

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 145/GT/2019

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri Ramesh Babu V, Member**

Date of Order: 2nd August, 2024

IN THE MATTER OF:

Petition for determination of tariff of Lara Super Thermal Power Station (1600 MW) for the period from COD of Unit-I (1.10.2019) to 31.3.2024.

AND

IN THE MATTER OF:

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

... Petitioner

Vs.

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Vidyut Nagar,
Jabalpur 482 008
2. Maharashtra State Electricity Distribution Company Limited,
Prakashgad, Bandra (East), Mumbai 400 051
3. Gujarat Urja Vikas Nigam Limited,
Vidyut Bhavan, Race Course
Vadodara – 390 007
4. Chhattisgarh State Power Distribution Company Limited,
P.O. Sundar Nagar, Danganiya-Raipur – 492013
5. Electricity Department,
Government of Goa
Vidyut Bhawan, Panaji-Goa
6. Electricity Department,
Administration of Daman & Diu
Daman-396 210



7. DNH Power Distribution Company Limited,
UT of DNH, Silvassa

... Respondents

Parties Present:

Shri Venkatesh, Advocate, NTPC
Shri Ashutosh Srivastava, Advocate, NTPC
Shri Nihal Bhardwaj, Advocate, NTPC
Shri Kartikaya Trivedi, Advocate, NTPC
Shri Sameer Aggarwal, NTPC
Shri Harsh V. Kabra, NTPC
Shri Suraj Kumar, NTPC
Shri Ravin Dubey, Advocate, MPPCL
Shri Ravi Sharma, Advocate, CSPDCL

ORDER

This Petition has been filed by the Petitioner, NTPC Limited, for approval of tariff of Lara Super Thermal Power Station (2 x 800 MW) (in short “the project/ generating station”) based on the anticipated COD of Unit-I (15.5.2019) to 31.3.2024, in accordance with the provisions of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short “the 2019 Tariff Regulations”). Thereafter, the Petitioner, vide affidavit dated 19.10.2021, has submitted that the actual COD of Unit-I is 1.10.2019 and Unit-II is 7.11.2020 and has accordingly filed the amended petition, praying for approval of tariff of the generating station from the actual COD of Unit-I till 31.3.2024. The generating station, located in the Raigarh district in the State of Chhattisgarh, comprises two units of 800 MW each. The Ministry of Power, GOI, vide its letter dated 3.7.2017, allocated the power from the generating station to the Respondents as detailed below:

State	Total Allocation in MW	Share in Installed Capacity (%)
Gujarat	156.84	9.80
Madhya Pradesh	147.42	9.21
Chhattisgarh	800.00	50.00
Maharashtra	230.63	14.41
Goa	7.31	0.46
Daman & Diu	7.34	0.46
D&N Haveli	10.46	0.65



State	Total Allocation in MW	Share in Installed Capacity (%)
Unallocated	240.00	15.00
Total (WR)	1600.00	100.00

2. The Investment Approval (IA) of the project was accorded by the Board of the Petitioner's Company in its 388th meeting held on 7.11.2012, subject to MOEF clearance, which was later accorded on 12.12.2012. The indicative estimated completion cost was Rs.12739.82 crore, including IDC and FC of Rs.2175.00 crore, and the working capital margin of Rs.219.42 crore at the price level of the 3rd quarter of 2012. The Petitioner has further submitted the Revised Cost Estimate (RCE) of Rs.17779.45 crore, including IDC and FC of Rs. 2720.04 crore and working capital margin of Rs.212.35 crore, at the price level of 2nd quarter of 2021 due to revision in site-specific actual conditions, variation in input rate of steel and cement, exchange rate variations, escalation rates close to actual based on project specific conditions, etc., and after incorporation of the costs pertaining to ECS (FGD), asset transfer like MGR/Railway siding (from Talaipalli coal Mines to Lara Project).

3. Based on the above, the capital cost and the annual fixed charges claimed by the Petitioner from the actual COD of Unit-I (1.10.2019) till 31.3.2024 are as under:

Capital cost claimed

(Rs. in lakh)

	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019 to 31.3.2020	1.4.2020 to 6.11.2020	7.11.2020 to 31.3.2021			
Capital cost as on COD	716817.97	-	1228498.19	-	-	-
Notional IDC	1728.00	-	1772.33	-	-	--
Loan ERV charged to revenue	(-) 511.14	-	12665.70	-	-	
Advance charges for water barrage construction	27505.07	-	35574.66	-	--	
Opening capital cost	745539.90	839400.29	1278510.88	1327645.84	1350573.31	1561437.61
Add: Addition during the year / period	93860.39	(-) 33.40	49134.96	22927.47	210864.30	92874.13
Closing capital cost	839400.29	839366.89	1327645.84	1350573.31	1561437.61	1654311.74
Average capital cost	792470.10	839383.59	1303078.36	1339109.58	1456005.46	1607874.68



Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21		2019-20	2022-23	2023-24
	1.10.2019 to 31.3.2020	1.4.2020 to 6.11.2020	1.10.2019 to 31.3.2020			
Depreciation	40178.23	42556.75	66847.92	68696.32	74693.08	82483.97
Interest on Loan	33744.29	32437.83	48706.45	47403.27	47793.10	48713.73
Return on Equity	44652.52	47295.91	73423.25	75453.47	82040.08	90597.31
Interest on Working Capital	7030.27	6895.02	1 0560.95	9567.60	9868.95	10132.18
O&M Expenses	19107.16	25149.88	42315.33	35060.07	37004.38	38075.00
Total	144712.48	154335.39	241853.90	236180.74	251399.59	270002.18

4. The Petition was initially heard on 25.7.2019 and the Commission, based on the submissions of the Petitioner to amend the Petition, considering the actual COD of Unit-I, permitted the said request and adjourned the hearing. Thereafter, by letter dated 17.6.2021, the Petitioner had sought time to amend the petition based on the audited books of accounts as on COD of Units -1 and 2, which was permitted. Thereafter, the matter was listed on 19.5.2022 and 6.12.2022, and the Commission, after directing the Petitioner to file certain additional information and completion of pleadings, adjourned the hearing of the petition. Subsequently, the matter was listed on 7.2.2023 and 6.4.2023, and the Commission, after hearing the parties, sought certain additional information and, accordingly, reserved its order in the petition on 6.4.2023. Since the order in the petition could not be issued prior to one Member of the Commission, who formed part of the Coram demitting office, the Petition was re-listed on 6.2.2024, and the Commission, after seeking certain additional information and based on the consent of the parties, reserved its order in the petition. The Petitioner, in compliance with the directions, has furnished the additional information vide affidavit dated 22.3.2024 after serving a copy on the Respondents. However, as the order in the Petition could not be issued prior to one Member, who formed part of the Coram demitting office, the matter was again re-listed and heard on 13.6.2024. Accordingly, the Commission, after hearing the learned counsel for the parties, reserved its order in the petition.



5. The Respondents MSEDCL, CSPDCL, and MPPMCL have filed their replies vide affidavits dated 30.08.2021, 24.11.2021/ 2.9.2022/ 9.4.2023 and 31.12.2021/ 2.9.2022/ 31.5.2023/ 15.4.2024 respectively. The Petitioner vide affidavits dated 9.2.2022/ 9.9.2022 (CSPDCL) and 9.2.2022/ 9.9.2022/ 5.7.2023 (MPPMCL) has filed its rejoinder to the abovesaid replies. It is observed that Respondent MSEDCL's reply dated 30.08.2021 was on the initial petition, and as no reply has been filed by MSEDCL on the revised Petition, the same has not been considered. Based on the submissions of the parties and the documents available on record and on prudence check, we proceed with the determination of the tariff of the generating station for the period from the actual COD of Unit-I (1.10.2019) to 31.3.2024, as stated in the subsequent paragraphs.

Commissioning Schedule

6. As stated, the Investment Approval (IA) for the project was accorded by the Board of the Petitioner's Company in its 388th meeting held on 7.11.2012, subject to MOEF clearance. As the MOEF clearance was accorded on 12.12.2012, the Petitioner has considered the date of 12.12.2012 as the 'zero date'. Regulation 3(62) of the 2019 Tariff Regulations defines the term 'start date or zero date' as under:

"(62) 'Start Date or Zero Date' means the date indicated in the Investment Approval for commencement of implementation of the project and where no such date has been indicated, the date of Investment Approval shall be deemed to be Start Date or Zero Date;"

7. Accordingly, the 'zero date' of 12.12.2012, as submitted by the Petitioner is considered for the purpose of calculation of the time overrun in the completion of the Project. The Petitioner has also considered the Scheduled Commercial Operation Date (SCOD) of Unit-I as 11.4.2017 (52 months from the zero date) and SCOD of Unit-II as 11.10.2017 (6 months after the SCOD of Unit-I). However, the actual COD of Unit-I is 1.10.2019, and Unit-II is 7.11.2020, thereby resulting in a delay of about 30 months (904 days) for Unit-I and 37.5 months (1124 days) for Unit-II from SCOD, as under:



Unit	SCOD	Actual COD	Time Overrun
Unit-I	11.4.2017	1.10.2019	30.0 months (904 days)
Unit-II	11.10.2017	7.11.2020	37.5 months (1124 days)

Time Overrun

8. The Petitioner vide affidavit dated 19.10.2021 has submitted that the COD of the Units was delayed on account of the following reasons, which were beyond its control:

- a. *Law & Order issues related to Land Acquisition;*
- b. *Work stoppage due to rainfall;*
- c. *Work hampered due to Natural calamities (Cyclones Phailin & Hudhud);*
- d. *Ban on Sand mining by NGT: Non-availability of raw material due to change in law;*
- e. *Delay due to reduced manpower on account of increase in minimum wages by Govt. of Chhattisgarh;*
- f. *Hindrance in land acquisition for MGR & Right of Use issues for Make-up Water Pipeline & Make up Water Pump House:*
 - i. *Delay in availability of Make-up water at the Plant.*
 - ii. *Delay in Land Acquisition for Make-up water Pump House.*
 - iii. *Delay in the work of Transmission line for make-up water pump house.*
- g. *Delay in the completion of priority Path/ MGR corridor:*
 - i. *Delay in R&R award process due to delay in Clarification published in Gazette by State Government & linear project,*
 - ii. *Delay in handing over of awarded land after necessary tree cutting approval by District Administration and further cutting and removal of trees by Forest department, Raigarh;*
 - iii. *Protest by the villagers of 'Kotarliya' due to reduction of multiplying factor for compensation by State Government,*
 - iv. *Delay in the approval of DPR pertaining to Railway Siding.*
- h. *Periodic Disruption of work due to strike by PAPs;*
- i. *Enabling and preliminary works pertaining to Unit-II;*
- j. *Water impounding in Saradih Barrage; and*
- k. *Work interruption due to COVID-19 pandemic lockdown.*



9. The Petitioner vide affidavit dated 13.6.2023 has furnished the unit-wise reasons for the time overrun along with the delay analysis, indicating the activities delayed, the reasons for the said delay, and the corresponding delay on account of the delay in each of the activities, corresponding to the units. These are examined below:

10. Regulation 20 of the 2019 Tariff Regulations provides for the prudence check of the capital cost of existing or new projects as under:

“20. Prudence Check of Capital Cost : The following principles shall be adopted for prudence check of capital cost of the existing or new projects: (1) In case of the thermal generating station and the transmission system, prudence check of capital cost shall include scrutiny of the capital expenditure, in the light of capital cost of similar projects based on past historical data, wherever available, reasonableness of financing plan, interest during construction, incidental expenditure during construction, use of efficient technology, cost over-run and time over-run, procurement of equipment and materials through competitive bidding and such other matters as may be considered appropriate by the Commission:

Provided that, while carrying out the prudence check, the Commission shall also examine whether the generating company or transmission licensee, as the case may be, has been careful in its judgments and decisions in execution of the project.”

11. Similarly, Regulations 21 and 22 of the 2019 Tariff Regulations provides for the following:

“21. Interest During Construction (IDC) and Incidental Expenditure during Construction (IEDC)

(1) Interest during construction (IDC) shall be computed corresponding to the loan from the date of infusion of debt fund, and after taking into account the prudent phasing of funds upto SCOD.

(2) Incidental expenditure during construction (IEDC) shall be computed from the zero date, taking into account pre-operative expenses upto SCOD:

Provided that any revenue earned during construction period up to SCOD on account of interest on deposits or advances, or any other receipts shall be taken into account for reduction in incidental expenditure during construction.

(3) In case of additional costs on account of IDC and IEDC due to delay in achieving the COD, the generating company or the transmission licensee as the case may be, shall be required to furnish detailed justifications with supporting documents for such delay including prudent phasing of funds in case of IDC and details of IEDC during the period of delay and liquidated damages recovered or recoverable corresponding to the delay.

(4) If the delay in achieving the COD is not attributable to the generating company or the transmission licensee, IDC and IEDC beyond SCOD may be allowed after prudence check and the liquidated damages, if any, recovered from the contractor or supplier or agency shall be adjusted in the capital cost of the generating station or the transmission system, as the case may be.

(5) If the delay in achieving the COD is attributable either in entirety or in part to the generating company or the transmission licensee or its contractor or supplier or agency, in such cases, IDC and IEDC beyond SCOD may be disallowed after prudence check either in entirety or on pro-rata basis corresponding to the period of delay not condoned and the liquidated damages, if any,



recovered from the contractor or supplier or agency shall be retained by the generating company or the transmission licensee, as the case may be.

xxx

22. Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors for deciding time over-run, cost escalation, IDC and IEDC of the project:

(1) The “controllable factors” shall include but shall not be limited to the following:

- a. Efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or change in law or force majeure events; and
- b. Delay in execution of the project on account of contractor or supplier or agency of the generating company or transmission licensee.

(2) The “uncontrollable factors” shall include but shall not be limited to the following:

- a. Force Majeure events;
- b. Change in law; and
- c. Land acquisition except where the delay is attributable to the generating company or the transmission licensee.”

12. The Commission vide ROP of the hearing dated 6.4.2023 had directed the Petitioner to furnish the chronological details of the delay corresponding to the reasons provided for time overrun vis-à-vis the SCOD and the actual COD along with the summary of critical parts of the PERT chart. In response, the Petitioner, vide affidavit dated 13.6.2023, has furnished the details. It is observed that the overall delay in the COD of Unit-I and Unit-II is 30 months (904 days) for Unit-I and 37 months (1124 days) for Unit-II from SCOD, respectively. The Petitioner, vide affidavit dated 22.7.2022, has attributed the reasons for the delay in achieving COD of the units as follows:

Unit-I

Task	Milestone	Scheduled Date	Actual Date	Schedule Duration (Mons)	Actual Duration (Mons)	Delay (Mons)	Reasons for the delay
A	Zero Date	13-12-2012	13-12-2012	0	0	0	
B	Boiler Erection start	12-02-2014	23-12-2013	13	12	-1	
C	TG Erection start	12-04-2015	15-06-2015	27	30	3	Law and order issues; High rainfall; Ban on Sand mining; Cyclone Phailin & Hudhud.
D	Boiler Hydro test	31-08-2015	27-12-2015	32	36	4	
E	Boiler Light up	31-05-2016	01-01-2017	41	48	7	
F	TG Box up	31-03-2016	08-02-2017	39	49	10	
G	TG Oil flushing completion	30-05-2016	12-06-2017	41	53	12	
H	Steam Blowing completion	31-08-2016	06-05-2017	44	52	8	Law and order issue; High Rainfall; Ban on Sand mining; Cyclone Phailin & Hudhud; Non-readiness of MUW system.



Task	Milestone	Scheduled Date	Actual Date	Schedule Duration (Mons)	Actual Duration (Mons)	Delay (Mons)	Reasons for the delay
I	Unit Synchronization	31-10-2016	09-09-2017	46	56	10	Law and order issue High Rainfall Ban on Sand mining. Cyclone Phailin & Hudhud;
J	Commissioning/Full load	31-12-2016	23-03-2018	48	63	15	Law and order issue High Rainfall
K	COD	30-04-2017	01-10-2019	52	81	29	Ban on Sand mining. Cyclone Phailin & Hudhud; Non-readiness of MUW system Non-readiness of Railway Siding
L	Make up water system. Sch. Start date 26-02-2015	07-10-2016	31-05-2020	19	63	40	Delay in ROU Award by State Authority; Delay in getting final patch of Land for pipeline activity; Delay in land acquisition of MUWPH due to: Delay due to pending requisite notification /rules RFCT LARR Act, 2013 by GOCC (17 months); due to cancellation of mutation by State Authorities (18 months); Delay in the availability of Saradih Barrage and impounding of Saradih barrage for adequate water flow; Villagers agitation
M	Railway siding works (priority line) Sch. Start date 24-12-2014	24-06-2016	13-11-2019	18	58	44	Change in Land Acquisition Act. Cancellation of Mutation. Delay in R&R award for linear scale. Delay in the approval of DPR Delay in the approval of tree cutting. IR issue due to protest of Kotrarliya villagers due to reduction of multiplying factor for compensation by State Government

Unit-II

Task	Milestone	Scheduled Date	Actual Date	Schedule Duration (Mons)	Actual Duration (Mons)	Delay (Mons)	Reasons for Delay
A	Zero Date	13-12-2012	13-12-2012	0	0	0	
B	Boiler Erection start	31-08-2014	30-04-2014	20	16	-4	
C	TG Erection start	12-10-2015	01-02-2017	33	49	16	Law and order issue; High Rainfall; Ban on Sand mining Cyclone Phailin & Hudhud; QTGSM Issue
D	Boiler Hydro test	29-02-2016	26-04-2016	38	40	2	Law and order issue;
E	Boiler Light up	30-11-2016	24-12-2018	47	72	25	High Rainfall; Ban on Sand mining



Task	Milestone	Scheduled Date	Actual Date	Schedule Duration (Mons)	Actual Duration (Mons)	Delay (Mons)	Reasons for Delay
							Cyclone Phailin & Hudhud;
F	TG Box up	30-09-2016	31-03-2019	45	75	30	Law and order issue;
G	TG Oil flushing completion	30-11-2016	08-10-2019	47	81	34	High Rainfall; Ban on Sand mining Cyclone Phailin & Hudhud; QTGSM Issue
H	Steam Blowing completion	28-02-2017	02-12-2019	50	83	33	Law and order issue High Rainfall Ban on Sand mining. Cyclone Phailin & Hudhud; Non-readiness of MUW system
I	Unit Synchronization	30-04-2017	14-02-2020	52	86	34	
J	Commissioning/Full load	30-06-2017	04-07-2020	54	90	36	
K	COD	31-10-2017	07-11-2020	58	94	36	Law and order issue; High Rainfall; Ban on Sand mining; Cyclone Phailin & Hudhud; Non-readiness of MUW system; Non readiness of Railway siding system
L	Make up water system. Sch. Start date 26-02-2015	24-06-2016	13-11-2019	15	45	30	Delay in ROU award by the State Authority; Delay in getting final patch of Land for pipeline activity; Delay in land acquisition of MUWPH due to: Delay due to pending requisite notification /rules RFCT LARR Act, 2013 by GOCG (17 months); due to cancellation of mutation by State Authorities (18 months); Delay in the availability of Saradih Barrage and impounding of Saradih barrage for adequate water flow; Villagers agitation
M	Railway siding works (priority line) Sch. Start date 24-12-2014	25-06-2016	16-12-2018	18	58	40	Change in Land Acquisition Act. Cancellation of Mutation. Delay in R&R award for linear scale. Delay in the approval of DPR Delay in the approval of tree cutting. IR issue due to protest of Kotrarliya villagers due to reduction of multiplying factor for compensation by State Government

13. The Petitioner, vide affidavit dated 13.6.2023, has submitted the month-wise and activity-wise delay in the commissioning of Units I & II. It is observed that there are minor variations in the start date and end dates of certain delays between the submissions made in the revised



Petition and the affidavit dated 13.6.2023. The Commission has, however, considered the submissions of the Petitioner in the said affidavit, as it contains the details with regard to the factors leading to the delay in the execution of the project. Based on the submissions of the parties and the documents available on record, we proceed to examine, on prudence check, the reasons for the time overrun in the completion of the project, as stated in the subsequent paragraphs:

Delay in R&R award of MGR (9.5.2013 to 11.12.2017)

14. The Petitioner has submitted the following:

- (a) The initial application for Land Acquisition for the MGR/ Priority path was submitted on 23.7.2012, and thereafter, the alignment of the rail path was also finalized accordingly. However, the land owners were not willing to provide their land despite several persuasions by the Petitioner and created obstructions, which led to a further change in the alignment. Because of the change in the alignment, due to obstructions created by the land owners, the Petitioner had to re-apply for land acquisition for 131.156 Ha of private land and approach road for the Project on 9.5.2013 to the State Investment Promotion Board and also withdrew the application submitted earlier for land acquisition, as required for MGR and approach road for the Project.

- (b) The new Land Acquisition Act 2013, with substantial R&R benefits, was promulgated with effect from 1.1.2014, which resulted in a mass sale of land in small plots, by land mafias with mal-intentions for obtaining R&R benefits under the new land acquisition act. The State Authorities annulled the mutation of the small plots which were purchased by the local people for availing R&R benefits in an illegal manner. Further, the District administration started filing cases in the District Court, Raigarh, for the sale deed cancellation. The District Collector formed a committee to investigate the newly broken registered land parcels, thereby ordering the cancellation of mutations. Hindrances in the work were being created by the sale deed holders, in patches, across many activities of the project, where the mutation was cancelled by the District Administration. This exercise by the Revenue Dept was concluded on 16.1.2015.



(c) After the notification of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Social Impact Assessment and Consent) Rules, 2014 on 8.8.2014, the Petitioner submitted the R&R plan under new provisions of land acquisition act. After a lot of persuasion with the State Administration, the Collector, Raigarh vide letter dated 9.6.2015 recommended the plan and sent the same for approval to the State Government. Finally, the R&R plan for the Railway line projects, was approved by the State Government on 25.7.2015. Therefore, there was delay by the State Govt. to finalize the R&R plan for Railway siding. Afterwards, various applications were submitted to the District Collector, Raigarh for the publication of the Section 11(i) notification regarding the land acquisition of the affected private land in August, 2015 after the approval of R&R award, which delayed the land acquisition process. Though the R&R plan for the Railway siding project was approved by the State Government only on 25.7.2015, based on the new land acquisition act, this involved granting extensive benefits to the affected landowners and their families, i.e. lump sum payment as an R&R grant of Rs 5 lacs, skill development commitment and various initial community development commitments.

(d) Also, the identification of the affected stakeholders/ landowners was very extensive. As the linear project involves a very large number of land owners, with very small parcels of the land affected, such provision was very tedious for compliance. Also, significant difficulties were faced in finalizing the early procedure for establishing R&R benefits for linear Projects and the process for conducting land acquisition was also not clear. The R&R policy of the State Government of Chhattisgarh for linear projects was promulgated on 4.7.2017, which simplified the R&R plan for linear acquisition for payment of the R&R grant to half of the land compensation amount, with a maximum amount of up to Rs.5 lakh. The Government of Chhattisgarh vide notification dated 4.1.2017, amended the "Rajya ki Adarsh Punarvas Niti, 2007" and inserted a new clause for linear projects, which was also applicable for the MGR land of Petitioner, as under:

"7.7 In case of land Acquisition for linear Projects each affected land holders, amount shall be paid as rehabilitation grant in addition to amount of compensation, which shall be equal to 50% of the compensation amount subject to maximum limit of Rs.5.00 Lakh. These provisions shall be effective for all the cases in which award has been passed on or after 01-01-2014"



(e) After the above clarification, the application for the R&R award was processed by the State Administration, and the R&R grant was disbursed to the PAPs after the R&R award. However, possession could only be taken after the R&R award and the final possession certificate was issued on 11.12.2017. In view of the change of law, the land acquisition was delayed, resulting in a delay of 870 days (29 months) (from 9.5.2013 to 11.12.2017).

Submission of the Respondents

15. Respondent, CSPDCL has submitted that though the MOEF&CC letter dated 13.12.2012 confirmed the requirement of 2396 acres of land for the construction of the generating station, the Petitioner had acquired 2857 acres of land, which is 461 acres more than the required land for the Project. The Respondent has also submitted that the Petitioner's project was already delayed by its principal contractor, M/s BGR Energy, for 3-4 years for the non-supply of basic equipment of the Project, and therefore, the Petitioner has covered up its own fault. Accordingly, the Respondent has submitted that the time overrun for the aforesaid reasons shall not be condoned, and the additional IDC/IEDC claimed by the Petitioner may be disallowed.

16. Respondent, MPPMCL has submitted that the Petitioner had already submitted its application for land acquisition as per pre-existing land acquisition rules, and subsequently, since new rules came into existence, the Petitioner had to revise its application. Further, stated that though such procedural time had delayed the land acquisition work for almost 2 years, the Petitioner has not provided any break-up of the 2-year period, and the activities carried out for resultant delay for 2 years. The Respondent has submitted that the Petitioner may be directed to furnish the details, highlighting the break-up of the 2 years, to assess the actual delay on account of the change in law. As regards the land mutation, the Respondents have submitted that these issues are not new in the establishment of the power Projects, and the Petitioner was



expected to consider these factors while planning the COD of the units and the tasks related to it and schedule its work plan accordingly.

Analysis and Decision

17. The submissions have been considered. Regulation 22(2) of the 2019 Tariff Regulations provides as under:

“22. Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors for deciding time over-run, cost escalation, IDC and IEDC of the project:

xxx

(2) The “uncontrollable factors” shall include but shall not be limited to the following:

a. Force Majeure events;

b. Change in law; and

c. Land acquisition except where the delay is attributable to the generating company or the transmission licensee.”

18. It is observed that the Petitioner filed an application for land acquisition on 23.7.2012; however due to local agitation and obstructions created by the landowners, the land alignment had to be revised for which additional land had to be procured. The Petitioner had accordingly filed an application for land acquisition of around 131.156 hectares of private land on 9.5.2013. Subsequently, the new Land Acquisition Act 2013, with substantial R&R benefits as well as notification of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement (Social Impact Assessment and Consent) Rules, 2014 were notified on 1.1.2014 and 8.8.2014. The Petitioner had to file a revised R&R plan as per new law which was approved by 25.7.2015. It is further observed that even after the approval, the acquisition of land for linear projects involved certain issues with regard to compensation, which was only clarified by the State Government through the amendment of “Rajya ki Adarsh Punarvas Niti, 2007” dated 4.1.2017, resulting in delay in land acquisition. It is observed that the final possession certificate was issued on 11.12.2017.



19. It is noted that the obstruction caused by landowners, implementation of the new Land Acquisition Act, 2013, and Land Acquisition, Rehabilitation, and Resettlement (Social Impact Assessment and Consent) Rules, 2014 delayed land acquisition, which further delayed the activities/work of the Project. It is further observed that the delay in issuance of the amendment of "Rajya ki Adarsh Punarvas Niti, 2007," dated 4.1.2017, clarifying R&R for land acquisition of linear projects, resulted in further delay. It is also observed that there was a substantial delay on the part of the State Govt in finalizing the R&R plan for Railway siding. The Commission is of the view that these factors were beyond the control of the Petitioner and cannot be attributed to the Petitioner/generating company. Therefore, we are inclined to condone the delay in the execution of the project work for the period from 9.5.2013 to 11.12.2017. We direct accordingly.

Land acquisition for Railway siding delay from schedule completion (31.10.2014 to 13.05.2015 and from 9.8.2017 to 18.7.2019)

20. The Petitioner has submitted the following:

- (a) The work order for the Railway siding package was awarded on a turnkey basis to M/s RITES (a Govt. of India undertaking under the Ministry of Railways) as the Project Management Consultants for carrying out the survey, package identification, preparation of DPR and construction of coal transportation system on 24.6.2014. During one of the meetings on 19.8.2014, M/s RITES agreed to submit the final DPR by October 2014. However, M/s RITES prepared the DPR for the Railway Siding package and submitted it to the Railway authorities for approval on 13.5.2015. The Petitioner vide its various communications, and MOM kept pursuing with M/s RITES for an early submission of the complete DPR. For the railway siding work, the DPR had to be approved by the Indian Railways (SECR). However, against the schedule of November 2014, the DPR was finally approved in September 2015 by the West Central Railway.
- (b) Further, for early approval of DPR, the Petitioner pursued vigorously for timely completion of the coal transportation system of the generating station and had made several correspondences with M/s RITES. Consequently, this led to a late award of the



engineering work by RITES. The Petitioner had rigorously pursued the matter, though the role of the Petitioner in obtaining the approval for the DPR and Engineering Scale Plan from the Railway Authorities (SECR and M/S RITES) was minimal. Therefore, the delay of 7 months caused due to the same is beyond the reasonable control of the Petitioner.

- (c) The proposed Merry-Go-Round system from Talaipalli mine is located about 65 km from the Project end and passes through 39 villages located in two subdivisions, namely Raigarh and Gharghoda, under the District of Raigarh. The land acquisition for the proposed MGR corridor required the acquisition of land from 39 villages in the Raigarh district. In terms of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, the Revenue Department of the Government of Chhattisgarh considered the multiplying factor as 02 (two) for the calculation of compensation for the village land. Accordingly, the Petitioner had granted the compensation to the land owners, and thereafter, the award was issued for the 37 villages.
- (d) Meanwhile, the State Government had sought clarification from GOI regarding the multiplying factor to be considered and the GOI vide order dated 8.5.2017 clarified that the multiplying factor should be considered as notified by the State Government. Since the Govt of Chhattisgarh had previously notified the multiplying factor as two (02), the State Government vide order dated 25.5.2017 reduced the multiplying factor to 01, and the same was considered for the compensation of the last village 'Kotarliya' and accordingly awarded was issued on 9.8.2017. Consequently, the compensation amount of Kotarliya village land of about 41.41 acres for 67 owners (6 Km Railway line) was reduced with regard to the land of other villages acquired for the MGR.
- (e) The Petitioner had disbursed the compensation to the respective landowners as per the prevailing R&R policy of the Government of Chhattisgarh. Accordingly, the disbursement to land pertaining to Kotarliya was in line with the revised R&R policy, considering the multiplication factor of one (1). Consequently, the Kotarliya villagers protested with a demand for a higher land compensation (in line with earlier awarded land compensation),



creating Industrial Relation (IR) issues, due to which work was held up from 9.8.2017 as the villagers were not allowing the Petitioner to undertake the construction activities in certain patches of the Rail Corridor.

- (f) Further, the villages of Kotarliya filed a case before the LARR-Tribunal at Raipur on 12.4.2018. The Petitioner also rigorously pursued the matter with the competent authority of the State to resolve the issues pertaining to the land acquisition of Kotarliya village at the earliest. In this regard, a letter dated 10.11.2018 from the CMD of the Petitioner's Company was addressed to the Chief Secretary, Govt of Chhattisgarh. Since the immediate possession of land was required to complete the MGR work, which is a critical activity for the synchronization of Unit-I, the Petitioner decided for the enhancement of land compensation of Kotarliya village at par with the other villages acquired under LARR 2013. Further, the Project was being continuously monitored by the Prime Minister's office and the Government of Chhattisgarh was directed to expeditiously resolve the issues pertaining to the land acquisition for MGR corridor/priority path. During the meeting held at the Prime Minister's office under PRAGATI dated 27.2.2018, it was also decided that the Ministry of Power, GOI, the Government of Chhattisgarh, and the Ministry of Railways, GOI shall work in coordination to resolve all the issues hindering the progress of the project.
- (g) Finally, the land was taken in possession between September 2018 and February 2019 after the award of land. Therefore, there was a delay of 568 days approx. (9.8.2017 to 28.2.2019). As the disruption of work caused a delay in the award of work on account of the change in law by the Governmental authorities, thereby causing the villagers to protest, the said event was beyond the control of the Petitioner.
- (h) The Revenue Department of the Govt of Chhattisgarh later issued a notification to increase the land compensation rate in May 2019. The final award order of land pertaining to the Gram Chhapora (0.628 hectares) was passed on 18.7.2019. Thereafter, the balance work related to Railway siding was completed on 12.11.2019. Unit-I was declared under commercial operation on 1.10.2019 with the coal stock made available through an alternate route (Rail-cum-road) and after the completion of major works of MGR/ priority



path and awaiting completion certificate for the priority path so that coal may be made available from different sources for the sustained operation of the unit Post COD.

- (i) Due to the delay as elaborated above pertaining to land acquisition, site handing of MGR priority line outside the Plant boundary could only start from May, 2017 and it was handed over in patches till July, 2019.

Submission of the Respondents

21. Respondent, CSPDCL has submitted that LOA for Detailed Engineering and Project Management & Construction of Coal Transportation System and associated Electrical packages for the Project, which includes the MGR system, was awarded to M/s RITES on 24.6.2014 after the un-explained delay of 1.6 years (19 months) from the date of Investment Approval. It has also submitted that the activities, such as the appointment of contractor and consultant for the captive MGR Infrastructure from Tallipalli Mine to the Project, could have been done at the time of Investment approval itself or just after the investment approval, however, it took 3.5 years (42 months) to complete the basic formalities like preparation of DPR of MGR infrastructure, which is nothing but sheer lapse on the part of the Petitioner and its contractor as the same could have been managed better if the project was executed with proper care and due diligence.

Analysis and Decision

22. The Submissions have been considered. It is observed that the delay for the period from October 2014 to May 2015 was on account of the delay in DPR preparation by the Petitioner's Contractor, i.e., M/s RITES, and therefore, such delay cannot be construed as un-controllable by the Petitioner. In view of this, the delay for the period from October 2014 to May 2015 on account of the delay in DPR preparation by M/s. RITES is not condoned. It is, however, observed that the period of delay disallowed on this count has already been allowed and subsumed in the delay due to land acquisition due to R&R issues related to land acquisition for the MGR system.



23. With regard to the delay from 9.8.2017 to 18.7.2019, it is observed that the delay was on account of local agitation faced by landowners in Kotarliya village, which was due to disparity in R&R compensation paid which was due to changes in the R&R policy the State. It is also observed that the villages of Kotarliya filed a case before the LARR-Tribunal at Raipur on 12.4.2018 and in order to expedite the works, the Petitioner had to pay higher compensation. The Petitioner had also raised the issue with the Prime Minister's office under PRAGATI dated 27.2.2018. It is further observed that though the possession of the land was done from September 2018 to February 2019, due to a revision in land compensation in May 2019, the final award order of land pertaining to the Gram Chhapora (0.628 Hectare) was passed on 18.7.2019 and subsequently, the balance work related to Railway siding was completed on 12.11.2019, therefore the delay from 9.8.2017 to 18.7.2019 is condoned.

Availability of Saradih Barrage from completion of works and Delay due to water impounding in Saradih Barrage (1.12.2018 to 31.05.2020)

24. The Petitioner submitted that the construction of Saradih barrage was taken up by the Govt of Chhattisgarh for the supply of water to the different power plants coming up in the surrounding area, including this Project of the Petitioner.

(a) The Government of Chhattisgarh had acquired the land for the barrage in Janjgir, Champa District, by issuing the exemption notification for the projects from certain provisions under the Land Acquisition Act, 2013. Aggrieved by the same, various Writ Petitions (Nos.1401/2015, 1443/2015, 2709/2016) were filed by the residents of the surrounding areas before the Hon'ble High Court of Chhattisgarh. The Hon'ble High Court vide its judgment dated 3.11.2017 cancelled the land acquisition, observing that the non-compliance with the provisions contained in Chapter-II and Chapter-III of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, is unsustainable in law. This came as a big setback to all the projects, including this Project, which was going to get the supply of water from the Saradih barrage. The



judgment of the Hon'ble High Court, in turn, delayed the Saradih Project, which was the only designated source of the water intake for the Project.

- (b) The suction to the make-up water pumps was to be provided from the intake channel at the Saradih Barrage, and major works pertaining to the MUWPH were completed after the availability of land to the Petitioner on 28.1.2017, except for the availability of water to the suction of MUWPH from the intake channel. Hence, the completion of the Saradih Barrage was necessarily required to make the water available from the make-up water system to the Plant.
- (c) The construction of the Saradih Barrage by the State authority was completed on 18.7.2019. Sensing the delay in the readiness of the barrage for water impounding, due to the pending cases before the Hon'ble High Court, the Petitioner, laid temporary pipelines as a contingent arrangement to the nearest point of the Kelo River, with the permission of the WRD to make water available for various activities like hydro test, BLU, etc. for Unit-1. Upon foreseeing the barrage completion, including water impounding in the coming 4-5 months, the Petitioner again approached the WRD for drawl of the requisite amount of water from Kelo River so that the declaration of COD of Unit-I and further testing of Unit-II could be done.
- (d) The request letters dated 6.4.2017, 9.2.2018, and 6.8.2019 were written for contingent arrangement of supply of water from the Kelo river. In order to restrict further delay in the COD of Unit-1, the Petitioner proactively approached the WRD for the contingent arrangement of water from the Kelo River, and the COD of Unit-I was achieved on 1.10.2019. Further, the water available through the contingent arrangement was not sufficient to run both units on a sustained basis, and hence, the impounding of the barrage was necessary for the COD of Unit-II on a sustained basis. Accordingly, the Petitioner requested the State Govt to impound the barrage so that the make-up water pumps can achieve sufficient head at suction to pump the water to the Plant. The impounding of Saradih Barrage could be completed only with the onset of monsoon, i.e. June 2020. The Petitioner was not at fault for the delay in the execution of the make-up water pumphouse work as the same was dependent upon the works being executed by the WRD, Govt of



Chhattisgarh for Saradih Barrage. Hence, the delay in the completion of Saradih Barrage is not attributable to the Petitioner.

25. The Petitioner has submitted that it is required to make the arrangement for the supply of power to the make-up water pump (MUWP) house by erecting a 2 nos. 66 KV single circuit transmission line up to the Pump house. It has also submitted that the construction of transmission lines was delayed due to various reasons beyond the control of the Petitioner, such as:

- a. *Delay due to absence of guidelines for ROW below 132 KV system- 11.07.2014 to 01.06.2016*
- b. *Delay due to Revenue department survey under Govt of Chhattisgarh- 01.06.2016 to 04.01.2017*
- c. *Delay due to protest by villagers- October 2017 to May 2019*
- d. *Delay due to Electoral code of conduct- November 2018 to June 2019*

26. The Petitioner has further submitted that the generating station has been allocated 45 MCM of water per year from the Saradih barrage, but the impounding of the barrage by the State authorities could not be done at the time of COD of Unit-1. The Petitioner has submitted that anticipating the delay in the readiness of the barrage for water impounding, it had proactively made an alternate arrangement, and accordingly, a new temporary pipeline was laid to the nearest point of Kelo River and with the permission of WRD, Chhattisgarh, to make water available for various activities like hydro test, BLU etc., for Unit-I. It has also submitted that the water available through this contingent arrangement, was not sufficient to run both the units on a sustained basis and therefore, the Petitioner requested the State Govt to impound the barrage at the earliest, so that the river water pumps may achieve the sufficient head at suction, to pump the water to the plant. The Petitioner has, however submitted that the impounding of barrage by the State Authorities could be completed only by June, 2020 for various reasons such as Delay due to pending requisite notification /rules RFCT LARR Act, 2013 by Govt. of Chhattisgarh, delay



due to cancellation of mutation by State Authorities and final land acquisition, Hon'ble High Court intervention in land acquisition by State Govt. for Saradih Barrage and availability of Saradih Barrage, had badly disrupted/ affected the progress of the works at site, thereby resulting in the delay in the commissioning of the systems, which are essentially required for the commissioning of the Unit.

Submission of the Respondents

27. Respondent, CSPDCL has submitted that vide letter dated 18.7.2018, the Petitioner had admitted that there is no provision or agreement for the payment of compensation regarding the submergence of land due to the construction of Saradih water Barrage and the amount for Saradih Barrage Construction, R&R Payments, etc., were not deposited. It has however submitted that later on, the Petitioner, without any protest or legal remedy, had deposited the said amount to the WRD, Chhattisgarh. The Respondent has further submitted that it is clear from the communication between the Petitioner and WRD, Chhattisgarh that the requirement of water for the generating station could have been made available from alternate sources and the Petitioner could have commenced the operation of Unit-I in time. It has further submitted that the estimated start date to commence the work related to the transmission line was 11.7.2014, but the said work actually started on 17.2.2015 and was completed on 1.6.2016. The Respondent has pointed out that the Petitioner has failed to place any documentary proof regarding the estimated start date to commence the work related to the transmission line, but assuming the averments to be true, the Petitioner had failed to start the work wilfully, despite getting all the regulatory powers from the Collector, MOP and the State Government.

28. Respondent, MPPMCL has submitted that the responsibility to lay the water pipeline and transmission lines, free from all encumbrances is on the Petitioner and such agitation might have



been expected at the time of planning, as due diligence might have been carried out by the Petitioner. Accordingly, the Respondent has submitted that such delay being attributable to the Petitioner, may not be allowed.

Analysis and Decision

29. The submissions of the Petitioner and the Respondents have been considered. It is observed that the delays claimed due to the non-availability of RoW guidelines for the Transmission System below 132 kV and litigation on land acquisition by the land owners before the High Court have affected the works. However, delay due to Revenue Department Survey for land acquisition and strikes by villagers of Kotarilya are already dealt in paragraphs 19 and 22 of this order, wherein, the delay till 18.7.2019 has been condoned.

30. Further, the Commission is of the view that the subsequent delay of 10 months till 31.5.2020 was due to a delay in impounding the barrage, which was possible only at the onset of monsoon, i.e., by June 2020. It is observed that the Petitioner had requested the State Govt vide its letter dated 06.02.2020 for impounding of the barrage so that the make-up water pumps can achieve the sufficient head at suction to pump the water to the Plant. Further, it is observed that the delay towards execution of the make-up water pumphouse work was dependent upon the works being executed by WRD, Govt. of Chhattisgarh for Saradih Barrage. Hence, the delay due to the impounding of the Saradih barrage was also beyond the reasonable control of the Petitioner and, therefore, is condonable in terms of Regulation 21(4) of the 2019 Tariff Regulations. We, therefore, hold that the delay on this count for the period from 17.7.2019 to 31.5.2020 is an uncontrollable event, and the same is condoned.



Impact of Covid-19 Pandemic (6.3.2020 to 31.10.2020)

31. The Petitioner has submitted the following:

- (a) The Ministry of Home Affairs, GOI had imposed lockdown in the country vide its order (No. 40-3/2020-DM-I(A)) dated 24.3.2020 for containment of the spread of Covid-19 in the country under the Disaster Management Act. Moreover, covid-19 has also been declared as a 'pandemic' by the various ministries under the GOI. During the lockdown period, only classified essential activities were allowed and several restrictions and preventive measures were adopted to contain the spread of virus, such as, the suspension of public transport services and hospitality services, closure of manufacturing units, working with minimum number of employees/works from home measures, etc. There was a complete ban on international and domestic travel, quarantine facilities were set up, contact tracing of persons infected with the virus was done, and several public advisories, including social distancing measures and hygiene standards, were announced by the Govt of India and State Governments.

- (b) Due to the countrywide lockdown from 24.3.2020 to 31.5.2020 and subsequent unlocking with strict measures as stated above till the month of September 2020, the balance erection and commissioning activities of Unit-II were affected severely. Further, recognizing the covid-19 situation as an extraordinary event that was beyond human control and taking note of the limitations placed on the movement of men and materials as per Central/ State Govt guidelines, thereby leading to the impairment of various contractual obligations by the parties, the Ministry of Finance, GOI vide OM dated 13.5.2020 treated Covid-19 situation as a force majeure event and the extension in the completion of works from three to six months was allowed, without imposition of any cost or penalty.

- (c) Due to limited availability of the laborers and experts as well as problem in the supplies by the agencies, the balance works pertaining to the COD of Unit-2 were prioritized and started at the end of September, 2020 and on completion of the same by 1.5 months' time, the unit was declared under commercial operation on 7.11.2020.



Submissions of the Respondents

32. Respondent CSPDCL has submitted that the Petitioner's plant was already delayed by more than two years and six months when lockdown was imposed. Hence, the benefit claimed by the Petitioner out of the lockdown period is not at all justified and, hence, should not be allowed. In terms of a settled legal position, the Petitioner has already delayed the whole project on account of its Contractor, supplier, and Internal problems and failed to explain each and every delay; therefore, condonation of any delay on a delayed project has no basis in law.

Analysis and Decision

33. The submissions have been considered. It is observed that Covid-19 was declared a worldwide pandemic, which caused constraints in the procurement of materials, free movement of manpower, and availability of manpower throughout the country. Regulation 3(25) of the 2019 Tariff Regulations defines the term 'force majeure' in Sub-clause (a) of Regulation 3(25) pertaining to force majeure as under:

"(25) 'Force Majeure' for the purpose of these regulations means the events or circumstances or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

(a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or

.."

34. It is further observed that the Ministry of Finance (MoF), GoI Notification dated 13.5.2020 states as follows;

"Attention is invited to Department of Expenditure's O.M. No. 18/4/2020-PPD dated 19th February, 2020 on the invocation of Force Majeure Clause (FMC). Vide the O.M., it was clarified that disruption of supply chains due to the spread of Coronavirus will be covered under FMC which could be invoked, wherever considered appropriate, following the due procedure as stated in para 9.7.7 of the Manual on Procurement of Goods.



2. Subsequent to issuance of the above referred O.M., further disruptions have affected the transportation, manufacturing and distribution of goods and services in the country. Limitations placed on the movement of men and materials as per the guidelines issued by the Ministry of Home Affairs (MHA) under the Disaster Management Act, 2005 (DM Act 2005) and the respective State and UT governments from time to time have severely impacted the fulfilment of contractual obligations for supply of goods, works and consultancy services (including other services), and affected the volume of vehicular traffic.

3. Attention in this regard is invited to para 9.7.7 of the "Manual for Procurement of Goods 2017", Para 6.4.2 of the "Manual for Procurement of Works 2019" and para 8.14.1 of the "Manual for Procurement of Consultancy and other Services 2017" issued by the Department of Expenditure. The above referred three Manuals recognize extraordinary events or circumstances beyond human control leading to delays in or non-fulfilment of contractual obligations. In a situation of such events happening, and after following due procedure, parties to the contract are allowed flexibility to invoke FMC following prescribed due procedure.

4. It is recognised that in view of the restrictions placed on the movement of goods, services and manpower on account of the lockdown situation prevailing overseas and in the country in terms of the guidelines issued by the MHA under the DM Act 2005 and the respective State and UT Governments, it may not be possible for the parties to the contract to fulfil contractual obligations.
...”

35. It is observed that the worldwide pandemic has affected the free movement of materials and manpower, which is vital for the timely construction of the Project. Hence, in line with the MoF notification, the delay due to Covid-19 has been considered as a Force Majeure condition as it had severely affected the flow of materials, supplies and manpower during project execution. On perusal of the documents submitted by the Petitioner, it is, however, observed that the delay on this count has been claimed for a total period of 239 days, which is much higher than the maximum delay condonable as mentioned in the Ministry of Finance, GOI Notification dated 13.5.2020. The said notification specifies that the contractual obligations shall stand extended by not less than 3 and not more than 6 months. It is also observed that apart from the lockdown imposed by the Central Government, the District Collector of Raigarh vide notification dated 26.8.2020 had imposed certain restrictions for an additional 30 days regarding the mobilization of labour from outside the State from 25.8.2020. In view of the above, the delay till 23.9.2020 has been condoned. However, the delay of 44 days from 24.9.2020 to 7.11.2020 has not been condoned.



Agitation by Villagers and INTUC union strike (Law and Order Issues occurring intermittently during 2013-2018)

36. The Petitioner has submitted the following:

- (b) The land acquired for the main plant (Lara) was registered in the name of the Petitioner, and the possession of the same, free from any encumbrances and disturbances, was completed before the Investment Approval as per the R&R policy, under the then Land Acquisition Act. Subsequently, after the Investment approval, the initial site levelling and infrastructure package were started and the works were in full pace as per schedule. However, subsequent to the initial stage of the civil activities, the project faced obstructions and agitations related to land acquisition from the local villagers, mainly, the Project affected Persons (PAPs) demanding higher compensation, than as earlier accepted and paid to them. There were several events of severe protests, Dharna, Chakkajam leading to forceful stoppage of construction activities, threats to vehicles carrying materials and equipment, which caused delay in execution of the project.
- (c) The agitation by PAPs was not only limited to blockades, threats, etc., but some incidents of violence/physical assaults to the labourers had also occurred, spreading fear in the working personnel. The Petitioner had paid the compensation to all the PAPs as per the Rehabilitation & Resettlement (R&R) Policy under the then prevailing Land Acquisition Act, when the main plant land was acquired by the Petitioner. However, there was demand for higher compensation by the local people as per new Compensation policy promulgated from 1.1.2014. Apart from the demand of higher compensation, the residents of the nearby area, started disrupting the project execution work, raising various demands, including the extension of the MGR line upto Pussore, raising the issue of infertility of fields etc., which were irrelevant and/or not pertaining to the project; other R&R works in surrounding area like construction of health care center (already being taken up by Petitioner); employment to the affected people whose lands were acquired (though already settled by the Petitioner as per the then prevailing land acquisition Act and R&R Policy), Employment and adequate compensation to the landless PAPs (these demands were beyond the agreed compensation and R&R Policy), compensation to Tendu leaf collectors and agricultural & non-agricultural land-losers (to settle after the list



of people is provided by Revenue Department and therefore the Petitioner was not at fault); seeking jobs, which was already settled by the Petitioner.

- (d) In view of the above demands and the ongoing strike and gherao by the villagers, the Petitioner faced severe disturbances from the beginning of the project construction activities, and the pace of the execution also suffered severely. The incidents of protest and work disruption spread fear amongst the workers, as well as the employees of many contractors, thereby resulting in the reduction of workforce and causing delay in the work execution. To avoid delay and the hampering of works, the officials of the Petitioner and the CISF personnel started patrolling, persuading and accompanying the workers to report for duties. The unlawful agitations related to land acquisition continued throughout the execution of the project and the same was controlled by effective project management. However, when the agitation and hindrance by the villagers escalated, the work was intermittently affected during different time periods of the project implementation, despite seeking the help of the District Administration from time to time.
- (e) The hindrance started as early as the start of preliminary works like site levelling activities. More than thousand villagers from 13 Gram Panchayats reached the site to protest before the then Prime Minister of India during the month of September, 2013 and went for Dharna. Such hindrances went on occurring at different stretches, thus impacting the progress of the preliminary works, Main plant and offsite civil works and other packages in progress, during the construction phase of the generating station. The aforesaid protests initially led to the delay in implementation of preliminary civil works and subsequent Main Plant and offsite works, and later on to other activities, on account of stoppage or hindrance in the movement of the work force as well as the construction equipment like earth movers etc. The agitation related to the land acquisition started in 2013-14 (after the promulgation of the new act) and occurred many times at different stretches during 2014-15, 2015-16, 2017-18 and 2018-19. The protests continued for prolonged durations at each stretch, hampering the project activities immensely. The protestors went on for another stretch of disturbance and stoppage of movements of labourers, including the vehicles/earthmovers, etc., to the Main plant area in July, 2014 and November, 2014. The Petitioner informed the SDM (Pussore), Raigarh vide letter



dated 22.11.2014, regarding the representation by the villagers for gherao and work stoppage at site, and also sought police protection, so that the project activities, which was going on in full swing, may not be slowed down. Despite the efforts of the Petitioner, the strikes, agitations did not stop.

(f) During April 2015, the Petitioner got information from the Police station, Pussore that the villagers were planning for calling a movement at the Project site on 24.4.2015. Taking cognizance of this information, the Petitioner informed the District Collector regarding the situation, providing the updates & stand of the Petitioner on various matters pertaining to R&R, enhanced compensation and other demands referring the earlier communication provided to the administration on 5.7.2014 on these issues. The Petitioner apprised the District Administration that there were approximately 2000 labourers working at site, along with some of the officers of foreign origin, and any unpleasant circumstances at site could lead to grave repercussions. The agitation, however, took place, and subsided after discussions with the villagers after a week's time. Subsequently, in September 2015, the Petitioner again informed the District Collector vide letter dated 9.9.2015, to intervene and stop the movement proposed from 12.9.2015. More than hundreds of agitators of nearby nine villages started agitation for their 11 nos. of demands. The matter was brought to notice of the State Administration and after the intervention of District administration, the protest ended after around 5 days, but again started at the end of October, 2015. After days of bilateral dialogue and discussions between the Petitioner and the villagers on the issues raised by them, the villagers agreed to withdraw the agitation after 10 days, (i.e. on 5.11.2015). The Petitioner, being aggrieved of the repeated agitations and disruptions created by the protestors, addressed letters to the Collector, Superintendent of Police and City SP, seeking police protection. Such agitations/protests/dharna/strikes were also faced during the years 2016-17 and 2017-18.

(g) In 2018-19, during the process of Right of Use (RoU) for Make-up water and land acquisition for MGR (priority path), forceful protests were faced by the Petitioner, when the contract labourers/ workmen, agency personnel etc., were stopped from going to plant. The Petitioner, had sought the support of the District administration, a number of times. It also faced enormous difficulties in the execution of project on account of the



hindrances caused by the villagers, despite the settlement of various issues being raised by them, and all out efforts were made by the Petitioner to carry on the project execution work in a seamless manner. Every agitation used to create disruption for approximately 10 days from the beginning of agitation to the resumption of work in a full-fledged manner, on account of threat to labourers, various blockades on roads to stop the construction related vehicle movement, gherao of the project site, stopping the employees etc. The unforeseen agitations contributed significantly to the delay in the Project execution pertaining to Unit-I and Unit-II. The Petitioner made all possible efforts to solve the problem and had also sought the support of the District administration/authorities many times, through meetings and written communications. The Petitioner submitted that the reasons mentioned above were beyond the reasonable control of the Petitioner and have created major hurdles in the Project execution.

Submission of the Respondents

37. Respondents, CSPDCL and MPPMCL have submitted that the issue of protests by PAPs are not new and are faced by most of the Power projects in India and the Petitioner being the largest entity in the power sector, would have encountered similar issues in the past, in many of its other Projects. They have, therefore, submitted that it is expected that the Petitioner, while planning the COD of the units and the tasks related to it, ought to have taken such challenges into consideration and should have scheduled its strategy and the execution plans accordingly.

Analysis and Decision

38. The submissions of the parties have been examined. Regulation 3(25) of the 2019 Tariff Regulations, defines the term 'force majeure' as under:

“(25) ‘Force Majeure’ for the purpose of these regulations means the events or circumstances or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:



- (a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or*
- (b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or*
- (c) Industry wide strikes and labour disturbances having a nationwide impact in India; or*
- (d) Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;”*

39. We notice that the delays due to strikes /agitations were intermittent, totalling 72 days spread across 15 different instances, impacting the project work from a single day to up to thirteen days. From the close perusal of the issues, we observe that all these instances have been a reaction to the land acquisition by the Petitioner. Further, it was mainly due to enhanced R&R provisions which were introduced by the new Land Acquisition Act, 2013, and Land Acquisition, Rehabilitation and Resettlement (Social Impact Assessment and Consent) Rules, 2014, which was beyond the control of the Petitioner and hence is condonable. Further, all such instances have been subsumed in respect of the delay condoned due to land acquisition, as discussed in paragraphs 19 and 23 of this order.

Delay in handing over of awarded land after necessary tree cutting approval by the District Administration

40. The Petitioner has submitted that there were some patches of forest land in the land identified for the MGR system, and large-scale tree cutting in the MGR corridor was required, and there was a delay in the approval of the Forest Right Act (FRA). It has also submitted that the removal of trees could only be started after the award of land, and therefore, the application for tree cutting in the awarded land was submitted by the Petitioner on 3.2.2017, and the approval was granted by the Addl. Collector Raigarh on 16.6.2017 and by the Forest department on 25.10.2017. The Petitioner has further submitted that there was a substantial delay in tree cutting, as it was required to be completed by the Forest Department in compartments, but the



work front for the construction of the Railway formation and track was released only after getting the approval of the Forest department, i.e., after 20.12.2017. Accordingly, the Petitioner has submitted that a delay of around 320 days (3.2.2017 to 21.12.2017) had occurred due to the delay in permission for tree cutting and tree cutting by the Forest Department, which was beyond the control of the Petitioner.

Submissions of the Respondent

41. Respondent, CSPDCL submitted that since the Ministry of Environment and Forest had already acquired the forest land, the plain and private land totalling 2850 acres in December, 2012, the Petitioner could have, thereafter, taken up all the sundry works such as tree cutting etc., so as to complete the work in time. It has been submitted that since the Petitioner had failed to act in time, the claim for condoning the time overrun is legally not permissible.

Analysis and Decision

42. The submissions have been considered. It is observed that the Petitioner, immediately after the award of land applied for tree cutting on 3.2.2017 however, the approval was granted by the forest department after more than eight months, i.e., by 25.10.2017, and the work front for the construction of the Railway formation and track was released only after getting the approval of the Forest department on 21.12.2017. The Commission is of the view that the tree-cutting works were required to be carried out by the Forest Department over which the Petitioner had no control, and therefore, the delay on this count is condonable. It is, however, observed that the delay on this count falls squarely within the delays condoned in respect of the land acquisition as stated in paragraphs 19 and 22 of this order. Hence, the delay on this count is subsumed under the delays condoned in respect of the land acquisition.



Delay due to pending notification /Rules, Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 by Govt of Chhattisgarh for Make Up water

43. The Petitioner has submitted the following:

(a) The application for land acquisition for 10.272 hectares of land in Saradih and Thengapali villages (in which 9.7 hectares belonged to the private land owners and 0.572 hectares of land belonged to the Government of Chhattisgarh) was submitted after survey and site study for Make-up Water Pump House (MUWPH) to the State Investment Promotion Board (SIPB), Raipur. After the filing of the application, the Petitioner followed up with the State authorities and multiple and marathon meetings were held with the authorities, wherein, the list of the land owners was received and it was decided to provide the said land free from all encumbrances to the Petitioner, so that the Petitioner could start the purchase procedure of the land effectively.

(b) Some unfair practices in the land purchase were going on at Saradih village, which the Petitioner brought to the knowledge of the District Collector, Champa. However, the SDM vide letter dated 12.1.2015 informed that the land acquisition could not be initiated by the State Revenue authorities due to pendency of the required clarification on the notification/rules pertaining to the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCT LARR Act, 2013) by the Govt of Chhattisgarh. The said clarification/notification was issued by the Govt. of Chhattisgarh and the in-principle approval was received on 5.6.2015, pursuant to which the process of land acquisition for MUWPH could be initiated. Therefore, there was a delay of approx. 17 months (November, 2013 to June, 2015) for the issuance of notification/rules by the Government of Chhattisgarh, which was beyond the control of the Petitioner.

44. Accordingly, the Petitioner has submitted that the time elapsed due to the cancellation of land mutation by the State authorities and subsequent purchase of the required land for MUWPH from 31.7.2015 to 28.1.2017 is approx. 548 days (about 18 months). The Petitioner has submitted that it had continuously taken up the matter and put its best efforts, so that the project



activities could get completed on time, but the land for MUWPH construction work could only be made available after 28.1.2017.

Submission of the Respondents

45. Respondent, CSPDCL has submitted that till the end of the year 2015, the Project could not even commence the work because of the internal problems of the Petitioner and its principal contractor and basic equipment such as Turbine, Boiler, machinery, SG/STG etc., could not be supplied. Therefore, the issue of Make-up water at plant is nothing but an afterthought to cover-up the Petitioner's fault.

Analysis and Decision

46. The matter has been examined. It is observed that the Petitioner filed an application for land acquisition on 9.11.2013 and followed up periodically with the concerned authorities for the purchase of the land. However, the land acquisition could not be initiated by State Revenue Authorities due to pending requisite clarification regarding notification/ rules of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCT LARR Act, 2013) by the Govt of Chhattisgarh. The said clarification/notification was issued by GoCG, and in principle approval from GoCG was received on 5.6.2015. The Commission is, therefore, of the view that the delay in land acquisition due to a delay in clarification regarding notification/ rules of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCT LARR Act, 2013) by the Govt of Chhattisgarh, which was beyond the control of the Petitioner. Therefore, we are inclined to condone the delay in the execution of the project work for the period from November 2013 to June 2015. However, the delay from November 2013 to June 2015 is already subsumed in the issues discussed in paragraphs 19 and 22 of this order.



Delay in Right of Use Award from front to be given to agency

47. The Petitioner has submitted the following:

- (a) The Water Resource Department (WRD), Government of Chhattisgarh, vide its letter dated 17.1.2011, had allocated water (45 MCM) for Stage-I of the project from the proposed Saradih Barrage in Saradih Village in Janjgir Champa District. The Petitioner had to make intake arrangements at the riverbank of Mahanadi near the proposed location. The water was supposed to be transported through a pipeline from the intake well of Saradih Barrage to the plant area. The pipeline was to pass through 18 villages of Raigarh District and 11 villages of Champa District, covering a distance of around 37 kms. For the construction of the above pipeline corridor, a total Right of Use (ROU) of 201.87 acres of land was required, of which 192.8 acres belonged to the private land owners, and 9.07 acres of land belonging to the State Government.
- (b) For laying of the underground pipeline for the supply of water from barrage to plant, the Petitioner filed an application for land under ROU for pipelines corridor in terms of the Chhattisgarh Underground Pipelines (Acquisition of Right of User in Land) Act, 2004 (the ROU Act) on 18.7.2012. Despite regular follow ups and meetings with the concerned officials by the Petitioner, State Investment Promotion Board (SIPB), the Government of Chhattisgarh vide letter dated 21.2.2013, i.e. after 7 months of the application, directed the district authority to take necessary action. The Petitioner held a number of meetings with the authorities to expedite the award of ROU, so that the work of laying of water pipeline could be started. The follow-up was done by both verbal and written communication including the follow up letter dated 22.10.2013. Consequently, the District Administration started the land acquisition process for laying the pipeline and the award for disbursement of the compensation was passed under the ROU Act and notice regarding the damage compensation and service charge was first raised for three villages viz., Saradih, Faliyamuda and Kosmanda by the competent authority on 26.11.2014. Further, the Revenue department and the competent authority progressively directed the respective officers to match the surveyed land for ROU and for publication of notices under Section 4 of the ROU Act for the remaining villages in order to decide/ assess the crop damage compensation.



- (c) However, the work of laying a make-up water pipeline from the Saradih barrage to the Project of the Petitioner was severely affected on account of the ROU issue and IR issues raised by the villagers of the area. Disputes were raised by some of the landowners who have declined to receive compensation despite repeated reminder notices issued by the District Administration. The landowners vehemently refused to hand over the said stretch of land to the Petitioner and demanded that their land be acquired under the Land Acquisition Act and not through ROU mode. Accordingly, the matter was taken up with the competent authority, which served notices on the aggrieved landowners. The dissatisfied landowners were heard by the competent District Authority as per the established procedure for redressal of their grievances.
- (d) Meanwhile some of the landlords filed petition before the Hon'ble High Court of Chhattisgarh on the ground that the Chhattisgarh Underground Pipelines (Acquisition of Right of User in Land) Act, 2004 is ultra vires to the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. Despite the various meetings coordinated and arranged between the villagers and the authorities by the Petitioner, the matter got prolonged.
- (e) Many villagers, even after payment by the Petitioner, as per the order of the competent authority for the awarded land, were not willing to hand over the land, by falsely claiming that the compensation was not given to them. Further, some of the villagers had refused to accept the agreed compensation. In this regard, notices were served by the Treasury Officer to the farmers to accept the compensation for the land as per the ROU Act, 2004. Also, the Revenue officer, Govt of Chhattisgarh vide letter dated 13.9.2017 directed the landowners to provide the reasons for creating an obstruction to the pipeline laying work and for not cooperating with the Petitioner, stating to be in violation of the Land Use Right Acquisition Act, 2004.
- (f) The final land award for the ROU in villages Saradih, Bagrail, and Mauhapaali was given on 16.4.2018. Even after the award of the land, the landowners in several villages were not willing to provide their respective stretches of land for laying the pipeline and were



creating repeated hindrances in the work. The Petitioner had fully paid the compensation amount as informed by the competent authority including the crop compensation amount. After several persuasions by the Petitioner and the authority of the land owners, the final stretch of land was made available to the Petitioner by 10.10.2018 and thereafter, the remaining work started and the MUWP laying work could be completed only on 16.12.2018.

- (g) On account of the substantial delay in ROU due to hindrances and IR issues created by villagers/ landowners as described above, the work for making the water available at the site from the Saradih barrage through the pipeline got delayed. The work of laying the pipeline was completed on 16.12.2018, as against the actual completion schedule of 25.6.2016. Due to these uncontrollable factors, there was a delay of about 904 days (about 30 months) in the completion of the MUWP laying work from its schedule completion date. The reasons for the delay are therefore, beyond the reasonable control of the Petitioner, despite its persistent and best efforts.

Submission of the Respondents

48. Respondents CSPDCL and MPPMCL have submitted that that these aforesaid issues are not new in the establishment of the power Projects and the Petitioner might have been facing similar issues since long. Accordingly, the Respondents have submitted that the Petitioner is expected to have considered these factors while planning the COD of the units and the tasks related to it, and should have scheduled its work plans accordingly.

Analysis and Decision

49. The submissions have been examined. In our considered view, the delay of ROU caused on account of the hindrances and the IR issues by the villagers/ landowners and consequent litigation launched by the land owners were beyond the control of the Petitioner. It is observed that the Petitioner had submitted the application for land under Right of Use on 18.7.2012 and has followed up the matter with the concerned authorities vide its letter dated 21.2.2013 for early



resolution of the issues. However, it is observed that when the District Administration started the land acquisition process for laying of pipeline and notice regarding the damage compensation and service charge was raised, on 26.11.2014, landowners denied handing over the said stretch of land to the NTPC and demanded that their land should be acquired under Land Acquisition Act and filed petition in Hon'ble High Court of Chhattisgarh that the Chhattisgarh Underground Pipelines (Acquisition of Right of User in Land) Act, 2004 to be *ultra vires* of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013. Further, it is observed that many villagers even after payment by the Petitioner as per the order of the competent Authority for the awarded land, were not willing to hand over the land by falsely claiming that the compensation was not given to them. In this regard, notices were served by the Treasury Officer to the farmers to accept the compensation of the land as per the RoU Act 2004 and vide letter dtd. 13.09.2017 by a Revenue officer, GoCG, directed the Landowners to provide reasons for creating an obstruction in the pipeline laying work and not cooperating with the NTPC Ltd., which is a violation of the Land Use Right Acquisition Act 2004. Subsequently, the Final land award for RoU in Saradih was done on 16.04.2018. In view of the submissions, we are inclined to condone the delay from February 2015 to April 2018 due to the delay in land acquisition and ROU issues, as the same was beyond the control of the Petitioner. The Commission further observes that the period claimed under the above issue is already subsumed under the delays condoned in paragraphs 19 and 22 of this order.

High Rainfall, cyclone Phailin & Hudhud

50. The Petitioner submitted the following:

- (a) When the site levelling and infrastructure works were started in the Project, during the year 2013, there were unprecedented heavy rains of more than 500 mm, during the month of July 2013, which caused multiple disruptions and severe difficulties in the movement



of men, materials and machineries like earth movers, trolleys, trucks, dumpers, etc., which led to the stoppage of work during the period. Similarly, heavy rainfall of more than 400 mm occurred in July, 2014 severely affecting the activities like enabling works, main plant and offsite civil works for Unit-1; rainfall from June, 2015 to August 2015, was as high as 615 mm, when the preliminary civil works for Unit-2, Unit-1 Main plant civil and offsite civil works, make up water pipeline, pump house etc. were progressively going on at site. Similarly, in 2016 (during the months of August and September), unprecedented rainfall marked as high as 853 mm, hampered the ongoing activities like the balance preliminary and enabling civil works for the generating station, offsite civil works, CW & CT works etc. Further, the rainfall during the months of June, 2018 to August, 2018 hampered the offsite civil works (balance for Unit-2) as well as the pipeline laying works for the Make-up water system. Similarly, heavy rainfall in the monsoon months during 2019 and 2020, mainly affected the priority path (MGR/ Railway siding works). The rainfall data brought out as above during the different periods/year are the total rainfall during a month, and the daily rainfall on some of the days during these months, went so high, that it led to a severe flood like situation at site, thereby hampering even the normal daily activities. Therefore, the consequential impact of heavy rains in these months brought various ongoing project activities to a standstill condition.

- (b) Even after the end of the rainy months, immediate normalization of the work was not possible, as it always required gigantic efforts for dewatering and/or drying of the locations, which required another 10 days approximately, on each incidence. Although the equipment like dewatering pumps/ flexible water pipes etc., were deployed at site to cope with the rainfall at the project location, the continuous heavy rainfall resulted in repeated flooding of the areas, thereby causing major disruptions and restrictions in the movement of men and machinery and stopping the civil & structural works of the major areas. As the unit was under the construction stage, the systems dealing with such exigencies, were also under execution and commissioning. Lot of efforts were made by the Petitioner to normalize and make the passage healthy and safe for the movement of heavy materials and cranes. The rainfall not only affected the main plant area, but also the surroundings, as well as the approach road. The Petitioner made best efforts for



drying of the pathways by laying the thick layer of moorum throughout the internal roads/ approach road etc.

(c) As regards cyclones, the heavy rainfall and wind affected the preliminary input activities for the main civil packages and also disrupted the temporary structures erected for carrying out the different project construction activities like the temporary power supply poles. The total impact of 14 days due to cyclones Phailin and Hudhud may also be condoned.

Submission of the Respondents

51. Respondents, CSPDCL and MPPMCL have submitted that the Petitioner has failed to support its claim by furnishing the actual rainfall data from the India Meteorological Department (IMD), the Ministry of Earth Sciences, GOI. It has also stated that the Petitioner has not submitted any evidence in respect of its claims of severe disruption of the project construction work, for an abnormally long period of time. Accordingly, the Respondents have prayed that the delay on this count, may not be condoned.

Analysis and Decision

52. The matter has been examined. It is observed that the Petitioner has submitted the details of the average rainfall for the different months for the period 2013-2020. However, the Petitioner, has not submitted any evidence in support of its claim of unprecedented rain. In our view, such delays due to weather inconsistencies are to be factored in during the DPR phase. Further, the Petitioner has not provided the details of the rainfall during the last hundred years, which is required as per the 2019 Tariff Regulations to check if such an event has not occurred in the past 100 years. Hence, we are not inclined to condone the delay on account of the high rainfall claimed across different periods by the Petitioner. However, we note that the period of delay on



this count, has been subsumed in the delay due to land acquisition and delay condoned earlier in this Order on account of impounding of Saradih Barrage.

Sand Mining Ban

53. The Petitioner has submitted the following:

- (a) There was non-availability of sand for prolonged durations, due to imposition of ban on mining and the sale of sand by various State Governments, including the Govt. of Chhattisgarh, under the directions of the National Green Tribunal (NGT). NGT vide order dated 13.1.2015, directed the State Governments to stop giving permits for carrying on sand mining, without obtaining the Environmental Clearance. As sand is the essential raw material for the civil works, the non-availability/ reduction in the supply of sand, severely hampered the civil works of the major packages, including the preliminary civil works of the generating station. Subsequently, the Govt of Chhattisgarh imposed a ban on sand mining from the quarries not having environmental clearance, which also disturbed the supply and availability of sand for the construction activities of the project. Further, NGT vide its order dated 10.12.2015, again directed the State Governments to stop giving permits for carrying on the sand mining without obtaining Environmental Clearance. NGT had also issued directions to the States for not permitting/carrying-on sand mining or mineral extraction on the riverbed or otherwise, including the existing mining lease right holders.

- (b) In compliance with the directions of the NGT, various measures were taken by the Govt of Chhattisgarh and the State level Environment Impact Assessment Agency (SEIAA) by imposing the ban on sand mining for a certain duration, to review the license of all miners and their respective applications for environment clearance. NGT, vide the said order further imposed ban on mining from December, 2015 onwards, for an approximate period of three months, within which the SEIAA had to dispose the applications of the sand miners who applied for Environment Clearance. The cumulative/effective delay on account of the non-availability/reduced availability of sand in the State of Chhattisgarh during 2015-16 was approximately 6 months, which ultimately delayed the various ongoing civil activities of the different packages of the generating station.



- (c) On 9.6.2016, the MOEF&CC released the sustainable Sand Mining Management Guidelines 2016, which prohibited the sand mining from the rivers in the rainy season. The Appendix: Table-9 of the said guidelines provided the period of rainy season for India (State-wise), as per which, the period from 10th June to 15th October, was considered as a rainy season for the State of Chhattisgarh. Consequently, the river sand mining was banned across all the quarries in the State of Chhattisgarh during this monsoon period. This change in law event came as a surprise to the Petitioner. This resulted in a severe shortage of sand, available for the construction activities, especially the civil works of the Project, during the period from 10.6.2016 to 15.10.2016, as all the quarries had to stop the operations resulting in a complete stoppage of sand mining during the monsoon period. As several civil construction activities of the Project were in full swing, the ban resulted in a significant impact on the overall progress of the Project, thereby, leading to a delay of about 4 months.
- (d) The ban on sand mining continued further during the monsoon season in the State from June to October 2017, June 2018 to October, 2018 and so on. The Petitioner tried its best for arranging sand from alternate sources/neighbouring states. However, due to the aforementioned sand mining ban, it was like a blanket ban across the country, and therefore, the tie-up for the supply and transportation of the required quantum of sand from the nearby States/ alternate source was impossible for the Petitioner. The Petitioner also tried to procure M-sand, but on account of the non-existence of any M-sand policy in the State of Chhattisgarh, the supplier for the same was not available in the nearby surroundings. This caused severe scarcity of the raw material (sand) causing delay in progress of civil erection activities of the project.
- (e) The delay in the construction activities due to shortage of sand caused by 'change in law', was beyond the control of the Petitioner and on account of the above, the civil works of many of the major packages in the main plant and the balance of plant got affected. The Petitioner, from its past experience of not getting sand during the period from June, 2016 to October 2016, made efforts to procure sand and materials in advance, in the subsequent years of the ban i.e. 2017 and 2018. However, the lead time in procuring



sand got extended by a considerable time period in the preceding months to the ban period (i.e. monsoon) during the years 2017 and 2018 and consequently, the impact of ban during the monsoon months could not be offset to a significant margin. The effect of the delay could only be minimized by one month on an average, ultimately affecting the progress of the civil works of the project. The non-availability of sand on a sustained basis, (an essential raw material for civil works), appeared as a surprise on account of the NGT/ MoEF order which was a 'change in law' event and was beyond the reasonable control of the Petitioner.

Submissions of the Respondents

54. Respondent, CSPDCL has submitted that from the NGT order dated 10.12.2015, it could be observed that there was no blanket ban on sand mining and any person having Environmental Clearance (EC) could have obtained permission for the same. It has submitted that only person without EC was stopped from carrying out any mining activity and since the ban was only on illegal mining, the event, namely, the non-availability of sand and moorum do not qualify either as a force majeure event or a change in law event, which was beyond the control of the Petitioner as envisaged under Regulation 22 of the 2019 Tariff Regulations.

Analysis and Decision

55. The matter has been considered. It is observed that in compliance to the NGT Order dated 10.12.2015, various measures had been taken by the Government of Chhattisgarh & State level Environment Impact Assessment Agency (SEIAA) imposing ban on sand mining for certain duration for review of license of all miners and their respective applications for environment clearance. In the said order, ban was imposed on mining for certain duration for review of license of all miners and their respective applications for environment clearance, from December, 2015 onwards for an approximate period of three months, within which SEIAA had to dispose of the applications of sand miners who have applied for Environment Clearance. It is observed that the



cumulative/effective delay on account of non-availability/reduced availability of sand in the State of Chhattisgarh during FY 2015-16 was approximately 6 months and on 09.06.2016, MOEF&CC released Sustainable Sand Mining Management Guidelines 2016, which prohibited sand mining from rivers in the rainy season from June to October of each year. We notice that the Commission, vide its order dated 26.7.2023 in Petition No. 402/GT/2019, had decided that the disruption in the supply of sand on account of the various restrictions and ban is an uncontrollable event. The relevant para of the order is extracted below.

“18. We, therefore, hold, that the ban on sand mining activities by the State Government of MP, which had resulted in the delay in construction activities of the project is a change in law / force majeure event, which was beyond the reasonable control of the Petitioner. Accordingly, in terms of Regulation 22 (2)(a) &(b) of the 2019 Tariff Regulations, we hold that the delay of 195 days on this count, is an uncontrollable factor for which the Petitioner cannot be held responsible. Therefore, the said delay is condoned and the liquidated damages recovered from the contractors and insurance proceeds, if any, will be considered for reduction of the capital cost of the project.”

56. Hence, in line with the above decision, we hold that the ban on sand mining activities by the State Government of Chhattisgarh, which resulted in delay in the construction activities of the Project is a change in law / force majeure event, which was beyond the reasonable control of the Petitioner. Accordingly, in terms of Regulation 21 (4) of the 2019 Tariff Regulations, we condone the delay due to the ban of sand mining. We also notice that the period of delay on this count, gets subsumed in the delay due to land acquisition, which has been condoned earlier.

Qualified Steam Turbine Generator Manufacturer (QSTGM) finalization Issue

57. The Petitioner has submitted that due to the merger of Hitachi (original QSTGM partner) & Mitsubishi at global level on 1.2.2014, no Turbine related materials could be supplied between February, 2014 and April 2016, as QSTGM status, was not maintained by Hitachi and the subsequent merged entity M/s. MHPS (Mitsubishi Hitachi Power Systems). It has also submitted that the QSTGM status could be restored only in April 2016, after a very vigorous and persistent



efforts and follow-ups by the Petitioner and taking up the issue at the highest levels like the Govt. of India and the embassies of both the Governments viz., India and Japan after which, the supply of the material commenced.

Submissions of the Respondents

58. Respondent, CSPDCL has submitted that the project was mainly delayed due to the contractor-cum-supplier problems, which are internal issues and is therefore a controllable factor. It has also submitted that any increase in the cost, due to the delay in project or time over run by the contractor / supplier, cannot be passed on to the beneficiaries.

Analysis and Decision

59. The submissions have been considered. It is observed that the Petitioner has claimed the delay due to QSTGM issue in respect of the activities such as, site levelling and boiler erection, whereas, the same is to be applicable only for the turbine erection. We, however, note that with regard to the non-availability of Turbine related materials, due to the global merger of the Japanese companies, the Petitioner had actively pursued the matter and made correspondences with the embassies of India and Japan, the Ministry of External Affairs, GOI, and the Ministry of Power, GOI. Since the matter was taken up by the embassies of India and Japan and the Ministry of External Affairs at an International stage for a resolution of the issue, which involved multiple stakeholders, the Petitioner had only a minimal controlling influence in the matter. It is observed that the Petitioner through letters dated 23.1.2014, 24.1.2014, 31.1.2014, 1.2.2014, 15.3.2014, 18.3.2014, 1.5.2014, 21.5.2014, 25.5.2014, 20.6.2014, 12.9.2014, etc., has made several correspondences and also made efforts at the highest possible level, for the resolution of the matter. The Commission has discussed this similar issue in detail in Order dated 19.05.2024 on Petition No. 582/GT/2020 as below:



“18. On careful scrutiny of the documents now submitted by the Petitioner in justification of the time over run of Unit-II due to the merger issue following facts emerge which need fresh consideration of the issue in hand:

a) The bulk tendering for BTG under phased manufacturing program was an initiative of GOI with the intent to induct supercritical technology and for creating an indigenous manufacturing facility in India through the transfer of technology. For carrying out the above process, MOP issued the guidelines and directed the Petitioner to strictly adhere to the same.

b) In terms of the guidelines issued by MoP, GOI, the petitioner awarded the contracts under “Bulk tenders”. As the entire process was specified by MOP, GOI, any modification to the performance requirement and the terms and conditions was beyond the purview of the Petitioner

c) Consequent upon Global merger of Hitachi Power with Mitsubishi Hitachi Power Systems Ltd. (MHPS), HL & HPE no longer remained the technology provider / QSGM.

d) In order to meet the requirements of the contract framed as per the MOP, and GOI guidelines, MHPS/ MHPS-E (being the new technology provider) was required to substitute HL/ HPE as QSGM through signing of a novation agreement, which could only be got established by 19.2.2016, after the intervention at the highest diplomatic level between India and Japan.

19. The matter has been considered. We notice that the Petitioner had actively pursued the matter with regard to the non-availability of boiler material due to the global merger of the Japanese companies and had made correspondences with the Embassies of India and Japan, the Ministry of External Affairs, GOI, and the Ministry of Power, GOI. Since the matter was taken up by the Embassies of India and Japan and the Ministry of External Affairs at an International Stage for the resolution involving multiple stakeholders, the Petitioner had minimal controlling influence in the matter. The Petitioner has made multiple correspondences and made an effort at the highest possible level for the resolution of the matter with utmost priority. Hence, we are of the view that the above-mentioned issue is a force majeure event, which was beyond the reasonable control of the Petitioner. Accordingly, we hold that the delay from 1.2.2014 (date of merger) to 19.2.2016 (signing of novation agreement) on this count and its consequential impact on Boiler readiness for unit-II, is an uncontrollable event for which the Petitioner cannot be held responsible. Therefore, the said delay is condoned.”

60. Hence, we are of the considered view that the delay on account of the above issue was beyond the reasonable control of the Petitioner. Accordingly, we hold that the delay on this count from the schedule of turbine erection from 12.6.2016 to 22.7.2017 for Unit I & from 31.12.2016 to 9.10.2019 for Unit II and its consequential impact on COD of Unit II, is a force majeure event, and the Petitioner cannot be held responsible. In view of this, the delay on this count is condoned. However, we note that the period of delay condoned gets subsumed in the delay due to land acquisition, which has been condoned as stated earlier.



Delay due to reduced manpower due to increase in Minimum wages by the Govt of Chhattisgarh

61. The Petitioner has submitted that during the implementation of the project, the Govt. of India vide its notification dated 19.1.2017, substantially increased the basic part of the minimum wages of labour by 40%, i.e. minimum wage for unskilled labour was increased from Rs 250 to Rs 350 per day. It has submitted that this wage hike of Rs 100 per day was very steep in comparison to the past regular hikes. The Petitioner has also submitted that though the contractors were compensated by the Petitioner for labour cost inflation, as per the contractual escalation clause, which is based on all India CPI index, this compensation was too low, considering the steep increase, as per the said GOI notification. It has submitted that the escalation as per all India CPI increased by 4.8% in comparison to the wage increase of 40%. Hence, the Petitioner has stated that as the contractors could not get compensated for this steep hike and as the payment of Minimum Wages by the contractors to the workers was a statutory requirement, the contracting agencies faced significant financial burden and responded to this situation by reducing the manpower and/or stopping wage payments, which was a highly unprecedented event. The Petitioner has further stated that it pursued the issue with the agencies for the augmentation of manpower, the works remained affected for about three (03) months, on this count. It has added that the drastic upward revision in the 'minimum wages' came into effect when the execution of the project for the various packages was underway and the same severely impaired the progress of works which were in full swing, thereby hampering their pace and momentum. The Petitioner has stated that the said event affected the main plant packages like SG package work, TG package works etc., slowing down their progress.



Submissions of the Respondents

62. Respondent, CSPDCL has submitted that arrangement of labour and payments to labour are the responsibility of the contractor and fall under controllable factors, in terms of Regulation 22 of the 2019 Tariff Regulations.

Analysis and Decision

63. The matter has been considered. It is noticed that the contractors working in the Project site, had reduced the manpower due to increase in wages and the Petitioner had pursued the said issue with the agencies for augmentation of manpower in order to expedite the project work. Statutory compliance with the minimum wages as directed by the Government is the primary duty of any agency employing the manpower. If unrest is caused by the workers demanding the wages as prescribed by the statutory authority, then the lapses are on the part of the employer, and no relief can be permitted on this count. In view of this, the delay from January, 2017 to March, 2017 has not been condoned. However, the entire delay period has already been allowed and gets subsumed in the delay condoned on account of land acquisition issues as discussed in earlier paragraphs.

64. Considering the milestone-wise delay as per the PERT schedule submitted by the Petitioner, we have in this order, condone complete delay of 2336 days on various counts excluding overlapping delays, as discussed in the above paragraphs. Accordingly, the resultant delay of 913 days from the scheduled COD of the Unit-I to its actual COD is completely condoned. Based on the above, the delay condoned for Unit-I is summarized below:



Unit I

Milestone	Scheduled Completion	Actual Completion	Actual Delay	Delay Condoned	Revised Scheduled completion
Enabling work & Main plant and offsite civil	11-04-17	06-01-19	635	635	06-01-19
Boiler Hydro test	31-08-15	27-12-15	118	118	27-12-15
Boiler Light Up	31-05-16	01-01-17	215	215	01-01-17
Boiler Steam Blowing	31-08-16	06-05-17	248	248	06-05-17
Synchronization	31-10-16	09-09-17	313	313	09-09-17
Condenser Erection	21-03-15	31-12-15	285	285	31-12-15
TG Erection	12-06-16	22-07-17	405	405	22-07-17
COD	01-04-17	01-10-19	913	913	01-10-19

65. Similarly, considering the milestone-wise delay as per the PERT schedule submitted by the Petitioner, it is observed that there has been a total delay of 1133 days from the scheduled COD of the Unit-II to its actual COD. We have condoned the delay of 2694 days excluding overlapping delays on various counts, as discussed in the above paragraphs. However, the delay of 44 days from 24.9.2020 to 7.11.2020, due to the disallowance of extended delay claimed due to Covid-19 pandemic for Unit-II (as in para 34 above), has not been condoned. Based on the above, the delay condoned for Unit-II is summarized below:

Unit II

Milestone	Scheduled Completion	Actual Completion	Actual Delay	Delay Condoned	Revised Scheduled Completion
Boiler Hydro test	29-02-16	26-04-16	57	57	26-04-16
Boiler Light Up	30-11-16	24-12-18	754	754	24-12-18
Boiler Steam Blowing	28-02-17	02-12-19	1007	1007	02-12-19
Synchronization	30-04-17	14-02-20	1020	1020	14-02-20
Condenser Erection	30-04-16	02-01-20	1342	1342	02-01-20
TG Erection	31-12-16	09-10-19	1012	1012	09-10-19
MU Water System	07-10-16	31-05-20	1332	1288	17-04-20
Railway Siding Works	24-06-16	13-11-19	1237	1237	13-11-19
COD	01-10-17	07-11-20	1133	1089	24-09-20

66. The summary of the revised scheduled COD approved is as under:



	SCOD	Time Overrun condoned (in days)	Revised SCOD	Actual COD	Time Overrun disallowed (in days)
Unit-I	1-4-2017	913	1-10-2019	1-10-2019	0
Unit-II	1-10-2017	1089	24-9-2020	7-11-2020	44

Capital Cost

67. Clause (1) of Regulation 19 of the 2019 Tariff Regulations, provides that the capital cost as determined by the Commission after prudence check, in accordance with this regulation, shall form the basis of determination of tariff for existing and new projects. Clause 2 of Regulation 19 of the 2019 Tariff Regulations provides as under:

“(2) The Capital Cost of a new project shall include the following:

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) Capitalized initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*



68. The original investment approval of the Project was accorded by the Board of the Petitioner's Company at its 388th meeting held on 7.11.2012, subject to MOEF clearance, at a completed project cost of Rs.1273982 lakh at a price level of 3rd quarter of 2012. As stated, the MOEF clearance was accorded on 12.12.2012 and accordingly, the zero date of the project is 12.12.2012. The Revised Cost Estimate (RCE) of Rs.1777945 lakh at a price level of 2nd quarter of 2021 was approved by the Board of the Petitioner Company at its 146th Meeting of the Project Sub-Committee of the Board of Directors held on 19.5.2022, due to revision in site specific actual conditions, various input rate of steel and cement, exchange rate variations, escalation close to actual in the specific etc. and after incorporation of the amounts pertaining to ECS (FGD), asset transfer like MGR/Railway siding (from Talaipalli coal Mines to NTPC Lara). The Petitioner has further submitted that RCE should be used as the reference point for the determination of the capital cost. Referring to Appeal No. 165 of 2012 filed by PGCIL before the Appellate Tribunal for Electricity (APTEL) wherein, PGCIL had contended that this Commission ought to have allowed the higher apportioned capital cost of concerned transmission assets despite not submitting the RCE, the Petitioner has submitted that APTEL vide its judgment dated 28.11.2013, decided as under:

“27. The Appellant has contended that since overall cost of the project has reduced from the approved cost, it was not required to obtain the approval of its' own Board for Revised Cost Estimates for Raipur ICT III. The appellant has placed reliance on a Notification dated 30.3.1992 issued by the Government of India under section 43A of the Electricity (Supply) Act, 1948 stating that where the actual expenditure exceeds the approved project cost, the excess expenditure as approved by the Central Electricity Authority shall be deemed to be the actual expenditure.

28. Both the contention as well as the reliance of Appellant on 1992 notification are misplaced. The 1992 notification was issued in the context when the schemes of the Appellant were required to be approved by the Central Electricity Authority under Section 30 of the Electricity (Supply) Act, 1948. The 1948 Act has since been repealed and the Appellant is not required to get the approval of the CEA under the 2003 Act. Therefore, the 1992 notification has no relevance in the present matter.

29. The Central Commission has been mandated to determine the transmission tariff for the Appellant. The Central Commission has every right to ask ant relevant details from the Appellant for carrying out the prudence check on the expenditure of the Appellant.



30. The conduct of the Appellant is surprising. The Appellant is a Nava Public Sector Company of the Central Government. Its Board is empowered to approve its projects including the cost estimates for such projects. The Central Commission also accepts the cost approved by the Board of the Appellant. Under such circumstances, the Appellant could have approached its own Board for approval of the Revised Cost Estimates as desired by the Central Commission. Instead of going to its own Board, the Appellant preferred to approach this Tribunal in Appeal. Such an attitude is not proper.

Accordingly, the issue is decided against the Appellant.”

69. The Petitioner has further submitted that the obvious corollary followed by this Commission in all its orders, pursuant to the above judgment is that wherever the RCE is available, the cost is compared to the same, and where the RCE is not available, the Commission considers the initial approved cost as per the Investment Approval. The Petitioner has added that the original investment approval contains the approved cost at the current cost and completed cost. It has been submitted that the completed cost in the original approval is a hypothetical cost, which was derived at the time of IA in December 2012 based on the price level of 3rd quarter of 2012, whereas the Revised Cost Estimates (RCE), is based on the actual awarded cost, factoring in-site specific actual conditions, variation in input rate of steel and cement, exchange rate variations, rates close to actual based on project specific conditions, etc.,. The Petitioner has stated that since the cost arrived through the competitive bidding process, as taken in the RCE, is the true reflection of the project cost, RCE needs to be used instead of the completed cost, as mentioned in the original Investment approval.

70. Respondents CSPDCL and MPPMCL have submitted that due to the inordinate delay in the completion of the Project, the RCE has reached to Rs.17779.45 crore against the initial cost estimate of Rs.11846.00 crore, which includes the IDC and FC of Rs.2033.18 crore and WCM of Rs.212.34 crore, as on quarter-III of 2012 and the Indicative Estimated Completion Cost (IECC) of Rs.12739.82 crore including IDC & FC of Rs.2175 crore and WCM of Rs.219.42 crore in terms of the Investment Approval. The Respondents have also submitted that the reasons



furnished by the Petitioner for the inordinate delay were on account of the revision in site-specific actual conditions, various input rates of steel and cement, exchange rate variations, escalation close to actual in the specific, etc., and after incorporation of the amounts pertaining to ECS (FGD), asset transfer like MGR/Railway siding (from Talaipalli coal Mines to NTPC Lara) and therefore, the request of the Petitioner to consider RCE as the reference point for the determination of capital cost is misconceived. The Respondents have pointed out that as admitted by the Petitioner, RCE is a product of cost overrun, which was caused due to the inordinate delay in the execution of the Project and, therefore, till the time the Commission undertakes the prudence check of the reasons furnished by the Petitioner for time overrun and cost overrun, the reference point of for the capital cost shall be the indicative Estimated Competition Cost (IECC) of Rs.12739.82 crore as approved by the Board of the Petitioner Company in the IA, the legal preposition of which has been upheld by this Commission in its order dated 13.6.2021 in Petition No 81/TT/2016. Accordingly, the Respondents have submitted that without any analysis and prudence check of the time overrun and the resultant cost overrun, the Commission may not consider the RCE as the reference cost for the determination of the capital cost.

Analysis and Decision

71. The submissions have been considered. It is observed that there have been a lot of changes in the scope of work between the inception of the project and the actual development of the project due to land acquisition issues, the need for the development of alternative water sources for make-up water, increase in the cost of land acquisition due to change in law, etc., and these changes could not have been envisaged during the commencement of the project. Further, there is also the impact on the project cost due to the time overrun already condoned by the



Commission, considering the reasons beyond the control of the Petitioner. In view of this, we are inclined to consider the RCE (based on the actual awarded cost) for a prudence check on the capital cost and additional capital expenditure to be approved.

Capital Cost as on COD of Unit-I

72. The Petitioner has claimed the capital cost of Rs.745539.90 lakh, on a cash basis, as on the COD of Unit-I, as detailed below:

	<i>(Rs. in lakh)</i>
Gross Block as per IND AS (as on the COD of Unit-I)	764635.00
Add: IND AS adjustments	14094.73
Gross Block as per IGAAP as on COD of Unit-I (on accrual basis)	778729.73
Less: Un-discharged liabilities	61911.77
Gross Block as per IGAAP as on COD of Unit-I (on cash basis)	716817.96
Add: Notional IDC	1728.00
Add: FERV charged to revenue	-511.14
Add: Advances towards water barrage construction	27505.07
Capital cost claimed as on COD of Unit-I	745539.90

73. The capital cost, as per IGAAP, on an accrual basis, as well as on a cash basis, amounting to Rs.778729.73 lakh and Rs.716817.96 lakh, respectively, as on the COD of Unit-I, is inclusive of IDC and FC of Rs.116064.16 lakh and FERV of Rs.19404.31 lakh. Accordingly, the hard cost component of the capital cost as on the COD of Unit-I works out to Rs.643261.27 lakh on an accrual basis and Rs.581349.51 lakh on a cash basis. The hard cost, on accrual as well as on a cash basis, as on the COD of Unit-I, also includes an IEDC of Rs.60444.50 lakh. Considering the fact that the entire time overrun has been condoned as on the COD of Unit-I, there is no deduction of IEDC on account of time overrun. Further, considering the details of the IEDC furnished by the Petitioner, the allowable IEDC, after deduction of the depreciation amounting to Rs.10003.41 lakh included in the capital cost as on COD of Unit-I, works out to Rs.50441.09 lakh. Accordingly, the hard cost considered for the purpose of tariff, as on the COD of Unit-I,



works out to Rs.571346.09 lakh (net of un-discharged liabilities of Rs.61911.77 lakh) on a cash basis.

IDC & FC

74. The Petitioner has claimed IDC & FC amounting to Rs.116064.16 lakh, as on the COD of Unit-I. However, from the Petitioner's submission, it is not clear as to whether any advance toward water barrage construction has been considered for the calculation of IDC. Also, the details of interest in Form-14 are not in conformity with the statement showing the details of the IDC capitalized. As such, the prudence check of the IDC claimed by the Petitioner cannot be carried out at this stage. The Petitioner is, therefore, directed to clarify the same at the time of the truing-up of the tariff. Considering the fact that the entire time overrun has been condoned as on COD of Unit-I, the Petitioner's claim under this head is allowed.

FERV

75. The Petitioner has claimed FERV amounting to Rs.19404.31 lakh as on COD of Unit-I, and the same is allowed.

Notional IDC

76. The Petitioner has claimed an amount of Rs.1728.00 lakh as a notional IDC, as on the COD of Unit-I. For reasons stated above in para 74 above, the prudence check of the IDC calculations could not be carried out at this stage. Also, considering the fact that the normative IDC figures are dependent upon the IDC workings/ calculations, we, for the present, allow the normative IDC of Rs.1728.00 lakh as on COD of Unit-I.



FERV charged to Revenue

77. The Petitioner has claimed an amount of (-) Rs. 511.14 lakh, as on the COD of Unit-I towards FERV charged to revenue. As per the consistent methodology adopted by the Commission, FERV charged to revenue up to COD is allowed as part of the capital cost for the purpose of tariff. Accordingly, the amount of (-) Rs.511.14 lakh is allowed under this head.

78. Based on the above, the capital cost allowed as on COD of Unit-I works out to Rs.708031.41 lakh and is shown as under:

<i>(Rs. in lakh)</i>	
Capital cost claimed as on COD of Unit-I	745539.90
Less: IEDC disallowed	10003.41
Less: Advances towards water barrage construction	27505.07
Capital cost allowed as on COD of Unit-I	708031.41

Capital Cost as on COD of Unit-II/Station

79. The Petitioner has claimed the capital cost of Rs.1278510.88 lakh, on cash basis, as on the COD of Unit-II as detailed below:

<i>(Rs. in lakh)</i>	
Gross Block as per IND AS (as on COD of Unit-II)	1297818.19
Add: IND AS adjustments	14927.37
Gross Block as per IGAAP as on COD of Unit-I (on accrual basis)	1312745.56
Less: Un-discharged liabilities	84247.36
Gross Block as per IGAAP as on COD of Unit-I (on cash basis)	1228498.20
Add: Notional IDC	1772.33
Add: FERV charged to revenue	12665.70
Add: Advance towards water barrage construction	35574.66
Capital cost claimed as on COD of Unit-II	1278510.88

80. The capital cost as per IGAAP, on an accrual basis as well as on a cash basis, amounting to Rs.1312745.56 lakh and Rs.1228498.20 lakh, respectively, as on the COD of Unit-II, is inclusive of IDC & FC of Rs.219145.60 lakh and FERV of Rs.43535.00 lakh. Accordingly, the hard cost component of the capital cost as on the COD of Unit-II works out to Rs.1050064.96 lakh on an accrual basis and Rs.965817.59 lakh on a cash basis. The hard cost, on accrual as



well as on a cash basis, as on COD of Unit-II, also includes IEDC of Rs.111476.44 lakh. Considering the fact that the time overrun of 44 days has not been condoned for Unit-II, an IEDC of Rs.2369.75 lakh has been disallowed. Further, considering the details of IEDC as furnished by the Petitioner, the allowable IEDC, after deduction of the depreciation amounting to Rs.15527.68 lakh included in the capital cost as on COD of Unit-II, works out to Rs.93579.00 lakh. Accordingly, the hard cost considered and allowed for the purpose of tariff, as on COD of Unit-II/ Station, works out to Rs.947920.17 lakh (net of un-discharged liabilities of Rs.84247.36 lakh).

IDC and FC

81. The Petitioner has claimed IDC & FC amounting to Rs.219145.60 lakh as on the COD of Unit-II. However, as stated in para 74 above, since the prudence check of the IDC claim could not be carried out at this stage, the Petitioner's claim under this head has been allowed for the present. Accordingly, the impact of time overrun shall also be considered at the time of the truing-up of the tariff.

FERV

82. The Petitioner has claimed FERV amounting to Rs.43535.00 lakh as on the COD of Unit-II and the same is allowed.

Notional / Normative IDC

83. The Petitioner has claimed Rs.1772.33 lakh as notional IDC, as on COD of Unit-II. As stated in para 29 above, the prudence check of IDC calculations could not be carried out at this stage. Considering that normative IDC numbers are dependent on IDC workings/ calculations, we, for the present, allow the normative IDC of Rs.1772.33 lakh as on COD of Unit-III.



FERV charged to Revenue

84. The Petitioner has claimed an amount of Rs.12665.70 lakh, as on the COD of Unit-II, towards FERV charged to revenue. As per the consistent methodology adopted by the Commission, FERV charged to revenue up to the COD is allowed as part of the capital cost for the purpose of tariff. Accordingly, the amount of Rs.12665.70 lakh is allowed under this head.

85. Based on the above, the capital cost allowed as on COD of Unit-II/ Station works out to Rs.1225038.79 lakh and is shown as under:

<i>(Rs. in lakh)</i>	
Capital cost claimed as on COD of Unit-II	1278510.88
Less: IEDC disallowed	17897.43
Less: Advances towards water barrage construction	35574.66
Capital cost allowed as on COD of Unit-II	1225038.79

Advance towards Water Barrage Construction

86. The Petitioner has claimed Rs.27505.07 lakh and Rs.35574.66 lakh, as on the COD of Unit-I and COD of Unit-II, respectively, pertaining to advance paid towards water barrage construction. The Petitioner has submitted that in-principle approval for 45 MCM/ year of water allocation was accorded by the Principal Secretary, Water Resources Department (WRD), Govt. of Chhattisgarh vide letter dated 17.1.2011 for the generating station with certain terms & conditions for the supply of water from the Mahanadi river. It has been submitted that as per the terms and conditions, the Petitioner has to bear the proportionate cost of survey for the proposed water infrastructure, the proportionate cost for construction of this infrastructure, and the land acquisition cost pertaining to the submerged land, and the same shall be adjusted from the bills of water charges to be raised by WRD, on a monthly basis in future, as per the water charges applicable from time to time. The Petitioner has also stated that subsequently, WRD, Government of Chhattisgarh, had planned for the construction of a barrage in Saradih on river



Mahanadi for the supply of water to the various industries which planned to come up in the State, including this generating station. As per the terms and conditions of the in-principle water allocation, the WRD, vide its letter 16.01.2013 addressed to the Petitioner, raised the demand for an advance amount, and the payment of Rs. 355.70 crore was made as advance, including the construction cost and land acquisition cost to the WRD, Govt of Chhattisgarh, as required for the make-up water system. The Petitioner has further submitted that WRD had sought the advance for the construction of Saradih barrage from other industries also, on the basis of the ratio of water allocation and based on the demand for the advance as raised by WRD, the Petitioner had made the payment of the same, to secure the availability of water, the essential ingredient of power generation, for a successful and sustained operation of the generating station. The Petitioner has pointed out that a similar arrangement was also entered into with the WRD, Chhattisgarh, by other projects, viz., NSPCL, Bhilai plant (the JV of the Petitioner). It has stated that at that point in time, after taking up the matter with the MOP, GOI, and the State Government of Chhattisgarh, the advance amount was paid by NSPCL, Bhilai, to WRD, Chhattisgarh, for construction of the Mohad reservoir, after severe water crisis was faced by the State. The Petitioner has stated that in the case of NSPCL, Bhilai, the Commission vide its order dated 29.7.2010 in Petition No. 308/2009 had observed the following:

“There is no denying of the fact that the generating station requires industrial water, without which it cannot function and water is to be made available only from the State Govt. Also, the efforts made by the petitioner to prevail upon the State Govt. not to impose on it the construction cost of Rs.110 crore proved futile, as the State Govt. declined the request of the petitioner. Under these circumstances, the petitioner had no other alternative except to deposit the said advance amount, which was raised from the lenders/promoters of the project. The cost of loan needs to be serviced by the petitioner, as it has confirmed that no interest was being received for the amount deposited to the State Govt. The petitioner has thus prayed that the amount paid to the State Govt. of Chhattisgarh, be considered as part of the capital cost of the generating station. In view of the above discussions, the water charge for Rs.110 crore is allowed and has been considered for the purposes of tariff.”



87. The Petitioner has submitted that as per the policy of the Government of Chhattisgarh, the ownership/ proprietary right of Saradih barrage shall remain with the State Government, and they do not encourage self-made assets for natural resources like water for industrial consumption. The Petitioner has stated that the agreement for the supply of water on a long-term basis has been entered into as per the rules/ provisions laid down by the Water Resource Department of the respective State wherein the generating station is situated. Accordingly, the Petitioner has submitted that it had to enter into such an agreement to secure the enduring supply of water corresponding to its installed capacity to serve the beneficiaries by supplying reliable power on a sustained basis. The Petitioner has added that the capitalization of the advance amount raised by the WRD for the generating station may be allowed from the date of payment of advance to the COD of the unit/station. Accordingly, the Petitioner has submitted that the capitalization of the advance amount may be allowed for the purpose of tariff.

88. Respondents, CSPDCL and MPPMCL have submitted that the Principal Secretary, WRD, Chhattisgarh vide OM dated 17.1.2010 had made it clear that the Petitioner shall bear the complete cost of the Saradih Water Barrage construction and the WRD will adjust the said construction cost in the monthly bills raised on the Petitioner for supply of water from the Saradih Barrage and WRD will hold the ownership of Saradih Water Reservoir & Barrage. Accordingly, the Respondents have submitted that the claim of the Petitioner to consider the advance payment made to the WRD, Chhattisgarh is not permissible. The Respondents have further submitted that the case of NSPCL, Bhilai, stands on a different footing, as in the present case, Saradih water reservoir cost was already taken into consideration at the time of the Investment Approval, whereas, in the case of NSPCL, the Mohad reservoir cost was imposed later by the State Govt of Chhattisgarh. Moreover, the Respondents have submitted that NSPCL being a



joint venture of the Petitioner and SAIL, could have challenged such additional cost before the Hon'ble High Court. Accordingly, the Respondents have submitted that the Petitioner may be directed to approach the Commission in terms of Regulation 35(6) of the 2019 Tariff Regulations for the determination of the water charges along with all the details of the construction cost of Saradih Water Barrage, the contribution from other stakeholders and efforts taken by the Petitioner for early construction of the Plant, the percentage share of water allocation to the Petitioner, etc.

89. The submissions have been considered. It is observed that the WRD Chhattisgarh had informed that the Petitioner is required to bear the complete construction cost of the Saradih Water Barrage and that the WRD will adjust the said construction cost payment in the monthly bills raised on the Petitioner for the supply of water from the Saradih Barrage. It is evident that the generating station requires industrial water, without which the station cannot operate and water is to be made available only from the State Govt. in terms of the water policy. Under these circumstances, the Petitioner had no other alternative except to deposit the said advance amount, which was raised from the lenders/Promoters of the Project. It is also evident that in the present case, the ownership operation and maintenance of the Saradih Barrage would be within the purview of the WRD, Government of Chhattisgarh, and as such, the asset would not be owned by the Petitioner and would belong only to the State Government. Accordingly, if the asset does not belong to the Petitioner, the expenditure for the same, in our view, cannot be considered/allowed in the capital cost of the generating station. However, it is pertinent to mention that the claim of the Petitioner is for water charges and the same is allowable as additional O&M expenses as per Regulation 35(6) of the 2019 Tariff Regulations. In view of this, we allow the expenditure of Rs.35574.66 lakh claimed by the Petitioner as advance amount for



Water barrage construction, as additional O&M expenses towards water supply charges. We also direct that said amount may be recovered in 6(six) equal monthly interest-free installments from its beneficiaries from the date of issue of this order. Further, the benefits, i.e., an adjustment in the monthly bills of the water charges, as submitted by the Petitioner due to the payment of the above advance amount to WRD, shall be passed on to the Respondent beneficiaries. We direct accordingly.

Initial Spares

90. Regulation 23 of the 2019 Tariff Regulations provides as under:

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

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

(b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%

Provided that:

i. Plant and Machinery cost shall be considered as the original project cost excluding IDC, IEDC, Land Cost and Cost of Civil Works. The generating company and the transmission licensee for the purpose of estimating Plant and Machinery Cost, shall submit the break-up of head wise IDC and IEDC in its tariff application.

ii. where the generating station has any transmission equipment forming part of the generation project, the ceiling norms for initial spares for such equipment shall be as per the ceiling norms specified for transmission system under these regulations.”

91. The COD of the generating station is 7.11.2020 and hence, the cut-off date of the generating station is 30.11.2023. As per Form-5B, the estimated value of Plant and Machinery cost as on the COD of Unit-II is Rs.619086.06 lakh (on a cash basis), and that anticipated amount to be capitalized up to the cut-off date is Rs.920099.49 lakh. The Petitioner has submitted that the initial spares capitalized up to COD of Unit-II/Station is Rs.27239 lakh and that an amount of Rs.9634 lakh is proposed to be capitalized up to the cut-off date of the generating station. Thus, the total value of initial spares anticipated to be capitalized up to the cut-off date is Rs.36873 lakh, which approximately works out to 4.01% of the anticipated Plant and Machinery cost as of the cut-off date, which is slightly higher than the normative value of 4%. However, considering



the fact that these anticipated amounts is subject to revision, we, for the present, allow the initial spares as claimed by the Petitioner. This is, however, subject to revision at the time of the truing-up of tariff.

Liquidated Damages

92. The Petitioner has not furnished the details of the liquidated damages recovered from the contractors. Accordingly, the Petitioner is directed to submit the details of the liquidated damages, if any, recovered/recoverable for the generating station at the time of the truing-up of the tariff.

Capital cost as on the COD of the Units

93. Accordingly, the capital cost allowed as on the COD of Units-I and II is as under:

	<i>(Rs. in lakh)</i>	
	As on COD of Unit-I	As on COD of Unit-II/ Station
Capital cost claimed	745539.90	1278510.88
Less: IEDC disallowed	10003.41	17897.43
Less: Advances towards Water barrage construction	27505.07	35574.66
Capital cost allowed	708031.41	1225038.79

Additional Capital Expenditure for the period from COD of Unit-I till 31.3.2024

94. Regulation 24(1) of the 2019 Tariff Regulations provides as under:

“4. Additional Capitalization within the original scope and upto the cut-off date:

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

- (a) Undischarged liabilities recognized to be payable at a future date;*
- (b) Works deferred for execution;*
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) Change in law or compliance of any existing law; and*
- (f) Force Majeure events:*



Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization

95. The details of the additional capital expenditure claimed by the Petitioner are as under:

Head of Work /Equipment	(Rs. in lakh)						Regulations
	2019-20	Additional capital expenditure claimed (Actual / Projected)					
	2019-20	2020-21 (1.4.2020- 6.11.2020)	2020-21 (7.11.2020- 31.3.2021)	2021-22	2022-23	2023-24	
AAQMS	-	-	9.34	-	-	-	24(1)(b)
AC & Ventilation System	-	-	-	100.00	200.00	948.86	
AHP & AWRS System	(-) 75.80	-	(-) 3.90	100.00	200.00	4897.00	
ASH BRICK PLANT	-	-	57.71	-	-	-	
Ash Dyke	-	-	36.27	100.00	500.00	398.25	
ATM Building	-	-	-	1400.00	1400.00	2779.46	
Boundary Wall	(-) 23.53	-	4.34	-	-	-	
Car parking	(-) 5.33	-	-	-	-	-	
Civil Works	(-) 47.02	-	894.04	-	-	-	
Coal Handling Plant	-	-	235.96	-	479.00	-	
Cooling Tower	-0.46	-	20.16	-	-	-	24(1)(b)
CW System & Make-up water system	(-) 83.85	-	45.59	250.00	50.00	857.39	
CW System & Make-up water system - Equipment	-	-	-	-	4818.03	-	
EHV & HV Power Transformer	(-) 505.66	-	(-) 149.51	82.00	477.00	3755.23	
Electrical Equipment	-	-	21.04	300.00	432.69	300.00	
ESP	-	-	11.53	-	950.00	1000.00	
Fire Detection & Protection System	(-) 3.92	-	10.50	-	300.00	433.47	
Generator Bus Duct & MV Duct system	(-) 4.20	-	-	-	-	-	
FGD	-	-	-	-	33950.00	14550.00	
Locomotives	2149.50	-	-	-	7800.00	9053.80	
LT Switchgear & Bus Duct	-	-	-	180.00	391.54	-	
MBOA	-	-	(-) 150.12	-	-	-	
MGR System	69587.01	-	-	10000.00	140887.56	12000.00	
MV Switchgear	-	-	14.57	-	-	-	
Networking	-	-	-0.40	-	-	-	
Office Sheds	9.68	-	1.93	-	-	-	
Other Infrastructure and enabling works	-	-	3.00	-	-	-	
R&R	-	-	(-) 33.31	-	-	-	
Roads & Drains	-	-	135.27	-	-	-	
Safety Centre	36.09	-	-	-	-	-	24(1)(b)
Site Levelling expenses	(-) 5.15	-	157.90	-	-	-	
Station C&I Unit-1	(-) 135.67	-	8.79	100.00	262.01	-	
Station Piping	-	-	26.44	50.00	300.00	547.82	
Steam Generator	5670.73	(-) 1872.06	(-) 2465.94	2000.00	7600.00	18151.26	
Switchyard	-	-	88.71	180.00	68.25	2820.00	
TG Common	3735.24	(-) 1149.90	9858.79	2500.00	1500.00	6098.00	



Head of Work /Equipment	Additional capital expenditure claimed (Actual / Projected)						Regulations
	2019-20	2020-21 (1.4.2020- 6.11.2020)	2020-21 (7.11.2020- 31.3.2021)	2021-22	2022-23	2023-24	
Township package	(-) 518.05	642.49	1339.09	1000.00	316.22	500.00	
Water Treatment Plant	-	-	(-) 210.54	712.56	1470.00	350.00	
Land	(-) 169.14	17.48	19635.29	3500.00	5612.00	12833.59	
Road	1.30	-	-	-	-	-	
MBOA	506.49	1271.21	124.97	-	-	-	
Furniture & Fixture	103.68	45.77	8.49	-	-	-	
Other Office Equipment	-	-	-	-	-	-	
EDP	(-) 227.97	-	2.88	-	-	-	24(1)(b)
Communication Equipment	248.02	0.27	-	-	-	-	
Hospital	-0.09	3.71	6.71	-	-	-	
R&D Equipment	13.50	0.07	-	-	-	-	
MBOA Capital Spares	364.98	513.54	178.66	2022.56	3706.00	3706.00	
Software	-	1.48	-	-	-	-	
Temp. construction & enabling works	-	-	-	300.00	400.00	600.00	
Others	2049.82						
De-capitalization	7.97	2.52	2.08	-	-	-	24(1)(b)
Total additional capitalization claimed	82662.22	(-) 528.46	29922.17	24950.03	214570.30	96580.13	
Add: Discharge of Liability	11198.17	495.06	19212.79	-	-	-	24(1)(a)
Total additional capitalization claimed including discharges	93860.39	(-) 33.40	49134.96	24950.03	214570.30	96580.13	

Additional Capital Expenditure for the period from COD of Unit-I till the COD of Unit-II

96. The Petitioner has claimed additional capital expenditure amounting to Rs.93826.98 lakh for the period from COD of Unit-I till COD of Unit-II. This includes an expenditure of Rs.82133.76 lakh towards works pertaining to the original scope of work and discharge of liabilities of Rs.11198.17 lakh for 2019-20 (i.e., from COD of Unit-I to 31.3.2020) and discharges of liabilities of (-) Rs.33.40 lakh for 2020-21 (i.e., from 1.4.2020 to COD of Unit-II).

97. The Commission, vide ROP of the hearing dated 6.4.2023, had directed the Petitioner to submit the reasons for the negative entries claimed for the period from 1.4.2020 to the COD of Unit-II and also provide justification for the expenses claimed under the head "Others". In response, the Petitioner has submitted that the negative values claimed on a cash basis in Form-9 for 2020-21 pertain to the adjustment of undischarged liability as of 31.3.2020. It has also been



submitted that the negative values claimed for the period from 1.4.2020 to 6.11.2020 pertain to Loan ERV adjustments and the adjustments with regard to the credit note received from Oil/Coal suppliers during pre-commissioning. Subsequently, the Petitioner, vide affidavit dated 13.6.2023, has furnished the revised Form-9 for the year 2019-20 (COD of Unit-I to 31.3.2020) and has claimed the additional capital expenditure of Rs.91810.57 lakh (on a cash basis) after removing/deducting an amount of Rs.2049.82 lakh corresponding to the head 'others' in the above table. Accordingly, the revised claim of Rs.91810.57 lakh is being considered for the purpose of tariff.

98. It is observed that the additional capital expenditure claim of Rs.91810.57 lakh (including discharges of un-discharges liabilities amounting to Rs.11198.17 lakh) and (-) Rs.33.40 lakh (including discharges of un-discharged liabilities amounting to Rs.495.06 lakh), form part of the original scope of work of the project and is within the cut-off date of the generating station. Hence, the claim of the Petitioner is allowed for the years 2019-20 (COD of Unit-I to 31.3.2020) and 2020-21 (1.4.2020 to COD of Unit-II), respectively. It is also observed that the liability flow statement furnished vide affidavit dated 22.3.2024 is not in conformity with the details of the liabilities as on the COD of Unit-I. Accordingly, for the present, the aforesaid liability flow statement has not been considered for the purpose of tariff. The Petitioner is directed to furnish the auditor-certified liability flow statement for the period 2019-24 at the time of the truing-up of the tariff. The Petitioner is also directed to furnish the Auditor-certified reconciliation statement of the additional capital expenditure claimed with the audited books of accounts for the period 2019-24.



Additional Capital Expenditure for the period from COD of Unit-II to 31.3.2024

99. The Petitioner has claimed the additional capital expenditure of Rs.385235.42 lakh (Rs.49134.96 lakh for the period from COD of Unit-II till 31.3.2021, Rs.24950.03 lakh in 2021-22, Rs.214570.30 lakh in 2022-23, Rs.96580.13 lakh in 2023-24) from the COD of Unit-II till 31.3.2024, on cash basis. The Petitioner has claimed the projected additional capital expenditure under Regulation 24 of the 2019 Tariff Regulations, i.e., the works within the original scope of work. It is observed that the Petitioner's additional capital expenditure claim includes the additional capital expenditure of Rs.33950.00 lakh and Rs.14550.00 lakh (a total of Rs.48500.00 lakh) towards FGD package under the original scope of work in 2022-23 and 2023-24, respectively. In response to the directions of the Commission vide ROP of the hearing dated 6.2.2024, the Petitioner has submitted that the FGD system is yet to be commissioned and presently, the trial run of the FGD system has been completed for Unit-I and that the trial operation for Unit-II is in progress and is expected to be completed by August 2024. With regards to the operation of FGD, the Petitioner has clarified that the FGD system commissioning activities are in progress and is yet to be put to use. It has accordingly submitted that the unit-wise dates of operation of the FGD system will be provided, once the FGD system is put to use. In view of the above submissions, the claim of the Petitioner for the FGD system has not been considered in this order. However, the Petitioner is at liberty to approach for claim the expenditure on this count at the time of truing-up of tariff, along with necessary documents, and the same will be considered in accordance with law.

100. Accordingly, the projected additional capital expenditure of Rs.49134.96 lakh in 2020-21 (i.e., from COD of Unit-II to 31.3.2021), Rs.24950.03 lakh in 2021-22, Rs.180620.30 lakh in 2022-23 and Rs.82030.13 lakh in 2023-24 is allowed.



Capital cost allowed for the period 2019-24

101. Based on above discussion, the capital cost allowed for the generating station is as under:

	2019-20	2020-21		2021-22	2022-23	2023-24
	(1.10.2019-31.3.2020)	(1.4.2020-6.11.2020)	(7.11.2020-31.3.2021)			
Opening Capital cost	708031.41	799841.98	1225038.79	1274173.75	1299123.78	1479744.08
Add: Admitted additional capital expenditure	91810.57	(-) 33.40	49134.96	24950.03	180620.30	82030.13
Closing Capital Cost	799841.98	799808.58	1274173.75	1299123.78	1479744.08	1561774.21
Average Capital Cost	753936.70	799825.28	1249606.27	1286648.77	1389433.93	1520759.15

Debt Equity Ratio

102. Regulation 18 of the 2019 Tariff Regulations provides as under:

“18. Debt-Equity Ratio: (1) For a new project, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

(2)The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.



(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.
(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

103. The Petitioner has claimed tariff considering the debt-equity ratio of 70:30, and the same has been considered. Accordingly, the gross normative loan and equity to be considered as on COD of Unit-I work out to Rs.495621.99 lakh and Rs.212409.42 lakh, respectively. Further, the gross normative loan and equity to be considered as on COD of Unit-II/ Station work out to Rs.857527.16 lakh and Rs.367511.64 lakh, respectively.

Return on Equity

98. Regulation 30 of the 2019 Tariff Regulations provides as under:

“30. Return on Equity:

(1) Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 18 of these regulations.

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

(i) In case of a new project the rate of return on equity shall be reduced by 1.00% 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) or Free Governor Mode Operation (FGMO) data telemetry communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

(ii) in case of existing generating station as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

(iii) in case of a thermal generating station with effect from 1.4.2020:

(a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;



(b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.”

99. Regulation 31 of the 2019 Tariff Regulations provides as under:

“31. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 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 paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

Illustration-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.2155) = 19.758\%$

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs. 1000 crore;

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

(c) Effective Tax Rate for the year 2019-20 = Rs.240 crore/Rs. 1000 crore = 24%;

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

(3) The generating company or the transmission licensee as the case may be shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty if any arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up shall be recovered or refunded to beneficiaries or the long term customers as the case may be on year to year basis.”



104. The Petitioner has claimed the Return on Equity (ROE) of 18.782% for the period 2019-24 after grossing up a base rate of 15.50% with an effective tax rate of 17.472%, and the same has been considered. Accordingly, ROE has been worked out as under:

(Rs. in lakh)

	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Notional Equity- Opening (A)	212409.42	239952.59	367511.64	382252.13	389737.14	443923.23
Addition of Equity due to additional capital expenditure (B)	27543.17	-10.02	14740.49	7485.01	54186.09	24609.04
Normative Equity – Closing (C = A+B)	239952.59	239942.57	382252.13	389737.14	443923.23	468532.26
Average Normative Equity [D = (A+C)/2]	226181.01	239947.58	374881.88	385994.63	416830.18	456227.74
Return on Equity (Base Rate) (E)	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate (F)	17.472%	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-tax) [G = E/(1-F)]	18.782%	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-tax) - (annualized) (H = DxG)	42481.32	45066.96	70410.32	72497.51	78289.04	85688.69
Return on Equity (Pre-tax) - (pro-rata) (I)	21240.66	27163.64	27971.22	72497.51	78289.04	85688.69

Interest on loan

105. Regulation 32 of the 2019 Tariff Regulations provides as under:

“32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan. (2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.

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

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized: Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:



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 changes to the terms and conditions of the loan shall be reflected from the date of such re-financing.”

106. The Petitioner has claimed tariff considering the Weighted Average Rate of Interest (WAROI) of 6.1952% for the period from COD of Unit-I till 31.3.2020, 5.8483% for the period from 1.4.2020 to COD of Unit-II, 5.7091% for the period from COD of Unit-II to 31.3.2021, 5.7062% in 2021-22, 5.6838% in 2022-23 and 5.6084% in 2023-24 and the same has been considered. As stated above, the gross normative loan amounting to Rs.495621.99 lakh and Rs.857527.16 lakh, has been considered as on the COD of Unit-I and Unit-II, respectively. Depreciation allowed has been considered as repayment of normative loan during the respective year of the period 2019-24. Since the additional capital expenditure has been allowed on projected basis and the Petitioner has also not claimed the adjustment to cumulative repayment on account of de-capitalization, the same will be considered at the time of truing-up of tariff. Accordingly, interest on loan, has been worked out and allowed as under:

	(Rs. in lakh)					
	2019-20	2020-21 (1.4.2020-	2021-22	2022-23	2023-24	
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Gross opening loan (A)	495621.99	559889.39	857527.16	891921.63	909386.65	1035820.86
Cumulative repayment of loan upto previous year / period (B)	0.00	19112.30	43554.08	69020.37	135025.45	206303.41
Net Loan Opening (C = A-B)	495621.99	540777.09	813973.08	822901.26	774361.20	829517.45
Addition on account of additional capital expenditure (D)	64267.40	-23.38	34394.47	17465.02	126434.21	57421.09
Repayment of loan during the year/period (E)	19112.30	24441.78	25466.29	66005.08	71277.96	78014.94
Net Loan Closing (F = C+D-E)	540777.09	516311.93	822901.26	774361.20	829517.45	808923.59
Average Loan [G = (C+F)/2]	518199.54	528544.51	818437.17	798631.23	801939.32	819220.52
WAROI (H)	6.1952%	5.8483%	5.7091%	5.7062%	5.6838%	5.6084%



	2019-20	2020-21 (1.4.2020-		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Interest on Loan (annualized) (I = GxH)	32103.50	30910.87	46725.40	45571.50	45580.63	45945.16
Interest on Loan (pro-rata) (J)	16051.75	18631.21	18562.14	45571.50	45580.63	45945.16

Depreciation

107. Regulation 33 of the 2019 Tariff Regulations provides as under:

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

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

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

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

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

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

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

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

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

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



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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

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

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

108. The Petitioner has claimed depreciation considering the Weighted Average Rate of Depreciation (WAROD) of 5.07% for the period of COD of Unit-I to COD of Unit-II and 5.13% for the period from COD of Unit-II to 2023-24 and the same has been considered and allowed. The Petitioner has considered the value of freehold land amounting to Rs.3843.84 lakh for the period from COD of Unit-I to COD of Unit-II and Rs.3786.88 lakh for the period from COD of Unit-II to 31.3.2024, for the purpose of computing the depreciable value. The Petitioner has not considered any expenditure towards R&R and Site development expenses as part of the freehold land while calculating the depreciable value. The Petitioner has also not considered the value of the IT equipment and software while working out the depreciable value and has submitted that the same shall be provided/considered at the time of truing-up of tariff. Accordingly, the value of freehold land, as considered by the Petitioner, has been considered for the purpose of calculating depreciable value. The Petitioner is, however, directed to furnish the reasons for not considering the cost of R&R and site development expenses as part of freehold land at the time of the truing-up of tariff. The WAROD, as claimed by the Petitioner, has been considered. Accordingly, the depreciation allowed for the generating station is as under:



(Rs. in lakh)

	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Average capital cost (A)	753936.70	799825.28	1249606.27	1286648.77	1389433.93	1520759.15
Value of freehold land included in 'A' above (B)	3843.84	3843.84	3786.88	3786.88	3786.88	3786.88
Depreciable value [C = (A-B) x 90%]	675083.57	716383.30	1121237.45	1154575.70	1247082.34	1365275.04
Remaining depreciable value at the beginning of the year (D)	675083.57	697271.01	1077683.37	1085555.33	1112056.89	1158971.63
Balance useful life of the at beginning of the year (E)	25.00	24.45	24.45	24.05	23.05	22.05
WAROD (F)	5.07%	5.07%	5.13%	5.13%	5.13%	5.13%
Depreciation during the period (pro-rata) (G = A x F x No. of days during the period / No. of days during the year)	19112.30	24441.78	25466.29	66005.08	71277.96	78014.94
Depreciation during the year (annualised) (H)	38224.59	40551.14	64104.80	66005.08	71277.96	78014.94
Cumulative depreciation at the end of the year/period (I = G + 'I' of previous year/period)	19112.30	43554.08	69020.37	135025.45	206303.41	284318.36

Operation & Maintenance Expenses

109. Regulation 35(1)(1) of the 2019 Tariff Regulations provides for the following O&M expenses:

Year	800 MW (Rs. lakh/MW)
2019-20	18.23
2020-21	18.87
2021-22	19.54
2022-23	20.22
2023-24	20.93

110. Accordingly, the O&M expenses claimed by the Petitioner are as under:

(Rs. in lakh)

	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Normative O&M expenses claimed under Regulation 35(1)(1) of the 2019 Tariff Regulations	14584.00	15096.00	30192.00	31264.00	32352.00	33488.00
Ash Transportation expenses	1.96	8214.75	8214.75			
O&M expenses ECS (FGD)					679.00	291.00
Water Charges	3209.22	931.17	2340.00	2227.50	2227.50	2227.50



	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Normative O&M expenses claimed under Regulation 35(1)(1) of the 2019 Tariff Regulations	14584.00	15096.00	30192.00	31264.00	32352.00	33488.00
Security Expenses	1311.98	907.95	1568.57	1568.57	1745.88	2068.50
Total O&M Expenses	19107.16	25149.88	42315.33	35060.07	37004.38	38075.00

111. Since the normative O&M expenses claimed by the Petitioner are in terms of Regulation 35(1)(1) of the 2019 Tariff Regulations, the same is allowed as above.

O&M Expenses for FGD system

112. The Petitioner has claimed O&M expenses on account of the implementation of FGD amounting to Rs.679.00 lakh in 2022-23 and Rs.291.00 lakh in 2023-24 as 2% of the capital cost of FGD. It is observed that the Petitioner is yet to commission the FGD systems. As stated earlier, the Petitioner has submitted that the commissioning activities of the FGD system are in progress and have not yet been put to use, and the unit-wise dates of operation of the FGD system will be provided as and when the said system is put to use. In view of this, the claim for O&M expenses towards FGD has not been considered. The Petitioner is permitted to claim the O&M expenses towards the FGD system on the basis of the actual cost of the FGD package, at the time of truing-up of tariff, and the same will be considered in accordance with law.

Water Charges

113. Regulation 35(1)(6) of the 2019 Tariff Regulations provides for claims towards water charges, security expenses, and capital spares as under:

“35(1)(6) The Water, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately and after prudence check: Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition.”



114. In terms of the above proviso, water charges are to be allowed based on the water consumption depending upon the type of plant, type of cooling water system, etc., subject to prudence check. The Petitioner, in the amended Petition, has furnished the water charges to be allowed in tariff, on an actual basis, for the period from COD of Unit-I to 31.3.2020 and on the projected basis, from 2020-21 to 2023-24. The details in respect of water charges, such as type of cooling water system, water consumption, and rate of water charges furnished by the Petitioner, are as under:

Description	Remarks
Type of Plant	Coal
Type of cooling water system	Closed Circuit Cooling System
Allocation of Water for Lara STPS	45 MCM
Rate of Water charges	Rs 5.5 per Cubic meter (from 06 Feb 2020 onwards)
Total Yearly Water Charges as per allocation	Rs. 2227.5 Lakh.

115. The Petitioner in Form-3A in the amended Petition has claimed water charges as under:

	<i>(Rs. in lakh)</i>					
	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Water Charges claimed	3209.22	931.17	2340.00	2227.50	2227.50	2227.50
Water Charges allowed	3209.22	931.17	2340.00	2248.10	2227.50	2227.50

116. The Petitioner has submitted the detailed break-up of the water charges and power charges paid. The Petitioner also submitted that the construction of Saradih Barrage was taken up by the Govt of Chhattisgarh in view of the supply of water to the generating station. It has also been submitted that for carrying out the milestone activities, water was drawn through a temporary contingent arrangement through Kelo River, and the detailed submission regarding this has been made in the amended Petition. The Petitioner has further submitted the detailed break-up of the water amount and charges paid towards water consumed from Saradih Barrage and Kelo river separately. The Petitioner has, however, revised the water charges to Rs.2248.10



lakh in 2021-22 based on the actual charges paid. We note that the water charges claimed by the Petitioner do not include the power charges paid by the Petitioner. Hence, the water charges claimed by the Petitioner are allowed. The Petitioner is directed to submit documentary evidence, such as the agreement copy, bills along with the basis for the escalation considered, etc., at the time of the truing-up of the tariff.

Capital Spares

117. The Petitioner has not claimed any capital spares on a consumption basis. Accordingly, the same has not been considered. The claim of the Petitioner, if any, towards capital spares at the time of truing up shall be considered on merits after prudence check.

Security Expenses

118. Regulation 35(1)(g) of the 2019 Tariff Regulations provides for claims towards security expenses as under:

“(6) The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:

xx

Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses;”

119. The security expenses claimed by the Petitioner are as under:

<i>(Rs. in lakh)</i>					
2019-20	2020-21		2021-22	2022-23	2023-24
1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
1311.98	907.95	1568.57	1568.57	1745.88	2068.50

120. The Petitioner has submitted that the above expenses have been claimed based on the estimated expenses for the period 2019-24 and shall be subject to retrospective adjustment based on actuals at the time of truing up of tariff. We note that the Petitioner has not furnished the assessment of the security requirement in terms of the last proviso to the above regulations.



However, the projected security expenses for the period 2019-24, as claimed by the Petitioner as above, are allowed for the purpose of tariff. The Petitioner is directed to furnish the requisite details for carrying out the prudence check of the security expenses at the time of truing-up of tariff.

Fly Ash Transportation expenses

121. In addition to the above expenses, the Petitioner vide affidavit dated 22.7.2022 has claimed the additional expenditure towards Fly Ash Transportation as per the MoEF&CC Notification dated 31.12.2021, which mandates the “statutory obligation of 100 percent utilization of ash shall be treated as a change in law, wherever applicable”. The Petitioner has submitted that the said notification will lead to additional transportation costs being incurred to deliver the fly ash to industries/users such as road and flyover embankments, shoreline protection structures in coastal districts, dams within 300 km from the TPPs, and any other expenditure which is required for achieving 100% ash utilization as per the prescribed timeline. The projection of the cost as proposed by the Petitioner is summarized below:

Year	Expected Ash Generation (Lakh Ton)	Utilization (lakh Ton)						Ash Disposal cost (Rs lakh)
		Road Projects	Product Manufacturing	filling of low-lying area	mine void filling	other avenues	Total	
2022-23	30	14	0.01	5	1.0	5.0	26.10	18843.41
2023-24	32	14	0.15	10	5.0	2.50	31.65	24270.22

122. The matter has been examined. The Commission, vide its order dated 5.11.2018 in Petition No. 172/MP/2016, had decided the MOEF &CC notification dated 25.1.2016 for additional cost towards fly ash transportation as a ‘change in law’ event. It is however observed that the Commission vide its order dated 28.10.2022 in Petition 205/MP/2021 filed by the Petitioner for recovery of additional expenditure incurred due to Ash transportation charges consequent to MOEF&CC, GOI Notification dated 3.11.2009 and Notification dated 25.1.2016,



on a recurring basis, had allowed the expenditure incurred towards the fly ash transportation expenses for 2019-20, 2020-21 and 2021-22, as under:

“39. Petitioner has furnished the details of the distance to which fly ash has been transported from the generating station, schedule rates applicable for transportation of fly ash, as notified by the State Governments along with details, including Auditor certified accounts. These documents have been examined and accordingly, the total fly ash transportation expenditure allowed to the Petitioner generating station wise for the period 2019-22 is as per the table in para 38 above totaling to Rs.309704.03 lakh and the same shall be recovered from the beneficiaries of the respective generating stations in 6 (six) equal monthly instalments. However, the Petitioner is directed to submit details regarding award of transportation contracts, distance to which fly ash has been transported along with duly reconciled statements of expenditure incurred on ash transportation at the time of filing petitions for truing up of tariff for the 2019-24 tariff period of the generating stations.”

123. The Commission, in the abovementioned order, further observed regarding the fly ash transportation cost incurred from 2022-24 as below:

“43. In the light of the above discussion and keeping in view that the Petitioner is entitled for recovery of fly ash transportation charges, under change in law, as additional O&M expenses, we permit the provisional billing at 90% of the fly ash transportation charges incurred by the Petitioner, in respect of its generating stations, for the balance period (i.e. 2022-24), on a monthly basis, based on self -certification, and the beneficiaries shall pay the same accordingly. This is, however, subject to prudence check of the claims, at the time of truing-up of tariff for the period 2019-24, in respect of the generating stations of the Petitioner, in terms of Regulation 13 of the 2019 Tariff Regulations.”

124. Since the claim of the Petitioner had been considered and disposed of by the Commission vide order dated 28.10.2022 in Petition 205/MP/2021, it is clarified that the claim of the Petitioner shall be governed by the findings of the Commission in the said order and shall be recovered as additional O&M expenses at 90% of the fly ash transportation charges incurred by the Petitioner, in respect of its generating stations, for the balance period (i.e. 2022-24), on a monthly basis, based on self -certification at the time of truing up for 2019-24 tariff period.

125. Accordingly, the total O&M expenses, including water charges and security expenses, as claimed by the Petitioner and allowed for the period 2019-24, are as under:



(Rs. in lakh)

	2019-20	2020-21	2020-21	2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Normative O&M expenses <i>claimed</i> under Regulation 35(1)(1) of the 2019 Tariff Regulations	14584.00	15096.00	30192.00	31264.00	32352.00	33488.00
Normative O&M expenses <i>allowed</i> under Regulation 35(1)(1) of the 2019 Tariff Regulations	14584.00	15096.00	30192.00	31264.00	32352.00	33488.00
O&M expenses ECS (FGD) <i>claimed</i>					679.00	291.00
O&M expenses ECS (FGD) <i>allowed</i>					-	-
Ash Transportation <i>claimed</i>	1.96	8214.75	8214.75			
Ash Transportation <i>allowed</i>	-	-	-			
Water Charges <i>claimed</i>	3209.22	931.17	2340.00	2227.50	2227.50	2227.50
Water Charges <i>allowed</i>	3209.22	931.17	2340.00	2248.10	2227.50	2227.50
Security Expenses <i>claimed</i>	1311.98	907.95	1568.57	1568.57	1745.88	2068.50
Security Expenses <i>allowed</i>	1311.98	907.95	1568.57	1568.57	1745.88	2068.50
Total O&M Expenses Claimed	19107.16	25149.88	42315.33	35060.07	37004.38	38075.00
Total O&M Expenses Allowed	19105.20	16935.13	34100.58	35080.67	36325.38	37784.00

Operational Norms

126. The Petitioner has considered the following operation norms for the period 2019-24:

Normative Annual Plant Availability Factor (NAPAF) (%)	85%
Heat Rate (kCal/kwh)	2258.72
Auxiliary Power Consumption (%)	6.25%
Specific Oil Consumption (ml/kwh)	0.5

(a) Normative Annual Plant Availability Factor (NAPAF)

127. Regulation 49(A) of the 2019 Tariff Regulations provides as under:

“(A) Normative Annual Plant Availability Factor (NAPAF)
(a) For all thermal generating stations, except those covered under clauses (b), (c), (d), & (e) - 85%;
xxx.”

128. As the Petitioner has considered the NAPAF of 85% in terms of the above regulation, the same is allowed.

(b) Gross Station Heat Rate (kCal/kWh)

129. Regulation 49(C)(b)(i) of 2019 Tariff Regulations provides as under:

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



1.05 X Design Heat Rate (kCal/kWh)

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

Provided that the design heat rate shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:

Pressure Rating (Kg/cm ²)	150	170	170
SHT/RHT (°C)	535/535	537/537	537/565
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1955	1950	1935
Min. Boiler Efficiency			
Sub-Bituminous Indian Coal	0.86	0.86	0.86
Bituminous Imported Coal	0.89	0.89	0.89
Max. Design Heat Rate (kCal/kWh)			
Sub-Bituminous Indian Coal	2273	2267	2250
Bituminous Imported Coal	2197	2191	2174

Pressure Rating (Kg/cm ²)	247	247	270	270
SHT/RHT (°C)	537/565	565/593	565/593	600/600
Type of BFP	Turbine Driven	Turbine Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1900	1850	1810	1800
Min. Boiler Efficiency				
Sub-Bituminous Indian Coal	0.86	0.86	0.865	0.865
Bituminous Imported Coal	0.89	0.89	0.895	0.895
Max. Design Heat Rate (kCal/kWh)				
Sub-Bituminous Indian Coal	2222	2151	2105	2081
Bituminous Imported Coal	2135	2078	2034	2022

Provided further that in case pressure and temperature parameters of a unit are different from above ratings, the maximum design heat rate of the unit of the nearest class shall be taken:

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

Provided also that where the boiler efficiency is lower than 86% for Subbituminous Indian coal and 89% for bituminous imported coal, the same shall be considered as 86% and 89% for Sub-bituminous Indian coal and bituminous imported coal respectively, for computation of station heat rate:

Provided also that maximum turbine cycle heat rate shall be adjusted for type of dry cooling system:

Provided also that in case of coal based generating station if one or more generating units were declared under commercial operation prior to 1.4.2019, the heat rate norms for those generating units as well as generating units declared under commercial operation on or after 1.4.2019 shall be lowest of the heat rate norms considered by the Commission during tariff period 2014-19 or those arrived at by above methodology or the norms as per the sub-clause (C)(a)(i) of this Regulation:

Provided also that in case of lignite-fired generating stations (including stations based on CFBC technology), maximum design heat rates shall be increased using factor for moisture content given in sub-clause (C)(a)(iv) of this Regulation:



Provided also that for Generating stations based on coal rejects, the Commission shall approve the Station Heat Rate on case to case basis.

Note: In respect of generating units where the boiler feed pumps are electrically operated, the maximum design heat rate of the unit shall be 40 kCal/kWh lower than the maximum design heat rate of the unit specified above with turbine driven Boiler Feed Pump.”

130. The Petitioner has considered the Gross Station Heat Rate (GSHR) of 2258.72 kCal/kWh, based on a maximum turbine heat rate of 1850 kCal/kWh and boiler efficiency of 86% for subbituminous Indian coal. However, it is observed from the submissions of the Petitioner vide affidavit dated 22.7.2022 that the maximum turbine heat rate is 1829 kCal/kWh, and the boiler efficiency is 86.19%. Hence, the GSHR has been worked out as 2228.16 kCal/kWh, and the same is allowed. However, the Petitioner is directed to submit the OEM documents related to boiler efficiency and turbine cycle heat rate, at the time of truing up of tariff.

(c) Specific Oil Consumption

131. Regulation 49(D)(a) of 2019 Tariff Regulations provides as under:

“(a) For Coal-based generating stations other than at (c) below: 0.50 ml/kWh”

132. As the Petitioner has considered the secondary fuel oil consumption of 0.50 ml/kWh, in terms of the above Regulation, the same is allowed.

(d) Auxiliary Power Consumption

133. Regulation 49(E)(a) of 2019 Tariff Regulations provides as under:

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

S. No.	Generating Station	With Natural Draft cooling tower or without cooling tower
(i)	200 MW series	8.50%
(ii)	300 MW and above	
	Steam driven boiler feed pumps	5.75%
	Electrically driven boiler feed pumps	8.00%

*Provided that for thermal generating stations with induced draft cooling towers and where tube type coal mill is used, the norms shall be further increased by 0.5% and 0.8%, respectively:
Provided further that Additional Auxiliary Energy Consumption as follows shall be allowed for plants with Dry Cooling Systems:*



Type of Dry Cooling System	(% of gross generation)
<i>Direct cooling air cooled condensers with mechanical draft fans</i>	1.0%
<i>Indirect cooling system employing jet condensers with pressure recovery turbine and natural draft tower</i>	0.5%

Note: The auxiliary energy consumption for the unit capacity of less than 200 MW sets shall be dealt on case-to-case basis.”

134. In terms of the above Regulations, the Petitioner has considered the auxiliary energy consumption of 6.25% during the period from COD of Unit-I to 31.3.2022 and 7.25% for 2022-23 and 2023-24. The Petitioner has also considered an additional auxiliary consumption of 1% on account of FGD in 2022-23 and 2023-24. Since the FGD is yet to be put to use, the additional auxiliary consumption claimed has not been considered. The Petitioner is permitted to claim the normative auxiliary consumption on account of implementation of the FGD system, as and when the same is put to use. Accordingly, the auxiliary consumption of 6.25% is allowed.

Interest on Working Capital

135. Sub-section (a) of clause (1) of Regulation 34 of the 2019 Tariff Regulations provides as under:

“34. Interest on Working Capital: (1) The working capital shall cover:
(a) For Coal-based/lignite-fired thermal generating stations:
(i) Cost of coal or lignite and limestone towards stock if applicable for 10 days for pit-head generating stations and 20 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) Advance payment for 30 days towards cost of coal or lignite and limestone 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 including water charges and security expenses;
(v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and
(vi) Operation and maintenance expenses including water charges and security expenses for one month.
(b) xxxxxx



(2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:

Provided that in case of new generating station the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months as used for infirm power preceding date of commercial operation for which tariff is to be determined.

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 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.

Provided that in case of truing-up the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

Fuel Cost and Energy Charges in Working Capital

136. Regulation 34(2) of the 2019 Tariff Regulations provides that the computation of cost of fuel as part of Interest on Working Capital (IWC) is to be based on the landed price and GCV of fuel as per actuals, for the third quarter of preceding financial year, in case of each financial year for which tariff is to be determined. Regulation 43(2) of the 2019 Tariff Regulations provides as under:

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

(a) For coal based and lignite fired stations:

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

(b) For gas and liquid fuel-based stations:

$$ECR = SHR \times LPPF \times 100 / \{(CVPF) \times (100 - AUX)\}$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal-based stations less 85 Kcal/Kg on account of variation during storage at generating station;

(b) Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations;

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

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

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



SHR = Gross station heat rate, in kCal per kWh;
 LC = Normative limestone consumption in kg per kWh;
 LPL = Weighted average landed cost of limestone in Rupees per kg;
 LPPF = Weighted average landed fuel cost of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed fuel cost of primary fuel shall be arrived in proportion to blending ratio);
 SFC= Normative specific fuel oil consumption, in ml per kWh;
 LPSFi= Weighted Average Landed Fuel Cost of Secondary Fuel in Rs./ ml during the month:
 Provided that energy charge rate for a gas or liquid fuel based station shall be adjusted for open cycle operation based on certification of Member Secretary of respective Regional Power Committee during the month.”

137. The Petitioner has claimed the cost of fuel component in working capital and the Energy Charge Rate (ECR) based on the following:

- (a) Operational norms as per the 2019 Tariff Regulations.
- (b) Price and 'as received GCV of coal (after reducing the same by 85 kCal/kWh in terms of above quoted Regulation) procured for the three months of July 2019, August 2019 and September 2020 for Unit-I and for the month of August 2020, September 2020 and October 2020 for the COD of Unit-II.
- (c) Price and GCV of secondary fuel oil for the three months of July 2019, August 2019 and September 2020 for Unit-I and for the month of August 2020, September 2020 and October 2020 for the COD of Unit-II.

138. Accordingly, the Petitioner has claimed the ECR of Rs.2.695 per kWh for the period from COD of Unit-I to COD of Unit-II and Rs.1.997 for the period from COD of Unit-II to 31.3.2024:

	(Rs. in lakh)					
	2019-20)	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Cost of coal for 40 days	16321.79	16321.79	24175.01	24175.01	24175.01	24175.01
Cost of secondary fuel oil for 2 months	260.39	259.68	400.22	400.22	400.19	401.29
Cost of limestone for 50 days					442.84	442.84

139. On perusal of Form-15 furnished by the Petitioner vide affidavit dated 19.10.2021, it is observed that the Petitioner has included the opening stock of coal and its corresponding value, while computing the weighted average price of coal for the three months of prior to each COD. However, in terms of Regulation 34(2) of the 2019 Tariff Regulations, the computation of cost of



fuel as part of IWC, is to be based on the landed price and GCV of fuel as per actuals, which means that only fuel received during these three months, is to be considered, and no opening stock shall be included therein. Accordingly, the opening stock of coal and its corresponding values have been excluded while computing the weighted average price and GCV of coal. For the present, the weighted average price and GCV of oil as furnished by the Petitioner has been considered. The Petitioner is directed to furnish Form-15, in respect of both the coal and secondary fuel oil, only based on the fuels received during the respective years of the period 2019-24, at the time of truing-up of tariff. Accordingly, the weighted average price and GCV of coal and oil claimed and allowed, is as under:

	For the period from COD of Unit 1 to COD of Unit-II	
	Claimed	Allowed
Weighted average price of coal (Rs. /MT)	3282.82	2901.46
Weighted average GCV of coal (kCal/kg) *	2958.77	3393.68
Weighted average price of oil (Rs. /KL)	52307.30	51805.70
Weighted average GCV of oil (kCal/Ltr.)	10500.00	10500.00

* Weighted average GCV of coal as received net of 85 kCal/kg.

	For the period from COD of Unit-II to 31.3.2024	
	Claimed	Allowed
Weighted average price of coal (Rs. /MT)	2726.46	2671.54
Weighted average GCV of coal (kCal/kg) *	3318.86	3283.81
Weighted average price of oil (Rs. /KL)	40302.29	38902.54
Weighted average GCV of oil (kCal/Ltr.)	9520.36	9612.00

* Weighted average GCV of coal as received net of 85 kCal/kg.

140. Accordingly, the fuel component in working capital, Energy charges and ECR claimed and allowed for the period 2019-24, is as under:

	(Rs. in lakh)			
	Claimed		Allowed	
	For the period from COD of Unit-I to 31.3.2020	For the period from 1.4.2020 to COD of Unit-II	For the period from COD of Unit-I to 31.3.2020	For the period from 1.4.2020 to COD of Unit-II
Cost of coal for 40 days (generation corresponding to NAPAF)	16321.79	16321.79	12406.47	12406.47
Cost of secondary fuel oil for 2 months	260.39	259.68	257.87	257.16



	Claimed		Allowed	
	For the period from COD of Unit-I to 31.3.2020	For the period from 1.4.2020 to COD of Unit-II	For the period from COD of Unit-I to 31.3.2020	For the period from 1.4.2020 to COD of Unit-II
ECR (Rs./kWh)	2.695	2.695	2.055	2.055

(Rs. in lakh)

	Claimed		Allowed	
	For the period from COD of Unit-II to 31.3.2022	For 2022-24	For the period from COD of Unit-II to 31.3.2023	For 2023-24
Cost of coal for 40 days (generation corresponding to NAPAF)	24175.01	24175.01	23615.76	23615.76
Cost of secondary fuel oil for 2 months	400.22	400.29	386.22	387.28
ECR (Rs./kWh)	1.997	2.018	1.950	1.950

141. Further, in line with the decision on O&M and auxiliary consumption towards implementation of the FGD system as above, the working capital on account of FGD related components has not been considered in this order.

142. The Petitioner, on a month-to-month basis, shall compute and claim for energy charges from the beneficiaries based on formulae in terms of Regulation 43 of the 2019 Tariff Regulations.

Working Capital for Maintenance Spares

143. The Petitioner in Form-O has claimed the maintenance spares in working capital as under:

(Rs. in lakh)					
2019-20)	2020-21		2021-22	2022-23	2023-24
1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
3821.43	5029.98	8463.07	7012.01	7400.88	7615.00

144. Regulation 34(1)(a)(iv) of the 2019 Tariff Regulations provide for the maintenance spares @ 20% of the O&M expenses (including water charges and security expenses). Accordingly,



maintenance spares @ 20% of the O&M expenses (including the water charges and security expenses) allowed is as under:

<i>(Rs. in lakh)</i>					
2019-20	2020-21		2021-22	2022-23	2023-24
1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
3821.04	3387.03	6820.12	7016.13	7265.08	7556.80

Working Capital for Receivables

145. In terms of Regulation 34(1)(a)(v) of the 2019 Tariff Regulations, the receivables equivalent to 45 days of capacity charges and energy charges, is worked out and allowed as under:

<i>(Rs. in lakh)</i>						
	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Variable Charges- 45 days	14148.68	14148.68	26851.50	26851.50	26851.50	26851.50
Fixed Charges- 45 days	16947.55	17130.51	27773.45	28170.73	29713.97	31799.50
Total	31096.22	31279.18	54624.95	55022.23	56565.47	58651.00

Working Capital for O&M Expenses (1 month)

146. The Petitioner in Form-O has claimed the O&M expenses for 1 month in working capital as under:

<i>(Rs. in lakh)</i>					
2019-20	2020-21		2021-22	2022-23	2023-24
1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
1592.26	2095.82	3526.28	2921.67	3083.70	3172.92

147. Regulation 34(1)(a)(vi) of the 2019 Tariff Regulations provide for O&M expenses equivalent to 1 month of the O&M expenses (including water charges and security expenses). Accordingly, O&M expenses equivalent to 1 month of the O&M expenses (including water charges and security expenses) allowed is as under:



(Rs. in lakh)

2019-20	2020-21		2021-22	2022-23	2023-24
1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
1592.10	1411.26	2841.71	2923.39	3027.12	3148.67

Rate of Interest on Working Capital

148. In line with the Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital is considered as 12.05% (i.e., 1 year SBI MCLR of 8.55% as on 1.4.2019 + 350 bps) for the year 2019-20, 11.25% (i.e. 1-year SBI MCLR of 7.75% as on 1.4.2020 + 350 bps) for the year 2020-21, 10.50% (i.e. 1 year SBI MCLR of 7.00% as on 1.4.2021/1.4.2022 + 350 bps) for the period 2021-23 and 12.00% (i.e. 1 year SBI MCLR of 8.50% as on 1.4.2023 + 350 bps) for the financial year 2023-24.

149. Accordingly, Interest on working capital has been computed as under:

(Rs. in lakh)

	2019-20	2020-21		2021-22	2022-23	2023-24
	1.10.2019-31.3.2020	1.4.2020-6.11.2020	7.11.2020-31.3.2021			
Cost of Coal towards Stock - (10 days generation corresponding to NAPAF) (A)	3101.62	3101.62	5903.94	5903.94	5903.94	5903.94
Cost of Coal towards Generation – (30 days generation corresponding to NAPAF) (B)	9304.85	9304.85	17711.82	17711.82	17711.82	17711.82
Cost of Secondary fuel oil - (2 months generation corresponding to NAPAF) (C)	257.87	257.16	386.22	386.22	386.22	387.28
Maintenance Spares @ 20% of O&M expenses (D)	3821.04	3387.03	6820.12	7016.13	7265.08	7556.80
Receivables – (45 days of sale of electricity at NAPAF) (E)	31096.22	31279.18	54624.95	55022.23	56565.47	58651.00
O&M expenses - 1 month (F)	1592.10	1411.26	2841.71	2923.39	3027.12	3148.67
Total Working Capital (G = A+B+C+D+E+F)	49173.70	48741.11	88288.77	88963.74	90859.64	93359.51
Rate of Interest (H)	12.05%	11.25%	11.25%	10.50%	10.50%	12.00%
Interest on Working capital (annualized) (I = GxH)	5925.43	5483.37	9932.49	9341.19	9540.26	11203.14
Interest on Working capital (pro-rata) (J)	2962.72	3305.05	3945.78	9341.19	9540.26	11203.14



Annual Fixed Charges approved for the period 2019-24

150. Accordingly, the annual fixed charges approved for the generating station for the period 2019-24, is summarized as under:

	(Rs. in lakh)					
	2019-20 1.10.2019- 31.3.2020	2020-21 1.4.2020- 6.11.2020	2020-21 7.11.2020- 31.3.2021	2021-22	2022-23	2023-24
Depreciation	38224.59	40551.14	64104.80	66005.08	71277.96	78014.94
Interest on Loan	32103.50	30910.87	46725.40	45571.50	45580.63	45945.16
Return on Equity	42481.32	45066.96	70410.32	72497.51	78289.04	85688.69
Interest on Working Capital	5925.43	5483.37	9932.49	9341.19	9540.26	11203.14
O&M Expenses	19105.20	16935.13	34100.58	35080.67	36325.38	37784.00
Total	137840.04	138947.47	225273.57	228495.95	241013.27	258635.94

Note: (1) All figures are on annualized 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.

151. The pro-rata fixed charges shall be calculated using the bases as shown under:

	2019-20 (1.10.2019- 31.3.2020)	2020-21 (1.4.2020- 6.11.2020)	2020-21 (7.11.2020- 31.3.2021)	2021-22	2022-23	2023-24
Number of days in year	366	365	365	365	365	366
Number of days for which tariff is to be calculated	183	220	145	365	365	366

152. The annual fixed charges approved as above, is subject to truing up in terms of Regulation 13 of the 2019 Tariff Regulations.

Summary

153. The summary of the annual fixed charges claimed and approved are as under:

	(Rs. in lakh)					
	2019-20 1.10.2019- 31.3.2020	2020-21 1.4.2020- 6.11.2020	2020-21 7.11.2020- 31.3.2021	2021-22	2022-23	2023-24
Claimed	144712.48	154335.39	241853.90	236180.74	251399.59	270002.18
Allowed	137840.04	138947.47	225273.57	228495.95	241013.27	258635.94



Application Fee and Publication expenses

154. The Petitioner has sought the reimbursement of the filing fee paid by it for filing the Petition for the period 2019-24 and for the publication expenses. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the present Petition, directly from the beneficiaries on a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

155. Similarly, RLDC Fees & Charges paid by the Petitioner in terms of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2019, shall be recovered from the beneficiaries. In addition, the Petitioner is entitled for recovery of statutory taxes, levies, duties, cess etc. levied by the statutory authorities in accordance with the 2019 Tariff Regulations.

156. Petition No. 145/GT/2019 is disposed of in terms of the above.

**Sd/-
(Ramesh Babu V)
Member**

**Sd/-
(Arun Goyal)
Member**

**Sd/-
(Jishnu Barua)
Chairperson**

