.52	4482.07
Receivables	57902.23	57573.78	57001.24	57433.46	56991.57
O&M expenses - 1 month	1466.77	1559.44	1656.25	1758.55	1867.53
Total Working Capital	98314.44	98302.15	98057.71	99691.35	99619.99
Rate of Interest	13.5000%	13.5000%	13.5000%	13.5000%	13.5000%
Interest on Working capital	13272.45	13270.79	13237.79	13458.33	13448.70

Annual Fixed Charges

132. Accordingly, the annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	29106.94	29153.09	29148.89	29090.29	29050.48
Interest on Loan	45332.46	41439.07	37460.73	33472.22	29490.45
Return on Equity	26618.26	26793.99	26802.92	26802.92	26875.01
Interest on Working Capital	13272.45	13270.79	13237.79	13458.33	13448.70
O&M Expenses	17601.19	18713.28	19875.05	21102.60	22410.36
Total	131931.31	129370.22	126525.38	123926.36	121275.00

Note: (1) All figures are on annualised basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such, the sum of individual items may not be equal to the arithmetic total of the column.

Month to Month Energy Charges

133. The Petitioner shall compute and claim the energy charges on month to month basis from the beneficiaries based on the formulae given under Regulation 30(6)(a) of the 2014 Tariff Regulations read with the Commission's order dated 25.1.2016 in Petition No. 283/GT/2014.

134. The Petitioner has been directed by the Commission in order dated 19.2.2016 in Petition No. 33/MP/2014 to introduce help desk to attend to the queries of the beneficiaries with regard to the Energy Charges. Accordingly, contentious issues, if any, which arise regarding the Energy Charges, should be sorted out with the beneficiaries at the Senior Management level.

Application filing fee and Publication Expenses

135. The Petitioner has sought reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the period 2014-19. The Petitioner has deposited the filing fees for the period 2014-19 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The Petitioner has also incurred charges towards publication of the tariff petition in the newspapers. In terms of Regulation 52 of the 2014 Tariff Regulations, the Petitioner is entitled to recover the filing fees and the expenses incurred on publication of notices for the period 2014-19 directly from the respondents. Accordingly, the expenses incurred by the Petitioner towards tariff application filing fees and publication of notices in connection with the present petition shall be directly recovered from the Respondent beneficiaries on pro rata basis.

136. The annual fixed charges approved for the period 2014-19, is subject to revision based on the truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations.

137. This order disposes of Petition No. 251/GT/2017.

Sd/-
(I.S.Jha)
Member

Sd/-
(Dr. M.K.Iyer)
Member

Sd/-
(P.K.Pujari)
Chairperson