

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 142/GT/2016

Coram:

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

Date of Order: 5th April, 2019

In the matter of

Approval of tariff of Mauda STPS, Stage-II (2 x 660 MW) for the period from actual date of commercial operation of Units-I & II till 31.3.2019

And

In the matter of

NTPC Ltd.
NTPC Bhawan
Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi-110003

.....Petitioner

Vs

1. Madhya Pradesh Power Management Company Ltd.
Shakti Bhawan, Vidyut Nagar,
Jabalpur 482008
2. Maharashtra State Electricity Distribution Co Ltd.
Prakashgad, Bandra (East),
Mumbai 400051
3. Gujarat Urja Vikas Nigam Ltd.
Vidyut Bhavan, Race Course
Vadodara - 390007
4. Chattisgarh State Power Distribution Co. Ltd
P.O. Sundar Nagar,
Danganiya, Raipur-492013
5. Government of Goa,
Electricity Department, Vidyut Bhawan,
Panaji, Goa
6. Electricity Department,
Administration of Daman & Diu, Daman-396210



Parties present

Shri Sachin Jain, NTPC
Shri Shyam Kumar, NTPC
Shri Nishant Gupta, NTPC
Shri Mukesh Kori, Advocate, MPPMCL

ORDER

The petitioner, NTPC Ltd has filed this petition on 12.8.2016 for approval of tariff of Mauda Super Thermal Power Station, Stage-II (2 x 660 MW) (“the generating station”) for the period from the anticipated date of commercial operation of Unit-I (i.e 15.8.2016) to 31.3.2019 based on expected capitalisation and projected additional capital expenditure upto 31.3.2019. Thereafter, the petitioner vide affidavit dated 4.5.2018 filed amended petition and has sought the approval of tariff from the actual date of commercial operation of Unit-I (1.2.2017) and Unit-II (18.9.2017) till 31.3.2019 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The project has been implemented by the petitioner in two stages, with Stage-I comprising of two units of 500 MW each and Stage-II comprising of two units of 660 MW each. The petitioner has entered into Power Purchase Agreement (PPA) with the respondents and the power generated from the generating station is supplied to the respondents in terms of the allocation made by the MOP, GOI vide letter dated 26.4.2011.

3. The Petitioner vide its affidavit dated 5.8.2016 has claimed capital cost and the annual fixed charges considering the anticipated COD of Unit-I as 15.8.2016



and Unit-II as 31.3.2017. Thereafter, the Petitioner vide its letters dated 28.1.2017 and 11.9.2017 had submitted that Unit-I & II has been declared under Commercial Operation with effect from 1.2.2017 and 18.9.2017, respectively. Subsequently, the Petitioner vide affidavit dated 4.5.2018 amended the tariff petition for the period from actual COD of Unit-I to 31.3.2019 based on actual expenditure incurred, as per duly audited accounts, as on COD of Units-I & II and additional capital expenditure during the period from 1.2.2017 to 31.3.2017 and from 1.4.2017 to 17.9.2017 based on duly audited accounts and the revised projected additional capital expenditure from 18.9.2017 to 31.3.2019. Accordingly, the capital cost and the annual fixed charges claimed by the Petitioner vide affidavit dated 4.5.2018 is summarized as under:

Capital Cost

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Capital Cost as on COD	355208.44		629078.62	
Add: Notional IDC	1323.08		1468.31	
Add: Short Term FERV	(-) 1108.67		234.75	
Add: Inter-Unit Transfer (before COD)	(-) 16.94		(-) 24.18	
Opening Capital Cost	355405.91	364737.22	630757.50	641358.87
Add: additional capital expenditure	9331.32	14396.09	10601.38	52762.78
Closing Capital Cost	364737.22	379133.31	641358.87	694121.66
Average Capital Cost	360071.57	371935.27	636058.18	667740.27

Annual Fixed Charges

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Depreciation	18977.57	19662.32	33608.96	35283.02
Interest on Loan	16096.42	15791.48	26135.56	25900.81
Return on Equity	21285.63	21986.95	37600.58	39473.47
Interest on Working Capital	6395.66	6450.09	13121.98	13314.32
O&M Expenses	10921.45	11552.69	23165.71	25260.00
Total	73676.73	75443.53	133632.79	139231.62



4. Reply to the petition has been filed by the Respondent, MPPMCL vide its affidavit dated 28.9.2018 and the Petitioner vide affidavit dated 3.10.2018 has filed its rejoinder to the said reply. Based on the submissions of the parties, we proceed to examine the claim of the Petitioner, on prudence check, as stated in subsequent paragraphs.

Commissioning Schedule

5. The Investment Approval of the generating station was accorded by NTPC Board at its 379th meeting held on 19.3.2012 at an estimated project cost of ₹7921.47 crore, (including IDC & FC of ₹1257.65 crore and Working Capital Margin of ₹171.11 crore) at a price level of 1st Quarter of 2012 and corresponding indicative estimated completed project cost of not exceeding ₹8453.48 crore (including IDC & FC of ₹1340.21 crore and WCM of ₹175.72 crore). The investment approval of the project dated 19.3.2012 does not provide for the Scheduled Date of Commercial Operation (SCOD) of the units of the generating stations. However, the Petitioner has specified the SCOD as per Investment Approval in Form 5A of the Petition as 19.5.2016 for Unit-I and 19.11.2016 for Unit-II/generating station. Accordingly, the details of the actual COD as against SCOD indicated as submitted by the petitioner is as under:

Units	Date of investment approval (zero date)	Schedule COD as indicated in Form 5A	Scheduled Time period (months)	Actual COD	Actual Time period taken (months)	Time overrun (days)
I	19.3.2012	19.5.2016	50	1.2.2017	58.6	258
II		19.11.2016	56	18.9.2017	66.1	303



It is observed from the above that as against the SCOD as per investment approval, there is a total time over run of 8.6 months for Unit-I and 10.1 months for Unit-II in actual date of commercial operation of Unit-I & Unit-II.

Admissibility of Additional Return on Equity

6. The investment approval of Stage-II was accorded by the Board of the Petitioner Company on 19.3.2012. The time line as specified by the Commission in Schedule-I of the 2014 Regulations is 50 months for the first Unit and thereafter, at an interval of six (6) months for subsequent units. The actual time taken for declaration of commercial operation of Unit-I is 58.6 months and 66.1 months for Unit-II. Hence, the petitioner is not entitled to additional RoE of 0.5%, considered towards timely completion of the project.

Time Overrun

7. As stated, there is a time overrun of 8.6 months for Unit-I and 10.1 months for Unit-II as compared to the SCOD of the units in terms of the Investment Approval. The petitioner in the amended petition vide affidavit dated 5.8.2016 has furnished the reasons for time overrun with the help of PERT chart in order to examine the period of delay. The petitioner vide affidavit dated 4.5.2018 has submitted that the following events, which are beyond the control of the petitioner, have led to the delay in declaration of commercial operation of Units I & II of the Project.

- (a) Non-availability of Sand and moorum;
- (b) Heavy rainfall during construction activities;
- (c) Reduced manpower on account of increase in minimum wages by Govt. of Maharashtra;
- (d) Non-availability of gravel and moorum due to strike by stone crushers;
- (e) Agitation by Project Affected People;



- (f) Heavy rainfall during July, 2016;
- (g) De-monetisation of currency;
- (h) Non-availability of Associated Transmission System;

8. The Respondent, MPPMCL vide its reply affidavit dated 28.9.2016 has submitted that the project cost has abnormally increased on account of IDC for the period of time overrun and the various reasons given by the petitioner for the delay in COD of the project are not tenable and the delay is solely attributable to the petitioner. It has also submitted that the respondents are not responsible for the delay and hence the IDC on account of the delay may not be allowed to be capitalised as the work has got delayed due to poor planning and careless execution and not due to reasons furnished by the petitioner. The respondent has further submitted that poor project management by the petitioner has not only caused time and cost overrun and associated cost on the beneficiaries, but has also deprived crucial power availability to the beneficiaries for which commitment was made by the petitioner. Accordingly, the Respondent has prayed that the Commission may not allow the time overrun and associated cost in the interest of justice.

9. The Appellate Tribunal for Electricity in its judgment dated 27.4.2011 in Appeal No. 72 of 2010 (MSPGCL v MERC & ors) has laid down the following principles for prudence check of time over run and cost overrun of a project as detailed 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/suppliers 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.”

10. In the light of the above, we examine the reasons for the delay in COD of the said units, based on the documents available on record and the submissions of the parties, as stated in the subsequent paragraphs.

Non-availability of Sand and Moorum

11. The Petitioner has submitted the following:

(a) earlier the mining operations for minor minerals in Maharashtra were carried out in unscientific manner and there were no guidelines for extraction of minor mineral (building stones, gravel, ordinary sand, limestone lime burning, boulders, kankar, murum, brick earth ordinary clay, bentonite, road metal, slate, marble, stones used for making household utensils etc). The State Revenue Department used to permit mining of minor minerals by private players in areas of less than five hectares.

(b) In the matter related to mining of minor minerals, the Hon'ble Supreme Court by judgment dated 27.2.2012 made it mandatory to have prior Environmental Clearance irrespective of the area of mining lease. Following the judgment of the Hon'ble Court, the Ministry of Environment, Forest & Climate Change (MoEF&CC), issued OM dated 18.5.2012 stating that mining



projects with lease area up to less than 50 ha, including projects of minor minerals with lease area less than 5 ha, would be treated as category B, as defined in EIA Notification, 2006 and henceforth all mining projects of minor minerals would require prior environmental clearance irrespective of the lease area.

(c) Accordingly Dy. Secretary, Revenue and Forest Department, Maharashtra Government, vide letter dated 21.1.2013 informed the Divisional Commissioners and District Collectors that approval of State Pollution Committee is necessary for obtaining the secondary mineral excavation permit as per order dated 27.2.2012 passed by the Hon'ble Supreme Court. In view of the above change in procedure for secondary mineral excavation following the court order, supplies of sand and moorum got affected from third week of January, 2013 for around 3 months and this delayed all the civil works of units-I & II and other associated works which in turn affected the subsequent erection works of SG/TG & Auxiliaries of both the Units of the project.

(d) Further, with the onset of heavy monsoon in June, 2013 which continued up to August, 2013 and delay in auction of sand bed of Nagpur & Bhandara district, the construction activities for both the units of the Project especially the civil works were hampered on account of non-availability of sand to agencies working at site. As the above was resulting in delay in civil works of the generating station, the Petitioner took up the above issue with the mining in charge officer of Nagpur district requesting for sand availability on priority for this project. Hence, the delay on this count may be condoned.

12. The matter has been considered. The Petitioner has submitted that in compliance with the directions contained in the judgment dated 27.7.2012 of the Hon'ble Supreme Court Judgment, the Dy. Secretary, Revenue and Forest Department, State Govt. of Maharashtra vide its letter dated 21.1.2013 had made it mandatory to obtain secondary mineral excavation permit from the State Pollution Committee. The petitioner has also placed on record copies of the OM issued by the MOEF, GOI dated 18.5.2012 and the letter from Govt. of Maharashtra dated 21.1.2013. It is noticed that the Hon'ble Supreme Court by its judgment has made it mandatory to have prior Environmental Clearance irrespective of the area of mining lease. Pursuant to this, the State Govt. of Maharashtra had issued OM



dated 18.5.2012 stating that mining projects with lease area up to less than 50 ha, including projects of minor minerals with lease area less than 5 ha, would be treated as category B, and all mining projects of minor minerals would require prior environmental clearance irrespective of the lease area. The procedure to get permission for secondary mineral excavation includes an application to be filed by the parties to obtain Environmental Clearance, after due examination by the State/UTs Pollution Control Board on the basis of Environment Impact Assessment notification in 2006. Moreover, the petitioner had taken steps to mitigate the delay by raising the issue of non-availability of sand resulting in delay in civil works of the project with the mining in charge officer of the Nagpur district requesting him for sand availability to the project on priority basis. It is therefore evident that the non-availability of sand and moorum in the Project from the third week of January, 2013 till March, 2013 had hampered the civil works in the project resulting in the said delay. In view of this, we are inclined to condone the delay of 70 days from 21.1.2013 to 31.3.2013.

Heavy rainfall during Construction activities

13. The Petitioner has submitted the following:

(a) During the implementation of the project, Mouda and its surroundings (Vidarbha region) experienced unprecedented heavy rainfall during the months of June, 2013 till August, 2013. In the month of June, 2013, Nagpur received unprecedented heavy rainfall of 147% above the normal rainfall which continued in the subsequent months of July and August, 2013. The total rainfall recorded during the above months was about 1208 mm which is about 74% more than the normal rainfall. It led to flooding at site and in & around Vidarbha region of Maharashtra, which resulted in restriction of movement of men & machinery and virtually complete stoppage of work for around 3 months.

(b) It is further submitted that even after the end of above heavy monsoon period, due to water logging at site, the Civil works of many of the structures



which were in foundation stage at that time were delayed. Further, the soil strata at Mouda comprises of black cotton soil. The movement of piling rigs and associated heavy machines is almost impossible in wet black cotton soil until and unless the soil gets dried-up and accordingly all the piling foundation works of Units-I & II got delayed. Accordingly, the delay on this ground may be condoned.

14. The matter has been examined. The Petitioner has submitted that during the period from June, 2013 till August, 2013, Mouda and its surroundings experienced unprecedented heavy rainfall which led to flooding at site thereby resulting in restriction of movement of men & machinery and thereby stoppage of work for three months. The petitioner, on affidavit, has also enclosed extracts of the rainfall data as per report of the rainfall statistics of India -2013 and the site photographs demonstrating the conditions in and around the site. From the documents placed on record regarding heavy rainfall during 2013, it is observed that the monthly rainfall during the months of June 2013, July, 2013 and August 2013 in the Nagpur region was 390.0 mm, 478.7 mm and 339.3 mm respectively. This was unprecedented and was 147%, 55% and 21% respectively above the normal rainfall. Thus, as stated by the petitioner, there has been restriction in the movement of men & machinery which resulted in complete stoppage of works of the project. Moreover, the water logging at site had also contributed to the delay in civil works of the project. It is further observed that with the onset of heavy monsoon in June, 2013 which continued till August, 2013 and due to the delay in auction of sand bed of Nagpur & Bhandara district, the construction activities for both units of the project, especially the civil works, were hampered for non-availability of sand to agencies working at site. Accordingly, in our view, the delay on account of heavy rainfall during the months of June, 2013 till August, 2013 (from 3.6.2013 to 31.8.2013) was beyond the control of the petitioner and the



same is not attributable to the petitioner. It is also noticed that in Order dated 21.9.2015 in Petition No. 69/GT/2013 (approval of tariff of Mauda STPS, Stage-I for the period from COD to 31.3.2014), the Commission had condoned the delay on the ground of rainfall during the period from June, 2013 to August 2013 resulting in flooding at site. The relevant portion of the order is extracted hereunder:

“29. It is observed from the rainfall data submitted by the petitioner as received from the Irrigation Department of the Government of Maharashtra that there has been unprecedented rains of about 792 mm during the month of July, 2009 thereby affecting all the civil works of the project. Accordingly, the delay of 31 days for Unit-I and Unit-II due to rainfall is in our view beyond the control of the petitioner and hence, condoned. However, we find from PERT chart that rain did not have any impact in the overall actual commissioning of Unit-I and the delay of 9.5 months in the commissioning of Unit-I is due to other reasons. Further, there has been a delay of 111 days for Unit-II due to heavy rain from June, 2013 to September, 2013 (19.9.2013). From the rainfall data received from the Irrigation Department of Government of Maharashtra, it is observed that there was an average rain of 487.8 mm during the period from June, 2013 to September, 2013 as against the normal rain of 201 mm thereby resulting in flooding at site. Thus, there has been complete stoppage of construction activities like Civil works and the pending activities of coal conveying system for Unit-II. Accordingly, the delay of 111 days due to rain is beyond the control of the petitioner, and is thereby condoned. The petitioner cannot be held responsible and the generating company is to be given the benefit of 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.”

For the reasons above, we are inclined to allow the time overrun of 90 days from 3.6.2013 to 31.8.2013 on this count.

Reduced manpower on account of increase in minimum wages by Govt. of Maharashtra

15. The Petitioner has submitted the following:

- (a) the terms and conditions of the contract for most of the packages awarded for the generating station contain the provision for escalation of contract price on account of price adjustment to take care for the changes in the cost of labour and material. The price variation formula in the contract takes care of labour index based on all India CPI Index for industrial workers (Shimla Index).
- (b) During the implementation of the project, the Govt. of Maharashtra during the month of July, 2014 increased the Labour Minimum Wage from ₹278.79



to ₹392.08. The wage hike of ₹113 was very steep in comparison to the regular hike of about ₹7 to 8. As per the contract, the agencies are compensated for any price rise through payment of escalation as per all India CPI index which increased by 5.85% in comparison to the state increase of 20.72%.

- (c) The notification of revised rates of Minimum wages issued by Dy. Chief Labour Commissioner, Nagpur is attached at Annexure-N. As payment of Minimum Wages by agencies to the workers is a statutory requirement, the contracting agencies responded to this situation by reducing manpower (and /or) stopping wage payments, thereby affecting the progress of civil works which in turn delayed the handing over of foundation for subsequent erection, particularly in the Boiler area, thereby resulting in the delay of Boiler Hydro test for Unit-I. IVRCL, the main contracting agency to whom the civil works were awarded, including the main plant civil works, by its letter dated 30.10.2014 had raised the issue of additional financial burden. The delay on this count may accordingly be condoned.

16. The submissions have been considered. The Petitioner has submitted that during the month of July 2014, the State Govt. of Maharashtra had increased the Labour Minimum Wage from ₹278.79 to ₹392.08, which is higher by ₹113 in comparison to the regular hike of about ₹7 to 8. It is noticed that the Central Government vide Notification dated 20.5.2009 had fixed the minimum rates of wages for the employees employed in “Construction or Maintenance of Roads or Runways or in Building operations including Laying Down Underground Electric, Wireless, Radio, Television, Telephone, Telegraph & Overseas Communication Cable & Similar other Underground Cabling Work, Electric Lines, Water Supply Lines & Sewerage Pipe Lines”. In terms of the above notification, the Chief Labour Commissioner (Central), New Delhi vide order dated 4.3.2014 had revised the rates of variable dearness allowance for the employees employed in the above mentioned scheduled employment for the period from 1.4.2014 to 30.9.2014. Consequent upon this, the Deputy Chief Labour Commissioner (Central), Nagpur



vide his letter dated 5.9.2014 has fixed the minimum rates of wages for the employees employed in the above mentioned scheduled employment for the period from 1.7.2014 to 30.9.2014 under the Category (Zone-I, II & III). It has also been noted in the said letter that the rates of minimum wages in respect of the above Category under skilled, semi-skilled and unskilled fixed by the Government of Maharashtra or higher than the rates fixed by the Central Government, and therefore, the same shall be applicable. It is further noticed that the contracting agencies after considering the hike in minimum wages, has reduced the manpower and/or stopped wage payments thereby affecting the progress of civil works which in turn had delayed the handing over of foundation for subsequent erection in bowler area resulting in delay in boiler hydro test for Unit-I. In our view, the Petitioner could have agreed to make the payment of hike in minimum wages to the contractor in order to avoid delay in the civil works. The Petitioner has thus failed to take prudent utility practice by coordinating with the contractors and maintain the work force for completion of the work. Having failed to do so, we find no reason to condone the delay of 92 days from 1.7.2014 to 30.9.2014 as the delay was not beyond the control of the Petitioner. Accordingly, the delay on this ground has not been condoned.

Non Availability of gravel and moorum due to strike by Stone crushers

17. The Petitioner has submitted that the Department of Forest and Revenue, Govt. of Maharashtra vide notification dated 11.5.2015 had increased the rate of Royalty for gravel & moorum from ₹200 per brass to ₹400 per brass. It has submitted that against the said increase in rate of Royalty, the Orange City Stone Crushers Association of Nagpur called for strike from 31.10.2015 demanding the



reduction of rate of Royalty. The petitioner has submitted that the above strike resulted in the non-availability of gravel and moorum which is essentially required for carrying out civil works and thus, there was a complete stoppage of civil works, which was beyond the control of the petitioner. Accordingly, the delay may be condoned.

18. The matter has been considered. The Petitioner has submitted that there was strike called by the Orange City Stone Crushers Association of Nagpur on 31.10.2015 against the increase in rate of Royalty for gravel & moorum from 15.11.2015 resulting in the non-availability of gravel and moorum which are required to carry out civil works of the Project. We have gone through the notification dated 11.5.2015 issued by Department of Forest and Revenue, State Govt. of Maharashtra and the newspaper clippings showing details of the strike called by the stone crushers association. It is noticed from the PERT chart furnished by the petitioner that the event of strike was for the period from 9.11.2015 to 9.12.2015. Even though the newspaper clipping indicates the strike call as 15.11.2015, the period as to when the strike was called for/ended has not been substantiated through any documentary evidence by the petitioner. In this background, we are not inclined to condone the time overrun of 31 days as claimed by the petitioner, on this ground.

Agitation by Project Affected People (PAP)

19. The Petitioner has submitted the following:

(a) For pressing the demands of Project Affected People (PAP), Prahar Yuva Sangathan, a local political outfit, vide letter dated 21.4.2016 issued an ultimatum to the SDO, Mouda for fulfilment of their demands by 2.5.2016, and in the event of non-fulfilment of their demands, it had threatened to launch agitation.



(b) Agreement could not be reached on the demands made by PAP till the date of notice of agitation. M/s Prahar Yuva Sangathan started the DERA Andolan on 2.5.2016 which continued during the months of May, 2016 and June, 2016. During the above period, there was a complete stoppage of work at site on account of non-availability of man power.

(c) Unit-I which was already synchronized in the month of March, 2016 and work on all systems were going on for making the Unit ready for carrying out the trial operation of the unit before commercial declaration. However due to above agitation by PAP, the works of Unit -I got disrupted which were in a very crucial phase of and in turn delayed its commercial operation.

(d) As regards Unit-II which already got delayed on account of the non-availability secondary minerals and heavy rains earlier in the initial phases, were delayed as the erection activities which were in advanced stage got delayed further on account of this agitation.

20. The submissions have been considered. The Petitioner has submitted that Prahar Yuva Sangathan started the DERA Andolan pressing for demands of PAP on 2.5.2016 and the same continued during the months of May, 2016 and June, 2016. The Petitioner has submitted that there has been complete stoppage of work at site on account of non-availability of man power. The petitioner in justification of the same has submitted documents relating to the agitation and newspaper clippings. We have gone through the documents placed on record by the petitioner. It is noticed that the demands raised by PAP in their agitation related to minimum wages, provision for employment to PAPs, land acquisition, payment of land compensation along with interest, CSR works etc. It is observed that in Petition No. 38/MP/2018 filed by the petitioner seeking extension of cut-off date in respect of Mauda STPS, Stage-I, similar issue such as agitation being carried out by PAPs seeking compensation, demand for employment in lieu of the compensation was considered by the Commission. The Commission after considering the submissions of the Petitioner that negotiation process had been



taken up with the help of District Authority and that the agitation was expected to be concluded shortly, by order dated 9.10.2018 had held as under:

“19. We have examined the matter related to Land Compensation. The matter is related to the payment of one-time compensation being paid/ to be paid to the Project Affected People (PAP) as per agreement with Station Rehabilitation Authority. However, the Petitioner has submitted that PAPs are demanding employment in lieu of the compensation and in this regard an agitation was carried out during May 2016 which continued for nearly two months. Out of 600 PAPs, the Petitioner has disbursed compensation to 200 interested PAPs but with the remaining PAPs, the Petitioner has taken up the matter with district authority. Considering that this delay in work is beyond the reasonable control of the petitioner, we are of the view that in case Land Compensation payment is made in terms of order or decree, the same shall be considered under relevant provisions in Regulation 14 (3) (i) of the 2014 Tariff Regulations at the time of true-up and accordingly no extension of cut-off date is required.”

21. In our view, the agitation by PAPs raising various issues had affected the progress of the work at site due to non-availability of workforce personnel. This was beyond the control of the petitioner and the petitioner had also sought the help of the local administration to resolve this issue. In this backdrop, we are inclined to allow the time overrun of 61 days (1.5.2016 to 30.6.2016) on the ground that the delay is not attributable to the petitioner.

Heavy rainfall during July, 2016

22. The Petitioner has submitted that in the month of July' 2016, the total rainfall recorded was about 418 mm which was 35% above normal. It has also submitted that rainfall led to flooding at site and in and around the Vidarbha region of Maharashtra which resulted in the restriction of movement of men & machinery and thereby complete stoppage of work for one month. The matter has been examined. The petitioner has placed on record the extracts of the report of the rainfall data as per rainfall statistics of India-2016, the site photographs and the newspaper clippings demonstrating the conditions in and around the site. From the documents placed on record regarding heavy rainfall during July 2016, it has



been observed that the monthly rainfall during July, 2016 in the Nagpur region was 418.3 mm which was 35% above normal. Thus, there was restriction in the movement of men and machinery and the same has resulted in complete stoppage of work. In our view, the delay on account of heavy rainfall during the month of July, 2016 (from 1.7.2016 to 31.7.2016) was beyond the control of the petitioner and therefore the petitioner cannot be held responsible. Accordingly, we allow the time overrun of 31 days from 1.7.2016 to 31.7.2016 on this count.

Demonetization of Currency

23. The Petitioner has submitted that due to demonetization of currencies of higher denomination by the Government of India with effect from 00:00 hrs of 9.11.2016, there resulted a countrywide cash-crunch scenario. It has submitted that during these unforeseen circumstances, the majority of the contractual man power deployed by the agencies left the site abruptly and despite all possible efforts made by the petitioner for carrying out the trial run operation of Unit-I and the completion of critical activities for making Unit-II ready for synchronization and subsequent commissioning got hampered for around 1 month. Accordingly, the petitioner has prayed that time overrun on this count may be condoned.

24. We have gone through the submissions of the Petitioner. Though the petitioner has submitted that de-monetisation had led to contractual manpower abruptly leaving the site, the petitioner has not specifically demonstrated and/or elaborated the efforts taken by it to prevent the said manpower leaving the site abruptly. This situation, in our view, was not beyond the control of the petitioner considering the fact that the same could have been prevented had the petitioner made sincere and coordinated efforts with the contractor to retain said



contractual manpower at site and the work to be continued. It is pertinent to mention that the issue of demonetisation affecting the work of Mouda STPS-Stage-I was considered by the Commission in Petition No. 38/MP/2018 and by order dated 9.10.2018 the Commission observed as under:

“24. We have examined the matter. The matter is related to delay in construction of township owing to the strike by Stone Crushers Associations against the increase in rate of Royalty for gravel & moorum, Heavy Rains and Demonetization. It has been noted that the conduct of strike by Stone Crushers Associations against the increase in rate of Royalty for gravel & moorum from 31.10.2015 for nearly a period of one month has resulted in the non-availability of gravel and moorum which are required to carry out civil works. Further, heavy rains in the Vidarbha region of Maharashtra during the month of July 2016 have affected the works since there was an increase of 57% of rainfall than average. The Petitioner has submitted that due to demonetization of currencies of higher denomination by Gol w.e.f November 9, 2016, the majority of the contractual man power deployed by the agencies left the site abruptly and affected the work progress very adversely. The strike lasted for just one month, details of claimed higher rainfall and its effect on work has not been spelt out and demonetisation took place in November 2016 by when the cut-off date was only 4-5 months away. In our view, the reasons forwarded by the Petitioner are not sufficient to extend the cut-off period.”

In line with the above decision, we are not inclined to condone the delay of 30 days (from 8.11.2016 to 8.12.2016) on this ground.

Non Availability of Associated Transmission System (ATS)

25. The petitioner has submitted the following:

(a) In the 32nd WR Standing committee on transmission planning the Associated Transmission System of this generating station was decided as under:

- a. Mouda II- Betul 400 KV D/C (Quad)
- b. Betul- Khadwa 400 KV D/C (Quad)
- c. Khandwa - Rajgarh 400 KV D/C (2nd)
- d. Establishment of 400/220 KV, 2x315 MVA GIS subs station in Betul

(b) PGCIL was developing the ATS linked with Mouda STPS Stage-II and an indemnification Agreement was signed between Petitioner and PGCIL wherein the parties had agreed upon 1.1.2016 as the 'zero date' for the development of Mouda-Betul Transmission line. However the line could not be made ready by PGCIL as per the Indemnification Agreement.



(c) The petitioner raised the issue of readiness of 400 KV Mouda-Betul line in the 485th, 486th and 487th OCC meeting held on 15.7.2016, 15.8.2016 and 16.9.2016 respectively, which is essentially required for evacuation of power generated from this station. PGCIL in the above meetings informed that the line shall be made available by December, 2016.

(d) In the 488th OCC meeting of Western Region held on 17.10.2016, PGCIL informed that the completion of Mouda-Betul 400 kV D/C line is getting delayed due to severe ROW problem and the line was expected to be available by the month of March, 2017. During the above period, the commissioning activities of Unit-I were in advanced stage of completion and the petitioner was planning to commence the trial run operation before declaring the unit for commercial operation. In view of the delay in completion of Mouda-Betul 400 kV D/C line which is required to be in place for trial run operation of Unit-I and for continuous evacuation of power after the declaration of COD of Unit-I, the petitioner sought permission to inject power in to the grid through Mouda - Wardha 400 kV D/C line i.e. ATS of Mauda STPS-1 from which connectivity was also been granted to this generating station.

(e) However, to take care of 'N-1' tripping of one circuit and in view of system security, WRLDC vide its email dated 14.12.2016 restricted the quantum of power injection to 950 MW from Mouda Complex (2 x 500 MW + 1 x 660 MW) through existing Mouda-Wardha 400 kV D/C line which was further enhanced to 1150 MW.

(f) The issue of restriction of power flow was taken up by petitioner vide its letter dated 19.12.2016 wherein the petitioner once again requested PGCIL to expedite the completion of Mouda-Betul 400 kV D/C line at the earliest. Meanwhile, with the above restriction of power flow from Mouda Complex (2x500MW+1x660 MW), the petitioner successfully completed the trial run operation of Unit-I in first week of January 2017 (2nd January to 6th January 2017) after backing down the Units of Mouda STPS Stage-1.

(g) Subsequent to the successful trial run operation of Unit-I, the matter of readiness of Mouda-Betulline was again pursued with PGCIL vide letter dated 12.1.2017. CTU after the system study increased the quantum of power evacuation from existing Mouda-Wardha line to 1520 MW. With alternate arrangement power evacuation in place, the petitioner declared the COD of Unit-I w.e.f 1.2.2017. Therefore, the COD of Unit-I got delayed by around one month on account of non-availability of ATS.

(h) Immediately after the commercial operation of Unit-I, the petitioner synchronized the Unit- II on 18.3.2017. With the restriction in power flow from the existing Mouda-Wardha 400 kV D/C as communicated vide letter dated



25.1.2017, the Mouda-Betul 400 kV D/C readiness again became critical in order to carry out testing including full load testing and the trial run operation of second unit of this generating station. This issue of readiness of identified ATS was again taken up by the Petitioner with PGCIL vide its letter dated 4.4.2017. CTU instead of directing PGCIL for making the ATS ready had further increased the quantum of power evacuation from existing Mouda - Wardha 400 kV D/C line to 2120 MW.

(i) Subsequently PGCIL in the 496th OCC meeting held on 23.6.2017 again revised the target completion of Mouda-Betul 400 kV D/C line to July, 2017. Meanwhile, based on the enhanced quantum of power flow allowed in the existing Mouda-Wardha 400 kV D/C line, the petitioner successfully carried out the trial run operation of Unit-II (17th August 2017-20th August, 2017). Finally, Mouda-Betul 400 kV D/C line was declared for commercial operation on 24.8.2017 and immediately thereafter the petitioner declared the Unit-II for commercial operation w.e.f 18.9.2017.

26. The matter has been examined. As stated, Unit-I was synchronized on 28.3.2016 and Unit-II was synchronized on 18.3.2017. The zero date as per the Indemnification Agreement (IA) dated 15.3.2002 executed between the petitioner and PGCIL for ATS of Unit-I was 1.1.2016 and ATS of Unit-II was 1.7.2016, keeping in view the commissioning dates of December, 2015 for Unit-I and June, 2016 for Unit-II. Since the zero dates as agreed had already expired and neither side had come up, the COD of the entire Transmission system was proposed as 1.2.2017 matching it with that of the commissioning of Unit-I of this generation project. This is evident from para 18 of the Commission's order dated 3.10.2018 in Petition No 191/TT/2017as follows:

“With regard to delay in commissioning, the petitioner has submitted that for evacuation of power from Mauda-II STPP of NTPC, the whole TS had to be put under commercial operation as Mauda-II - Betul - Khandwa - Indore as the Scheme was approved as such. Moreover, since the Zero Dates as agreed had already passed and neither side came up, the COD of the entire Transmission System was proposed from 01.02.2017, matching it with that of the commissioning of Unit #1 of Mauda-II Generation Project.”



27. The ATS for this generation project was scheduled to be commissioned within 32 months from date of approval by the Board of Directors on 19.9.2013. Accordingly, the scheduled date of commercial operation of ATS was 19.5.2016. Therefore, any delay in ATS from SCOD is to be reckoned for any time overrun to be allowed to the generating units because of the non-commissioning of ATS. In view of the delay in completion of Mouda-Betul 400 kV D/C line which is the ATS connected to Unit-I, the Petitioner had sought the permission to inject power to the grid through Mouda-Wardha 400 kV D/C line i.e ATS of Mouda STPS-I from which connectivity was also granted to Stage-II project. WRLDC while taking care of n-1 tripping of one circuit and system security, has restricted the quantum of power inject to 950 MW from Mouda complex (2x 550 MW+1 x 660 MW) through existing Mouda-Wardha 400 kV D/C line which was further enhanced to 1150 MW. Even though the synchronization of Unit-I was done on 28.3.2016, the petitioner could not complete some of the balance work within 6 months thereof i.e. 28.9.2016, from date of first synchronization and had sought extension twice, first till 27.12.2016 and later upto 27.4.2017 or till COD whichever is earlier, for injection of infirm power for testing, including full load testing and accordingly the unit could not be declared under commercial operation. This is evident from para 4 of the Commission's order dated 23.12.2016 in the Petition No 247/MP/2016, which is extracted hereunder:

“The petitioner has submitted that immediately after the synchronization, all out efforts were made to complete the remaining erection and commissioning works of the project. However, the work/activities got affected due to local agitation led by project affected people in the month of May 2016 and June 2016 which resulted complete stoppage of work at site and the unit could not be declared under commercial operation.”

28. It is observed that the issue of the restriction of power flow was taken up by the petitioner vide its letter dated 19.12.2016 to expedite the completion of



Mouda-Betul 400 kV D/C line. Meanwhile, with the said restriction of power flow, the petitioner had successfully completed the trial run operation of Unit-I on 6.1.2017. Subsequent to the successful trial run operation of Unit-I, the matter of readiness of Mouda-Betul line was again pursued with PGCIL vide letter dated 12.1.2017. Further, the CTU, after the system study, increased quantum of power evacuation from existing Mouda-Wardha line to 1520 MW. With alternate power evacuation in line, the petitioner had declared COD of Unit-I on 1.2.2017. The petitioner was ready to declare COD of Unit-I on 6.1.2017 after the completion of trial run operation, but the COD of the necessary transmission facilities/line was declared only on 1.2.2017. Accordingly, there had been delay of about one month from 6.1.2017 to 1.2.2017 due to non-readiness of ATS for Unit-I. In view of this, we are inclined to condone the delay of 27 days.

29. It is further observed that after the COD of Unit-I, the petitioner has synchronized Unit-II on 18.3.2017. The Mouda-Betul 400 kV D/C line readiness again became critical due to power flow restriction from the existing Mouda-Wardha 400 kV D/C line. The issue of the readiness of identified ATS was again taken up by the petitioner with PGCIL vide letter dated 4.4.2017. It is noticed that the CTU instead of directing PGCIL for making ATS ready, increased the quantum of power evacuation from the existing Mouda-Wardha 400 kV D/C line to 2120 MW. Meanwhile, based on the enhanced quantum of power flow, the petitioner successfully carried trial run operation of Unit -II from 17th to 20th August, 2017. Thereafter, Mouda-Betul 400 kV D/C line was declared commercial operation on 24.8.2017 and immediately thereafter, the petitioner declared the COD of Unit-II on 18.9.2017. The question which arises for consideration is the time which the



petitioner could have taken to declare the actual COD from date of synchronization of the units, had there been the related ATS in place. It is observed from the PERT chart that as per the schedule four months has been considered from the synchronization to COD of units. In view of this, it could be concluded that the petitioner was ready to declare the COD of the station on 18.7.2017 (4 months from 18.3.2017) if ATS was made available. However, due to non-readiness of ATS, the petitioner had declared COD of Unit-II/generating station on 18.9.2017. In this background, the delay of 61 days (from 18.7.2017 to 18.9.2017) in our view, is beyond the control of the petitioner and accordingly the time overrun on this count is condoned.

30. To sum up, time overrun of 70 days due to non-availability of sand and moorum, 90 days due to heavy rainfall during construction activities, 61 days because of agitation by PAP, 31 days due to heavy rainfall during July, 2016 and 27 days for Unit-I and 61 days for Unit-II due to non-availability of ATS, thus totalling to 279 days for Unit-I and 313 days for Unit-II have been found to be beyond the control of the petitioner and has therefore, been condoned. Accordingly, in terms of the principles laid down by the Tribunal in its judgment dated 27.4.2011 [(situation (ii) above)], the delay on the said grounds are for reasons beyond the control of the petitioner for which the petitioner cannot be held responsible and the generating company is given the benefit of additional cost incurred due to time overrun. However, the LD recovered from the contractor and the insurance proceeds received, if any, would be considered for reduction of capital cost.

31. The total time overrun from SCOD to the actual COD for Unit-I is 258 days and for Unit-II is 303 days. However, it is noticed that the time overrun claimed due to



various events which have delayed the execution of the project is higher than the total time overrun. Therefore, it appears that during the period of project execution, the petitioner has reduced the time taken to achieve the milestones of some activities, which made it possible to restrict the total time overrun to 258 days and 303 days for Units-I and II respectively. In view of this, the total time overrun of 258 days for Unit-I and 303 days for Unit-II is condoned.

Actual Capital Cost as on COD

32. The petitioner by affidavit dated 4.5.2018 has claimed the actual capital cost incurred up to COD of Unit-I as under:

	(₹ in lakh)
Gross Block (as per IND AS) for the project as on COD of Unit-I*	1013304.68
Less: Gross Block (as per IND AS) for Mauda-I as on COD of Unit-I*	621271.37
Gross Block (as per IND AS) for Mauda-II as on COD of Unit-I*	392033.31
Less: IND AS adjustment to Gross Block, pertaining to Mauda-II, as on COD of Unit-I*	1271.91
Gross Block as per IGAAP (i.e. historical cost basis), pertaining to Mauda-II, as on COD of Unit-I (on accrual basis)*	390761.40
Less: Un-discharged liabilities included above*	35552.97
Gross Block as per IGAAP pertaining to Mauda-II, as on COD of Unit-I (on cash basis)*	355208.44
Add: Notional IDC	1323.08
Add: Short Term FERV (charged to revenue)	(-) 1108.67
Less: Inter-Unit Transfer (before COD)	16.94
Capital cost claimed as on COD of Unit-I	355405.91

* duly certified by Auditor

33. The auditor certified capital cost on accrual as well as cash basis amounting to ₹390761.40 lakh and ₹355208.44 lakh, as on COD of Unit-I, includes IDC & FC amounting to ₹42257.69 lakh and FERV amounting to ₹3671.25 lakh. Accordingly, the hard cost component of the capital cost as on COD of Unit-I works out to ₹344832.46 lakh on accrual basis and ₹309279.50 lakh on cash basis. Further, the hard cost (on cash as well as accrual basis) includes IEDC amounting to ₹10800.64 lakh as on COD of Unit-I. However, considering the details of IEDC as submitted in the petition the allowable IEDC works out to ₹9428.64 lakh. Accordingly, the hard



cost considered for the purpose of tariff as on COD of Unit-I works out to ₹307907.50 lakh.

IDC & FC

34. The petitioner has claimed IDC & FC amounting to ₹42257.69 lakh as on COD of Unit-I. However, considering the details of drawls, repayments and rate of interest applicable to each loan, the allowable IDC and FC, as on COD of Unit-I, works out to ₹42222.96 lakh. Accordingly, the IDC & FC to be deducted as on COD of Unit-I works out to ₹34.73 lakh

FERV

35. The petitioner has claimed FERV on loan amounting to ₹3671.25 lakh as on COD of Unit-I. Considering the details of drawls, repayments and exchange rates the same is found to be in order and has accordingly been allowed for the purpose of tariff.

Notional IDC

36. The petitioner has claimed Notional IDC amounting to ₹1323.08 lakh as on COD of Unit-I. There is no provision under the 2014 Tariff Regulations for allowing Notional IDC. However, Regulation 9 (2)(b) of the 2014 Tariff Regulations provides for allowance of Normative IDC (over and above actual IDC). Accordingly, considering the quarterly debt-equity position corresponding to actual cash expenditure allowable Normative IDC (over and above actual IDC) works out to ₹984.20 lakh, as on COD of Unit-I.

Short-term FERV charged to revenue

37. The petitioner has claimed Short-term FERV (gain) amounting to ₹1108.67 lakh as on COD of Unit-I. It has been consistent approach of the Commission to



allow FERV charged to revenue upto COD as part of capital cost for the purpose of tariff. As such, the same is being allowed.

Inter-unit transfer of temporary nature

38. The petitioner has claimed exclusion of inter-unit transfer of assets amounting to ₹16.94 lakh as on COD of Unit-I. In line with the consistent methodology adopted by the Commission for excluding inter-unit transfers of temporary nature for the purpose of tariff, the petitioner's claim under this head is allowed.

39. In view of above the capital cost as on COD of Unit-I allowed works out to 353660.29 lakh.

Additional Capital Expenditure from COD of Unit-I to COD of Unit-II

40. The petitioner has claimed additional capital expenditure amounting to ₹9331.32 lakh for the period from COD of Unit-I (i.e. 1.2.2017) to 31.3.2017 and ₹14396.09 lakh till 17.9.2017. The petitioner has reconciled the actual additional capital expenditure claimed for the period from COD of Unit-I till COD of Unit-II with books as shown below:

	(₹ in lakh)	
	2016-17 (1.2.2017 to 31.3.2017)	2017-18 (1.4.2017 to 17.9.2017)
Closing Gross Block as per IGAAP	1083309.68	1095658.74
Opening Gross Block as per IGAAP	1071717.33	1083309.68
Additional capital expenditure as per IGAAP	11592.35	12349.06
Less: Additional capital expenditure pertaining to Stage-I included above	6803.83	27.81
Additional capital expenditure as per books pertaining to Mauda-II	4788.53	12321.24
Less: Exclusion of Inter-unit transfer of assets	(-) 0.60	7.24
Net Additional capital expenditure claimed (on accrual basis)	4789.13	12314.00
Less: Un-discharged liabilities included above	1084.38	1249.47
Add: Discharge of liabilities (against allowed	5626.57	3331.56



assets/works)		
Net Additional capital expenditure claimed (on cash basis)	9331.32	14396.09

41. It is noticed that the petitioner has not furnished the auditor certificate in respect of the additional capital expenditure claimed. We therefore direct the petitioner to furnish Auditor certified statement showing reconciliation of the additional capital expenditure claimed with additional capital expenditure as per audited Financial Statement during truing-up exercise. However, the above additional capital expenditure claimed on cash basis has been considered for the purpose of tariff for the time being.

Actual capital cost as on COD of Unit-II (18.9.2017)

42. The details of the capital cost as on COD of Unit-II duly certified by auditor, as claimed by the petitioner is as under:

	<i>(₹ in lakh)</i>
Gross Block (as per IND AS) for the project as on COD of Unit-II*	1320637.95
Less: Gross Block (as per IND AS) for Mauda-I as on COD of Unit-II	628177.93
Gross Block (as per IND AS) for Mauda-II as on COD of Unit-II*	692460.02
Less: IND AS adjustment to Gross Block, pertaining to Madua-II, as on COD of Unit-II*	2955.55
Gross Block as per IGAAP (i.e. historical cost basis), pertaining to Mauda-II, as on COD of Unit-II (on accrual basis) *	689504.47
Less: Un-discharged liabilities included above*	60425.85
Gross Block as per IGAAP pertaining to Mauda-II, as on COD of Unit-II (on cash basis)*	629078.62
Add: Notional IDC	1468.31
Add: Short Term FERV (charged to revenue)	234.75
Less: Inter-Unit Transfer (before COD)	24.18
Capital cost claimed as on COD of Unit-II	630757.50

* Duly certified by Auditor

43. The Auditor certified capital cost (on accrual as well as cash basis) amounting to ₹689504.47 lakh and ₹629078.62 lakh as on COD of Unit-II, includes IDC & FC amounting to ₹80399.55 lakh and FERV amounting to ₹3145.50 lakh. Accordingly, the hard cost component of capital cost as on COD of Unit-I works out to



₹605959.42 lakh on accrual basis and ₹545533.57 lakh on cash basis. Further, the hard cost (on cash as well as accrual basis) includes IEDC amounting to ₹21299.80 lakh as on COD of Unit-II. However, considering the details of IEDC submitted by the petitioner, the allowable IEDC works out to ₹19927.80 lakh. Accordingly, the hard cost considered for the purpose of tariff as on COD of Unit-II/Station COD works out to ₹544161.57 lakh.

IDC & FC

44. The petitioner has claimed IDC & FC amounting to ₹80399.55 lakh as on COD of Unit-II. However, considering the details of drawls, repayments and rate of interest applicable to each loan, the allowable IDC and FC, as on COD of Unit-II, works out to ₹80374.26 lakh. Accordingly, IDC & FC to be deducted as on COD of Unit-II works out to ₹25.29 lakh.

FERV

45. The petitioner has claimed FERV on loan amounting to ₹3145.50 lakh as on COD of Unit-II. Considering the details of drawls, repayments and exchange rates, the same is found to be in order and hence allowed for the purpose of tariff.

Notional IDC

46. The petitioner has claimed Notional IDC amounting to ₹1468.31 lakh as on COD of Unit-II. As stated above, there is no provision under the 2014 Tariff Regulations for allowing Notional IDC. However, Regulation 9 (2)(b) of the 2014 Tariff Regulations provides for allowance of Normative IDC (over and above actual IDC). Accordingly, considering the quarterly debt-equity position corresponding to actual cash expenditure allowable Normative IDC (over and above actual IDC) works out to ₹1524.52 lakh, as on COD of Unit-II.



Short-term FERV charged to revenue

47. The petitioner has claimed Short-term FERV (loss) amounting to ₹234.75 lakh as on COD of Unit-II. It has been consistent approach of the Commission to allow FERV charged to revenue upto COD as part of capital cost for the purpose of tariff. As such, the same is being allowed.

Inter-unit transfer of temporary nature

48. The petitioner has claimed exclusion of inter-unit transfer of assets amounting to ₹24.18 lakh as on COD of Unit-II. In line with the consistent methodology adopted by the Commission for excluding inter-unit transfers of temporary nature for the purpose of tariff, the petitioner's claim under this head is allowed.

In view of above the capital cost allowed as on COD of Unit-II/Station COD works out to ₹629416.42 lakh.

Initial Spares

49. The cost of initial spares capitalised as on actual date of COD of the generating station (18.9.2017) is ₹115.29 crore which works out to 2.75% of the Plant & Machinery cost. This is within the limit of 4% of the Plant & Machinery cost as per Regulation 13(a) of the 2014 Tariff Regulations and hence allowed.

Pre-commissioning expenses and Infirm power

50. The petitioner in Annexure-F of its affidavit dated 4.5.2018 has submitted that the net amount of (-)₹119.59 crore has been borne by the petitioner towards the pre-commissioning expenses which is after adjustment of revenue earned from the sale of infirm power corresponding to ₹15.90 crore as on COD of Unit-I. Further, with respect



to Unit-II, the petitioner has submitted that the net amount of (-) ₹92.64 crore has been borne by the petitioner towards pre-commissioning expenses which is after adjustment of the revenue earned from sale of infirm power amounting to ₹15.45 crore as on COD of Unit-II.

51. From the submissions of the petitioner in Form-5Ei, it is noticed that there is no cost overrun in respect of the generating station. The increase/ decrease in the expenditure as approved under the Investment Approval *vis a vis* the estimated expenditure as on the cut-off date is as follows:

	As per original investment approval	Estimated expenditure till cut-off date	(₹ in crore) % Increase (+)/ Decrease (-)
Land & Site Development	102.56	193.64	88.81%
Plant & Equipment excluding tax	5016.81	4958.67	(-) 1.16%
Taxes & Duties for Plant & Equipment	93.48	48	(-) 48.65%
Initial Spares	199.69	199.62	(-) 0.04%
Civil Works	1124.81	987.07	(-) 12.25%
Construction & Pre-Commissioning Expenses	49.6	227.56	358.79%
Overheads	350.58	272.28	(-) 22.33%
Total Capital Cost (excluding IDC & FC)	6937.55	6886.86	(-) 0.73%
IDC, FC, FERV & Hedging Cost	1340.20	934.29	(-) 30.29%
Total Capital Cost (including IDC & FC)	8277.75	7821.15	(-) 5.52%

52. It is observed from the above table that there is increase in expenditure in terms of Land & Site development and Construction & Pre-Commissioning expenses. The justification for increase in cost related to Land & Site development as submitted by the Petitioner is due to enhanced compensation of land and provision for additional R&R benefits in line with the guidelines specified by the State Rehabilitation Authority. The increase in expenditure for Construction & Pre-Commissioning Expenses is due to increase in the cost of start-up fuel from ₹33.26 crore as approved



in the original investment approval to ₹211.96 crore estimated as on cut-off date. Hence, therefore accept the justification furnished by the petitioner and observe that there is no overall cost overrun on estimated basis till the cut-off date of the generating station.

Projected Additional capital expenditure from COD of Unit-II/Station COD to 31.3.2019

53. The petitioner has claimed additional capital expenditure amounting to ₹10601.38 lakh for the period from COD of Unit-II/Station COD to 31.3.2018 and ₹52762.78 lakh for the year 2018-19, on projected basis. The petitioner in Form-9Bi "*Details of Assets De-capitalised during the period*" has furnished the break-up of assets adjusted/de-capitalised during the period from 18.9.2017 to 31.3.2018 amounting to ₹718.29 lakh. However the petitioner has not furnished the reasons for such adjustment/de-capitalization soon after the COD of Unit-II. Considering the fact that the additional capital expenditure claimed for the period from 18.9.2017 to 31.3.2018 is on projected basis, no adjustment has been made to the cumulative depreciation and cumulative repayment on account of such de-capitalisation. The petitioner is also directed to furnish the detailed reasons for such adjustment/de-capitalisation at the time of truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations.

Reasonableness of Capital Cost

54. The total estimated capital expenditure of the generating station claimed in Form- 5B as on the cut-off date i.e. 31.3.2020, excluding IDC, FERV & FC of ₹934.29 crore works out as ₹6886.87 crore (₹5.22 crore /MW). It therefore appears that the capital cost of Stage-II (Unit-I & Unit-II) of the generating station as on the cut-off date is marginally higher than the benchmark capital cost of ₹5.01



crore/MW, based on December, 2011 Price level, as specified by the Commission. However, it is noticed that the hard cost of the project includes an amount of ₹110.54 crore towards MGR system and locomotives, ₹227.56 crore towards Pre-commissioning expenses, which have not been included in the bench mark cost specified by the Commission. Thus, after excluding the amount of ₹338.10 crore (110.54+227.56), the hard cost works out to ₹6548.77 crore, which is 4.96 crore/MW (6886.87-338.10). The generating station was commissioned during the year 2017-18 and the bench mark cost was specified based on December, 2011 price index. In this background, we are of the view that the hard cost of ₹4.96 crore/MW is less than the bench mark cost of ₹5.01/MW at December, 2011 price level which is considered reasonable. Accordingly, the per MW capital cost (hard cost) based on the Investment Approval and as on the cut-off date is as under:

	<i>(₹ in crore)</i>	
	Completed capital cost as per original investment approval	As on cut-off date of station i.e 31.3.2020
Capital cost including IDC, FERV & FC	8277.75	7821.16
IDC, FERV & FC	1340.20	934.29
Hard cost	6937.55	6886.87
Hard cost excluding MGR, locomotives, land and R&R cost etc of ₹338.10 which are not included in Benchmark Cost	-	6548.77
Comparable Hard Cost (₹/MW)	5.22	4.96
Benchmark capital cost (December 2011 as per commission's order dated 4.6.2012 (₹/MW)	-	5.01

The information in respect of list of works covered under original scope of work for Mauda-II vis-à-vis now claimed up to 31.3.2019 shall be submitted at the time of truing-up exercise of the tariff of the generating station.



Capital Cost for 2016-19

55. In view of above, the capital cost considered for the purpose of tariff, is as under:

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		(₹ in lakh) 2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Opening Capital Cost	353660.29	362991.61	629416.42	640017.80
Add: Additional capital expenditure	9331.32	14396.09	10601.38	52762.78
Closing Capital Cost	362991.61	377387.70	640017.80	692780.58
Average Capital Cost	358325.95	370189.66	634717.11	666399.19

Debt-Equity Ratio

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

“19. Debt-Equity Ratio

(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.”

57. Considering the details of cash expenditure as submitted at Form-14A and the net loan position as on COD of the station, the debt-equity ratio as on COD of Unit-I and Unit-II works out to 67.87:32.13 and 69.19:30.81, respectively, which is within the normative debt-equity norm of 70:30. As such, the debt-equity ratio of 70:30 has been considered for the purpose of tariff as on COD of Unit-I (including the admitted additional capital expenditure for the period from COD of Unit-I till COD of Unit-II) and COD of Unit-II. Further, for the projected additional capital



expenditure allowed during the period from COD of Unit-II till 31.3.2019, the debt-equity ratio of 70:30 has been considered for the purpose of tariff. This is subject to truing up exercise terms of Regulation 8 of the 2014 Tariff Regulations.

Return on Equity

58. 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.”

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

“25. Tax on Return on Equity:



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

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

$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$

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.”

60. The petitioner has claimed return on equity considering the base rate of 15.5% and the effective tax rate of 21.3416% (MAT Rate @ 18.5% plus surcharge @ 12% plus Education Cess @ 3%) for the period 2016-19. This has been considered, subject to truing-up exercise. Return on equity has been computed as under:

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Normative Equity - Opening	106098.09	108897.48	188824.92	192005.34
Addition due to additional capital expenditure	2799.40	4318.83	3180.41	15828.83
Normative Equity - Closing	108897.48	113216.31	192005.34	207834.17
Normative Equity - Average	107497.79	111056.90	190415.13	199919.76
Base Rate for return on equity	15.500%	15.500%	15.500%	15.500%
Applicable Tax Rate	21.3416%	21.3416%	21.3416%	21.3416%
Rate of Return on Equity (Pre-tax)	19.705%	19.705%	19.705%	19.705%
Return on Equity	21182.44	21883.76	37521.30	39394.19

Interest on Loan

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



“26. Interest on loan capital:

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

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

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

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

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

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

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

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

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

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

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

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



i) Gross normative loan corresponding to the admissible capital cost works out to ₹247562.21 lakh and ₹440591.49 lakh as on COD of Unit-I and Unit-II, respectively.

ii) The net opening loan (normative) as on COD of Unit-I is same as gross normative loan, the cumulative repayment of normative loan up to the previous year/period being nil.

iii) Depreciation allowed has been considered as (normative) repayments for respective periods.

iv) Average net loan has been calculated as average of opening and closing.

v) Weighted average rate of interest has been computed considering details of actual loan portfolio as submitted by the petitioner.

63. The necessary calculation for interest on loan is as under:

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Gross Normative Loan	247562.21	254094.13	440591.49	448012.46
Cumulative Repayment	0.00	3052.74	12167.54	30085.16
Net Normative Loan - Opening	247562.21	251041.39	428423.95	417927.30
Addition due to additional capital expenditure	6531.92	10077.26	7420.97	36933.95
Repayment of Normative Loan	3052.74	9114.81	17917.61	35212.16
Net Normative Loan - Closing	251041.39	252003.85	417927.30	419649.08
Normative Loan - Average	249301.80	251522.62	423175.62	418788.19
Weighted Average Rate of Interest	6.3949%	6.1468%	6.1243%	6.1393%
Interest on Loan	15942.50	15460.64	25916.47	25710.64

Depreciation

64. The petitioner has claimed depreciation considering the weighted average rate of depreciation of 5.2705%, 5.2865% and 5.2839% for the period from COD of Unit-I to 31.3.2017, from 1.4.2017 to COD of Unit-II and from COD of Unit-II to 31.3.2019, respectively, considering the rates of depreciation as enclosed in Appendix-III to the 2014 Tariff Regulations. This has been considered for the purpose of tariff. Accordingly, depreciation has been calculated as under:



(₹ in lakh)

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Average Capital Cost	358325.95	370189.66	634717.11	666399.19
Weighted Average Rate of Depreciation	5.2705%	5.2865%	5.2839%	5.2839%
Depreciable Value	322493.36	333170.69	571245.40	599759.27
Remaining Depreciable Value	322493.36	330117.96	559077.85	569674.11
Depreciation for the period	3052.74	9114.81	17917.61	35212.16
Depreciation for the year (annualized)	18885.56	19570.03	33538.10	35212.16
Cumulative depreciation (at the end of the year/period)	3052.74	12167.54	30085.16	65297.32

Operation & Maintenance Expenses

65. Regulation 29(1) (a) of the 2014 Tariff Regulations provides for the following O&M expense norms for coal based generating stations of 600 MW sets & above:

(₹ in lakh/MW)

2014-15	2015-16	2016-17	2017-18	2018-19
14.40	15.31	16.27	17.30	18.38

66. The petitioner has claimed O&M expenses under Regulations 29(1) and Water Charges under Regulation 29 (2) of the 2014 Tariff Regulations as under:

(₹ in lakh)

	2016-17	2017-18		2018-19
	1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
O&M expenses under Regulation 29(1)	10738.20	11418.00	22836.00	24261.60
Water charges under Regulation 29(2)	183.25	134.69	329.71	998.40
Total O&M expenses	10921.45	11552.69	23165.71	25260.00

67. Based on the O&M norms, the following O&M expenses are allowed to the generating station:



(₹ in lakh)

	2016-17	2017-18		2018-19
	1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
O&M expenses under Reg. 29(1) (annualised)	10738.20 (16.27 x 660)	11418.00 (17.3 x 660)	22836.00 (17.3 x 1320)	24261.60 (18.38 x 1320)
O&M expenses under Reg. 29(1) (pro rata)	1735.76	5317.97	12512.88	24261.60

Water Charges

68. The Petitioner has claimed Water charges for the period 2016-19 under Regulation 29(2) in Form-I as under:

(₹ in lakh)

2016-17	2017-18		2018-19
1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
183.25	134.69	329.71	998.40

69. As per Regulation 29(2) of the 2014 Tariff Regulations, Water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details in respect of water charges such as type of cooling water system, water consumption, rate of water charges as applicable for the year 2016-17 and 2017-18 furnished by the petitioner is as under:

Description	Remarks
Type of Plant	Coal
Type of cooling water system	Closed Circuit Cooling System
Allocation of Water for (Stage-I & II)	100 MCM
Rate of Water charges	₹3.84 per cubic meter (₹3.2 per cubic meter + cess @ 20 paisa/rupee)
Total water charges in 2016-17 (1.2.2017 to 31.3.2017)	₹15.563 lakh
Total water charges in 2017-18 (1.4.2017 to 17.9.2017)	₹62.73 lakh
Projected water charges in 2017-18 (18.9.2017 to 31.3.2018) yearly amount	₹329.71 lakh
Projected water charges in 2018-19	₹998.40 lakh

70. It is observed that the water charges claimed for the year 2016-17 (1.2.2017 to 31.3.2017) in Form-I and those indicated in the body of the petition are different i.e



₹183.25 lakh and ₹15.563 lakh. The original demand quantity for Stages-I & II (2320 MW) of the generating station as per Main Water Agreement dated 22.8.2011 is 100 MCM. The pro-rata allocation for 1320 MW is 57 MCM. The rate of water charge is ₹3.84/cubic meter. It is observed from the sub-agreements dated 11.4.2016 and 22.3.2017 which form part of the main agreement dated 22.8.2011, that the generating station has to submit the requirement of water for 2016-17 and 2017-18 respectively at the beginning of the year, not exceeding the original demand of 100 MCM. The demand for the year 2016-17 was 16 MCM and for 2017-18 was 30 MCM as against original demand of 100 MCM. For the year 2016-17, it appears that most of the demand for 16 MCM is for Stage-1 (1000 MW) as the COD of Unit-I of Stage-II was declared on 1.2.2017 only. As per agreement, the maximum charges for water during 2016-17 for 16 MCM works out to ₹614.40 lakh (16 x 3.84 x 10). The water charges for 16 MCM and 1660 MW capacity (stage-I: 1000 MW + stage-II: 660 MW) works out to ₹614.40 lakh in 2016-17. Therefore, the water charges (annualized) for Unit-I (660 MW) of Stage-II is 244.27 lakh [(660/1660) x 614.40] and the pro-rata charge for 59 days (from 1.2.2017 to 31.3.2017) works out to ₹39.49 lakh. Accordingly, the water charge of ₹39.49 lakh in 2016-17 has been allowed. For the year 2017-18, the Petitioner has claimed water charges of ₹62.73 lakh for the period from 1.4.2017 to 17.9.2017 and ₹329.71 lakh (on projected basis) for 18.9.2017 to 31.3.2018, on annualized basis. Based on the agreement, the water charges have been calculated for the period 2017-18 as under:



Period	No. of days	Demand by the Petitioner during the whole year in MCM	Quantum operationalized for the whole station (Stage-I & II)	Quantum operationalized for Stage -II (MW)	Tariff (₹./cubic meter)	Yearly amount - annualised (₹ in lakh)	Pro-rata amount on number of days (₹ in lakh)
	a	b	c	d	e	$f=b*d*e*10/c$	$g=f*a/365$
1.4.2017 to 17.9.2017	169	30	1660.00	660	3.84	458.02	212.07
18.9.2017 to 31.3.2018	194	30	2320.00	1320	3.84	655.45	348.38

71. Based on the above calculations, it is evident that the water charges claimed by the Petitioner for 2017-18 are within limits and therefore appears to be reasonable.

72. Further, as per CEA norms, the water requirement for 500 MW and above is 3.5 m³/ MW/hr for the first year of operation and subsequently 3.0 m³/MW/hr. Based on this, the water requirement for 660 MW for the first year (2016-17) works out to 20.23 MCM (3.5 m³ x 660 MW x 8760 hr). In the present case, the petitioner has demanded only 16 MCM for 2016-17 and 30 MCM for 2017-18 which also includes water requirement for Stage-I (1000 MW). Therefore, the claim of the Petitioner for 2016-17 and 2017-18 is required to be considered for tariff. For the year 2018-19, the Petitioner has not furnished the sub-agreement which shows the quantum demanded by the petitioner before the start of the year 2018-19. However, for the purpose of calculation, we have considered the demand of 30 MCM (2017-18) for the year 2018-19 also and the water charges have been worked out as under:

Year	No. of days	Demand by the Petitioner during the whole year in MCM	Quantum operationalized for the whole station (Stage-I & II)	Quantum operationalized for Stage -II (MW)	Tariff (₹/cubic meter)	Yearly amount -annualised (₹ in lakh)
	a	b	c	d	e	$f=b*d*e*10/c$
1.4.2018 to 31.3.2019	365	30	2320.00	1320	3.84	655.45



73. We notice that the water charges of ₹998.40 lakh claimed by the petitioner for the year 2018-19 are on higher side. Hence, the water charges of ₹655.45 lakh, calculated as above, have only been allowed for the year 2018-19.

74. It is observed that the petitioner, on the basis of sub-agreement dated 11.4.2016, has to pay royalty @5% water charges, on yearly cost, for the difference between 90% of the total sanctioned demand and the yearly sanctioned demand. However, the petitioner on its own has made the original demand of 100 MCM for the generating station in its agreement dated 22.8.2011. In our view, if the actual yearly demand is less than the original contracted demand of 100 MCM, then the royalty charges for the difference between yearly demand and the original envisaged demand has to be borne by the Petitioner and the same cannot be passed to the beneficiaries. The Water charges allowed as above is subject to truing-up exercise based on the actual expenditure incurred towards water charges.

75. Based on the above discussions, the total O&M expenses, including water charges, have been allowed as under:

	(₹ in lakh)			
	2016-17	2017-18		2018-19
	1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
O&M expenses under Regulation 29(1) (<i>pro-rata</i>)	1735.76	5317.97	12512.88	24261.60
Water charges under Regulation 29(2) (<i>pro-rata</i>)	39.49	212.07	348.38	655.45
Total O&M expenses (<i>pro-rata</i>)	1775.25	5530.04	12861.26	24917.05
O&M expenses under Regulation 29(1) (<i>annualised</i>)	10738.20	11418.00	22836.00	24261.60
Water charges under Regulation 29(2) (<i>annualised</i>)	244.27	458.02	655.45	655.45
Total O&M) expenses (<i>annualised</i>)	10982.47	11876.02	23491.45	24917.05



Operational Norms

76. The following norms of operation have been considered by the petitioner for the purpose of tariff.

Normative Annual Plant Availability Factor	83%
Gross Station Heat Rate (kcal/kWh)	2247.97
Auxiliary Power Consumption (%)	5.75%
Specific Fuel Oil Consumption (ml/kWh)	0.5

Normative Annual Plant Availability Factor

77. Regulation 36 of the 2014 Tariff Regulations provides as under:

“(A) Normative Annual Plant Availability Factor

(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 1.4.2014.

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

78. The petitioner has however submitted that the generating station after declaration of commercial operation of the units continues to face coal shortages due to non-signing of FSA corresponding to its requirement by the coal companies, thereby resulting difficulty in achieving the normative target availability of 85%. It has submitted that shortage of coal mentioned above is for reasons beyond the control of the petitioner and for factors not attributable to the petitioner. The petitioner has also pointed out that it has filed Petition No. 46/MP/2018 before this Commission for revision of NAPAF in respect of power generating stations of the petitioner (which includes this generating station also) on account of shortage of coal availability. Accordingly, the petitioner has submitted that without prejudice to the claim in the said petition, it has claimed NAPAF of 83% for recovery of fixed charges for the period



2017-19 in terms of the Regulations and difficulties faced due to uncertainty of coal supply on sustained basis for this generating station. The matter has been considered. It is observed that Petition No. 46/MP/2018 filed by the petitioner is pending for consideration by the Commission. Accordingly, NAPAF of 83% in 2016-17 and 85% during the years 2017-18 and 2018-19 has been considered for purpose of tariff. This is however subject to the final decision of the Commission in Petition No. 46/MP/2018.

Gross Station Heat Rate

79. Regulation 36 (C) (b) of the 2014 Tariff Regulations provides as follows:

New Thermal Generating Station achieving COD on or after 1.4.2014

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

= 1.045 × Design Heat Rate (kcal/kWh)

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

Provided also that where unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the unit design heat rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Provided also that where the boiler efficiency is below 86% for sub-bituminous Indian coal and 89% for bituminous imported coal, the same shall be considered as 86% and 89% respectively for sub-bituminous Indian coal and bituminous imported coal for computation of station heat rate."

80. The petitioner has furnished the Design turbine cycle heat rate and boiler efficiency as 1834.50 kCal/kWh (at 100% MCR and 0% make-up water) and 85.4% respectively. Accordingly, the unit Station Heat Rate worked out from the data furnished by petitioner is 2148.13 kCal/kWh (1834.5/0.854). The Respondent, MPPMCL has submitted that the GSHR of 2227.94 kCal/kWh may be considered for the purpose of tariff in accordance with the above regulation. In accordance with the proviso to Regulation 36 (C) (b), the Design Heat Rate has been worked out considering the Turbine Cycle Heat Rate of 1834.50 kCal/kWh and the boiler efficiency as 86%.i.e



2133.14 kCal/kWh (1834.50/0.86). The Gross Station Heat Rate as per the 2014 Tariff Regulations is 1.045 x Design Heat Rate (kCal/kWh). Therefore, the Gross Station Heat Rate works out to 2229.13 kCal/kWh {2133.14×1.045}. For the purpose of determination of tariff, the Gross Station Heat-Rate of 2229.13 kCal/kWh has accordingly been considered.

Auxiliary Energy Consumption

81. Regulation 36(E)(a)(ii) of the 2014 Tariff Regulations provides the normative Auxiliary Energy Consumption for 300/330/350/500 MW and above as 5.25% for Steam driven boiler feed pump and 0.5% has been additionally provided for Induced Draft Cooling Tower. Accordingly, the normative Auxiliary Energy Consumption of 5.75% (5.25%+0.5%) has been considered in terms of the regulations.

Specific Fuel Oil Consumption

82. Regulation 36(D)(a) of the 2014 Tariff Regulations provides Secondary fuel oil Consumption of 0.50 ml/kWh for coal-based generating station. The Petitioner in Form-3 has furnished the Specific Fuel Oil Consumption of 0.50 ml/kWh. Hence, the Secondary fuel oil Consumption considered by the petitioner is as per norms and has been allowed.

83. Accordingly, the norms of operation allowed for the purpose of tariff is as under:

Normative Annual Plant Availability Factor	83% (2016-17) & 85% (2017-18 & 2018-19)
Gross Station Heat Rate (kCal/kWh)	2229.13
Auxiliary Power Consumption (%)	5.75
Specific Fuel Oil Consumption (ml/kWh)	0.5



Interest on Working Capital

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

“28. Interest on Working Capital: 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

85. The Petitioner has claimed the cost for fuel component in working capital based on price and “as received basis” GCV of coal procured and burnt for the preceding three months before COD of Unit-I i.e. November, 2016, December, 2016 and January, 2017 and for the preceding three months before COD of Unit-II i.e. June, 2017, July, 2017 and August, 2017 and Secondary fuel oil as under:

(₹ in lakh)

	2016-17	2017-18		2017-18
	1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	1.4.2018 to 31.3.2019
Cost of Coal for 1 month towards stock	8494.95	8494.95	18530.90	18530.90
Cost of Coal for 1 month towards generation	8494.95	8494.95	18530.90	18530.90
Cost of Secondary fuel oil for 2 month	164.63	164.18	334.29	334.29



86. The cost of fuel component in Working Capital computed at 83% NAPAF for the year 2016-17 and at 85% NAPAF for the years 2017-18 and 2018-19 based on 'as received' GCV of Coal and Price of coal procured and secondary fuel oil for the preceding three months from November, 2016, December, 2016 and January, 2017 for Unit-I and from June, 2017, July, 2017 and August, 2017 for Unit-II/Station is allowed as under:-

	(₹ in lakh)			
	2016-17 (1.2.2017 to 31.3.2017)	2017-18 (1.4.2017 to 17.9.2017) (18.9.2017 to 31.3.2018)		2018-19
Cost of Coal for towards stock (30 days)	8399.73	8602.13	18818.21	18818.21
Cost of Coal for towards generation (30 days)	8399.73	8602.13	18818.21	18818.21
Cost of Secondary fuel oil for 2 month	164.18	168.14	342.35	342.35

87. It is pertinent to mention that the cost allowed during the years 2017-18 and 2018-19 are higher than the cost claimed by the petitioner. This is on account of the fact that while the claim of the petitioner is based on 83% PAF, the cost allowed in this order for the years 2017-18 & 2018-19 is based on 85% PAF.

Energy Charge Rate (ECR)

88. The Petitioner has claimed Energy Charge Rate (ECR) of 251.47 paise/kWh based on the weighted average price, GCV of coal (as received basis & Oil procured and burnt for the preceding three months before COD of Unit-I i.e. November, 2016, December, 2016 and January, 2017 and for the preceding three months before COD of Unit-II i.e. June, 2017, July, 2017 and August, 2017. Accordingly, the ECR, based on operational norms specified under the 2014 Tariff Regulations and on "as received" GCV of coal is worked out as under:



Sl. No	Description	Unit	Unit-I (1.2.2017 to 31.3.2017) & (1.4.2017 to 17.9.2017)	Unit-II/station (18.9.2017 to 31.3.2018) & 2018-19
(1)	Capacity	MW	1x660	2x660
(2)	Weighted Average Gross Station Heat Rate	Kcal/kWh	2229.13	2229.13
(3)	Weighted Average Auxiliary Energy Consumption	%	5.75	5.75
(4)	Weighted Average GCV of Oil	Kcal/lit	9401.42	9401.42
(5)	Weighted Average GCV of Coal (As received)	Kcal/kg	3549.54	3218.31
(6)	Weighted Average price of oil	₹/KL	41055.86	41797.37
(7)	Weighted Average price of Coal	₹/MT	3398.32	3370.25
(8)	Rate of energy charge ex-bus	₹/kWh	2.281	2.494

89. Energy charges for two (2) months for the purpose of Working Capital are worked out as under:

(₹ in lakh)			
2016-17	2017-18		2018-19
(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
17194.18	17608.50	38505.57	38505.57

Maintenance Spares

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

(₹ in lakh)			
2016-17	2017-18		2018-19
(1.2.2017 to 31.3.2017)	(1.4.2017 to 17.9.2017)	(18.9.2017 to 31.3.2018)	
2184.29	2310.54	4633.14	5052.00

91. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for maintenance spares @ 20% of the operation and maintenance expenses. As specified in Regulation 29 (2) of the 2014 Tariff Regulations, maintenance spares @ 20% of the operation and maintenance expenses, including water charges, is allowed as under:



(₹ in lakh)			
2016-17	2017-18		2018-19
1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
2196.49	2375.20	4698.29	4983.41

O & M Expenses (1 month)

92. O&M expenses for 1 month claimed by the petitioner for the purpose of working capital are as under:

(₹ in lakh)			
2016-17	2017-18		2018-19
1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
910.12	962.72	1930.48	2105.00

93. Based on the O&M expense norms specified under the 2014 Tariff Regulations, the O&M expenses for 1 month are allowed as under:

(₹ in lakh)			
2016-17	2017-18		2018-19
1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
915.21	989.67	1957.62	2076.42

Receivables

94. Receivables equivalent to two months of capacity charge and energy charges has been worked out and allowed as under:

	(₹ in lakh)			2018-19
	2016-17	2017-18		
	1.2.2017 to 31.3.2017	1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Variable Charges - for two months	17194.18	17608.50	38505.57	38505.57
Fixed Charges - for two months	12221.30	12550.87	22291.96	23112.12
Total	29415.48	30159.37	60797.53	61617.69

Rate of interest on working capital

95. 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.”

96. In terms of the above regulations, Bank Rate of 12.80% (SBI Base Rate of 9.30% (as on 1.4.2016) + 350 bps) and 12.60% (SBI base rate of 9.10% as on 1.4.2016 + 350 bps) for the period from COD of Unit-I to Unit-II and from COD of Unit-II till 31.3.2019, respectively has been considered for the purpose of calculating interest on working capital. Interest on working capital has been computed as under:

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Cost of coal for 30 days towards stock	8399.73	8602.13	18818.21	18818.21
Cost of coal for 30 days towards generation	8399.73	8602.13	18818.21	18818.21
Cost of secondary fuel oil for two months	164.18	168.14	342.35	342.35
Maintenance spares	2196.49	2375.20	4698.29	4983.41
Receivables for two months	29415.48	30159.37	60797.53	61617.69
O&M expenses for one month	915.21	989.67	1957.62	2076.42
Total Working Capital	49490.82	50896.64	105432.21	106656.29
Rate of interest	12.8000%	12.8000%	12.6000%	12.6000%
Interest on working capital	6334.82	6514.77	13284.46	13438.69

Annual Fixed Charges

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

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
Depreciation	18885.56	19570.03	33538.10	35212.16
Interest on Loan	15942.50	15460.64	25916.47	25710.64
Return on Equity	21182.44	21883.76	37521.30	39394.19
Interest on Working Capital	6334.82	6514.77	13284.46	13438.69
O&M Expenses	10982.47	11876.02	23491.45	24917.05
Total	73327.80	75305.23	133751.78	138672.74

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



98. Pro rata tariff shall be calculated using the bases as shown below:

	2016-17 (1.2.2017 to 31.3.2017)	2017-18		2018-19
		1.4.2017 to 17.9.2017	18.9.2017 to 31.3.2018	
No of days in year	365	365	365	365
No. of days for which tariff is to be calculated	59	170	195	365

Month to Month Energy Charges

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

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

In-principle approval for taking the sewage water from NMC

101. The petitioner has submitted that the Commission in exercise of its powers under Regulation 54 (power to relax) of the 2014 Tariff Regulations may grant in-principle approval for taking the sewage water from Nagpur Municipal Corporation (NMC) and allow the associated cost of the Tertiary Treatment Plant & water carrying facilities to include in the capital cost for tariff purpose as and when it is put to use. It has also prayed for claiming water charges for the drawal of water from the STP of NMC under Regulation 29(2) of the 2014 Tariff Regulations as and



when the above facilities are put to use. In support of the above prayer, the petitioner has submitted the following:

(a) Ministry of Power, GOI vide Gazette Notification No. 23/2/2005-R&R (Vol-IX) dated 28.1.2016 has notified the New Tariff Policy 2016, which, inter-alia, provides for mandatory use of treated sewage water from Sewage Treatment Plants (STP) by all thermal power plants falling in the radius of 50 km. The relevant clause is reproduced below:

“The thermal power plant(s) including the existing plants located within 50 km radius of sewage treatment plant of Municipality/local bodies/similar organization shall in the order of their closeness to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be allowed as a pass through in the tariff. Such thermal plants may also ensure back-up source of water to meet their requirement in the event of shortage of supply by the sewage treatment plant. The associated cost on this account shall be factored into the fixed cost so as not to disturb the merit order of such thermal plant. The shutdown of the sewage treatment plant will be taken in consultation with the developer of the power plant.”

(b) Mauda STPS is located within the 50 km from STP facility of NMC and accordingly as per the above quoted tariff policy, the station is mandated to use the treated sewage water from the STP facility of NMC for further use in the station. NMC has offered to supply 150 MLD of treated sewage water from its STP plant located at Bhandewadi for its use at Mauda STPS.

(c) The treated water from the STP outlet is not suitable for use in Mauda STPS as the water parameters from STP outlet are beyond the permissible range for inlet raw water suitable for use in the thermal power plants. Accordingly, the petitioner has to install, a Tertiary Treatment Plant (TTP) along with pipeline and Booster pump system for retreating the water from the STP and making the same. The total project cost for the above scheme is estimated to be ₹240 crore which includes laying of 35 km pipeline from the STP to Mauda STPS and construction of Tertiary Treatment Plant. With the above capital addition on the part of petitioner, NMC has given tentative offer to supply the treated sewage water at the rate of around ₹9.75 per m³.

102. The respondent, MPPMCL has submitted that the capital expenditure of ₹240 crore claimed by the Petitioner in respect of the above may not be allowed. Though MOP, Gol has provided for using the treated sewage water, it has never in any manner provided to use sub-standard water of STP by further retreating it. The respondent has also submitted that it is the responsibility of the concerned municipal corporation



to provide the water of permissible range for inlet raw water suitable for thermal power plants or else the unit cannot be compelled to use substandard water discharge of STP by retreating it. It has further submitted that the cost claimed by the municipal corporation for its substandard water is three times the normal fresh water and therefore the Commission may disallow the same.

103. We have considered the submission of the petitioner. There is no provision for in-principle approval of cost under the 2014 Tariff Regulations. However, the petitioner is granted liberty to approach the Commission at the time of truing-up of tariff along with details of the scheme and the cost and the same will be considered in accordance with law.

Revised Environment norms

104. The Petitioner in the petition has submitted that the Ministry of Environment, Forest and Climate Change, (MOEF &CC), GOI vide Notification dated 7.12.2015 has notified the Environment (Protection) Amendment Rules, 2015 wherein the emission norms relating to SPM, NO_x, SO_x etc have been further tightened. It has submitted that in order to comply with the revised stringent norms, the petitioner has to modify/install various systems. The Petitioner has also stated that it has initiated various activities involved in the installation/modification of the equipment's and the finalisation of the costs involved is likely to take some more time and NIT in this regard has already been floated in June, 2017. The petitioner has further submitted that the estimated cost for installation of Emission Control System (ECS) and other equipment's for this generating station (Stage-II) shall be to the tune of ₹660 crore which is expected to be progressively incurred during the period from 2018-19 to 2021-22. Accordingly, the petitioner has prayed that in-principle approval may be



accorded for carrying out the above work and to allow the corresponding projected additional capitalisation under Regulation 14(1) (v) (Change in law) of the 2014 Tariff Regulations. The petitioner has stated that ECS installed as additional component in the layout of flue-gas path shall consume more power, which will result in increase in Auxiliary Power Consumption (APC) and will also result in additional operational expenses for the generating station. The Petitioner has further prayed that the Commission may consider the prayer above in line with the Commission's order dated 31.8.2016 in Petition No. 234/GT/2015 (approval of tariff of Vindhyachal STPS-V from COD to 31.3.2019).

105. We have considered the matter. The matter is related to implementation of new environmental norms in terms of the notification dated 7.12.2015 of the MoEFCC, wherein the emission norms relating to SPM, NO_x, SO_x have been made stringent for compliance by the thermal generating stations. Accordingly, the Petitioner has sought in-principle approval of the estimated cost for installation of ECS and other equipment of this generating station amounting to ₹660 crore, which is expected to be progressively incurred during the period from 2018-19 to 2021-22 under Regulation 14(1)(v) (change in law) under the 2014 Tariff Regulations. It is noticed that in Petition No. 98/MP/2017 (NTPC vs UPPCL & ors) filed by the Petitioner for in-principle approval of expenditure towards implementation of new Environment Norms, in terms of MOEFCC Notification, the Commission vide its order dated 20.7.2018 had rejected the prayer for grant of in-principle approval. However, the Commission in the said order had observed as under:

“44.In our view, the MOEFCC Notification dated 7.12.2015 requiring the thermal generating stations to implement the revised environmental norms amounts to ‘Change in Law’ in accordance with the 2014 Tariff Regulations as well as the Policy directions issued by the MoP under section 107 of the Act.”



Xxxx

46. Existing generating project has been defined as a 'project' which has been declared under commercial operation on a date prior to 1.4.2014 and new project has been defined as the project achieving COD or anticipated to be achieving COD on or after 1.4.2014. In all these situations, additional capital expenditure on "change in law or compliance with any existing law" is allowed. Therefore, additional capital expenditure on implementation of the ECS in terms of the Notification dated 7.12.2015 shall be admissible after due prudence check, under Regulation 14 of the 2014 Tariff Regulations.

47. The compliance of the revised norms specified under the MOEFCC Notification by these generating stations would require identification of suitable technology depending upon location of plant and existing level of emission from such plant. Moreover, the scope of work would also differ from plant to plant, depending upon the type of technology to be adopted."

106. Based on the above, the Commission in the said order directed as under:

"48. Therefore, a mechanism needs to be devised for addressing the issues like identification of suitable technology for each plant for implementation of ECS, its impact on operational parameters and on tariff, and the recovery of additional capital and operational cost. The Commission in this regard directs the CEA to prepare guidelines specifying;

- (a) Suitable technology with model specification for each plant, with regard to implementation of new norms;
- (b) Operational parameters of the thermal power plants such as auxiliary consumption, O&M expenses, Station Heat Rate etc., consequent to the implementation of ECS.
- (c) Norms of consumption of water, limestone, ammonia etc., required for operation of the plants after implementation of ECS.
- (d) Any other detailed technical inputs.

49. Based on the guidelines and operational parameters decided by CEA, the Commission shall undertake prudence check and grant the tariff for the capital and operational expenditure on ECS in respect of the generating stations regulated by the Commission. The Commission may, if required, specify detailed guidelines in this regard.

50. The treatment of shut down period required for installation and commissioning of ECS at the projects of the Petitioner shall be decided by the Commission consequent upon preparation of such schedule by CEA. The detailed guidelines referred to in para 49 above will address this aspect also. The Petitioner may thereafter approach the Commission with an appropriate Petition in this regard."

107. The relief prayed for by the petitioner in this petition is disposed of in terms of above.



Ash Transportation costs

108. The Petitioner has submitted that MOEFCC on 25.1.2016 had issued amendment to the Fly Ash Notification which inter alia stipulates that the cost of transportation of ash for road construction projects/ other identified activities within the radius of 100 km of the Power plant shall be borne by such coal based thermal power plants. It has also submitted that the cost of transportation beyond the radius of 100 km and upto 300 km shall be equally shared between the user and the coal based thermal power plants. The petitioner has also submitted the MOEFCC Notification dated 25.1.2016 has put additional financial burden on the generating companies as such costs have not been envisaged at the time of formulating the norms for the tariff period 2014-19. The Petitioner has further submitted that it has received some demands for transportation of fly ash in compliance with the Notification dated 25.1.2016. Accordingly, the Petitioner has prayed that the Commission may allow the additional O&M charges under Regulation 8 of the 2014 Tariff Regulations (change in law) The petitioner has pointed out that the Commission in its order dated 19.12.2017 in Petition No 101/MP/2017 and Order dated 13.3.2018 in Petition No 175/MP/2016 has already recognized the MOEFCC Notification dated 25.1.2016 as a Change in law event and accordingly the expenditure to be incurred on ash transportation has been admitted in principle. In view of the above orders, the petitioner has sought liberty to claim the expenditure incurred on account of Ash transportation under change in law (under O&M expenses) as part of annual fixed charges and include the same in the working capital at the time of final truing up of tariff for the period 2014-19.

109. We have considered the submissions of the Petitioner. The matter pertains to the recovery of additional expenditure towards cost of transportation of ash in terms



of the MOEFCC Notification dated 25.1.2016. It is noticed that the Commission in Petition No. 172/MP/2016 (NTPC v UPPCL & ors) filed by the petitioner for recovery of cost towards fly ash transportation in terms of the said MOEFCC notification dated 25.1.2016 had considered the submissions therein and by order dated 5.11.2018 granted liberty to the petitioner to approach the Commission for appropriate relief at the time of revision of tariff of the generating stations based on truing -up exercise for the period 2014-19 in terms of Regulation 8 of the 2014 Tariff Regulations, along with all details / information, duly certified by auditor. The relevant portion of the order dated 5.11.2018 is extracted hereunder:

“31. Accordingly, we in exercise of the regulatory power hold that the actual additional expenditure incurred by the Petitioner towards transportation of ash in terms of the MOEFCC Notification is admissible under “Change in Law” as additional O&M expenses. However, the admissibility of the claims is subject to prudence check of the following conditions on case to case basis for each station:

a) Award of fly ash transportation contract through a transparent competitive bidding procedure. Alternatively, the schedule rates of the respective State Governments, as applicable for transportation of fly ash.

b) Details of the actual additional expenditure incurred on Ash transportation after 25.1.2016, duly certified by auditors.

c) Details of the Revenue generated from sale of fly ash/ fly ash products and the expenditure incurred towards Ash utilization up to 25.1.2016 and from 25.1.2016 to till date, separately.

d) Revenue generated from fly Ash sales maintained in a separate account as per the MoEF notification.

The Petitioner is granted liberty to approach the Commission at the time of revision of tariff of the generating stations based on truing-up exercise for the period 2014-19 in terms of Regulation 8 of the 2014 Tariff Regulations along with all details / information, duly certified by auditor.”

110. In line with the above decision, we grant liberty to the petitioner to approach the Commission for relief on this ground with particulars/details as aforesaid, at the time of truing-up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations.



Revision of O&M expenses

111. The petitioner in the petition has submitted that it may be allowed revision of O&M charges including the revised salary of the employees of the petitioner with effect from 1.1.2017 as and when finalised. The matter has been examined. On this issue, the Commission in the Statement of Reasons to the 2014 Tariff Regulations has observed as under:

“29.26 Some of the generating stations have suggested that the impact of pay revision should be allowed on the basis of actual share of pay revision instead of normative 40% and one generating company suggested that the same should be considered as 60%. In the draft Regulations, the Commission had provided for a normative percentage of employee cost to total O&M expenses for different type of generating stations with an intention to provide a ceiling limit so that it does not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission would however, like to review the same considering the macroeconomics involved as these norms are also applicable for private generating stations. In order to ensure that such increase in employee expenses on account of pay revision in case of central generating stations and private generating stations are considered appropriately, the Commission is of the view that it shall be examined on case to case basis, balancing the interest of generating stations and consumers”

112. Accordingly, the prayer of the petitioner for revision of O&M expenses if any, due to pay revision may be examined by the Commission, on a case to case basis, subject to the implementation of pay revision as per DPE guidelines and the filing of an appropriate application by the petitioner in this regard.

Application filing fee and Publication Expenses

113. The petitioner has sought reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the period 2014-19. The petitioner has deposited the filing fees for the years 2016-17, 2017-18 and 2018-19 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The petitioner has also submitted that it has incurred an amount of ₹243438/- as charges towards publication of the said tariff petition in the newspapers. 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 for the period 2016-19 and the expenses incurred on publication of notices directly from the respondents, on production of documentary proof.

114. The annual fixed charges approved for the period 2014-19 as above are subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.

115. This order disposes of Petition No. 142/GT/2016.

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

Sd/-
(P.K.Pujari)
Chairperson

