

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 224/GT/2015

**Coram:
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

Date of Order : 28.9.2017

In the matter of:

Approval of tariff for Raghunathpur Thermal Power Station, Phase-I, Units-1 and 2 (1200 MW) from the date of commercial operation 31.3.2016 to 31.3.2019.

And in the matter of

Damodar Valley Corporation,
DVC Towers, VIP Road
Kolkata

.....Petitioner

Versus

- i. Haryana Power Purchase Centre
(Erstwhile Haryana Power Generation Corporation Limited)
Shakti Bhawan, Sector-6
Panchkula-134109
- ii. Punjab State Power Corporation Limited
(Erstwhile Punjab State Electricity Board)
Interstate Billing, Shed No. TI-A
Patiala- 147 001
- iii. Kerala State Electricity Board
8th Floor, Vydyuthi Bhawan
Thiruvananthapuram-695004

.....Respondents

Parties present:

For Petitioner: Shri M.G. Ramachandran, Advocate, DVC
Shri D.K Aich, DVC
Shri A. Biswas, DVC

For Respondents: Shri Gaurav Gupta, Advocate, PSPCL



ORDER

This petition has been filed by the petitioner, Damodar Valley Corporation (DVC), for approval of tariff of Raghunathpur Thermal Power Station (RTPS) Unit 1 and Unit 2 (2 x 600 MW) (hereinafter referred to as “the project/generating station”) from the actual date of commercial operation (31.3.2016 to 31.3.2019 in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The petitioner is a statutory body established by the Central Government under the Damodar Valley Corporation Act, 1948 (hereinafter referred to as the 'DVC Act') for the development of the Damodar Valley, with three participating Governments, namely, the Central Government, the Government of West Bengal and the Government of Jharkhand.

3. Investment approval of the project of ₹412157 lakh was accorded in the 573rd meeting of the Board of the Petitioner's Corporation on 30.4.2007. Thereafter, in the 583rd meeting of the Board of the Petitioner's Corporation on 1.9.2008, the project cost was revised to ₹550700 lakh and subsequently on 29.3.2011, the Revised Cost Estimate (RCE) of the project for ₹674499 lakh accorded. Thereafter, the RCE was revised by the Board of the Petitioner's Corporation as ₹878130 lakh on 9.3.2015.

4. The petitioner has entered into a Power Purchase Agreement for generation and sale of electricity from Units- 1& 2 to the extent of 550 MW with Punjab State Power Corporation Limited (300 MW), Haryana Power Purchase Center (100



MW) and Kerala State Electricity Board (150 MW) vide agreement dated 7.11.2006, 1.12.2006 and 24.4.2014 respectively. The balance capacities from the two units are available for sale to other procurers.

5. The generating station of the petitioner is connected to the Inter-State Transmission line of Powergrid Corporation India Limited (CTU) and DVC has entered into a Connection Agreement on 10.6.2013 with PGCIL. The generating station of the petitioner will be connected to Powergrid at the switchyard of the generating station.

6. The petitioner has entered into a Memorandum of Understanding dated 29.1.2016 with Neyveli Lignite Corporation (NLC), a Government of India undertaking for Joint Venture for the project. The Board of Director of NLC has given in principle approval for the proposed formation of JV for RTPS. As per MoU the project with all assets and facilities is proposed to be transferred from the petitioner to a Joint Venture company to be formed by DVC and NLC upon the petitioner declaring both units under commercial operation, even though the finalization of transportation of coal is still pending.

7. The petitioner, vide affidavit dated 9.2.2016, had sought approval of tariff of the generating station based on anticipated COD of both the units as on 31.3.2016. Subsequently, vide affidavit dated 8.4.2016, the petitioner submitted that COD of Units-1 & 2 of the generating stations has been declared under commercial operation after compliance of all regulatory formalities. Thereafter, vide affidavit dated 9.5.2016, the petitioner filed Interlocutory Application (I.A No. 20/2016) praying for grant of interim tariff of the period 2016-19 in respect of the generating station, pending determination of final tariff. The matter was heard on



20.5.2016 and 6.9.2016 and the Commission vide order dated 30.7.2016 granted interim tariff of the generating station for a period of two year i.e. from 1.4.2016 to 31.3.2018.

8. The petitioner has claimed capital cost as on actual COD and has submitted Auditor's certificate dated 4.7.2016 in support of the actual capital cost claimed. The petitioner has stated that the auditor's certificate includes actual capital expenditure up to 31.3.2016. The petitioner has however submitted that the Annual Accounts for the year 2015-16 is currently being audited by Comptroller & Auditor General (C& AG) of India. The capital cost and annual fixed charges claimed by the petitioner for installed capacity of 1200 MW is as under:-

Capital Cost

(₹ in lakh)

	As on COD 31.3.2016	2016-17	2017-18	2018-19
Opening capital cost	809390.12	779642.69	852532.63	890092.54
Additional Capital Expenditure (A)	-	47936.13	36407.00	-
Un-discharged Liabilities (B)	29747.42	4793.61	3640.70	-
Liabilities discharged during the year (C)	-	29747.42	4793.61	3640.70
Net Additions (D=A-B+C)	(-)29747.42	72889.94	37559.91	3640.70
Closing capital cost	779642.69	852532.63	890092.54	893733.24
Average Capital Cost	794516.41	816087.66	871312.59	891912.89

Annual Fixed Charges

(₹ in lakh)

	2016-17	2017-18	2018-19
Depreciation	61150.26	65288.32	66831.93
Interest on Loan	60790.95	57790.69	51766.36
Return on Equity	48011.53	51260.49	52472.43
Interest on Working Capital	12515.70	12622.39	12630.64
O&M Expenses	19524.00	20760.00	22056.00
Share of Additional O&M due to Mega Insurance, CISF and subsidiary activity expenditure	854.82	967.08	1027.54
Sinking Fund Contribution	4180.03	1086.70	1162.77
Total Annual Fixed Charges	207027.30	209775.67	207947.67



9. In compliance with the directions of the Commission, the petitioner has filed additional information and has served copies on the respondents. The respondent, Kerala State Electricity Board (KSEB) has filed its reply in the matter. The petitioner has submitted that the claim is subject to the decision of the Hon'ble Supreme Court in Civil Appeal No. 4881 of 2010, 4078-79/2013 and other related pending appeals.

Commercial Operation Date (COD)

10. As per Investment approval (IA) dated 11.12.2007, Unit-I was scheduled to be commissioned within 35 months from I.A (11.12.2007) i.e. 14.11.2010 and Unit-II was scheduled to be commissioned within 38 months from date of Investment Approval i.e. 14.2.2011. Units 1 & 2 of the project was declared under commercial operation as on 31.3.2016. Hence there is a delay of 5 years 4 months 17 days (1964 days) for Unit-1 and 5 years 1 month 17 days (1872 days) for Unit-2 of the generating station as summarized under:-

Units	Date of Investment Approval	Schedule COD as per the Investment Approval	Actual COD	Delay (Days)
Unit-I	11.12.2007	14.11.2010	31.3.2016	1964
Unit-II		14.2.2011		1872

Reasons for Time Over-run

11. The petitioner has furnished the major reasons for delay in commissioning of the units of the generating station in its delay analysis report as under:-



- a) Main Plant Package: Delay in execution of Main Plant Package was attributed to delay in arrival of Chinese experts, delay in supply and lifting of boiler drum, supply of defective ring headers, defective foundation base plate for LP turbines, damage of imported insulation material, defective foundation of motor driven boiler feed pump, defective construction of NDCT-I etc;
- b) Coal Handling Plant: Delay in execution of Coal Handling Plant was attributed due to delay in executing the Coal Handling plant by M/s TRF Limited due to handling over of the interface area with M/s RIL (Reliance Infrastructure Limited) and also delay in supply of HT power etc;
- c) Plant Water System: Delay in execution of Plant Water System was attributed due to delay in work of pipeline could not be completed due to non-acquisition of full stretch land, damage due to cyclones, etc;
- d) Delay in railway corridor: Works related to Railway corridor was frequently hampered due to agitation/disturbance by locals;
- e) Change in Land Acquisition Law and Law & Order issues.

(a) Main Plant Package

12. The petitioner has submitted that the delay in the Main plant package of Unit-1 is on account of the following:-

Activities	Start Date	Finish Date	Delay in days as compared to overall delay	Reasons for the delay
Zero Date	11-12-2007			Due to resistance by land owners and locals.
Boiler Erection	30-11-2008	25-03-2009	115	



Activities	Start Date	Finish Date	Delay in days as compared to overall delay	Reasons for the delay
Drum Lifting	30-04-2009	30-01-2010	275	1. Slow progress of erection.
				2. Delay in drum manufacturing by SEC/R Infra (EPC contractor).
				3. Dispatch of drum took time due to logistics problem
Condenser Erection Start	30-06-2009	26-05-2010	330	1. Slow progress of erection work of power house by R-Infra
				2. R-Infra (EPC contractor) unable to procure steel structural material due to non-availability of the same by Jindal steel.
				3. Cumulative effect due to initial delay of project.
Turbine Erection Start	30-06-2009	22-08-2011	783	1. Delay in TG deck casting
				2. Non-availability of Chinese expert for supervision of turbine erection
				3. Slow progress of power house structural material
				4. Delay in supply of power house structural material.
				5. Faulty casting of MDBFP foundation
				6. Supply of undersized foundation bolt of turbine.
				7. Delay by R-infra for supply of equipment.
Boiler Hydro Test	14-01-2010	30-09-2011	624	1. Delay in drum lifting.
				2. Slow progress of erection.
				3. Defective supply of bottom ring header.



Activities	Start Date	Finish Date	Delay in days as compared to overall delay	Reasons for the delay
TG Box up	30-06-2010	10-05-2012	680	No delay
Boiler Light up	14-07-2010	18-10-2012	827	1. Due to poor storage of insulation material by R-infra, material got damaged 2. Arrangement of new insulation material took over a year 3. NDCT Unit 1, demolished due to faulty construction 4. Due to poor payment to staff by R-infra all erection agencies left site 5. Non-availability of structural material at site 6. Slow progress of switchyard
TG Oil Flushing completion	14-08-2010	19-07-2013	1070	1. Delay in previous activities 2. Non-availability of Chinese expert 3. Slow work progress
TG on Barring Gear	15-08-2010	27-09-2013	1139	1. Delay in previous activities 2. Non-availability of Chinese expert 3. Slow work progress
Steam Blowing completion	30-08-2010	30-01-2014	1249	1. Delay in previous activities 2. Delay in supply and application of insulation 3. Non-availability of Chinese expert 4. Delay in CC pump commissioning 5. Delay in DM, raw and clarified water by PWS Vendor
Oil Synchronisation	14-09-2010	31-03-2014	1294	1. Delay in previous activities 2. Delay in boiler



Activities	Start Date	Finish Date	Delay in days as compared to overall delay	Reasons for the delay
				normalization 3. Delay in commissioning of DEH governing system and ETS
Coal Synchronization	30-09-2010	21-08-2014	1421	Coal synchronization could not sustain for more than 7 minutes when was done on 13.7.2014 for the first time. Various incomplete activities were later completed. Finally synchronization was done on 21.8.2014
COD completion of facilities	14-11-2010	31-08-2015	1750	1. After coal synchronization, unit has been made ready for trial run since 25.9.2014.
				2. Due to non-availability of water (Salanchi canal dried up) and coal by DVC not available
				3. DVC & RIL jointly agreed to resume trial run with available water and coal stock which was now supposed to start after completion of NDCT-1 in April 2015.

13. The petitioner has submitted that the delay has mainly affected the schedules of Unit-I and thereby the schedules for Unit-II.

(b) Coal Handling Plant

14. The petitioner has submitted the reasons for the delay in the execution of Coal Handling Plant as under:-



- a) There was delay in executing the Coal Handling plant by M/s TRF Limited due to handling over of the interface area with M/s RIL (Reliance Infrastructure Limited) and also delay in supply of HT power, delay in supply of service water to the CHP vendor;
- b) Delay on account of local disturbance;
- c) Delay in erection by TRF;
- d) Delay by TRF in giving clearance of PR-15 area to RIL for pipe rack footing which delayed the laying of ash slurry pipeline;
- e) Inadequate safety and security measures before CISF posting affected progress of works.

(c) Plant Water System

15. The petitioner has furnished the major reasons for the delay in the execution of Plant Water System as under:-

- a) Work of pipeline could not be completed due to non-acquisition of full stretch land;
- b) Floating caisson of intake well got damaged due to severe cyclones in the month of March-April '12;
- c) Delay due to acquisition of water corridor and afterwards frequent changes in alignment of bridge, during demarcation of land by the Land department of Govt. of West Bengal for physical possession. Further, modification in design and drawings of approach bridge of intake well, the work could not be started by M/s MBL;
- d) Ultimately DM water was produced for first time on 17.7.2013 after gap of 43 months from scheduled COD;
- e) Clarified water produced thereafter on 7.10.2013.



(d) Railway Corridor

16. The petitioner has submitted that the works related to Railway corridor was frequently hampered due to agitation/disturbance by local inhabitants as stated hereunder:-

- a) Out of 396 acres of total land (including 72 acres of railway leased land) which was to be procured, WBIDC had handed over 75.10 acres of land and 104.72 acres of land in Purulia. Acquisition of balance land is under process by Government of West Bengal under the provision of new Land Act, 2013;
- b) No substantial work could be undertaken in the acquired land due to stiff resistance from the local villagers in the area. Work at Durmut and Nutandih Mouza was frequently affected due to law and order problem which had resumed from 21.10.2013 with administrative help;
- c) There was huge earth filling and several numbers of bridges and culverts were to be erected along the corridor. As of now only two bridges are on the verge of completion whereas the work for the bridge over Uthala river could not be started due to non-availability of land from Govt. of West Bengal;

17. The petitioner also submitted the schematic sketch of outside rail corridor work vis-à-vis land under possession along with details of works executed.

(e) Change in Land Acquisition Law and Law & Order issues

18. The petitioner has submitted the details of land acquired and land not available and has stated that the Govt. of India was contemplating to bring in new legislation for Land Acquisition. It has submitted that the Govt. Of India finalised the New Land Act, 2013 which was implemented by Govt. of West Bengal with



effect from 2014. The petitioner has stated that the acquisition and physical possession of land in Ash pond, water corridor and rail cum road corridor badly suffered. In water corridor a stretch of land corridor in Managram -Mouza could not be acquired by the Govt. of West Bengal due to unwillingness and stiff resistance of land owners.

19. Apart from above, the petitioner has submitted that the delay is on account of the following issues pertaining to land acquisition:-

- Official possession of 507.20 acre land for Ash pond and Ash corridor could only be obtained the phases, during the period from 27.8.09 to 23.4.10 in phases;
- Physical possession was delayed due to stiff resistance from villagers' thereby leading to delay in work of Ash pond;
- Land for ash dyke was ultimately made available on 19.6.2012 and land for approach road/ ash corridor was made available on 5.10.2012, i.e. after gap of 4.5 years from date of investment approval;
- The work had started thereafter amidst protests and demands by land losers which continued for some time with administration support;
- Land dispute towards Ash Pond- 1 & 2;
- Shifting of existing temple from Ash Pond-2 bed;

20. Further, the petitioner has submitted that land acquisition issue had become the major impediment in the implementation of infrastructure projects mainly in the Eastern part of India; and maintaining law and order is a tough task as expectations of land losers are very high.



21. In addition to the above, the petitioner has submitted that the following reasons were beyond the control of the petitioner and uncontrollable in nature:-

a) Delay in Plant Boundary wall construction due to resistance by

villagers: The petitioner has submitted that the completion of plant boundary wall was delayed due to presence of a village road in the area and the petitioner had faced stiff resistance from the villagers for diversion of the road. As a result of this, there was lot of law and order issues and after lot of persuasion with the Ministry of Home Affairs, Gol, CISF personnel were deployed on September 2012;

b) Water Pipeline corridor

The petitioner has submitted that water for the project was to be taken from the Panchet reservoir through a 20 MT wide water corridor of length 10.75 km passing through 12 Mouzas. It has also submitted that the activities under the Plant water system package suffered enormous delay due to reasons such as Stiff resistance from locals for carrying out construction activities in the land acquired by the petitioner;

c) Plant Water system

The petitioner has submitted that the contractor M/s MBL vide letter dated 7.3.2013 and 20.4.2013 had intimated that they were undergoing an unprecedented cash crunch due to disproportionate cash inflow/outflow situation and therefore it has become difficult for them to finance the project. The petitioner has further submitted that the contractor requested the petitioner for financial assistance by releasing an amount of ₹800.00 lakh either from the retention money or by any means pursuant to which it



was decided that the execution of transmission line, approach bridge shall be undertaken by the petitioner;

22. The petitioner was directed to submit details of the start date and the end date for time over-run along with reasons/justification for Coal Handling Plant, Plant Water System and Railway corridor. In response, the petitioner vide affidavit dated 1.9.2016 has submitted the following:-

Scheduled Start Date	Actual Start Date	Actual Completion	Delay Period
<u>Coal Handling Plant</u>			
11-7-2008	11-7-2008	1. Coal Feeding to bunkers of Unit#1 commenced in March 2014 2. Coal Feeding to bunkers of Unit#2 commenced in Dec 2015 3. Certain works not directly affecting operation of the unit are yet to be completed.	Unit-I : 39 months, Scheduled Completion: 11-10-2010, Unit-II: 59 months, Scheduled Completion: 11-1-2011
<u>Plant Water System</u>			
11-7-2008	11-7-2008	1. Intermittent contingent arrangement by Salanchi. Check dam made to commission Water system (PT+DM) in Oct'13 due to delay in commissioning of Raw water pipeline. 2. On completion of raw water pipeline in Dec 2015, system is totally commissioned and two units are ready for COD. 3. Some work still left which does not affect the system.	Delay: 67 months (Sch completion: 11.5.2010)- DM & PT system was made ready prior to completion of raw water pipeline which as delayed due to land acquisition problem.
<u>Railway Corridor</u>			



Scheduled Start Date	Actual Start Date	Actual Completion	Delay Period
30-6-2010	30-6-2010	Work at railway corridor is going on available land. As of now, about 43% work completed. However, 21.752 acres land (out of 324 acres) is yet to be acquired through direct purchase from land owners which is in process. Work was intermittently obstructed due to law and order issue and delay in getting land from West Bengal Government. Based on present pace of work and subject to timely acquisition of balance land, single line connectivity without OHE is expected to be completed by June 2017 and in totality by December 2017.	As per present assessment delay period will be 60 months subject to availability of balance land.

23. The petitioner was also directed to submit necessary justification for the delay in Plant Boundary Wall construction, Change in Land Acquisition Law and order issues. In response, the petitioner, vide affidavit dated 1.9.2016, has submitted the following:-

- **Delay in Plant Boundary Wall Construction** - There has been continuous resistance by local villagers in the construction of boundary wall. Further, the main plant area had been isolated by partial boundary wall and chain link fence for security reason;
- **Change in Land Acquisition law**-Land Acquisition proposals was prepared and submitted by the petitioner to the Land Acquisition Department, Govt. of West Bengal immediately after identification of the land required for the project. But the acquisition got delayed due to delay in



processing and approval of the same by competent authority. Due to changes in land acquisition law which has been implemented in the State of West Bengal with effect from 1.1.2014, the entire pending land acquisition proposals were re-examined and processed accordingly. Accordingly, the delay for Main plant Package was from 7.2.2008 to 27.2.2009, Water corridor from 19.11.2010 to 28.8.2015 and Rail corridor from 17.11.2011 to 1.6.2016, with possession of land still pending;

- **Land & Law Order**-Land and law and order issues had affected the completion of the project greatly. Referring to certain newspaper clippings related to these issues, the petitioner has reiterated that disputes and stoppage of work due to stiff resistance from workers continued throughout the construction activities thereby leading to delay in completion of the projects;

Submissions of the Respondent, KSEB

24. The respondent, KSEB vide affidavit dated 20.5.2016, has submitted that the various reasons cited by the petitioner for delay in completion of the project which includes the completion of cross country water pipelines and railway lines due to land acquisition issues and stiff local resistance are entirely attributable to the petitioner. KSEB has further submitted that the delay indicates that the petitioner has not taken adequate project monitoring measures and management techniques to tackle the issues in order to achieve COD. KSEB has also submitted that items additionally included in the RCE such as procurement and installation of skid mounted pumps etc. which resulted in delay in completion of Plant Water System should be disallowed. The respondent has submitted that on verification of capital cost for the project furnished by petitioner in Form-5B, a



major increase is noticed due to increase in IDC. The respondent has further submitted that the delay in execution of the project has resulted in considerable increase in IDC. It has further submitted that as per Regulation 12(1) of the 2014 Tariff Regulations, the delay due to land acquisition issues and delay on account of slow progress of works on part of contractors are controllable factors and are attributable to the petitioner. Accordingly, the respondent has submitted that the delay has been caused due to reasons attributable to the petitioner and hence the increase in cost due to increase in IDC should be disallowed.

Analysis and Decision

25. We have examined the matter. The petitioner was directed to submit the PERT/Bar Chart indicating the critical activities/milestones which were affected due to each period of delay along with the reasons for delay. The petitioner was also directed to submit the parallel activities which were simultaneously affected due to various reasons. In response, the petitioner vide affidavit dated 7.4.2016 has furnished the delay analysis report along with the L1 schedule. Accordingly, the delay in respect of both units (Package wise) is examined as discussed in subsequent paragraph.

26. The Hon'ble Appellate Tribunal for Electricity, vide Judgment dated 27.4.2011, in Appeal No.72/2010 (MSPGCL vs MERC and ors) has laid down the principle to be followed for determination of the liability for time over-run as under:-

“7.4. The delay in execution of a generating project could occur due to following reasons:

i. Due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing



contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc.

ii Due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.

iii. Situation not covered by (i) & (ii) above.

In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/supplied of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices.

7.5 in our opinion, the above principle will be in consonance with the provisions of Section 61(d) of the Act, safeguarding the consumers ' interest and at the same time, ensuring recovery of cost of electricity in a reasonable manner."

Main Plant Package

27. The petitioner has submitted the detailed delay schedule of Main Plant Package only in respect of Unit-I. In the absence of the same for Unit-II, we have considered the delay schedule of Unit-I for computation of time over-run for both the units as discussed in subsequent paragraphs.



28. Delay in Boiler Erection start: The petitioner had submitted that there was a delay of 470 days from the zero date i.e. (11.12.2007 to 25.3.2009) in the Boiler erection activities due to resistance by land losers and locals. The petitioner has furnished copies of letters dated 25.3.2008, 12.3.2008, 26.2.2008 written by EPC-contractor (RIL) to the petitioner indicating the stoppage of works due to resistance by land losers and locals. It is noticed from these letters that, the sub-contractor of RIL, i.e. M/s UPL had stopped work after a group of four land losers caused agitations at the site. Also from various other letters dated 30.12.2007, 26.9.2008 written by RIL to the petitioner, it is observed that hindrances were caused by the local villagers resulting in the delay in execution of works. However, it is not evident as to what efforts were put on the part of the petitioner to mitigate these hindrances. In the absence of relevant documents and justification we are of the view that the delay of 470 days during this period is attributable to the petitioner and therefore the entire cost for time overrun for this period is required to be borne by the petitioner.

29. Delay in Boiler Hydro test: The petitioner had submitted that the delay of 624 days in boiler hydro test is due to delay on part of EPC contractor to provide motor operated valve at economizer inlet and defective supply of bottom ring headers. It is observed from the letter dated 10.1.2012 of the EPC contractor, that the EPC contractor had expressed its inability to meet the targets due to inefficiency of vendors. It has also mentioned that there had been delay in activities due to defective bottom ring header. In our view, there has been slackness on the part of the petitioner in the coordination with the contractor for execution of these works. Hence, the delay on account of inability of the contractors to meet target is attributable to the petitioner. Accordingly, we are not



inclined to condone the delay of 320 days (i.e. period from boiler drum lift to boiler hydro test). Hence, the delay is attributable to the petitioner and therefore the entire cost for time overrun for this period is required to be borne by the petitioner. The LD amount, if any received shall however be retained by the Generating company.

30. Delay in Boiler Light Up- The petitioner has submitted that unavailability of sufficient manpower of the sub-contractors had also caused further delay in the completion of the said works. It has also stated that the issue relating to Natural Draft Cooling Tower (NDCT), has affected the schedules for Unit- II directly, since without NDCT, Unit-I and Unit-II could not be synchronized. The petitioner has further stated that though NDCT was made ready during April, 2015, in all respects and the contractor was asked to carry out activities as per agreed schedules, the contractor had failed to do the said work. The petitioner has also submitted that delay in completion of the works was also on account of poor storage of insulation materials. The petitioner has submitted the Minutes of Meeting (MoM) with CEA dated 12.9.2013 wherein discussions were made about the completion schedules of insulation material and the issue of storing of the materials. It is also noticed that the petitioner had intimated that the 'Construction Stores' have not been made ready by the EPC contractor even at the fag end of the project and therefore materials are being kept in the DVC Building.

31. By letter dated 12.10.2012 addressed by the petitioner to the EPC contractor, it has been stated that due to technical defects, construction work of NDCT-1 had gone into a critical path and as a temporary measure, Unit-I was



required to be commissioned with inter-connection of Unit-II NDCT, but the progress work of NDCT-2 as well as interconnection was slow. Also in the MoM dated 12.9.2013 with the CEA, issues on quality of concrete used for NDCT has been discussed. It is noticed from the above that there has not been proper coordination between the petitioner and the EPC / Sub contractor which has resulted in slackness in the execution of the project. The petitioner cannot escape its responsibility on this count and hence the delay is attributable to it. Accordingly, we are not inclined to condone the delay of 384 days (i.e. period from boiler hydro test to boiler light up) and the entire cost for time overrun for this period is required to be borne by the petitioner.

32. Delay in Turbine works- The petitioner has submitted that the delay in turbine works i.e. delay in erection of condenser was due to slow work progress by the EPC contractor, unavailability of steel structural material. It has further submitted that the delay in Turbine erection was due to improper TG top deck casting, delay in supply of modified designed LP base Plate to suit TG deck, due to unavailability of Chinese expert for supervision of turbine erection, faulty casting of boiler feed pump (MDBFP), supply of undersized foundation bolts and less effort on part of the EPC contractor to supply critical material.

33. The issues regarding non availability of Chinese expert and time overrun in the execution of the project was examined in Petition No. 77/GT/2013 tariff of Udupi Power Corporation Limited (UPCL) by order dated 12.11.2015 had condoned the delay of 3 months considering the difficulties faced by the UPCL. The relevant portion of the order is extracted as under:



“34. We have examined the submission of the petitioner that the absence of sufficient number of experts from OEM, who are Chinese nationals, during the peak project construction activities has had a direct impact on the progress of the project (as the erection and commissioning of BTG was supplied by SEPCO) leading to the delay in the completion of the project. Similar issue was raised by Udupi Power Corporation Ltd (UPCL) in the tariff Petition No.160/GT/2012 filed before the Commission and the Commission after examining the relevant Circular/Memo of the GOI relating to the change in Visa Policy, had condoned the delay of 6 months by order dated 20.2.2014 and had accordingly granted relief to the petitioner.

On Appeal, the Tribunal by judgment dated 15.5.2015 modified the said order and had allowed condonation of delay of only three months, on the ground that the requisite personnel was made available to the UPCL project by February, 2010. The relevant portion of the order is extracted as under:

“76..... Further, employment visa was to be granted to skilled or qualified professionals such as technical experts/technicians and not for routine, ordinary or secretarial/clerical jobs. The Ministry of Home Affairs also gave timeline for clearance by Intelligence Bureau within 15 days and Ministry of Labour within 45 days. All other directions were general directions. Ministry of Labour & Employment guidelines for granting employment visa stipulate granting of visa to the extent of 1% of total persons on the project or maximum 40 persons for each power project. Udupi Power has stated that in November, 2009, only 4 experts were issued visas and gradually number was increased to 12 in December 2009, 30 in January, 2009 and 45 in February 2010 and required number of 65 experts were present during May, 2010 to recommence the work. We, therefore, feel that delay of 3 months due to difficulties in the months from November, 2009 to January, 2010 only be allowed as by February 2010, 45 persons, which is as per the guidelines of the Ministry of Labour were available at the project.”

35. As stated in the table under para31 above, against the original scheduled deployment of manpower, the petitioner had negotiated with the EPC contractor for reduction in the foreign nationals proposed to be deployed and accordingly the minimum manpower required to be deployed had been worked out. However, pursuant to the change in the Visa Policy, the actual deployment of manpower was far less than the original /revised manpower scheduled to be deployed in the Project. We are however not convinced with the submissions of the petitioner that the delay is on account of the reduction in the actual deployment of manpower due to change in Visa Policy. In our view, the finding of the Tribunal in the case of UPCL on this issue is relevant to the present case. As in the case of UPCL, the main plant supplier in the project of the petitioner is a Chinese EPC contractor. As regards the deployment of man power in terms of the guidelines of the Ministry of Labor, it is noticed that as against the original manpower requirement of 65 nos. in 2009, the manpower had



gradually increased to 45 nos. in February, 2010 in the case of UPCL. In the present case, the actual manpower deployment had increased from 14 nos. in 2009 to 61 nos. in 2010. Thus, the required number of experts was available to the petitioner during 2010 in terms of the guidelines of the GOI. Moreover, the petitioner/ EPC contractor had the option of availing the services of skilled manpower available in India due to the reduction in the manpower in order to complete the said work, as the fact that the restrictions in the number of Chinese Experts as per the new Visa Policy was known to the petitioner even before the start of the project work in February, 2010.

Under these circumstances, due to Govt. of India Visa Policy changes, the petitioner ought to have taken pre-emptive measures in consultation with the EPC contractor to source the remaining skilled experts from India in order to minimize the effect on the scheduled project completion period. In the above background, we do not find it justifiable to allow the total period of delay of 10 months for Unit-I, 11 months for Unit-II and 13 months for Unit-III, due to Chinese Visa Policy. However, considering the fact that the Change in Visa Policy had caused some initial hiccups in the reorganization/re-mobilization/rescheduling of man power resources after acquiring the land for the project in February, 2010, the total delay of 3 months only is condoned and allowed considering the difficulties faced by the petitioner for the period from 11.2.2010 to 10.5.2010, as against the claim of petitioner for 10 months in Unit-I, 11 months in Unit-II and 13 months in case of Unit-III. In our view, the delay for the said period of three months for the reasons stated is not attributable to the petitioner and is beyond the control of the petitioner. Accordingly, in terms of the principles laid down by the Tribunal in the judgment dated 27.4.2011 [(situation (ii))], the total delay of 3 months is condoned and the generating company is given the benefit of the additional cost incurred due to time overrun. However, the LD recovered from the contractor and the insurance proceeds, if any, would be considered for reduction of capital cost.

34. It is noticed that in the present case, there has been delay due to non-availability of Chinese experts during the period from 12.5.2012 (indicated in letter dated 30.6.2012) to 18.2.2014 (in letter dated 18.2.2014). It is however noticed that the petitioner has not furnished any details as regards the number of Chinese experts required for the Turbine works and the issues faced. In the absence of any details, we are not inclined to condone the entire period of delay. However, in line with the decision in Commission's order dated 12.11.2015 in Petition No. 77/GT/2013, we are of the considered view that the Change in Visa



Policy had caused some initial hiccups in the reorganization/re-mobilization/rescheduling of man power resources. In this background we are inclined to condone the delay of 3 months i.e. from 12.5.2012 to 10.8.2012. We direct accordingly.

Coal Synchronization and Coal Handling Package

35. The petitioner has submitted that the delay in coal handling package has resulted in the delay in coal synchronization. The reasons submitted by the petitioner for delay in coal synchronization are that the coal synchronization did not sustain for more than 7 minutes when it was done for the first time. Further the non-completion of works like Turbine driven boiler feed pump commissioning; ash handling and fire fighting system also resulted in delay of the works. In the delay analysis report, the petitioner has submitted that the delay in completion of coal handling package was due to the delay in execution of works on part of the contractor for reasons like delay due to local disturbances and inadequate safety and security measures of CISF etc.

36. From the various correspondences submitted by the petitioner dated 3.3.2015 it is observed that the delay in fire fighting system is due to the slow work progress of the contractor. In letter dated 18.7.2014 it has been indicated that second line of conveyor belt was yet to be made ready though trial run activities had already started. By letters dated 14.2.2012, 17.5.2012, 13.2.2013, 14.3.2013 and 3.4.2013, the petitioner has informed the contractor that there has been slow progress of work and the same needs to be expedited. Also by letter dated 8.3.2013, the petitioner has inform that the slow progress of work has resulted in stoppage of activities like erection of conveying system equipment



and stacker reclaimer. By letter dated 20.12.2011, the petitioner has indicated the delays due to security issues. Considering the submission of the petitioner and the documents of record, we are of the considered view that delay in the works is mainly attributable due to slow work progress on the part of the contractor. The petitioner has also not furnished any bifurcation as regards the delay caused on account of controllable and uncontrollable factors for Coal handling Plant. In our considered view, there has been slackness on the part of the petitioner in coordination with the contractor for execution of the works. Accordingly, we are not inclined to condone the delay of 703 days (includes processes like steam blowing, oil and coal synchronization, and coal handling plant). However, if the LD has been recovered by the petitioner the same shall be retained by the petitioner.

Plant Water System

37. In the delay analysis report submitted by the petitioner, it is noticed that during the period from March to April 2012, there was severe damage due to cyclones. Further there was delay in acquisition of water corridor resulting in modification in design and drawings of the approach bridge. It is noticed that the work was delayed due to fund crunch. It is observed that the DM plant was commissioned on 17.7.2013 and Clarified water was produced in 7.10.2013. Due to unavailability of raw water pipeline intermittent contingent arrangement was done from Salanchi. On completion of raw water pipeline in December 2015, the system was totally commissioned and two units were ready for COD. It is also observed from the letter dated 26.3.2015, the contractor has intimated to the petitioner that the ongoing works of water corridor and 33 kVA switchyard area



was hindered due to agitation of local people. Also in letter dated 31.12.2014, the petitioner had informed to the contractor of a meeting held in the SDO office regards agitation of local people and nobody from the contractor side had attended the meeting. By letter dated 22.11.2014, the petitioner had informed to M/s MBL Ltd that for immediate completion of intake water pipeline, there is material unavailability in site and the same be addressed with immediate effect. It is evident from the above that the delay in works due to non-availability of raw water pipeline and agitation of local people which is uncontrollable. However, delay due to contractor cannot be considered as uncontrollable in nature. Further, the period of delay due to contractor and due to delay in works due to non-availability of raw water pipeline and agitation of local people is not clear.. Accordingly, we condone the delay of 133 days (from 1.4.2015 to 12.08.2015 i.e. 50% of delay in plant water system), and remaining delay of 134 days (13.08.2015 to 24.12.2015) is disallowed with respect to plant water system.

38. The petitioner has not furnished any detailed justification for delay during the period from 31.8.2015 to 31.3.2016, i.e. 213 days in the amended petition filed by the petitioner. In response to the direction of the Commission, the petitioner has submitted the reasons for the delay during the period from December 2015 to March 2016 as under:

- Due to constraints in road transportation of coal through the narrow road passing through the villages;
- After obtaining last stretch of land for water corridor (5.055 acres) in October 2015 and completion of pipe laying and installation of associated electrical equipment, raw water pipeline was charged on 24.12.2015 through commissioning of Skid mounted pumps (3 nos.) at Panchet



Reservoir. Due to vibration problem during stabilization of skid pump stock considerable time;

- Light up of Unit#2 was on 04.01.2016 and synchronization on 09.01.2016 followed by full load operation on 18.01.2016. Trial run completed on 14.02.2016 with 72 hours full load operation from 08.02.16 to 11.02.2016;
- Shutdown and rectification works was required due to problems associated with Coal Handling system;
- Balance Electrical and C&I works of Unit#1 had to be completed after availability of the unit. On successful completion of auto loops demonstration, the light up and synchronization of Unit#1 was done;
- 72 hours full load operation of Unit#1 was carried out during the period 23.03.16 to 26.03.16 and COD was declared on 31.03.2016.

39. Accordingly, on prudence check, and in terms of the principles laid down by the Tribunal in the judgment dated 27.4.2011 [(situation (ii))], the total delay of 827 days is condoned for Unit-I and Unit-II and the generating company is given the benefit of the additional cost incurred due to time overrun. However, the LD recovered from the contractor and the insurance proceeds, if any, would be considered for reduction of capital cost.

40. To summarize, the time overrun of 223 days, which comprises 90 days due to unavailability of Chinese experts and 133 days due to unavailability of water in the Salanchi water canals on account agitation of local people, has been condoned in respect of stage I and II. The remaining period of delay on account of other reasons furnished by the petitioner is not found to be beyond the control of the petitioner and hence not allowed.



41. Based on the above discussions, the time overrun allowed, against the actual time overrun of 1964 and 1872 days for Unit-I and Unit-II respectively, the schedule COD (reset) (SCOD) for the purpose of computation of IDC is summarized as under:

	SCOD as per LOA	Time over run allowed (in days)	Revised SCOD	Actual COD	Time Over run disallowed (in days)
Unit-I	14-11-2010	223	25.6.2011	31.3.2016	1741
Unit-II	14-02-2011	223	25.9.2011		1649

Capital Cost

42. Regulation 9(2) of the 2014 Tariff Regulations provides as under:

“(2) Capital cost for a project shall include:

(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) capitalized Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations; (f) expenditure on account of additional capitalization and de-capitalization determined in accordance with Regulation 14 of these regulations;

(g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”



43. The actual capital cost claimed by the petitioner vide affidavit dated 29.6.2016 on cash basis, as on 31.3.2016 and duly certified by statutory auditor is ₹809390.12 lakh. This includes IDC of ₹287058.37 lakh and FC (Financing Charges) of ₹4553.00 lakh.

Infirm Power

44. The petitioner, vide affidavit dated 1.9.2016, has submitted that the revenue from sale of infirm power is ₹794.23 lakh in 2014-15 and ₹6051.00 lakh in 2015-16. The petitioner has also submitted that the revenue earned from sale of infirm power has duly been adjusted in the capital cost. We have considered the amount of infirm power injected in the grid and found in order. Therefore the revenue from sale of infirm power ₹794.23 lakh in 2014-15 and ₹6051.00 lakh in 2015-16 has been considered in the capital cost for the purpose of tariff. .

Interest during Construction and Financing Cost

45. The petitioner has availed project loans from PFC, WBIDFC and ECB Borrowings. Apart from this, it is noticed in Form – 7, that two bonds and a bridge loan has also been availed as per Form-7 as on the COD 31.3.2016. The petitioner was directed; vide ROP of the hearing dated 20.5.2016, to submit the details of IDC up to scheduled COD (SCOD) and from SCOD to COD on cash basis. The petitioner was also directed to submit the loan wise IDC computation specifying the interest rate considered for that quarter as per Form-14 of the 2014 Tariff Regulations along with quarter wise equity phasing for the project. In response, the petitioner vide affidavit dated 6.9.2016 has submitted the IDC computation specifying the applicable interest rates. As regards equity phasing



for the project, the petitioner has not furnished the details, including the details of breakup of IDC up to SCOD and from SCOD to COD.

46. The petitioner has submitted that the initial estimate of IDC was ₹62949.00 lakh as on COD. However, in the RCE dated 9.3.2015, IDC has been revised to ₹258200.00 lakh as on COD on account of time over run. The petitioner has submitted that the actual IDC and Financing charges claimed as on COD of Unit-II is ₹287058.37 lakh and that of Unit-I is ₹4553.00 lakh which works out to a total of ₹291611.37 lakh. It is observed that the petitioner has not furnished the basis of apportionment of IDC to each unit. The capital cost of the project is linked with installed capacity of the generating. We have considered the installed capacity of each unit for the purpose of apportionment of IDC. Accordingly, IDC allowed as on COD is as shown below:

	Rs in lakh
IDC Claimed	287058.37
IDC Allowed	44730.84

47. The IDC allowed as above is subject to truing up. The petitioner is directed to submit the draw down schedule of IDC as per Form-14 of the tariff format, along with actual cash expenditure, i.e. Form-14A. The petitioner was directed to submit the amount of Liquidated Damages claimed for the period of time over-run and in response the petitioner has submitted that no LD has yet been recovered from the EPC and Non-EPC contractors. The petitioner has further submitted that LD to be claimed if any, for the period of time over-run is yet to be determined. As per the submission, the petitioner is directed to finalize the LD amount with the contractor to cover the entire damages and submit the details at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations. As the petitioner



has not furnished any details for break-up of taxes, duties and FERV etc. We direct the petitioner to submit the same at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations.

Incidental Expenditure During Construction (IEDC)

48. As regards to IEDC, the petitioner has submitted that the initial estimate was ₹15899.00 lakh as on COD towards overhead expenses during construction period. However, the petitioner has submitted that in RCE dated 9.3.2015, the cost has been revised to ₹16676.00 lakh as on COD. The petitioner has submitted that the actual cost claimed under Overheads is ₹33361.00 lakh as on COD.

49. The petitioner was directed, vide ROP of the hearing dated 20.5.2016, to submit the details of IDC and IEDC up to scheduled COD (SCOD) and from SCOD to COD on cash basis. The petitioner was also directed to submit the loan wise IDC computation specifying the interest rate considered for that quarter as per Form-14 of the 2014 Tariff Regulations. The petitioner was further directed to submit the quarter wise equity phasing for the project. In response, the petitioner vide affidavit dated 6.9.2016 has submitted the IDC computation specifying the applicable interest rates. As regards equity phasing for the project, the petitioner has not furnished the details, including the details of breakup of IDC up to SCOD and from SCOD to COD. As regards IEDC, the petitioner has submitted that the amount of IEDC is covered under establishment and overheads of the approved cost estimate and as such no separate head of IEDC is maintained by the petitioner.



50. The petitioner has not furnished any details for break-up of taxes, duties and FERV etc. We direct the petitioner to submit the same at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations.

51. As stated, a total delay of 223 days has been condoned for Unit-1 and Unit-2 and the balance period of delay has been disallowed. Accordingly, IDC/IEDC has been computed as under:

	(₹ in lakh)	
	Unit-I	Unit-II
Capacity of Units (in MW)	600	600
IDC Claimed (₹ in lakh)	287058.37	
IEDC (to the extent establishment charges) Claimed as on COD (₹ in lakh)	33356.00	
Total IDC and IEDC (A) Claimed (₹ in lakh)	320414.37	
Date of investment Approval (C)	11-12-07	
SCOD (D)	14-11-10	14-02-11
Delay Condoned	223.00	
SCOD (Reset)	25-06-11	25-09-11
Actual COD (E)	31-03-16	
Allowed in Capital Cost		
IDC Allowed	44730.84	
IEDC Allowed	14709.41	
Financing Charges(FC) Allowed	4553.00	
IDC/IEDC/FC allowed	63993.25	

52. The IDC/ IEDC allowed as above, are however subject to the finalization of FERV, Financing Charges, Liquidated damages by the petitioner which will be reviewed at the time of true up. The petitioner is directed to submit the detail of liquidated damages, break up of financing charges (along with supporting documents) which will be reviewed at the time of true up.

Cost Over-run

53. The petitioner has submitted that the original cost as per Investment Approval of the project is ₹412157.00 lakh and the same has been revised to



₹550700.00 lakh. The petitioner has also submitted that the RCE dated 29.3.2011 was revised from ₹674499 lakh to ₹878130.00 lakh as on 9.3.2015.

54. The respondent, KSEB has submitted that the petitioner has not furnished the original scope of work in the petition and that the items such as Skid mounted pumps etc. have been additionally included in the RCE which were not within the original scope of work of the project.

55. The petitioner was directed vide ROP of the hearing dated 25.2.2016 to submit the following additional information:-

“a. Copy of the Investment Approval (original and revised) with schedule of commissioning, break-up of project cost and reason of increase in hard cost in the revised approval compared to the original approval along with the variation in scope of work, if any;

b. Actual cost incurred in different packages till date compared to the awarded cost;

c. Relevant Forms i.e. Form - 5Ei (in case of cost overrun), Form -5Eii (in case of time overrun), Form -13D (IEDC up to scheduled COD and upto actual/ anticipated COD), Form-13E (Expenditure under different packages upto scheduled COD and up to actual/anticipated COD);”

56. In response, the petitioner vide affidavit dated 7.4.2016 has submitted the additional information. The petitioner was further directed vide letter dated 23.8.2016 to submit the detailed breakup of the original Investment Approval dated 30.4.2007 and 9.3.2015; and the reasons for the difference of ₹465930.00 lakh towards the total project cost along with documentary evidence. In response, the petitioner vide affidavit dated 6.9.2016 has submitted the details as regards the difference in the Original Estimates and RCE as under:



(₹ in lakh)

Sr. No.		As per Original Estimates as on 30.4.2007	As per Revised Estimates vide Sanctioned Order 403 Dt. 9.3.2015	Actual Cost Claimed as on COD
1	Cost of Land & Site Development			
1.1	Land	4000.00	12931.00	13585.00
1.2	Rehabilitation & Resettlement (R&R)		2500.00	-
1.3	Preliminary Investigation & Site Development	200.00	2527.00	1577.00
	Development of ITI		330.00	313.00
	Social Obligation Programme		1585.00	1295.00
	Green Belt		1200.00	422.00
	Reviewing Engineering Consultancy on M/s CEA vide MOU dated 12.01.09		141.00	89.00
	Total Land & Site Development	4200.00	21214.00	17281.00
2	Plant & Equipment (Main Plant Package)- EPC	233913.00	372501.00	367417.00
2.3	Water System		19600.00	17165.00
2.3.1	External water supply system (Accumulated Water Draining Scheme at Balarampur Site: Supplementary Works, Additional 2 Km 1400 NB M S Pipe erection, Transportation of DM Water from MTPS & Erection etc)		2246.00	-
2.3.8	Coal Handling Plant (System)		41385.00	39964.00
	Total Plant & Equipment excluding taxes & Duties	233913.00	435732.00	424546.00
2.6	Taxes & Duties	9357.00	30824.00	28365.00
	Total Plant & Equipment including Taxes and Duties	243270.00	466556.00	452911.00
3	Initial Spares -Balance Initial Spares incl. taxes & duties (Other than already included under respective package)		3477.00	-
	Total Initial Spares		3477.00	



Sr. No.		As per Original Estimates as on 30.4.2007	As per Revised Estimates vide Sanctioned Order 403 Dt. 9.3.2015	Actual Cost Claimed as on COD
				-
4	Civil Works			
4.13	Township & Colony		37200.00	10321.75
4.14	Temporary construction & enabling works (Shifting / Modification of 132/220/400 kV Transmission Lines to Facilitate Rail Infrastructure requirement of RTPS)		1500.00	490.00
4.15	Road & Drainage (Approach Road from SH-37 to Plant)		11795.00	1792.00
4.16	Railway Infrastructure by RITES		52105.00	-
	Total Civil works	63200.00	102600.00	12603.75
5	Construction & Pre-Commissioning Expenses			
5.1	Erection Testing and commissioning	22639.00		
5.3	Operator's Training		100.00	20.00
5.6	Start-up fuel		8200.00	756.00
5.7	Office Furniture		407.00	346.00
5.8	Computerization & Networking		700.00	500.00
	Total Construction & Pre-Commissioning Expenses	22639.00	9407.00	1622.00
6	Overheads			
	Statutory fees, Regulatory charges etc		100.00	-
6.1	Establishment		14000.00	33356.00
6.4	Contingency		1000.00	-
	Cost toward R&D, statutory fees, Regulatory charges and legal expenses.		1526.00	-
	RTPS Dispensary / Hospital		50.00	5.00
	Total Overheads	15899.00	16676.00	33361.00
7	Total Capital cost excluding IDC & FC	349208.00	619930.00	517778.75
8	IDC, FC, FERV & Hedging			



Sr. No.		As per Original Estimates as on 30.4.2007	As per Revised Estimates vide Sanctioned Order 403 Dt. 9.3.2015	Actual Cost Claimed as on COD
	Cost			
8.1	Interest During Construction (IDC)	62949.00	258200.00	287058.37
8.2	Financing Charges			4553.00
	Total of IDC, FC,FERV & Hedging Cost	62949.00	258200.00	291611.37
	Working Capital Margin Money (Approx)			
9	Capital cost including IDC, FC, FERV & Hedging Cost	412157.00	878130.00	809390.12

57. The reasons for Cost over-run as submitted by the petitioner are as under:

57.1 **Cost overrun due to Land cost:** The initial estimate was ₹4000.00 lakh which was revised to ₹12931.00 lakh. There is difference of ₹8931.00 lakh since the initial estimate was prepared based on DPR and was further revised based on the actual expenditure incurred against acquisition of land as per the Compensation amount (based on prevailing market rate) decided by State Govt. of West Bengal under the Land Acquisition Act including cost of mutation of the land. It is observed that the petitioner has claimed ₹13585.00 lakh as the actual cost of land as on COD. The petitioner has however not submitted any justification for the increase of ₹654.00 (13585-12931) lakh in the cost of land as on COD. Hence, increase of ₹654.00 lakh towards the cost of land has been disallowed.



- 57.2 **Cost over run due to R&R:** The initial estimate was “nil” and the same was later projected as ₹2500.00 lakh. Since this requirement was incorporated later, a provision was kept for implementation of R&R scheme as per R&R policy of Govt. of West Bengal which is yet to be published. The petitioner has however not claimed any capital expenditure as on actual COD towards R&R.
- 57.3 **Preliminary Investigation-** The initial estimate was ₹200.00 lakh which was revised to ₹2527 lakh. Thus, there is difference of ₹2327.00 lakh, since lot of investigations at Preliminary level was carried out under this head which was not envisaged earlier. The petitioner has claimed additional capital expenditure of ₹1577.00 lakh for Preliminary investigation as on actual COD. Considering the fact that the expenditure claimed is within the approved RCE, the amount is allowed.
- 57.4 **Development of ITI-**The initial estimate was “nil” and the same was projected as ₹330.00 lakh. Since the petitioner had to take up development of ITI against each of the new projects as per direction of MoP, Gol an expenditure of ₹313.00 lakh as on actual COD has been claimed under this head. Considering the fact that the expenditure claimed is within the approved RCE, the same is allowed.
- 57.5 **Social Obligation Programme-** The initial estimate was “nil” and the same is projected as ₹1585 lakh. Since the project is located in one of the backward districts of the State of West Bengal, provision was made in the RCE to carry out a lot of work under Social Integration Programme. Since this head was not considered in the original project



cost this is additional cost. It is observed that the actual cost as on COD claimed by the petitioner is ₹1295.00 lakh, and the same is within the RCE approved cost of the project. Hence the said amount is allowed.

57.6 **Green Belt-** The initial estimate was “nil” which was later projected as ₹1200.00 lakh. Since this provision has been included in the RCE in compliance with statutory environmental norms as per MoEF, GoI Environment & Forests notification, the actual cost of ₹422.00 lakh as on COD, which is within the RCE approved cost for the works is allowed.

57.7 **Plant & Equipment Package-**The initial estimate was ₹233913.00 lakh which was later revised to ₹435732.00 lakh. Thus, there is difference of ₹201819.00 lakh considering the fact that major packages were awarded on EPC basis as a result of International Competitive Bidding (ICB). The work towards Main Plant Package was awarded to M/s R- Infra at a cost of ₹372501.00 lakh, Water package to M/s MBL at a cost of ₹19600.00 lakh, ₹2246.00 lakh for external water supply system (Accumulated Water Draining Scheme at Balarampur Site which includes supplementary works, additional 2 km 1400 NB MS Pipe erection, transportation of DM Water from MTPS & erection etc.)and work towards coal handling plant to M/s TRF at a cost of ₹41385.00 lakh. Accordingly, the initial approved cost was revised based on the awarded value. The water package cost has increased beyond the contract value as some additional works had to be carried out for in-built project requirement to achieve project milestones and also for increase in route length of water corridor as per availability of land. It is observed that the total actual cost



as on COD claimed by the petitioner is ₹424546.00 lakh, i.e. ₹367417.00 lakh, ₹17165.00 lakh and ₹39964.00 lakh for Main plant package, water system and coal handling plant respectively as on COD and the same is within the RCE approved cost for the works under this head. Hence the said amounts are allowed.

57.8 Taxes and Duties- The initial estimate was ₹9357.00 lakh for freight and insurance which was revised to ₹30824.00 lakh under the head Taxes and Duties. There is difference of ₹21467.00 lakh since a provision was made in the Revised cost considering the variation of taxes and duties, exchange rate and price variation as per provision of respective contracts. It is observed that the actual cost as on COD claimed by the petitioner is ₹28365.00 lakh, and the same is within the RCE approved cost for the works. Hence the said amount is allowed.

57.9 Initial Spares- The petitioner had not claimed any initial spares as on COD in the original estimate. The petitioner has included initial spares of ₹3477.00 lakh in the RCE and has submitted that these are balance initial spares which are included in accordance with the provisions of the 2014 Tariff Regulations. Since the petitioner has not submitted any break-up of initial spares as on COD the claim is not allowed.

57.10 Civil Works- The petitioner had considered the initial estimate of ₹63200.00 lakh towards Civil works which includes an amount of ₹33200.00 lakh for Civil works and ₹30000.00 lakh towards non-EPC



cost. The breakup of civil works in the RCE along with justification as submitted by the petitioner is as under:

- (1) **Township and Colony-** The petitioner in the RCE has claimed an amount of ₹37200.00 lakh under this head and has submitted that this provision is made for Construction of township along with boundary wall, approach road, periphery road etc. on colony land after assessment of cost. It is observed that the actual cost as on COD claimed by the petitioner is ₹10322.00 lakh and the same is within the approved RCE cost. Hence the said amount ₹10322.00 lakh is allowed.
- (2) **Temporary construction & enabling works-** The petitioner in the RCE cost has claimed an amount ₹1500.00 lakh for works which has become necessary for shifting/modification of HT lines of WBSETCL to facilitate Railway infrastructure. It is observed that the actual cost as on COD claimed by the petitioner is ₹490.00 lakh which is within the RCE approved cost, hence the amount ₹490.00 lakh is allowed.
- (3) **Roads and Drainage-** The petitioner has claimed an amount of ₹11795.00 lakh for in-built project requirement as the project is located in the backward area and more than 6km away from SH-5 for which suitable road construction is necessarily associated with other facilities. It is observed that the actual cost as on COD is ₹1792.00 lakh and the same is within the RCE approved cost. Hence, the amount of ₹1792.00 lakh is allowed.



- (4) **Railway Infrastructure-** The petitioner has claimed an amount of ₹52105.00 lakh based on awarded cost to RITES for development of Railway infrastructure. However no expenditure has been claimed under this head as on actual COD. Hence not considered.
- (5) **Construction & Pre-commissioning expenses-**The petitioner had considered the initial estimate of ₹22639.00 lakh for erection, testing and commissioning. In the revised estimates, petitioner has considered an amount ₹100.00 lakh as Operator's training, ₹8200.00 lakh as Start-up fuel, ₹407.00 lakh as Office furniture and ₹700.00 lakh under Computerization and networking. The petitioner has submitted that these pre-operative expenses were included for Start-up fuel and power during trial operation prior to COD of the unit. The petitioner has also submitted that other expenses were on account of setting up of the office as the same is necessary for the operation of the plant. It is observed that the actual cost as on COD claimed by the petitioner under this head includes ₹20.00 lakh for operator's training, ₹756.00 lakh for Start-up fuel, ₹346.00 lakh for Office furniture and ₹500.00 lakh for computerization and networking which are within the approved RCE cost and the same is allowed.

58. Based on the above discussions, the capital cost approved as on COD of the generating station is as under:-



(₹ in lakh)

Sr. No.		As per RCE dated 9.3.2015	Actual Cost Claimed as on COD	Cost Approved as on COD for Unit-I & Unit-II
1	Cost of Land & Site Development			
1.1	Land	12931.00	13585.00	12931.00
1.2	Rehabilitation & Resettlement (R&R)	2500.00	-	-
1.3	Preliminary Investigation & Site Development	2527.00	1577.00	1577.00
	Development of ITI	330.00	313.00	313.00
	Social Obligation Programme	1585.00	1295.00	1295.00
	Green Belt	1200.00	422.00	422.00
	Reviewing Engineering Consultancy on M/s CEA vide MOU dated 12.01.09	141.00	89.00	89.00
	Total Land & Site Development	21214.00	17281.00	16627.00
2	Plant & Equipment (Main Plant Package)- EPC	372501.00	367417.00	367417.00
2.3	Water System	19600.00	17165.00	17165.00
2.3.1	External water supply system (Accumulated Water Draining Scheme at Balarampur Site: Supplementary Works, Additional 2 Km 1400 NB M S Pipe erection, Transportation of DM Water from MTPS & Erection etc.)	2246.00	-	-
2.3.8	Coal Handling Plant (System)	41385.00	39964.00	39964.00
	Total Plant & Equipment excluding taxes & Duties	435732.00	424546.00	424546.00
2.6	Taxes & Duties	30824.00	28365.00	28365.00
	Total Plant & Equipment including Taxes and Duties	466556.00	452911.00	452911.00
3	Initial Spares -Balance Initial Spares incl. taxes & duties (Other than	3477.00	-	-



Sr. No.		As per RCE dated 9.3.2015	Actual Cost Claimed as on COD	Cost Approved as on COD for Unit-I & Unit-II
	already included under respective package)			
	Total Initial Spares	3477.00	-	-
4	Civil Works			
4.13	Township & Colony	37200.00	10321.75	10321.75
4.14	Temporary construction & enabling works (Shifting / Modification of 132/220/400 kV Transmission Lines to Facilitate Rail Infrastructure requirement of RTPS)	1500.00	490.00	490.00
4.15	Road & Drainage (Approach Road from SH-37 to Plant)	11795.00	1792.00	1792.00
4.16	Railway Infrastructure by RITES	52105.00	-	-
	Total Civil works	102600.00	12603.75	12603.75
				-
5	Construction & Pre- Commissioning Expenses			-
5.1	Erection Testing and commissioning			-
5.3	Operator's Training	100.00	20.00	20.00
5.6	Start-up fuel	8200.00	756.00	756.00
5.7	Office Furniture	407.00	346.00	346.00
5.8	Computerization & Networking	700.00	500.00	500.00
	Total Construction & Pre-Commissioning Expenses	9407.00	1622.00	1622.00
				-
6	Overheads			
	Statutory fees, Regulatory charges etc.	100.00	-	-
6.1	Establishment	14000.00	33356.00	14709.41
6.4	Contingency	1000.00	-	-
	Cost toward R&D, statutory fees, Regulatory charges and legal expenses.	1526.00	-	-



Sr. No.		As per RCE dated 9.3.2015	Actual Cost Claimed as on COD	Cost Approved as on COD for Unit-I & Unit-II
	RTPS Dispensary / Hospital	50.00	5.00	5.00
	Total Overheads	16676.00	33361.00	14714.41
				-
7	Total Capital cost excluding IDC & FC	619930.00	517778.75	498478.16
				-
8	IDC, FC, FERV & Hedging Cost			-
8.1	Interest During Construction (IDC)	258200.00	287058.37	44730.84
8.2	Financing Charges		4553.00	4553.00
	Total of IDC, FC, FERV & Hedging Cost	258200.00	291611.37	49283.84
	Working Capital Margin Money (Approx)			-
9	Capital cost including IDC, FC, FERV & Hedging Cost	878130.00	809390.12	547762.00

59. The amount allowed above is subject to truing-up after finalization of audited accounts and submission of additional information by the petitioner and prudence check of the same at the time of truing-up of tariff.

Liabilities

60. The petitioner has worked out and claimed the capital cost as on COD after deduction of liabilities amounting to ₹29747.42 lakh. The respondent, KSEB has submitted that the petitioner has indicated reversals of ₹36168.00 lakh as on COD, ₹4794.00 lakh and ₹3610.00 lakh in 2016-17 and 2017-18 respectively. It has further submitted that the details of discharges of liabilities for ₹36168.00 lakh, ₹4794.00 lakh and ₹3641.00 lakh in 2018-19 have not been furnished by the petitioner.



61. It is observed that the capital cost as on 31.3.2016 is on cash basis has been arrived at after deducting liabilities of ₹29747.42 lakh as on COD. However, no details or justification has been furnished by the petitioner as regards to details of un-discharged liabilities. Hence the same is disallowed. Accordingly, the capital cost as on 31.3.2016, after deduction of IDC/FC/IEDC disallowed works out to ₹547762.00 lakh (on cash basis):

Capital Cost

62. The capital cost allowed for the purpose of tariff as on COD of the generating station is as under:

(₹ in lakh)	
Capital cost excluding IDC/FC (A)	498478.16
Add: IDC Allowed (B)	44730.84
Add: FC Allowed (C)	4553.00
Capital Cost as on COD before deduction of un-discharged liabilities (D= A+B+C)	547762.00
Less: Un-discharged Liabilities (E)	29747.42
Capital cost as on COD (D-E)	518014.58

Reasonableness of Capital Cost

63. In order to assess the reasonableness of the capital cost of the generating station, the capital cost (Hard Cost) of this generating station has been compared with other generating stations of a similar capacity viz., 600 MW as well as 500 MW, which have been commissioned recently within a span of past 4-5 years. The comparative statement is as under:

(₹ in Crore)					
Sr. No.	Plant Name	Capacity in MW	Commercial Operation Date (COD)	Capital Cost	Hard Cost (₹crore/ MW)
1	Udupi TPS	2 x 600	19.8.2012	5275.64	4.39
2.	Mauda STPS	2 x 500	30.3.2014	5521.37	5.52
3.	Indira Gandhi Super	3 x 500	26.4.2013	6459.79	4.31



Sr. No.	Plant Name	Capacity in MW	Commercial Operation Date (COD)	Capital Cost	Hard Cost (₹crore/MW)
	TPS of APCPL				
4.	Koderma TPS of DVC	2 x 500	14.6.2014	4482.94	4.48
5.	Raghunathpur TPS of DVC	2 x 600	31.3.2016	4984.78	4.15

64. The respondent, KSEB vide affidavit dated 20.5.2016 has submitted that the benchmark norms for capital cost issued by the Commission for thermal power generating stations consisting of 600 MW is ₹487 lakh/MW and 2 units is ₹454 lakh/MW.

65. As stated, the generating station is a green field project comprising of two units of 600 MW each. The benchmark hard cost including IDC & FC for first unit of 600 MW generating station is ₹4.87 Crore/MW and for the second unit is ₹4.54 Crore/MW at December, 2011 price level. The benchmark capital cost for thermal power generating stations as per Commission's order dated 4.6.2012 is dynamic and based on market trends, indices, subject to adjustment based on inflation. The hard cost linked to escalation in WPI for the intervening period to be taken into account to arrive the capital cost as on schedule COD. The indicative benchmark norms for capital cost based on December, 2011 Index as base, needs to be escalated upto April, 2016 based on the WPI index for prudence check of the capital cost. As per data available with Minister of Commerce and Industry, Government of India, the WPI index for April, 2016 is 177.80 as against the WPI index of 157.30 as on December, 2011 resulting in inflation of 1.130. Accordingly, the indicative benchmark hard cost is worked out as ₹5.50crore/MW (1.130x4.87) for Unit-I and ₹5.13crore/MW (1.130x4.54) for Unit-II. The average benchmark hard cost for both the units comes out to be ₹5.32crore/MW



(1.130x4.70).The benchmark capital cost norms represent the hard cost of the project and do not include cost of land, financing cost, interest during construction, Taxes and duties, Right of way charges, Cost of R&R, Railway infrastructure etc. The approved Capital cost of the project as on COD is ₹498478.16 lakh which works out to ₹4.15crore/MW excluding IDC, IEDC etc. as claimed by the petitioner which is within the benchmark capital cost of ₹5.32Crore/MW at the April 2016 Price Level.

66. It is observed from the above, that the hard cost of the generating station is comparable with other similar size projects of Koderma thermal power project of DVC, Indira Gandhi STPS of Arawali Power Company Limited and Udupi TPS, etc. and is within the benchmark cost as specified by the Commission. Accordingly, in our view, the capital cost (hard cost) of this generating station as on COD, is reasonable and has been accordingly, considered for the purpose of tariff.

Additional Capital Expenditure

67. Regulation 14 (1) of the 2014 Tariff Regulations, provides as under:

“(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.”

68. The break-up of the projected additional capital expenditure claimed by the petitioner under Regulation 14(1) of the 2014 Tariff Regulations for the period 2014-19 is detailed as under:

(₹ in lakh)

Sr. No.	Particulars	2016-17	2017-18
1	Cost of Land & Site Development		
1.1	Land	1179.00	
1.2	Rehabilitation & Resettlement (R&R)	100.00	2300.00
1.3	Preliminary Investigation & Site Development	-	430.00
	Development of ITI		
	Social Obligation Programme	153.00	
	Green Belt	300.00	100.00
	Reviewing Engineering Consultancy on		
	Total Land & Site Development	1732.00	2875.00
2	Plant & Equipment (Main Plant Package)- EPC	3976.00	1529.00
2.3	Water System	4764.00	100.00
2.3.1	External water supply system		1306.00
2.3.8	Coal Handling Plant (System)	347.80	
	Total Plant & Equipment excluding taxes & Duties	9295.80	2935.00
2.6	Taxes & Duties	-	
	Total Plant & Equipment including Taxes and Duties	9295.80	2935.00
3	Initial Spares -Balance Initial Spares	2000.00	
	Total Initial Spares	2000.00	77.00
4	Civil Works		
4.13	Township & Colony	5000.00	15091.00
4.14	Temporary construction & enabling works (Shifting / Modification of 132/220/400 KV Transmission Lines to Facilitate Rail	761.00	-
4.15	Road & Drainage (Approach Road from	6000.00	4485.00



Sr. No.	Particulars	2016-17	2017-18
4.16	Railway Infrastructure by RITES	20000.00	10506.00
	Total Civil works	31761.00	30082.00
5	Construction & Pre- Commissioning Expenses		
5.1	Erection Testing and	-	-
5.3	Operator's Training	-	-
5.6	Start-up fuel	-	-
5.7	Office Furniture	-	-
5.8	Computerization & Networking	250.00	38.00
	Total Construction & Pre- Commissioning Expenses	495.00	38.00
6	Overheads		
6.1	Statutory fees, Regulatory charges etc	-	-
6.2	Establishment	-	-
6.3	Contingency	-	-
6.4	Cost toward R&D, statutory fees,	-	-
6.5	RTPS Dispensary / Hospital	-	-
	Total Overheads	2652.33	-
7	Total Capital cost excluding IDC & FC	47936.13	36407.00

Additional capital expenditure during 2016-17 & 2017-18

Cost of Land

69. The petitioner has claimed additional capital expenditure of ₹1179.00 lakh for land in 2016-17 under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that provision kept towards R&R Package as per R&R policy of Govt. of West Bengal is yet to be published and the same is expected to be capitalized during the years 2016-17 and 2017-18.



70. It is however observed that the total claim of the petitioner for Land is ₹14764.00 lakh which exceeds the approved cost of ₹12931.00 lakh towards land. Since an amount of ₹12931.00 lakh towards Land has been considered in the capital cost as on COD of the generating station, the additional capital expenditure claimed for land has not been allowed.

Resettlement & Rehabilitation (R&R)

71. The petitioner has claimed additional capital expenditure of ₹100.00 lakh in 2016-17 and ₹2300.00 lakh towards R&R in 2017-18 under Regulation 14(1) of the 2014 Tariff Regulations. In justification, of the same the petitioner has submitted that a provision was kept towards R&R Package as per R&R policy of Govt. of West Bengal and the same is yet to be published. Accordingly the petitioner has submitted that the expenditure is expected to be capitalized during the years 2016-17 and 2017-18.

72. It is observed that the amount is within the approved cost of ₹2500.00 lakh towards R&R and within the cut-off date. Hence, the additional capital expenditure of ₹2500.00 lakh towards R&R is allowed to be capitalized.

Preliminary Investigation and Site Development

73. The petitioner has claimed additional capital expenditure of ₹430.00 lakh in 2017-18 towards Preliminary Investigation and Site development under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that these works/services which are within the original scope of work have been deferred for execution.



74. It is observed that the petitioner has claimed total cost including additional capital expenditure of ₹2007.00lakh (1577+430), which are within the RCE approved cost of ₹2527.00 lakh and is within the cut-off date of the generating station. Hence, the additional capital expenditure of ₹2007.00 lakh is allowed under Regulation 14(1) (ii) of the 2014 Tariff Regulations.

Social Obligation Programme

75. The petitioner has claimed projected additional capital expenditure of ₹153.00 lakh and ₹45.00 lakh in 2016-17 and 2017-18 respectively under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that the expenditure is to be incurred under CSR activity as the project is located in the backward district of West Bengal.

76. It is observed that the petitioner has claimed total cost including additional capital expenditure of ₹1493.00 lakh (1295+153+45) and the same is within the RCE approved cost i.e. ₹1585.00 lakh and within the cut-off date of the generating station. Hence, the additional capital expenditure claimed is allowed.

Green Belt

77. The petitioner has claimed projected additional capital expenditure of ₹300.00 lakh and ₹100.00 lakh in 2016-17 and 2017-18 respectively under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that the same is under Environmental compliance as per MoEF, Gol.

78. It is observed that the total cost including additional capital expenditure claimed is ₹822.00 lakh (422+300+100) and the same is within the approved RCE



of ₹1200.00lakh and is within the cut-off date of the generating station. Hence the additional capital expenditure claimed is allowed. However the petitioner is directed to submit the documentary evidence for the same at the time of truing up in terms of the provisions of Regulation 8 of the 2014 Tariff Regulations

Plant and Equipment

79. The petitioner has claimed projected additional capital expenditure of ₹3976.00 lakh in 2016-17 and ₹1529.00 lakh in 2017-18 under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that the same is claimed as balance payment for completion of left-over jobs, performance guarantee test etc. which are to be capitalized during the years 2016-17 and 2017-18.

80. We have examined the matter. It is observed that the petitioner has claimed expenditure ₹421.00 lakh and the same is in excess of the original scope of work. The RCE cost approved is ₹372501.00 lakh and the capital cost approved as on COD is ₹367417.00 lakh. The total additional capitalization claimed is ₹5505.00 lakh and hence the excess claim amounting to ₹421.00 lakh (367417+5505-372501) is disallowed. The same is disallowed by adjustment in the additional capital expenditure claimed for the year 2017-18. Accordingly, the additional capital expenditure allowed is ₹3976.00 lakh in 2016-17 and ₹1108.00 lakh in 2017-18.

Water System

81. The petitioner has claimed projected additional capital expenditure of ₹4972.00 lakh (₹4764.00 lakh for Water system and ₹208.00 lakh for External water system) and ₹1406.00 lakh (₹100.00 lakh for water system and ₹1306.00



lakh for External water system) during the year in 2016-17 and 2017-18 respectively under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that external water system, additional capital expenditure towards External Water System was incurred for 2 km extra length of MS piping for raw water due to change in route on account of non-availability of land which is to be capitalized during the year 2016-17. The petitioner has also submitted that the additional capital expenditure was incurred for Construction of Intake Well through separate contract awarded to GPT Infra-projects Limited in June, 2015 after the completion period of 24 months. It has stated that the work had to be taken out from the scope of the Original PWS vendor i.e. M/s MBL Ltd. on refusal of them to do the said work due to sinking of Intake well in storm. The petitioner had also submitted that the works shall be capitalized during the year 2016-17 & 2017-18. It has further submitted that three skid mounted pumps were installed at Panchet reservoir for supply of regular raw water from Panchet reservoir to plant to run at least one unit and shall be capitalized during the year 2016-17.

82. We have examined the matter. It is observed that the petitioner has claimed expenditure of ₹1697.00 lakh and the same is in excess of the original scope of works. The RCE approved under this head is ₹21846.00 lakh (i.e. ₹19600.00 lakh for Water system and ₹2246.00 lakh for External water supply system which includes the additional works of additional 2 km 1400 NB M S Pipe erection, transportation of DM Water from MTPS & Erection).

83. . The capital cost approved as on COD is ₹17165.00 lakh for Water System only. However, the total additional capital expenditure claimed is ₹6378.00 lakh



for the years 2016-17 and 2017-18. Hence, the excess claim of ₹1697.00 lakh (17165+6378-21846) has been disallowed by adjustment in the additional capital expenditure claimed for the years 2016-17 and 2017-18. Based on this, the additional capital expenditure of ₹4681.00 lakh has been allowed in 2016-17.

Coal Handling Plant

84. The petitioner has claimed projected additional capital expenditure of ₹347.80 lakh in 2016-17 under Regulation 14(1) of the 2014 Tariff Regulations. In justification of the same, the petitioner has submitted that the same has been claimed as payment against left over jobs. Since the additional capital expenditure claimed is within the scope of works and the RCE approved cost, and is within the cut-off date, hence the same is allowed under Regulation 14(1) of the 2014 Tariff Regulation.

Civil works

85. The petitioner has claimed total projected additional capital expenditure of ₹5000 lakh, ₹761.00 lakh, ₹6000.00 lakh and ₹20000.00 lakh in 2016-17 and ₹15091.00 lakh, ₹0.00 lakh, ₹4485.00 lakh and ₹10506.00 lakh in 2017-18 for township and colony, temporary construction and enabling works, roads and drainage and railway infrastructure by RITES respectively. In justification of the same, the petitioner has submitted that the completion of Township work has been extended till 31.3.2018 and shall be capitalized during the years 2016-17 and 2017-18. For temporary construction and enabling works, the petitioner has submitted that diversion of 132/220/400 KV HT Lines is required to facilitate Rail Infrastructure work. As regards roads and drainage, the petitioner has submitted that the additional capital expenditure is on account of Construction of permanent



approach road of 6 km from SH-5 to plant including two major bridges i) Road over bridge over SH-5& ii) Bridge over Uthala river to be constructed, completion of work may extend up to 31.3.2018. The petitioner has submitted that the work will be capitalized during the years 2016-17 and 2017-18. In respect of Railway Infrastructure, the petitioner has submitted that due to non-availability of total land for rail-infrastructure (36.20 acres of land yet to come under possession as on 31.3.2016) the completion of work may be extended till 31.3.2018.

86. Considering the fact that the total cost including additional capital expenditure claimed under this head is ₹ 74447.00 lakh (12604+31761+30082) and the same is within the approved RCE cost of ₹102600.00 lakh and is within the cut-off date of the generating station. The additional capital expenditure claimed is allowed. The petitioner is however directed to submit the details of the status of works at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations.

Construction and Pre-commissioning expenses

87. The petitioner has claimed projected additional capital expenditure of ₹80.00 lakh, ₹165.00 lakh and ₹250.00 lakh (totaling to ₹495.00 lakh) in 2016-17 and ₹38.00 lakh in 2017-18 towards Operator's training, Office furniture and computerization and networking respectively. In justification of the same, the petitioner submitted that the same is necessary for efficient and smooth operation of the plant. Since the total cost including additional capital expenditure claimed under this head is ₹ 2155.00 lakh (1622+495+38) and the same is within the approved RCE i.e. ₹9407.00 lakh, hence the expenditure is allowed.



Initial Spares

88. As per Regulation 13 of 2014 Tariff Regulations provides as under:

“13. Initial Spares: *Initial spares shall be capitalized as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:*

(a) Coal-based/lignite-fired thermal generating stations - 4.0%

.....”

89. The petitioner has claimed additional expenditure of ₹2000.00 lakh in 2016-17 and ₹477.00 lakh in 2017-18 towards Initial spares under Regulation 14(1) of the 2014 Tariff Regulations. The petitioner has submitted that these are balance initial spares inclusive of taxes and duties other than those included in the respective package.

90. The respondent KSEB has submitted that the petitioner has not furnished the cost of initial spares separately and hence it could not be ascertained whether initial spares are within the ceiling limits specified under the 2014 Tariff Regulations.

91. The petitioner was directed vide ROP of the hearing dated 25.2.2016 to submit the details of initial spares capitalized up to COD. In response, the petitioner has submitted that the details of initial spares have been submitted in Form-5B and no initial spares have been procured till COD of the generating station.

92. The matter has been examined. It is observed that the petitioner has not submitted the details of initial spares included in the individual packages. It is also noticed that balance amount of initial spares, after inclusion of initial spares in additional capital expenditure package wise has been furnished. In our view, in



the absence of detailed breakup of initial spares capitalized upto COD under individual packages, the balance initial spares cannot be capitalized. Accordingly, the same is disallowed. The petitioner is directed to submit the details of initial spares capitalized under different packages at the time of truing up, in terms of Regulation 8 of the 2014 Tariff Regulations, in order to examine whether the initial spares capitalized upto COD and upto cut-off date is within 4% of plant and machinery cost in terms of the 2014, Tariff Regulations.

93. Based on the above discussions, the projected additional capital expenditure allowed for the period 2016-19 in respect of the above assets are summarized as under:

(₹ in lakh)

Sr. No.	Particulars	2016-17 (Claimed)	2016-17 (Allowed)	2017-18 (Claimed)	2017-18 (Allowed)
1	Cost of Land & Site Development				
1.1	Land	1179.00	-	-	-
1.2	Rehabilitation & Resettlement (R&R)	100.00	100.00	2300.00	2300.00
1.3	Preliminary Investigation & Site Development	-	-	430.00	430.00
	Development of ITI		-	-	-
	Social Obligation Programme	153.00	153.00	45.00	45.00
	Green Belt	300.00	300.00	100.00	100.00
	Reviewing Engineering Consultancy on M/s CEA vide MOU dated 12.01.09		-		
	Total Land & Site Development	1732.00	553.00	2875.00	2875.00
2	Plant & Equipment (Main Plant Package)-EPC	3976.00	3976.00	1529.00	1108.00
2.3	Water System	4764.00	4681.00	100.00	



Sr. No.	Particulars	2016-17 (Claimed)	2016-17 (Allowed)	2017-18 (Claimed)	2017-18 (Allowed)
					-
2.3.1	External water supply system (Accumulated Water Draining Scheme at Balarampur Site: Supplementary Works, Additional 2 Km 1400 NB M S Pipe erection, Transportation of DM Water from MTPS & Erection etc.)	208.00		1306.00	0.00
2.3.8	Coal Handling Plant (System)	347.80	347.80	-	-
	Total Plant & Equipment excluding taxes & Duties	9295.80	9004.80	2935.00	1108.00
2.6	Taxes & Duties	-	-	-	-
	Total Plant & Equipment including Taxes and Duties	9295.80	9004.80	2935.00	1108.00
3	Initial Spares -Balance Initial Spares incl. taxes & duties (Other than already included under respective package)	2000.00	-	477.00	-
	Total Initial Spares	2000.00	-	477.00	-
4	Civil Works				
4.13	Township & Colony	5000.00	5000.00	15091.00	15091.00
4.14	Temporary construction & enabling works (Shifting / Modification of 132/220/400 kV Transmission Lines to Facilitate Rail Infrastructure requirement of RTPS)	761.00	761.00	-	-
4.15	Road & Drainage (Approach Road from SH-37 to Plant)	6000.00	6000.00	4485.00	4485.00
4.16	Railway Infrastructure by RITES	20000.00	20000.00	10506.00	10506.00
	Total Civil works	31761.00	31761.00	30082.00	30082.00



Sr. No.	Particulars	2016-17 (Claimed)	2016-17 (Allowed)	2017-18 (Claimed)	2017-18 (Allowed)
5	Construction & Pre- Commissioning Expenses				
5.1	Erection Testing and commissioning				
5.3	Operator's Training	80.00	80.00		
5.6	Start up fuel				
5.7	Office Furniture's	165.00	165.00		
5.8	Computerization & Networking	250.00	250.00	38.00	38.00
	Total Construction & Pre- Commissioning Expenses	495.00	495.00	38.00	38.00
6	Overheads				
	Statutory fees, Regulatory charges etc.	64.93	64.93		
6.1	Establishment	2400.00	2400.00		
6.4	Contingency	171.00	171.00		
	Cost toward R&D, statutory fees, Regulatory charges and legal expenses.			-	
	RTPS Dispensary/ Hospital	16.40	16.40		
	Total Overheads	2652.33	2652.33		
7	Total Capital cost excluding IDC & FC	47936.13	44466.13	36407.00	34103.00

Liabilities Discharged

94. The petitioner has claimed liability discharges of ₹29747.42 lakh, ₹4793.61 lakh and ₹3640.70 lakh during the years 2016-17, 2017-18 and 2018-19 respectively. It is observed that the petitioner has not submitted any details regarding the works for which liability is still pending. It is however noticed that 10% of the additional capital expenditure of the previous year for 2017-18 and 2018-19 has been considered as liability discharged for the year. Accordingly,



the liability discharged has been disallowed and the same is subject to finalization of audited accounts. The petitioner shall submit all relevant information at the time of truing-up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations.

95. Accordingly the year wise capital cost approved for the period 2016-17 to 2018-19 is as under:

	(₹ in lakh)		
	2016-17	2017-18	2018-19
Opening Capital Cost (E)	518014.58	562480.70	596583.70
Additional Capital Expenditure Allowed (A)	44466.13	34103.00	-
Reversals (B)	-	-	-
Liabilities discharged (C)	-	-	-
Net Additions allowed (D=A-B+C)	44466.13	34103.00	0.00
Closing Capital Cost (D+E)	562480.70	596583.70	596583.70
Average Capital Cost	540247.64	579532.20	596583.70

Debt-Equity Ratio

96. 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 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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.

97. The petitioner in Form-10 has claimed actual debt to equity in the ratio 70:30 for 2016-17 and 70.80: 29.20 for 2017-18 as shown under:-

	2016-17 (Additional Capital Expenditure)	(%)	2017-18 (Additional Capital Expenditure)	(%)
Debt	33555.29	70.00%	26484.90	70.80%
Equity	14380.84	30.00%	10922.10	29.20%
Total	47936.13	100.00%	37407.00	100.00%

98. Accordingly, the gross normative loan and equity amounting to ₹383433.00 lakh and ₹164328.60 lakh respectively, as on 31.3.2016 has been considered as normative loan and equity as on 1.4.2016. The debt equity ratio of 70:30 for



2016-17 and 2018-19 and 70.80: 29.20 for 2017-18 for 2017-18 has been considered in the case of additional capital expenditure. This is subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, the opening and closing debt and equity is as under.

(₹ in lakh)

Asset	As on COD (1.4.2016)		Net Additional capitalization during 2016-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Debt	362610.20	70.00%	55271.89	70.35%	417882.09	70.05%
Equity	155404.37	30.00%	23297.24	29.65%	178701.61	29.95%
Total	518014.58	100.00%	78569.13	100.00%	596583.70	100.00%

Return on Equity

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

“24. Return on Equity:

(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 the 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 of any of the Restricted Governor Mode Operation (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 requirements 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.

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

“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.”

101. The petitioner has claimed return on equity considering the base rate of 15.50% and effective tax rate (MAT rate) of 20.961%. However, the actual tax rate of 2013-14 is “NIL” as per annual audited accounts submitted by the petitioner for 2013-14. It is also observed from the annual accounts for the years



2014-15 and 2015-16, that the tax liability is 'nil' in respect of DVC. In view of this, the actual tax rate of 2013-14 to 2015-16 has been considered 'NIL' for grossing up of the base rate. This is however subject to truing-up and shall be considered as per the actual effective tax rate applicable for the financial year. Accordingly, Return on Equity has been worked out as under :-

	(₹ in lakh)		
	2016-17	2017-18	2018-19
Notional Equity-Opening	155404.37	168744.21	178701.61
Addition of Equity due to Additional Capitalization	13339.84	9957.40	0.00
Normative Equity- Closing	168744.21	178701.61	178701.61
Average Normative Equity	162074.29	173722.91	178701.61
Return on Equity (Base Rate)	15.500%	15.500%	15.500%
Tax rate for the year	0.000%	0.000%	0.000%
Rate of Return on Equity (Pre Tax)	15.500%	15.500%	15.500%
Return on Equity	25121.52	26927.05	27698.75

Interest on Loan

102. 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-capitalization 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.”

103. The petitioner was directed vide ROP of the hearing dated 25.2.2016 to submit the Reconciliation of Form-7 and Form-13 as regards to the loan amount of ₹15068 lakh, with rate of interest of 7.90% and also to furnish the actual figures in these forms. In response, the petitioner has submitted that Form-7 and 13 had been submitted and the ECB of ₹15068 lakh has been repaid before 25.5.2015. Accordingly, Interest on loan has been worked out as under:-

- a. The gross normative opening loan of ₹383433.00 lakh has been considered on 1.4.2016. In addition to this, loan component towards additional capitalization has been considered as per the approved debt equity ratio.
- b. Addition to normative loan on account of additional capital expenditure approved above has been considered on year to year basis.
- c. Depreciation allowed has been considered as repayment of normative loan during the respective year of the period 2016-19.
- d. In line with the provisions of the regulations, the weighted average rate of interest has been calculated by applying the actual loan portfolio existing as on 1.4.2016 along with subsequent additions during the period 2016-19, if any, for DVC. In case of loans carrying floating rate of interest, the rate of interest as furnished by the petitioner has been considered for the purpose of tariff. Details have been enclosed in Annexure – I. The necessary calculations for interest on loan is as under:-



(₹ in lakh)

	2016-17	2017-18	2018-19
Gross Notional Loan for the purpose of tariff	362610.20	393736.49	417882.09
Cumulative repayment of loan up to previous year		40481.30	83906.22
Net opening loan	362610.20	353255.20	333975.87
Addition due to Net Additional Capitalization	31126.29	24145.60	0.00
Repayment of Loan during the period	40481.30	43424.93	44702.61
Add: Repayment adjustment on account of de-capitalization	-	-	-
Less: Repayment on account of adjustment in discharge in liabilities	-	-	-
Net Closing Loan	353255.20	333975.87	289273.26
Average Loan	357932.70	343615.53	311624.56
Weighted Average Rate of Interest on Loan (%)	11.2433%	11.1970%	11.1449%
Interest on Loan	40243.43	38474.79	34730.26

Depreciation

104. 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) along with 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 de-capitalized asset during its useful services.”

105. The respondent KSEB has submitted that the petitioner has considered depreciation rate as 7.4931% as approved vide order dated 20.4.2015 in Petition No. 66/GT/2015 by DSTPS (Durgapur Steel Thermal Power Station). It has also submitted that the petitioner should be directed to submit the asset wise depreciation details for arriving at the weighted average rate of depreciation.

106. The petitioner was directed vide ROP of hearing dated 25.2.2016 to submit the Weighted Average Rate of depreciation based on capital cost claimed instead of the rate approved by Commission for DSTPS in order dated 20.4.2015. In response, the petitioner vide affidavit dated 7.4.2016 has submitted that in absence of actual capitalization status i.e. actual capital cost transferred to fixed assets in operation as on anticipated COD the depreciation rate has been considered in line with rate approved in DSTPS in order dated 20.4.2015 for 2013-14. The depreciation rate considered is 7.4931%.

107. The petitioner was also directed vide ROP of the hearing dated 20.5.2016 to submit the breakup of freehold and leasehold land for the project and in response the petitioner has submitted that no leasehold land exists in the implementation of the project and the actual additional capital expenditure incurred is on account of freehold land till COD.

108. Accordingly, the rate of depreciation considered is 7.4931% for computation of depreciation as submitted by the petitioner. The necessary calculations in support of depreciation are as under:-



Depreciation	2016-17	2017-18	2018-19
Opening Capital Cost	518014.58	562480.70	596583.70
Net Additional Capitalization	562480.70	596583.70	596583.70
Closing Capital Cost	540247.64	579532.20	596583.70
Average capital cost	12931.00	12931.00	12931.00
Rate of Depreciation	7.493%	7.493%	7.493%
Balance Useful life	25	24	23
Remaining Depreciable Value	474584.98	469459.79	441381.21
Depreciation (Annualized)	40481.30	43424.93	44702.61
Cumulative Depreciation (at the end of the period)	40481.30	83906.22	128608.84

109. The petitioner is directed to submit the asset wise details of depreciation at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations.

Operation & Maintenance Expenses

110. Regulation 29 (1) (a) of the 2014 Tariff Regulations provides the year-wise O&M expense norms for the generating station of the petitioner as under:

<i>(₹ in lakh)</i>		
2016-17	2017-18	2018-19
19524.00	20760.00	22056.00

111. In addition to above, the petitioner has claimed additional O&M expenses towards Mega insurance and Share of subsidiary activity as detailed under:

<i>(₹ in lakh)</i>			
	2016-17	2017-18	2018-19
Ash Evacuation	-	-	-
Mega Insurance	125.39	147.56	162.31
CISF Security	-	-	-
Share of Subsidiary activity	729.43	819.52	865.23
Total	854.82	967.08	1027.54

112. The respondent, KSEB vide affidavit dated 20.5.2016 has submitted that the petitioner has not submitted any justification/ documents for Mega insurance,



CISF and expenditure for subsidiary activity and hence the same should be disallowed.

113. The petitioner was directed vide ROP of the hearing dated 25.2.2016 to submit clarification as to whether liability provided for leave encashment has been included in the O&M Expenses or not. In response, the petitioner vide affidavit dated 7.4.2016 has submitted that the liability provided for leave encashment had not been included in the O&M expenditure in respect of the generating station for the period 2016-19.

114. We have considered the matter. In the Statement of Reasons in support of the 2014 Tariff Regulations, the Commission has observed as under:

“...29.39 Some of the generating stations have suggested that site specific factors should be taken into account and additional O&M expenses should be allowed. The Commission is of the view that the site specific norms in case of thermal generating stations may not serve much purpose as there is a set of advantages and disadvantages associated with every site, which average out, and the proposed norms are also based on multiple stations with wide geographical spread and therefore, such aspects are already factored in the norms...”

115. In line with the above observations and in accordance with the 2014 Tariff Regulations, the additional O&M expenses claimed by the petitioner under the above head have not been allowed.

Water Charges

116. 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”

117. In terms of the above regulations, water charges are to be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check of the details furnished by the petitioner. The petitioner has submitted that at present water charges have not been claimed for the generating station. However, the petitioner has sought liberty to approach the Commission as and when the same is billed by the Authority and paid by the petitioner. In view of the above submissions, we grant liberty to the petitioner to claim water charges at the time of truing up, with proper justification, and the same will be considered in accordance with law.

Capital spares

118. The petitioner has submitted that at present capital spares have not been claimed for the generating station. However, the petitioner has sought liberty to approach the Commission as and when the same is billed by the Authority and paid by the petitioner. In view of the above submission, we grant liberty to the petitioner to claim capital spares at the time of truing up, with proper justification, and the same will be considered in accordance with law. The petitioner has submitted that the actual year-wise capital spares along with adequate justification will be submitted at the time of truing up.



Operational Norms

119. . The operational norms in respect of the generating station claimed by the petitioner are as under:

Target Availability (%)	83.00
Heat Rate (kCal/kWh)	2339.78
Auxiliary Energy Consumption (%)	5.25
Specific Oil Consumption (ml/kWh)	0.50

120. The operational norms claimed by the petitioner are discussed as under:

Normative Annual Plant Availability Factor (NAPAF)

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

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

Provided that in view of the 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 01.04.2014.”

122. The petitioner has considered the Target Availability of 83% during 2016-19 due to inadequate regular supply of quality coal. In this regard, the respondent, KSEB vide affidavit dated 20.5.2016 has submitted that the petitioner has adopted 83% of Target Availability for tariff computation which is against provisions of Regulation 36(A) of the 2014 Tariff Regulations.

123. In view of the inadequate supply of coal as stated by the petitioner the Target Availability of 83% has been considered for the period from 2016-17 and 85% from 2017-18 to 2018-19 in line with the above Regulations.



Station Heat Rate (kCal/kWh)

124. Regulation 36(C)(b) of the 2014 Tariff Regulations, provides for maximum design unit heat rate (kcal/kwh) for Calculation of Heat Rate of new thermal generating station achieving COD on or after 1.4.2014. The petitioner has claimed the Station Heat Rate of 2339.78 kCal/kwh as per the 2014 Tariff Regulations. The petitioner has also furnished the plant characteristics for the generating station as under:

Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)	1954
Guaranteed Boiler Efficiency (%)	87.27
Multiplying Factor	1.045
Gross Station Heat Rate	2339.78

125. . The respondent, KSEB has pointed out that in plant characteristics one number feeder pump is electrically driven and two numbers are steam driven And hence, the Gross SHR adopted by petitioner is not in line with the Regulations. It has stated that one of the feed pumps is electrically driven, the Gross SHR should be allowed only after proportionate reduction.

126. We have examined the matter. The Station Heat Rate of **2339.78 kCal/kwh** is as considered by the petitioner is as per Regulation 36(C)(b) of the 2014 Tariff Regulation and same is allowed.

Auxiliary Energy Consumption

127. Regulation 36(E)(a)(ii) of the 2014 Tariff Regulations provides Auxiliary Energy Consumption of 5.25% for coal based generating stations of 500 MW and above sets with Natural Draft cooling tower or without cooling tower. Accordingly,



the Auxiliary Energy Consumption considered as claimed by the petitioner is as per the Regulation 36(E)(a) of the 2014 Tariff Regulations and the same is allowed.

Specific fuel Oil Consumption

128. Regulation 36(D)(a) of the 2014 Tariff Regulations provides secondary fuel oil consumption of 0.50 ml/kWh for coal-based generating stations of the petitioner. Accordingly, the secondary fuel oil consumption considered by the petitioner is as per regulation and is allowed.

Interest on working capital

129. 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 Components and Energy Charges in working capital



130. The petitioner has claimed cost for fuel components in working capital based on “as received” GCV of coal procured and secondary fuel oil for the preceding three months of April, 2016, May, 2016 and June, 2016 as under:

(₹ in lakh)

	2016-17	2017-18	2018-19
Cost of Coal/Lignite- 2 months	26956.97	26956.97	26956.97
Cost of Main Secondary Fuel Oil- 2 months	432.80	432.80	432.80
Total	27389.76	27389.76	27389.76

131. The issue of “as received” GCV for computation of energy charges was challenged by NTPC and other generating companies through writ petition in the Hon’ble High Court of Delhi. The writ petition was heard on 7.9.2015 and Hon’ble High Court of Delhi had directed that the Commission shall decide the place from where the sample of coal should be taken for measurement of GCV of coal on as received basis within 1 month on the request of petitioners.

132. As per the directions of the Hon’ble High Court, the Commission vide order dated 25.1.2016 in Petition No. 283/GT/2014 has decided as under:

“58. In view of the above discussion, the issues referred by the Hon’ble High Court of Delhi are decided as under:

(a) There is no basis in the Indian Standards and other documents relied upon by NTPC etc. to support their claim that GCV of coal on as received basis should be measured by taking samples after the crusher set up inside the generating station, in terms of Regulation 30(6) of the 2014 Tariff regulations.

(b) The samples for the purpose of measurement of coal on as received basis should be collected from the loaded wagons at the generating stations either manually or through the Hydraulic Auger in accordance with provisions of IS 436(Part1/Section1) -1964 before the coal is unloaded. While collecting the samples, the safety of personnel and equipment as discussed in this order should be ensured. After collection of samples, the sample preparation and testing shall be carried out in the laboratory in



accordance with the procedure prescribed in IS 436(Part1/Section1)-1964 which has been elaborated in the CPRI Report to PSERC.”

133. The petitioner has claimed Energy Charge Rate (ECR) of 2.501 ₹/kWh based on the weighted average price, GCV of coal (as received basis) & oil procured and burnt for the preceding three months. It is observed that the petitioner has not placed on record the GCV of coal on “as received” basis taken from the loaded wagons at the unloading point, though the petitioner was statutorily required to furnish such information with effect from 1.4.2014. In compliance with the direction of the Hon”ble High Court of Delhi, the Commission in its order dated 25.1.2016 in Petition No. 283/GT/2014 has clarified that the sample for measurement of GCV of coal on “as received” basis shall be taken from the loaded wagons at the unloading point either manually or through the Hydraulic Augur. The petitioner has not submitted the required data regarding measurement of GCV of coal in compliance with the directions contained in the said order dated 25.1.2016. The present petition cannot be kept pending till the petitioner submits the required information. Hence, the Commission has decided to compute the energy charges by provisionally taking the GCV of coal on as “billed basis” and allowing on adjustment for total moisture as per the formula given as under:

$$\frac{\text{GCV X (1-TM)}}{(1 - \text{IM})}$$

Where: GCV=Gross Calorific value of coal

TM=Total moisture

IM= Inherent moisture

134. In view of the above, the cost for fuel components in working capital have been computed at 83% NAPAF for the 2016-17 and at 85% for the years 2017-18 and 2018-19 and based on “as billed” GCV of coal and price of coal procured



and secondary fuel oil for the preceding three months from April 2016 to June 2016 and allowed as under:

	<i>(₹ in lakh)</i>		
	2016-17	2017-18	2018-19
Cost of coal towards stock- 30 days	9649.85	9882.38	9882.38
Cost of coal/lignite for generation- 30 days	9649.85	9882.38	9882.38
Cost of Main Secondary Fuel Oil- 2 months	432.80	443.22	443.22
Total	19732.50	20207.98	20207.98

Maintenance spares

135. The petitioner has claimed maintenance spares in working capital as under:

<i>(₹ in lakh)</i>		
2016-17	2017-18	2018-19
3904.80	4152.00	4411.20

Maintenance spares claimed is as per Regulation 28(1)(iv) of the 2014 Tariff Regulations and hence allowed.

Receivables

136. Receivables equivalent to two months of capacity charge and energy charge for sale of electricity has been calculated on normative plant availability factor. Accordingly, receivables have been worked out on the basis of two months of fixed and energy charges (based on primary fuel only) as under:

	<i>(₹ in lakh)</i>		
	2016-17	2017-18	2018-19
Variable Charges -2 months	19732.50	20207.98	20207.98
Fixed Charges - 2 months	22377.27	23125.10	23065.34
Total	42109.77	43333.08	43273.32



O&M expenses for 1 month

137. O & M expenses for 1 month as claimed by the petitioner for the purpose of working capital is allowed as under:

(₹ in lakh)		
2016-17	2017-18	2018-19
1627.00	1730.00	1838.00

Rate of interest on working capital

138. 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.”

139. In terms of the above regulations, SBI PLR of 13.20% (Bank Rate 9.70% + 350 bps) has been considered for the purpose of calculating interest on working capital. Interest on working capital has been computed as under:

(₹ in lakh)			
	2016-17	2017-18	2018-19
Cost of coal towards stock- 1 month	9649.85	9882.38	9882.38
Cost of coal/lignite for generation- 1 month	9649.85	9882.38	9882.38
Cost of secondary fuel oil – 2 month	432.80	443.22	443.22
O&M expenses – 1 month	1627.00	1730.00	1838.00
Maintenance Spares	3904.80	4152.00	4411.20
Receivables – 2 months	42109.77	43333.08	43273.32
Total working capital	67374.06	69423.06	69730.50
Rate of interest (%)	13.200%	13.200%	13.200%
Interest on working capital	8893.38	9163.84	9204.43

Other Elements of tariff



140. In addition, the petitioner has claimed expenditure towards Pension & Gratuity contribution, contribution to sinking fund created for redemption of bond and cost of common offices. We now discuss and decide these elements as detailed below:

Pension & Gratuity Contribution

141. The petitioner has claimed Pension and Gratuity contribution for the period 2014-19 and has submitted that the actuarial valuation has been considered as on 31.3.2014, for liability towards pension and gratuity fund and projected P&G liability for the period 2014-19 including impact of wage revision. The petitioner has also submitted that during the allocation of such expenditure had not come under commercial operation, and hence the petitioner has prayed for grant of liberty to revise the same at the time of truing up. In view of the above submissions, the P&G contribution has not been considered.

Contribution to Sinking Fund

142. The petitioner in this petition has submitted that total debt borrowing is ₹7000 crore out of which actual allocation to generating stations of the petitioner is ₹3100 crore. The actual allocation of debt borrowing of ₹3100 Crore among the generating stations of the petitioner is as under:-

	4400 bond	2600 bond	Total 7000 bond
Raghunathpur-I	00	180	180
Mejia TPS Units 5 and 6	12000	12800	24800
Chandrapura TPS Units 7 and 8	30000	15000	45000
Mejia TPS B	40000	00	40000
Durgapur TPS	53000	34200	87200
Koderma TPS	65000	30000	95000
Total	200000	110000	310000

(₹ in lakh)



143. The petitioner has also allocated sinking fund contribution and interest for debt borrowing of ₹3100 Crore among the generating stations of the petitioner as under:-

	(₹ in lakh)				
Station	2014-15	2015-16	2016-17	2017-18	2018-19
Total contribution and interest for debt borrowing	15277.34	16346.76	17491.03	18715.40	20025.48
Mejia TPS Units 5 and 6	1222.19	1307.74	1399.28	1497.23	1602.04
Chandrapura TPS Units 7 and 8	2217.68	2372.92	2539.02	2716.75	2906.92
Mejia TPS B	1971.27	2109.26	2256.91	2414.89	2583.93
Durgapur TPS	4297.37	4598.18	4920.06	5264.46	5632.97
Koderma TPS	4681.77	5009.49	5360.15	5735.37	6136.84
Raghunathpur TPS-I	887.07	949.17	1015.61	1086.70	1162.77
Total	15277.34	16346.76	17491.03	18715.40	20025.48

144. The respondent KSEB vide affidavit dated 20.5.2016 has submitted that there is no cash outlay towards interest since the interest which accrues on the investment are credited to the fund annually. It is also stated that in order dated 20.4.2015 in Petition No. 66/GT/2012 of Durgapur TPS of the petitioner, the Commission had disallowed the claim of the petitioner towards sinking fund and hence, the claim should be disallowed..

145. The petitioner was directed to submit the computation of Sinking fund along with the methodology followed by its computation and basis of allocation among its generating stations. In response the petitioner vide affidavit dated 5.7.2016 has submitted the calculation of contribution of sinking fund created for repayment of bonds issued against new power stations. Out of bond issue of ₹4400 Crore for new generating stations, ₹2000 Crore relates to debt borrowing and out of bond issue of ₹2600 Crore, ₹1100 Crore is related to debt borrowing



totaling to ₹3100 Crore against debt out of total bond issue of ₹7000 Cr. It has also stated that the allocation amongst all new stations for which bond was issued has been made on actual basis.

146. We have examined the matter. Section 40 of the DVC Act provides that the petitioner shall make provision for depreciation and for reserve and other funds at such rates and on such terms as may be specified by the C&AG in consultation with the Central Government. It is observed that the sinking funds have been created only for redemption of bonds. Further, the book of accounts for the years 2012-13 and 2013-14 show figures/entries regarding the contribution to sinking fund against PFC loans. Accordingly, the amount approved for this generating station is as under:-

<i>(₹ in lakh)</i>		
2016-17	2017-18	2018-19
4180.03	1086.70	1162.77

Common Office Expenditure

147. The petitioner submitted that since during allocation of cost towards Common offices of the generating stations has not been commissioned and hence no cost was allocated to the generating station. The petitioner has however, sought liberty to revise the allocation of common office expenditure among the operating units at the time of truing up in terms of Regulation 8 of the 2014 Tariff Regulations. In view of this, the cost towards Common offices for the generating station has not been considered in this order.

148. Accordingly, annual fixed charges approved for the generating station for the period from 1.4.2016 to 31.3.2019 is summarized as under:



	(₹ in lakh)		
	2016-17	2017-18	2018-19
Depreciation	40481.30	43424.93	44702.61
Interest on Loan	40243.43	38474.79	34730.26
Return on Equity	25121.52	26927.05	27698.75
Interest on Working Capital	8893.38	9163.84	9204.43
O&M Expenses	19524.00	20760.00	22056.00
Sub-Total	134263.62	138750.61	138392.05
Additional O&M*	-	-	-
Sinking fund contribution	4180.03	1086.70	1162.77
Total Annual Fixed Charges	138443.65	139837.31	139554.82

(*On account of Ash Evacuation, Mega Insurance, CISF Security and Share of subsidiary activities)

Energy Charge Rate (ECR)

149. Clause (6) sub-clause (a) of Regulation 30 of the 2014 Tariff Regulations provides for computation and payment of Capacity Charge and Energy Charge for thermal generating stations:

“6. Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal place in accordance with the following formulae:

(a) For coal based and lignite fired stations

$$ECR = \{(GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100 - AUX)$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg, for coal based stations.

(b)....

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.



*LC = Normative limestone consumption in kg per kWh.
LPL = Weighted average landed price of limestone in Rupees per kg.
LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month.
(In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)*

SFC = Normative Specific fuel oil consumption, in ml per kWh.

LPSFi=Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month.”

150. The petitioner has claimed an Energy Charge Rate (ECR) of 201.508 paise/kWh considering the normative transit and handling losses of 0.8% for coal supplied.

151. Accordingly, the base energy charge of 201.508 paise/kWh determined based on the price and GCV of fuel for the preceding three months and calculated in accordance with the 2014 Tariff Regulations is allowed as under:-

Description	Unit	2016-19
Capacity	MW	2x600 MW
Gross Station Heat Rate	kCal/kWh	2339.78
Auxiliary Energy Consumption	%	5.25%
Specific Fuel Oil Consumption	ml/kWh	0.50
Weighted Average GCV of Oil	kCal/l	10275.32
Weighted Average GCV of Coal	kCal/kg	5693.96
Weighted Average Price of Coal	₹/MT	3236.92
Weighted Average Price of Oil	₹/ml	59525.16
Rate of Energy Charge ex-bus per kWh	Rs/kWh	1.432

152. 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, 2014 read with Commission's order dated 25.1.2016 in Petition No. 283/GT/2014.



153. The Commission in its order dated 19.2.2016 in Petition No. 33/MP/2014 (TPDDL v NTPC & anr) had directed as under:

“The respondents shall introduce help desk to attend to the queries and concerns of the beneficiaries with regard to the energy charges. The contentious issues regarding the energy charges should be sorted out with the beneficiaries at the senior management level, preferably at the level of Executive Directors.”

154. Accordingly, in line with the above decision, help desk shall be introduced by the petitioner and contentious issues if any, which arise in respect of energy charges for this generating station shall be sorted out with the beneficiaries at the Senior Management level.

Application Fee and Publication Expenses

155. The petitioner has sought the 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 2014-15 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission’s order dated 5.1.2016 in Petition No. 232/GT/2014, we direct that the petitioner shall be entitled to recover pro rata, the filing fees and the expenses incurred on publication of notices for the period 2016-17 directly from the respondents on submission of documentary proof. The filing fees for the remaining years of the tariff period 2015-19 shall be recovered pro rata after deposit of the same and production of documentary proof.



156. The annual fixed charges determined as above are subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.

157. As mentioned above, the petitioner has entered into a MoU with NLC on 29.1.2016 for formation of a JV company. Accordingly, the project along with all assets and associated facilities is proposed to be transferred from the petitioner to the JV Company. It is however noticed that the JV Company has not yet been formed and it appears that the matter is pending before various authorities. In view of this background the claim of the petitioner has been considered in terms of the 2014 Tariff Regulations. Consequent upon the formation of the JV Company the petitioner shall bring the same to the notice of the Commission by filing an appropriate application. Accordingly, revision of the tariff, if any, shall be undertaken in terms of the 2014 Tariff Regulations.

158. Petition No. 224/GT/2014 is disposed of in terms of the above.

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

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO (2016-19)

(₹ in lakh)

	Interest Rate (%)	Loan deployed as on 1.4.2016	Additions during the tariff period	Total
Loan-1 :Loan from PFC	12.25%	320400.00	-	320400.00
Loan-2 : Loan from WBIDFC	10.65%	50000.00	-	50000.00
Bonds (Loan Component)(Drawn On 30.03.2012)	10.30%	73300.00	-	73300.00
Bonds (Loan Component)(Drawn On 25.03.2013)	9.69%	59300.00	-	59300.00
Loan-4: Bridge Loan	10.20%	75200.00	-	75200.00
Loan-6: ECB Loan	7.90%	15068.82	-	15068.82
Total		593268.82	-	593268.82

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2016-19

(₹ in lakh)

	2016-17	2017-18	2018-19
Gross loan – Opening	593268.82	593268.82	593268.82
Cumulative repayments of Loans upto previous year	86384.82	114236.82	142088.82
Net loan – Opening	506884.00	479032.00	451180.00
Add: Drawal(s) during the Year	-	-	-
Less: Repayment (s) of Loans during the year	27852.00	27852.00	27852.00
Net loan – Closing	479032.00	451180.00	423328.00
Average Net Loan	492958.00	465106.00	437254.00
Interest on loan	55424.73	52078.14	48731.55
Weighted average Rate of Interest on Loan	11.2433%	11.1970%	11.1449%

