

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 145/TT/2018

Along with

IA No.89/IA/2018, IA No. 47/IA/2020 & IA No.75/IA/2021

Coram:

Shri P. K. Pujari, Chairperson

Shri I.S. Jha, Member

Shri Arun Goyal, Member

Shri P.K. Singh, Member

Date of Order: 14.03.2022

In the matter of:

Approval of transmission tariff from COD to 31.3.2019 for 400 kV D/C Mahan-Sipat Transmission Line along with associated bays at Mahan and Sipat and 2x50 MVAR line reactors at Sipat Pooling Sub-station, 2x50 MVAR line reactors at Mahan pooling Sub-station and 1x80 MVAR, 420 kV switchable bus reactor at Mahan TPS along with its associated 400 kV bay under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the matter of:

Essar Power Transmission Company Limited,
Lower Ground Floor,
Hotel Conclave Boutique,
A-20, Kailash Colony,
New Delhi-1100048

...Petitioner

VERSUS

1. Essar Power M.P. Limited,
Lower Ground Floor,
Hotel Conclave Boutique,
A-20, Kailash Colony,
New Delhi-1100048.
2. Power Grid Corporation of India Limited,
B-9, Qutub Institutional Area,
Katwarai Sarai,
New Delhi-110016.



3. Power System Operation Corporation Limited,
National Load Despatch Centre,
B-9, Qutub Institutional Area,
Katwarai Sarai,
New Delhi-110016.
4. Western Region Power Committee,
F-3, MIDC Area, Marol,
Opposite SEEPZ, Central Road,
Andheri East,
Mumbai-400093.
5. Essar Steel India Limited,
27th KM on Surat-Hazira Road,
Hazira District,
Surat-394270.
6. M.P. Power Management Company Limited,
Block No.11, Shakti Bhawan,
Vidyut Nagar,
Jabalpur-482008.

...Respondents

For Petitioner : Shri Amit Kapur, Advocate, EPTCL
Shri Abhishek Munot, Advocate, EPTCL
Shri Malcolm Desai, Advocate, EPTCL
Ms. Samikrith Rao, EPTCL
Ms. Shruti Verma, EPTCL

For Respondents : Shri Nitin Gaur, Advocate, MPPMCL
Shri Anindya Kumar Khare, MPPMCL

ORDER

The Petitioner, Essar Power Transmission Company Limited (EPTCL), has filed the instant petition for determination of transmission tariff of 400 kV D/C Mahan-Sipat line along with associated bays at Mahan and Sipat and 2x50 MVAR line reactors at Sipat Pooling Sub-station, 2x50 MVAR line reactors at Mahan Pooling Sub-station and 1x80 MVAR, 420 kV switchable bus reactor at Mahan TPS along with its associated 400 kV bay (hereinafter collectively referred to as “the transmission assets under Stage-II”) for the period from the date of commercial operation (COD)



to 31.3.2019 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The Petitioner has made the following prayers:

I. Admit the application for determination of transmission tariff / provisional transmission tariff (annual fixed cost) for the mentioned assets in the petition i.e. Stage-2 of Essar Power Transmission Company Limited (EPTCL), which shall form part of the inter-state transmission system with expected COD of 30.06.2018.

II. Determine the Annual fixed cost and transmission tariff / provisional transmission tariff for the mentioned assets in the petition i.e. Stage-2 of Essar Power Transmission Company Limited (EPTCL) for 2018-19.

III. Condone any inadvertent omissions, errors, short comings and permit the petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a future date; and

IV. Pass such order and further orders as are deemed fit and proper in the facts and circumstances of the case.”

Background

3. The brief background of the matter is as follows:

a) EPTCL was incorporated under Indian Companies Act, 1956 on 4.1.2006. EPTCL was granted transmission licence by the Commission vide order dated 10.4.2008 in Petition No. 157 of 2007 to develop the transmission system associated with Mahan Thermal Power Plant (TPP). The scope of work under the transmission system for which transmission license was granted to the Petitioner vide order dated 10.4.2018 in Petition No. 157/2007 is as follows:

A. Transmission Lines

- (a) 400 kV (triple conductor) D/C transmission line from Mahan to Sipat Pooling Sub-station: Approximate line length 315 km.
- (b) LILO of existing 400 kV S/C Vindhyaachal-Korba transmission line of Powergrid at Mahan: Approximate line length 20 km.
- (c) 400 kV (twin conductor) D/C transmission line from Gandhar (NTPC) Switch-yard to Hazira: Approximate line length 97 km

B. Sub-stations



- (a) 3X500 MVA, 400/220 kV Sub-station at Hazira
- (b) 2X50 MVAR line reactors at Sipat Pooling Sub-station
- (c) 2X50 MVAR line reactors at Mahan
- (d) 1X80 MVAR, 420 kV switchable bus Reactor at Mahan TPS along with its associated 400 kV bay
- (e) 2 Nos. 400 kV line bays at Sipat Pooling station
- (f) 2 Nos. 400 kV line bays at Gandhar (NTPC) switchyard
- (g) 4 Nos. 400 kV line bays at Mahan TPS.

b) The transmission licence was amended on the request of the Petitioner with a view to accommodate the proposed third unit of 600 MW of its subsidiary company, i.e. Essar Power Madhya Pradesh Ltd. (EPMPL), at Mahan TPP. Accordingly, the configuration of Mahan-Sipat Transmission Line was upgraded from 400 kV D/C triple moose conductor to 400 kV D/C quad moose conductor vide order dated 15.9.2009 by the Commission with a specific condition that the increased cost on account of the up-gradation shall not be passed on to the consumers.

c) The assets covered in the transmission licence were put into commercial operation by the Petitioner in two stages i.e. Stage-I and Stage-II. The details of the transmission assets under Stage-I and the transmission assets under Stage-II are given below:

Stage-I

I	Transmission Lines	Length (in km)
1	400 kV D/C (twin conductor) transmission line from Gandhar (NTPC) switchyard to Hazira	104.60
2	LILO of 400 kV S/C Vindhyachal-Korba transmission line of Powergrid at Mahan	22.40
II	400/220 kV GIS Sub-station at Hazira	Number of bays
1	500 MVA Transformers	3
2	220 kV Bays at Hazira	2
3	400 kV Sub-station and line bays (GIS) at Hazira	5
4	400 kV line bays (GIS) at Gandhar	2



Stage-II

I	Transmission Lines	Length (in km)
1	400 kV (Quad Moose Conductor) D/C transmission line from Mahan Thermal Power plant to Sipat Pooling Sub-station	336.50
II	Line Bays	Units (in Number)
1	400 kV line bays at Mahan and Sipat	4
III	Reactors	Units (in Number)
1	50 MVAR line reactor at Sipat Pooling Sub-Station	2
2	50 MVAR line reactors at Mahan TPP	2
3	80 MVAR bus reactor at Mahan TPP	1

d) The transmission assets under Stage-I were put into commercial operation on 1.4.2013 and the Petitioner claimed its tariff from COD to 31.3.2014 in Petition No.173/TT/2013 and truing-up of the same for the 2009-14 period was done in Petition No.111/TT/2015. Both the petitions were disposed of vide order dated 15.6.2016, granting tariff for the transmission assets under Stage-I. Aggrieved by order dated 15.6.2016, the Petitioner filed Review Petition No. 33/RP/2016 and the Commission vide order dated 28.2.2018 disposed of the Review Petition No. 33/RP/2016. The Petitioner has filed an appeal against the order dated 28.2.2018 before the Appellate Tribunal for Electricity (APTEL) and the same is pending adjudication.

4. The Petitioner has served the copy of the petition upon the Respondents and notice of this tariff application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the notices published by the Petitioner under Section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 6.



5. The hearing in this matter was held on 25.11.2021 through video conference and order was reserved. This order is being issued considering the submissions made by the Petitioner in the main petition dated 10.5.2018 and amended petition dated 22.10.2018; IA No. 89/IA/2018 dated 22.10.2018, IA No.47/IA/2020 dated 3.2.2020 and IA No.75/IA/2021 dated 4.6.2021; replies of MPPMCL *vide* affidavits dated 11.12.2018, 1.7.2019, 28.8.2019 and 27.5.2020; Petitioner's rejoinders *vide* affidavits dated 12.5.2018, 13.8.2018, 25.4.2019, 22.5.2019, 12.9.2019, 30.9.2019, 6.12.2019, 22.7.2020 and Petitioner's written submission dated 30.12.2021.

6. Having heard the representatives of the Petitioner and learned counsel for MPPMCL and having perused the material on record, we proceed to dispose of the petition.

7. The Petitioner has filed the instant petition in May 2018 claiming tariff on the basis of anticipated date of commercial operation (30.6.2018) of the transmission assets under Stage-II. The Commission *vide* RoP dated 24.5.2018 directed the Petitioner to approach the Commission after COD of the transmission assets under Stage-II.

IA No.89/IA/2018

8. After COD of the transmission assets under Stage-II, the Petitioner filed an Interlocutory Application (IA) No. 89/IA/2018 on 24.10.2018 for amendment of the petition filed in May 2018 and to take on record the revised tariff forms along with supporting documents. It was stated in the IA that the transmission assets under Stage-II were put into commercial operation on 22.9.2018. The Commission *vide* order dated 14.3.2019 allowed the said IA and also granted interim tariff for the



transmission assets under Stage-II for the period from 22.9.2018 to 31.3.2019 observing as under:

“10.

The Petitioner has claimed ₹41631.52 lakh as transmission charges for the year 2018-19 and taking into consideration the time and cost over-run, which will be considered in detail at the time of final order, we allow ₹33305.22 lakh as tariff for the year 2018-19.

11. The tariff allowed in this order shall be applicable from the actual COD, i.e. 22.9.2018 and the billing, collection and disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time. Further, the transmission charges allowed in this order shall be subject to adjustment as per Regulation 7(7) of the 2014 Tariff Regulations.”

9. Accordingly, the difference between the transmission tariff allowed in order dated 14.3.2019 and in this order shall be adjusted as per the provisions of Regulation 7(7) of the 2014 Tariff Regulations.

IA No.47/IA/2020

10. The Petitioner filed IA No. 47/IA/2020 seeking permission to place on record order dated 15.9.2009 and for determination of tariff for the quad moose conductor of the Mahan-Sipat Transmission Line in accordance with the provisions of extant Tariff Regulations considering the provisions of the Electricity Act, 2003 (“2003 Act”) and Tariff Policy and for allowance of O&M charges for the line reactor. The Commission vide RoP dated 23.7.2020, allowed IA No. 47/IA/2020 and the information filed by the Petitioner was taken on record. The submissions made by the Petitioner in the IA are as follows:

a) The Petitioner was granted an inter-State transmission license by the Commission vide order dated 10.4.2008 in Petition No. 157/2007 to develop the following Associated Transmission System (ATS) for evacuation of power from Mahan Thermal Power Plant set up by EPMPPL, Respondent No.1:

- Mahan-Sipat Line - 315 km of 400 kV (Triple Moose) Double Circuit Line



- LILO Arrangement from Vindhyachal -Korba line-20 km of 400 kV Twin Moose Double Circuit line
- Gandhar (Jhanor)- Hazira Line-97 km 400 kV Double Circuit Line.
- Sub-station works at Hazira

b) After grant of inter-State transmission licence, EPTCL requested the Commission to change the configuration of 400 kV D/C Mahan-Sipat Transmission Line from triple moose conductor to quad moose conductor. The license of the Petitioner was modified by Commission vide order dated 15.9.2009 and the configuration of the conductors was changed from triple moose conductor to quad moose conductor.

c) As per CEA Manual on Transmission Planning Criteria (Clause 6.2) all the equipment in the transmission system has to remain within their normal thermal and voltage ratings after a disturbance involving loss of any one of the following elements (called single contingency or 'N-1' condition), but without load shedding/ rescheduling of generation:

- Environment criterion was considered as 50°C ambient temperature and maximum temperature 75° C for design as ambient temperature crosses 48° C in summers in Mahan areas.
- Thermal Loading Limits of Transmission Lines max Ampacity as per CEA guidelines comes to 516 (50° C ambient & 75° C max):

Capacity of ACSR moose Conductor:

$$\begin{aligned} & \{516(\text{Amp}) * 400(\text{kV}) * 1.73 * 0.85(\text{PF}) * (100\% - 2\% \text{ loss})\} / 1000 \\ & = 297 \text{ (single ACSR Moose Conductor)} \\ & = 892 \text{ (Triple ACSR Moose Conductor)} \\ & = 1,189 \text{ (Quad ACSR Moose Conductor)} \end{aligned}$$

d) For evacuation of 1100 MW (1200 MW installed capacity minus 100 MW auxiliary power consumption) of EPMP's net generation capacity, quad moose conductor is suitable for meeting N-1 criterion and is not possible with triple moose conductor configuration. The change in configuration of the conductor (from triple moose conductor to quad moose conductor) is not a unilateral action that a transmission licensee can take on its own. Since the transmission planning is a coordinated activity which involves various stakeholders *inter alia* CTU and CEA, a change in configuration of the conductor could only be carried out after the impact thereof not just on transmission charges but also on other transmission lines in operation and/ or



proposed to be constructed. The “No Objection Certificate” (NOC) issued by CTU shows that the quad moose conductor was more appropriate configuration for the 400 kV Mahan-Sipat Transmission Line of the Petitioner. The 2003 Act and the Tariff Policy mandates that the tariff design should be such that it reflects the cost of supply.

e) The determination of tariff for triple moose conductor and not for the actually utilized quad moose conductor would be contrary to the provisions of the 2003 Act and the Tariff Policy. No private arrangement is capable of preventing the Commission from discharging its statutory obligation of determination of tariff in accordance with extant Regulations. The order dated 15.9.2009 cannot be interpreted to mean that EPTCL had consented to grant of tariff of triple moose conductor while agreeing to install quad moose conductor.

f) The Petitioner is also claiming O&M Expenses for 2 Numbers of 50 MVAR switchable line reactors installed at EPMPML Mahan TPP end of 400 kV Mahan-Sipat Transmission Line, which forms a part of the license granted to EPTCL. The regulations provide for O&M Expenses for switchable line reactor as per the norm of 400 kV bay. The Statement of Reasons of 2014 Tariff Regulations states that switchable line reactor will have one bay. The line reactors installed at EPMPML end are of switchable nature and, hence, O&M Expenses are claimed for 2X400 kV bays for 2 Numbers of 50 MVAR line reactors. The O&M Expenses norms for 400 kV sub-stations as per the 2014 Tariff Regulations are ₹68.71 lakh per bay. Accordingly, the O&M Expenses claimed by the Petitioner for the two switchable line reactors at Mahan end is ₹137.42 lakh.

Reply of MPPMCL in IA No. 47/IA/2020

11. MPPMCL in response to the IA No. 47/IA/2020 has made the following submissions:

(a) Respondent No.1, EPMPML, a group company of the Petitioner, vide its letter dated 21.8.2009, sought for change from triple moose conductor to quad moose conductor and undertook that the additional tariff on account of increase



in the capital cost of the transmission system because of change in configuration will not be passed on to the consumers in the state of M.P. for transmission of power allocated from the generating station.

(b) The Commission on the basis of undertaking and the request made by the Petitioner and Respondent No.1 approved the modification of licence vide order dated 15.9.2009. Thereafter, the Petitioner filed the instant petition on 11.5.2018 for determination of tariff from 30.6.2018 to 31.3.2019 for the transmission assets. The Commission vide (RoP) dated 17.12.2019 directed MPPMCL to file its reply and reserved order in the matter. Pursuant to the directions of the Commission, MPPMCL filed its written submissions on 3.1.2020. The Petitioner after a period of one month, on 3.2.2020, has filed IA. No. 47/IA/2020 seeking permission to file the documents. However, in the IA. No. 47/IA/2020, the Petitioner has prayed for seeking permission to place on record dated 15.9.2009, determination of tariff for the Quad Moose conductor of the Mahan-Sipat Transmission Line in accordance with the provisions of Tariff Regulations considering the provisions of 2003 Act and Tariff Policy and for allowance of O&M charges for the line reactor.

(c) The IA filed by the Petitioner is misconceived and has been filed after the order was reserved in the matter. The Petitioner is seeking relief which was completely foregone by then and on an undertaking by the Petitioner's company for not passing on to the additional tariff on account of change in the conductor to the consumers in the State of M.P.

(d) The Commission's order dated 15.9.2009 was specifically passed on the undertaking by the Petitioner and now the Petitioner is praying for relief which was forgone is not legal. An order cannot be prayed to be granted on the ground that no private arrangement is capable of preventing the Commission from discharging its statutory obligation to determine tariff in accordance with the extant regulations.

(e) It is a settled principle of law that any order obtained from the Court on the basis of an undertaking, parties are completely bound by the same and no amendment can be made to the conditions of the same to achieve further



benefit in subsequent proceedings. The Petitioner who has availed the benefit arising from the order dated 15.9.2009 cannot go back on its undertaking to avail further benefit directly in contravention of such undertaking as they would be estopped from changing their stand. Therefore, MPPMCL's prayer in the IA may not be allowed.

Rejoinder of the Petitioner to MPPMCL's reply in IA No. 47/IA/2020

12. The Petitioner in response to the reply of MPPMCL has made the following submissions:

(a) The instant IA became necessary because the Petitioner inadvertently did not elaborate on the contents of the order dated 15.9.2009 in the petition for determination of tariff and did not specifically ask for tariff for the switchable line reactors installed by the Petitioner in terms of the transmission licence issued to the Petitioner.

(b) No submissions qua O&M Charges for line reactors has been made in the reply filed on behalf of MPPMCL and thus the same should be deemed to have been admitted.

(c) Neither a generating station nor a transmission licensee have the power to decide on their motion the route and/ or the configuration of a line. The function is specifically vested with the CTU in terms of the provision of the 2003 Act. Therefore, it is absolutely baseless to suggest that modification of license of the Petitioner was a private arrangement. In order to optimise RoW usage and taking into account future usage of the transmission network proposed to be developed by the Petitioner, all stakeholders including but not limited to this Commission modified the configuration of conductors proposed to be used in the transmission line. The CEA Manual on Transmission Planning also clearly mandates that in congested urban/ semi-urban area, and very difficult terrain the planning must take into account optimizing the RoW and cost.



(d) Quad-Conductor was the minimum configuration proposed taking into account the anticipated load and CEA Planning Criteria. Reconfiguration of line was undertaken to ensure optimum utilization of the RoW and the cost of putting up the transmission line. As per CEA criterion, all the equipment in the transmission system has to remain within their normal thermal and voltage ratings after a disturbance involving loss of any one of the following elements i.e N-1 criterion, but without load shedding/rescheduling of generation. The thermal loading limits of transmission lines' Maximum ampacity as per CEA guidelines is 516 (50 Degrees Celsius ambient and 75 degrees Celsius Max). As per the calculations, the following is the capacity of different configurations-

Single ACSR Moose Conductor - 297 MW

Triple ACSR Moose Conductor – 892 MW

Quad ACSR Moose Conductor – 1189 MW

(e) EPMPPL's net capacity of 1100 MW and any future Projects, Quad moose configuration is suitable for N-1 criterion and not triple conductor configuration. The NoC of the CTU is also a concurrence to the fact that the Quad Moose conductor is more appropriate configuration of Mahan-Sipat Transmission Line.

(f) The Petitioner can file an IA at any stage of adjudication. The Petitioner inadvertently did not adequately discuss the impact of order dated 15.9.2009 and did not claim the O&M charges for the line bays in the tariff petition.

(g) As regards the contention relating to undertaking given by the Petitioner for not passing on the additional tariff to the consumers in M.P., the Petitioner has submitted that no undertaking was ever filed by the Petitioner. It is a settled law that tariff determination is required to be undertaken in terms of the provisions of the 2003 Act and the extant Rules and Regulations framed thereunder. No other consideration can be taken into account for determination of tariff. Further, no benefit has been accrued to the Petitioner as being alleged by the MPPMCL. The Petitioner was obliged to construct the Mahan-Sipat Transmission Line using the Quad-Moose conductor and as a corollary the Petitioner is entitled to tariff thereof.



IA No.75/IA/2021

13. On 29.9.2021, the Petitioner filed I.A No. 75/IA/2021 for placing on record additional submissions and documents and for amendment of the prayer clause of the instant petition. The Petitioner has submitted that in terms of RoP dated 23.7.2020 the Commission admitted I.A. No. 47/IA/2020 and took on record the submissions made therein, including the aforementioned additional prayers. In view of the same, the Petitioner has prayed that it may be allowed to formally amend the prayer clause of the instant petition. The Petitioner has submitted that during the course of hearing on 27.4.2021, the Petitioner had requested the Commission to permit bringing on record additional submissions and documents, in the interest of justice and for the sake of completeness of information. The Commission vide RoP dated 27.4.2021, allowed Petitioner's request to file additional documents and pleadings which were earlier left out.

14. The Petitioner has submitted that the transmission system developed by Petitioner is for evacuation of power from Mahan TPP set up by EPMPPL i.e., it is an Associated Transmission System (ATS) of Mahan TPP. It is necessary to bring on record the following facts surrounding setting up of Mahan TPP, its fuel tie-up, contractual arrangements for supply and steps taken for evacuation of power therefrom which were inadvertently left out in the previous filings and hearings. The Petitioner has submitted that the submissions made in the IA be read as part and parcel of Petitioner's earlier submissions and pleadings. The Petitioner has made elaborate submissions pertaining to establishment of the Mahan TPP, allocation of coal blocks and the arrangements the Petitioner had with the State of Madhya



Pradesh. The submissions made by the Petitioner, which are relevant to the issues raised in the present petition, are as follows:

- (a) On 17.1.2007, EPMPPL entered into a Memorandum of Understanding (“MoU”) with GoMP for setting up its 2000 MW Mahan TPP (1000 MW + 20% in Phase 1) such that EPMPPL would supply approx. 80 MW (7.5% of net power) on real time basis at variable cost and GoMP had the first right of refusal for getting another 360 MW (30% aggregate capacity of generating unit) with tariff to be decided by appropriate Commission. The validity period of the said MoU was extended on 11.2.2008 by a period of 6 months (i.e., up to 16.7.2008).
- (b) On 13.2.2007, EPMPPL made an application to PGCIL seeking Long Term Open Access (“LTOA”) for 1100 MW from Phase-1 (2x600 MW) of its Mahan TPP. On 30.7.2007, in the 9th meeting of Western Region constituents, EPMPPL’s application for evacuation of 1100 MW from Mahan TPP to locations in MP and Gujarat was approved and the ATS for evacuation of power from Mahan TPP was identified.
- (c) On 26.10.2007, MPPTCL issued the final RFP documents. On 1.11.2007, PGCIL approved EPMPPL’s LTOA application for 1100 MW power, considering the injection and delivery points finalized in the Western Region constituents meeting.
- (d) On 22.11.2007, EPTCL filed Petition No. 157/2007 before the Commission for grant of transmission license.
- (e) On 30.7.2007, during the 9th Meeting of the WR constituents, the evacuation system of Mahan TPP was finalised as the 400 kV Mahan-Sipat Transmission Line.
- (f) On 16.7.2008, an Implementation Agreement for setting up of Mahan TPP (1200 MW Phase-1) was executed between EPMPPL and GoMP.
- (g) EPMPPL considered expansion of Mahan TPP by installation of a 3rd Unit (1x600 MW) and it was considered technically and environmentally



prudent to modify the conductor configuration of the 400 kV Mahan-Sipat Transmission Line from triple moose conductor to quad moose conductor. This change was meant to avoid construction of an altogether new transmission line for evacuation of power from Mahan TPP and to optimize the existing Right of Way passing through approx. 110 km of forest land identified for the Mahan-Sipat Transmission Line.

(h) On 8.5.2009, PGCIL (CTU) granted its "No Objection" for modification of conductor configuration of 400 kV Mahan-Sipat Transmission Line from triple moose conductor to quad moose conductor.

(i) EPMPL on 21.8.2009 informed EPTCL that increase in construction cost of the Mahan-Sipat Transmission Line with changed configuration (from triple moose conductor to quad moose conductor) would not be passed onto MPEB. It was EPMPL's understanding that additional transmission charges for Mahan-Sipat Transmission Line (owing to change in configuration of conductors) will not be added to the tariff determined under the Case-1 bid in the event power had to be transported through the Mahan-Sipat Transmission Line.

(j) On 15.9.2009, the Commission amended the transmission license of the Petitioner wherein change in configuration of the Mahan-Sipat Transmission Line from triple moose conductor to quad moose conductor was approved.

(k) On 29.10.2010, EPMPL and MPPTCL executed a PPA for procurement of 150 MW power on long term basis from 2x600 MW Mahan TPP.

(l) On 26.3.2012, EPMPL executed a long term PPA with GoMP for availing 5% power (80 MW) on variable charge basis from Mahan TPP, in terms of the MoU and Implementation Agreement.



(m) The transmission assets under Stage-I achieved COD on 1.4.2013 and COD of Unit-1 (1x600 MW) of Mahan TPP was on 29.4.2013.

15. The Petitioner has further submitted the following as regards change in configuration of conductors from triple moose to quad moose:

(a) PGCIL (CTU) had carried out the load flow analysis and published the System Study Report in 2006-2007, considering only Phase-1 of Mahan TPP (2x500 or 2x600 MW) with an assumption of plant (net) capacity of 1100 MW with share of 400 MW for State of MP and balance 700 MW power for others i.e., mainly to Essar's Steel Plant at Hazira in Gujarat. On this basis and the subsequent 9th meeting of Western Region constituents, it was then decided that the Mahan-Sipat Transmission Line be constructed as a 400 MW D/C triple moose conductor line for evacuation of 1100 MW power.

(b) Considering the uncertainty surrounding the quantum of power to be supplied to GoMP under the MoU dated 17.1.2007, MPPTCL in terms of Case-1 bid (150 MW vis-a-vis 300 MW) and off-setting power offered under Case-1 Bid under the MoU, EPMPPL considered expansion of its Mahan TPP by setting up a 1x600 MW Unit (as Phase-2 of Mahan TPP). Accordingly, on 10.2.2009, the Ministry of Environment Forest & Climate Change amended the earlier Environment Clearance dated 10.4.2007 by approving the change in the capacity and unit size from 4x500 MW to 3x600 MW for Mahan TPP. As the 400 kV Mahan-Sipat Transmission Line (336.5 km in length of which 110 km is through non-contiguous forest land) forms part of the ATS for evacuation of power from Mahan TPP, it has to be capable to evacuate the entire power generated by the plant (i.e., 1800 MW/ 2000 MW). Triple moose conductor as envisaged by PGCIL in 2007 (basis evacuation of 1100 MW power) would not meet the technical and engineering requirements to evacuate approximately 1800 MW power. As such, it was considered to modify the conductor type from triple moose to quad moose for the purpose of ensuring that the (a) evacuation of the entire capacity of Mahan TPP (i.e., 2x600 MW Phase-1 and 1x600 MW-proposed Phase-2) through a common evacuation facility - Transmission system; (b) compliance with 'N-1' criteria specified under the CEA Manual on



Transmission Planning Criteria; (c) minimize usage of forest area, by avoiding construction of a separate transmission line; and (d) optimizing Right of Way.

(c) EPTCL considered ACSR Moose (597 sq. mm) conductor of 75°C max conductor temperature grade in the conductor design, to ensure maximum 50°C design ambient temperature, as the ambient temperature crosses 48°C during summers in Mahan.

(d) CTUIL granted its 'No Objection' for modification of conductor configuration of 400 kV Mahan-Sipat Transmission Line from triple moose to quad moose and the Commission vide order dated on 15.9.2009 amended EPTCL's Transmission License to reflect the change in configuration of the Mahan-Sipat Transmission Line.

(e) EPMP's letter dated 21.8.2008 stated that the additional cost on account of change in conductor configuration would not be passed on to Madhya Pradesh Electricity Board on account of transmission of power allocated to it (regarding the Case-1 Bid). Neither EPMP's letter nor the Commission's order dated 15.9.2009 suggests that transmission tariff should be determined for triple moose conductor in place of the actually constructed and utilized quad moose conductors.

(f) The 400 kV Mahan-Sipat Transmission Line is part of the ISTS and in terms of Commission's order dated 10.4.2008 is not a dedicated transmission line of EPMP. EPMP had merely represented that MPEB's share of increased cost on account of conversion to quad moose conductor would be borne by it and not passed on in tariff negotiated under the Case-1 Bid. The said letter cannot be considered as a concession for all increase in costs regarding the Mahan Sipat Transmission Line developed by EPTCL, as EPMP is simply one of the many beneficiaries paying the transmission charges for the said line.

(g) By allowing the tariff to EPTCL for the 400 kV Mahan-Sipat Transmission Line treating the line as triple moose conductor in place of actual



quad moose conductor would be contrary to the express provisions of the 2003 Act, the Tariff Policy and the regulatory framework. The Petitioner has made investments and constructed the 400 kV D/C Mahan-Sipat Transmission Line in terms of the transmission license (duly amended) read with the CEA Manual on Transmission Planning Criteria i.e., based on quad moose conductor. Such change in configuration of a licensed conductor is not a unilateral action that any transmission licensee takes on its own.

(h) With the grant of transmission licence and the commercial operations, the 400 kV D/C Mahan-Sipat Transmission Line (quad moose conductor) is an embedded part of the Western Region Transmission System, being utilized for evacuation of power from NTPC Vindhyachal as well. Being a licensed ATS of Mahan TPP (i.e., part of the ISTS), its usage is regulated by the Commission and subject to compensation for the utilization of any elements of the licenced Mahan ATS in terms of tariff principles enshrined in Section 61 of the 2003 Act read with paragraphs 7.0 and 7.1 of the Tariff Policy, 2014 Tariff Regulations the 2010 Sharing Regulations and Section 70 of the Indian Contract Act, 1872.

16. The Petitioner has also submitted that the Commission in order dated 30.4.2019 in Petition No. 262/MP/2017 (Jindal Power Ltd. vs. PGCIL & Ors.), order dated 7.10.2019 in Petition No. 118/TL/2019 (Adani Transmission (India) Ltd. v. PGCIL & Ors.) allowed inclusion of assets and determination of tariff, in case elements are added to the original license. Therefore, the tariff for the Mahan-Sipat Transmission Line ought to be determined considering the quad moose conductor actually constructed in terms of the transmission license (duly amended) read with the CEA Manual on Transmission Planning Criteria.

17. The Petitioner has served the copy of the petition upon the Respondents and notice of this tariff application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been



received from the general public in response to the notices published by the Petitioner under Section 64 of the Electricity Act, 2003. Reply to the petition has been filed by MPPMCL, Respondent No. 1.

18. The hearing in this matter was held on 25.11.2021 through video conference and order was reserved. This order is being issued considering the submissions made by the Petitioner in the main petition dated 10.5.2018 and amended petition dated 22.10.2018; IA No. 89/IA/2018 dated 22.10.2018, IA No.47/IA/2020 dated 3.2.2020 and IA No.75/IA/2021 dated 4.6.2021; replies of MPPMCL *vide* affidavits dated 11.12.2018, 1.7.2019, 28.8.2019 and 27.5.2020; Petitioner's rejoinders *vide* affidavits dated 12.5.2018, 13.8.2018, 25.4.2019, 22.5.2019, 12.9.2019, 30.9.2019, 6.12.2019, 22.7.2020 and Petitioner's written submission dated 30.12.2021.

19. Having heard the representatives of the Petitioner and learned counsel for MPPMCL and having perused the material on record, we proceed to dispose of the petition.

Date of Commercial Operation

20. The Petitioner *vide* affidavit dated 22.10.2018 has submitted that COD for transmission assets under Stage-II was 22.9.2018. MPPMCL has submitted that the Petitioner has failed to communicate the commissioning of the transmission assets under Stage-II and its trial run to the beneficiaries. Even, no progress report or prior intimation notice or letter has been given to the beneficiaries. It is an established practice that an element of transmission system can be declared as having attained commercial operation only if the following conditions are satisfied:

- a) it has been charged successfully, after successful trial operation
- b) is in regular service



- c) prior intimation and notice have been given to beneficiaries regarding commissioning and trial run.

21. In response, the Petitioner has submitted that the Commission has granted transmission license for the Mahan-Sipat Transmission Line and the associated bays and that it is a cost-plus project and not a tariff based competitive bid (TBCB) project. The Petitioner has submitted that it has complied with all regulatory requirements and the transmission assets under Stage-II were declared under commercial operation from 22.9.2018. It has submitted that under Regulation 4 of the 2014 Tariff Regulations, there is no requirement of sending notice to the transmission customer before the trial run and the certificate of completion of trial run and COD was issued by POSOCO certifying completion of trial run on 21.9.2018.

22. We have considered the submissions made by the Petitioner and MPPMCL. In support of COD, the Petitioner vide affidavits dated 22.10.2018 and 22.4.2019 has submitted CEA Certificate dated 13.9.2018, RLDC certificate dated 3.10.2018 and 12.10.2018, self-declaration COD letter dated 1.4.2019 and declaration from Company Secretary that the transmission assets under Stage-II have achieved COD on 22.9.2018.

23. Regulation 4 of the 2014 Tariff Regulations provides as follows:

“4xx

The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

Xxx

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end

Xxx



(4) Date of commercial operation in relation to a communication system or element thereof shall mean the date declared by the transmission licensee from 0000 hour of which a communication system or element is put into service after completion of site acceptance test including transfer of voice and data to respective control centre as certified by the respective Regional Load Dispatch Centre.

xxx

24. Further, Regulation 5(2) of the 2014 Tariff Regulations provides as follows:

“(2) Trial operation in relation to a transmission system or an element thereof shall mean successful charging of the transmission system or an element thereof for 24 hours at continuous flow of power, and communication signal from sending end to receiving end and with requisite metering system, telemetry and protection system in service enclosing certificate to that effect from concerned Regional Load Dispatch Centre.”

25. Accordingly, taking into consideration of CEA Energisation Certificate, RLDC Charging Certificate and CMD Certificate, COD of the transmission assets under Stage-II is approved as 22.9.2018 and has been considered for the purpose of tariff computation.

Capital Cost

26. Regulations 9(1) and 9(2) of the 2014 Tariff Regulations provide as follows:

“Capital Cost: (1) *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.*

(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;*

(bi) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period shall form part of the capital cost.*

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

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

(e) *capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;*

(f) *expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;*

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



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

27. The Petitioner vide affidavit dated 6.12.2019 has submitted the Auditor's Certificate along with the revised tariff forms for the transmission assets under Stage-II. The details of claimed apportioned approved cost, capital cost as on COD and estimated Additional Capital Expenditure (ACE) during 2018-19 in respect of the transmission assets under Stage-II are as follows:

(₹ in lakh)				
Apportioned approved Cost (FR)	Apportioned approved Cost (RCE)	Cost as on COD	ACE 2018-19	Estimated Completion Cost
58771	198132	183931.52*	13750.34**	197681.86

*The capital cost claimed by the Petitioner as per Auditor's Certificate is ₹183931.52 lakh whereas as per Form-6 is ₹183774.74. Thus, there is a difference in capital cost claimed as on COD as per Auditors Certificate and Form-6.

**As per Auditor's Certificate (there is a difference in ACE claimed as per Auditors Certificate and Form-7).

28. The FR apportioned approved capital cost of the transmission assets under Stage-II is ₹58771 lakh and the estimated completion cost is of ₹197681.86 lakh. Hence, there is increase in capital cost of about ₹138910.86 lakh (about 236%) from FR cost. The Petitioner vide affidavit dated 22.10.2018 has submitted the reasons for cost over-run as (i) increase in line length from 315 km to 336.5 km and (ii) consequential changes in tower quantity from 879 to 942 and change in tower type, (iii) non-inclusion of the RoW cost in the FR cost, (iv) price variation and (v) cost of forest clearance. The reasons given by the Petitioner for the cost over-run are as follows:

a) The Project cost was based on the estimation of hard costs but the cost towards RoW payments was not included in the FR cost. All efforts were made to minimize RoW payments and it was settled for ₹3557 lakh.

b) The Petitioner and Essar Projects India Limited (EPIL) entered into an onshore turnkey contract for civil works, erection, installation and commissioning of Mahan Sipat-Transmission Line on 20.8.2009. EPIL sub-



contracted certain works and also placed orders on Kalpatru Power Transmission Limited (KPTL), Sterlite, Apar, BHEL and Aditya Birla. The price variation and cost escalation are mainly due to delay in execution of the Project and the Project was delayed mainly due to statutory clearances and RoW issues. The cost variation was due to the inflationary trends prevalent during Project execution as compared to the prices quoted during the bidding process of various packages i.e. 2008/2009. There were volatile fluctuations in prices of Aluminum, Zinc, cement etc. and extension of contract beyond the initial completion target of September 2011. The price variation was computed based on the formula approved by CEA with applicable indices of Indian Electrical and Electronics Manufacturers Association ("IEEMA").

c) As per the standard industry practice, the bids invited by Petitioner provided that price variation would be admissible only for Structural Steel and Zinc and all other prices were required to be firm. The weight to be considered for price variation is final actual weight of tower. KPTL claimed price variation separately with detailed calculation with applicable indices of IEEMA for Structural Steel and Zinc for determining actual prices. It made payment of ₹5868 lakh to KPTL and ₹1384 lakh and ₹7164 lakh to Sterlite towards price escalation and price variance respectively. Price variation was applied on Apar for conductor supply as the unit price escalated from ₹2.05 lakh to ₹3.05 lakh per km in different stages for ACSR Moose Conductor. Further, after implementation of GST in July 2018, the tax rate for the supply of ACSR quad moose conductor (54/3.53, 7/3.53 MM) has increased from 14.5% to 18%. Orders were placed on Sterlite with revised tax rate of 18% for the supply of conductors. Additional 3.5% was spent due to GST impact and the value claimed is ₹252 lakh. For price variation of insulator supply, it made payment of ₹297 lakh to BHEL. It also made payment of ₹239 lakh to Aditya Birla on account of price variation. The Department of Commercial Taxes, Government of Madhya Pradesh has levied entry tax on material brought for implementation of transmission lines and the same is a "change in law" event and, thus, an uncontrollable factor in terms of Regulation 12 of the 2014 Tariff Regulations.



d) An amount of ₹3604 lakh was incurred on account of forest deposit works demanded by forest departments for the purpose of compensatory afforestation, plantation of medicinal plants, tree felling amount etc.

e) Interest and idling before January 2017: KPTL faced RoW issues at various locations right from the beginning of the Project. The work could not progress due to disruptions mainly on account of unprecedented RoW issues, causing frequent de-mobilization/ re-mobilization, unwanted idling of T&P and manpower. To avoid further delay and increase in Project cost, the contract with EPIL was short closed and work order was issued by the Petitioner directly to KPTL for completion of all balance work and completion of line for successful COD.

f) For replenishment of conductor supply for jumpers and wastage for 365 km, it spent ₹2469 lakh under contingency expenses. The Petitioner entered into an agreement on 29.6.2009 with PGCIL for execution of 2 number bays at Sipat Pooling Station for 400 kV D/C Mahan-Sipat transmission line as deposit work on cost plus basis for which it made payment of ₹1092 lakh to PGCIL. It paid ₹837 lakh to EPMPPL for 2 numbers of 400 kV bays including reactor bay at Mahan TPP. Supply of 2x50 MVAR and 1x80 MVAR reactors for Milan Switchyard and 2x50 MVAR reactors for PGCIL Sipat (Bilaspur) Pooling Station reactors were not a part of EPC contract awarded to EPIL. 50 MVAR reactor was purchased at a cost of ₹427 lakh and 80 MVAR at cost of ₹381 lakh. As per estimated Project cost and EPC contract signed with EPIL, spares were not included in the scope of supply.

29. As regards cost over-run, MPPMCL has made the following submissions:

a) The Petitioner has neither sought the approval for the increase in Project cost nor brought this increase to the notice of the Commission. The Petitioner did not inform the Commission at the time of modification in the scope of the Project that there was more than 100% escalation in the cost of the Project vis-à-vis the cost approved by the Commission in less than one year. The approved Project cost of the transmission assets under Stage-II has increased



from ₹587.71 crore to ₹1147.29 crore and the Petitioner has failed to take prior approvals from the Commission.

b) No prior approval of the Commission was sought for increase in the length of transmission line from 314 km to 336 km and the beneficiaries were not informed about the changes in the capital cost.

c) The Petitioner did not adopt international competitive bidding as directed by the Commission for awarding the contract for execution of the Project and assigned the work to EPIL, its sister concern. EPIL carried out the competitive bidding for different elements of the transmission system as packages instead of entire system. No documentary evidence is placed on record by the Petitioner to show that it followed the International Competitive Bidding (ICB) in awarding the packages. The Petitioner did not award the Project to lowest bidder but to the bidders at No. 4 and No.2 respectively without any justified reasons which ultimately resulted in significant increase in cost. The Petitioner has to explain whether the Project is implemented in the best competitive price prevailing in the market. The Petitioner should explain the reasons for engaging EPIL to carry out the bidding. Breaking the Project into different packages cannot be justified to bring down the cost of the Project. The Petitioner invited bids for different packages but none of them were awarded the contracts and the Petitioner awarded Engineering, Procurement and Construction (EPC) contract to EPIL without its participation in the bidding process. ICB for various packages were evaluated techno-commercially and finally awarded to parties by EPC contractor. The Petitioner has built in margin cost which was approximately 12%.

d) The transmission line EPC Package was awarded to KPTL whose bid was on higher side as compared to the bid quoted by lowest bidder. Further, the Petitioner and its sister concerns are claiming ₹8869 lakh as an escalated cost given to KPTL. The Petitioner has not deducted the margin money @12% of EPIL from the total Project Cost as EPIL is the EPC contractor. The capital cost for the transmission assets under Stage-II is abnormally high despite the fact that the Commission rejected the claim of the Petitioner for charging 12%



margin in addition to price recovered for EPIL vide order dated 15.6.2016 in Petition No. 173/TT/2013 and Petition No. 111/TT/2015.

e) The length of transmission line increased to 336.7 km from 315 km. The Petitioner has failed to provide supporting documents along with kilometre-wise cost analysis of increase in length and it also failed to clarify as to how the route was optimized and RoW issues were minimized. The Petitioner, on one hand, has claimed cost escalation on account of increased line length for minimizing RoW issues, while, on the other hand, it is claiming cost escalation due to RoW issues without submitting the exact details of RoW issues.

f) The Petitioner has submitted that due to increased awareness of local villagers during execution, there was significant increase in RoW cost by ₹38 crore. No document of District Magistrate's orders for payment of compensation, receipts of payments to Advocates for pursuing RoW cases and case-wise RoW cost apportionment are placed on record.

g) Claim of the Petitioner that cost over-run was due to cost escalation on account of conductor is incorrect as the Petitioner has awarded the conductor supply package to Sterlite Industries whose bid was highest. Sterlite Industries quotation was ₹28819 lakh whereas lowest bidder's quotation was ₹13473 lakh (₹4491 lakh x 3 = ₹13473 lakh). Sterlite Industries was awarded conductor supply contract with the premium of ₹15346 lakh.

h) The Petitioner has submitted that cost over-run was due to cost increase due to quantity variation in type of tower. As the Petitioner has failed to state the reason for opting for optimum route along with supporting documents and has not clarified the details of locations along with details where the type of tower was changed, the cost over-run may not be allowed.

30. In response, the Petitioner vide its rejoinder dated 30.9.2019 has made the following submissions:

a) The Commission did not approve the capital investment of the Petitioner in the transmission license order dated 10.4.2008. The cost submitted by



EPTCL was an indicative hard cost of the Project. For tariff determination, the Commission considers the actual cost incurred and conduct prudence check.

b) The findings of the Commission in Petition No.173/TT/2013 and Petition No.111/TT/2015 as modified by the order dated 28.2.2018 in the Review Petition No. 33/RP/2016 in relation to artificial deduction of 12% of capital cost of Stage-1 asset only because EPC contract was awarded to EPIL, has been challenged before APTEL in Appeal No. 397 of 2018.

c) As per the terms and conditions of the transmission license dated 10.4.2008, the Petitioner was required to execute the works through suitable packages and to award the contract for these packages through the process of competitive bidding. The Petitioner duly complied with the same. In line with the bids received, the Petitioner awarded various packages to various bidders since the license conditions mandated that the works should be undertaken in suitable packages and none of the bidders submitted bids for all the packages.

d) Transmission line package was awarded to KPTL as Gammon India Limited and Cobra did not qualify and L&T was not willing to take up RoW job. Conductor Supply Package was awarded to Sterlite as Deepak Cables did not qualify financially.

e) EPIL was appointed as the EPC contractor and executed the Onshore Turnkey Contract for Civil Works, Erection, Installation and Commissioning for Associated Transmission System ("EPC Contract") dated 20.8.2009 to ensure single point responsibility and various packages for which bids were received were awarded pursuant to detailed technical and financial evaluation. Accordingly, award of EPC contract to EPIL was neither imprudent nor arbitrary. The margin charged by EPIL is also as per the norms of Supervision/management charge usually incurred for large EPC Projects and is an accepted head of capital cost for large Projects.

f) Route optimisation is done to ensure minimum environmental damage and minimum interference with industrial areas. The route length optimization



due to increase in line length which includes the request letter from PGCIL dated 21.10.2014, regarding shifting of WR Pooling Station to Bharari, Bilaspur (CG) has been submitted in the main petition.

g) The Petitioner has made best efforts to reduce the cost, wherever possible. RoW issues are challenging as the efficiency of early completion of the Project and cost effectiveness has to be managed.

h) The cost of the conductor has increased based on a standard formula linked to CACMAI circular for price of aluminium and price of steel. The cost of conductor is also similar to similar other projects and, therefore, it is not excessive.

i) The Projects undertaken by CTU are approved by the Commission in terms of the grant of regulatory approval for execution of Inter-State Transmission Scheme. The cost estimates incorporated in the license order was an estimate of the capital cost calculated by the Petitioner. It cannot be termed as approval of the Commission to the estimated capital cost of the Project.

j) There is no provision in any law that requires District Magistrate to determine RoW payments. The contracts for supply of conductors and insulators were given to market leaders in the segment to ensure timely delivery of quality products. To ensure impartial evaluation of the bids, Lahmeyer International India Private Ltd (LII) was appointed as an Engineering Consultant by EPTCL. The cost of conductors quoted by Sterlite and Apar as well as the escalation formula was confirmed to be in line with market norms by the Engineering Consultant. The lowest bidder did not meet the qualification requirements specified in the bids prepared by independent expert.

31. We have considered the submissions of the Petitioner and MPPMCL. As per the transmission licence granted to the Petitioner, the estimated completion cost of the Project (Stage-I and Stage-II) is ₹857.77 crore. The Petitioner has apportioned



the original Project cost among the transmission assets under Stage-I and the transmission assets under Stage-II as follows:

(₹ in lakh)	
Particulars	Approved apportioned capital cost
Stage-I	27006.00
Stage-II	58771.00
Total	85777.00

32. The Petitioner has revised the capital cost of the transmission project seven times after its Board's initial approval. The Petitioner has submitted the details of the date of approval and the capital cost approved vide affidavit dated 12.9.2019 along with copy of the respective Board approval. They are as follows:

(₹ in crore)	
Date of Board Approval	Total Cost (Stage-I and Stage-II)
2.3.2009	1335
1.3.2013	1497
15.7.2014	1548
26.2.2015	1789
28.8.2015	1977
28.3.2017	2242
13.12.2017	2269
27.9.2018	2485

33. The Petitioner has submitted that the apportioned approved cost of the transmission assets under Stage-II is ₹1981.32 crore as per the last approved RCE and has prayed to consider the same.

34. We are of the view that once the Petitioner has been granted licence taking cognisance of the tentative cost of the project, it is incumbent on the Petitioner to keep the Commission informed about the changes in the capital cost.

35. The Petitioner vide Auditor's certificate dated 20.6.2019 has claimed the following element-wise hard cost:

SI. No	Component	(₹ in crore)
1	Mahan-Sipat Transmission Line	1052.72



2	400 kV bays at Essar Mahan Thermal Power Station	6.77
3	2 numbers of 400 kV bays at PGCIL Sipat (Bilaspur Pooling Station)	11.26
4	Right of Way Expenses	35.57
5	Cost of forest clearance	36.04
6	Contingent Entry Tax Liability	7.02
	Total	1149.97

***There is a minor difference in the amount claimed in Auditors Certificate i.e. ₹36.63 crore and ₹36.04 crore as claimed vide affidavit in the petition. Amount of ₹36.04 crore is considered.*

36. The Petitioner in Form-5 has claimed capital cost of the transmission line and other elements as a whole and has not furnished head-wise breakup of the capital cost as required under Form-5. The Petitioner, vide affidavit dated 30.12.2021, has further claimed the total hard cost of ₹1147.29 crore (excluding Contingent Entry Tax Liability) in respect of transmission assets under Stage-II. Thus, there is a difference in the hard cost claimed by the Petitioner vide affidavit dated 30.12.2021 and the hard cost given in the Auditor's certificate dated 20.6.2019. In this order, we have considered the details of hard cost as claimed vide Auditor's certificate dated 20.6.2019.

37. While granting transmission license to the Petitioner, the Commission vide order dated 10.4.2018 had directed as under as regards execution of the project:

"14. The applicant in its application had indicated the estimated completion cost of the transmission system as Rs. 857.77 crore, which it proposes to finance with debt equity in the ratio of 70:30. The completion schedule for the transmission system has been indicated as October, 2010. The construction of the transmission system shall be executed through suitable packages and contract for these packages shall be awarded through competitive bidding."

38. The Commission in order dated 15.6.2015 of Petition No. 173/TT/2013 and Petition No. 111/TT/2015 pertaining to the transmission assets under Stage-I observed that the Petitioner did not adopt international competitive bidding as directed by the Commission in its licence and awarded the contracts for execution of the projects to its sister concern, EPIL. The Commission therefore disallowed 12%



margin cost allowed to EPIL. The relevant portion of the order dated 15.6.2015 is as follows:

“32. As per the terms and conditions of grant of licence, the petitioner was required to adopt international competitive bidding for awarding the contract for execution of the project. The petitioner has deviated from the said directions in the following respects:- (a) The petitioner did not itself carry out the competitive bidding but assigned the work to its sister concern. (b) EPIL carried out the competitive bidding not for the entire system but for different elements of the transmission system as packages. (c) It is not clear whether bidding process followed by EPIL is in the nature of domestic competitive bidding or international competitive bidding. The purpose of asking the petitioner to resort to international competitive bidding for implementation of the project is to ensure that the project is implemented in the best competitive price prevailing in the market. The rationale of the petitioner to engage EPIL to carry out the bidding is not understood. Moreover, breaking the project into different packages cannot be said to bring down the cost of the project. We express our serious displeasure about the way the petitioner has tried to implement the project which is not in conformity with the direction of the Commission while granting the licence.”

“33. ... The petitioner has built in margin cost which was approximately 12%. The petitioner has not followed the directions issued by the Commission in order dated 10.4.2008, wherein it was clearly stated that the construction of transmission assets shall be executed through suitable packages. The petitioner has awarded the work through EPC contract contrary to the above said directions and it resulted in increase in awarded cost of the instant assets by 12%. It is to clarify that the bid received from individual supplier/contractor would have factored the margin as per prevailing market practices. The charging of 12% margin over and above price recovered would have double impact on price. We are of the view that this increase in the awarded cost should not be passed on to the beneficiaries and accordingly, we have reduced the cost by 12% from the awarded cost claimed by the Petitioner.”

39. Aggrieved with the disallowance of 12% margin cost paid to EPIL (and other issues), the Petitioner had filed Review Petition No. 33/RP/2016. The Commission vide order dated 28.2.2016 in Petition No. 33/RP/2016 observed that in order to safeguard the interest of the consumer, the Petitioner should have adopted the prudent utility practice of inviting international competitive bidding and rejected the claim of the Petitioner on this count. The Petitioner has filed an Appeal against the order dated 28.2.2016 and it is pending adjudication. The relevant portion of the order dated 28.2.2016 is as follows:

“56. We have considered the submissions of the Review Petitioner. The Review Petitioner has contended that there was no direction regarding the mode of execution of the project. The Review Petitioner in its tariff petition has submitted that NIT was



floated for ICB. However, it was noticed from the details submitted that ICB route was not followed by the Review Petitioner. The Review Petitioner has selected their group company for EPC contract. As the instant project is a capital intensive project, we are of the view that in order to safeguard the interest of the consumer, the Review Petitioner should have adopted the prudent utility practice of inviting international competitive bidding. Therefore, we do not find any merit for reviewing the impugned order on this count and accordingly it is rejected.”

40. It is observed that the 400 kV D/C Mahan-Sipat Transmission Line (quad moose conductor) has also been constructed as a part of EPC contract executed by EPIL. In line with the above decision of the Commission in order dated 15.6.2015, we disallow the margin cost of 12% paid to EPIL. Accordingly, we reduce the capital cost of the 400 kV D/C Mahan-Sipat Transmission Line (quad moose conductor) by 12% which works out to ₹123.99 crore as worked out in the table under paragraph 50.

41. With regard to modification of the configuration of the Mahan-Sipat Transmission Line from triple moose conductor to quad moose conductor, MPPMCL has submitted that the order of the Commission dated 15.9.2009 (approving change in conductor configuration from triple moose to quad moose) was passed on the basis of the undertaking given by the Petitioner that the additional tariff on account of change in the configuration will not be passed on to State of Madhya Pradesh and that the Petitioner cannot change its stand in the present proceedings.

42. On the other hand, the Petitioner has submitted that it has not consented for grant of tariff of triple moose conductor while agreeing to install quad moose conductor. The Petitioner has contended that it was required to construct the 400 kV Mahan-Sipat Transmission Line with quad moose conductor for evacuation of power from Mahan TPP of EPMPPL as per the CEA Manual on Transmission Planning Criteria. For change in conductor configuration, the Petitioner has also submitted that



the same was with the recommendation of CTU that was duly considered by the Commission while amending the transmission license of the Petitioner vide order dated 15.9.2009.

43. We note that the Petitioner was granted transmission licence for 400 kV D/C Mahan-Sipat Transmission Line, besides other elements, for evacuation of power from Mahan TPP (2X600 MW under Phase-1) established by EPMPML, a sister concern of the Petitioner, vide order dated 10.4.2008 in Petition No.157/2007. Later, EPMPML proposed expansion of its Mahan TPP by setting up of a 600 MW unit under Phase-2. For evacuation of additional power, the Petitioner proposed upgrading conductor configuration of the 400 kV D/C Mahan-Sipat Transmission Line from triple moose conductor to quad moose conductor and, accordingly, approached the Commission for amending the transmission licence granted vide order dated 10.4.2008. The Petitioner has submitted that change in the conductor configuration of the 400 kV Mahan-Sipat Transmission Line was necessitated on account of the request of EPMPML (for evacuation of 600 MW power under Phase-II of Mahan TPP). In this regard, the Petitioner had submitted a copy of the letter dated 21.8.2009 from EPMPML to the Petitioner wherein it was stated that additional tariff which may arise on account of increase in cost of Mahan-Sipat Transmission Line due to change in conductor configuration from triple moose to quad moose shall be borne by EPMPML and such cost shall not be passed on to Madhya Pradesh Electricity Board. The relevant portion of the letter dated 21.8.2009 is extracted hereunder:

“5. As per the approved scheme, originally for evacuation of power from Mahan Project, 400 KV D / C Triple, Mahan – Sipat line was envisaged and planned. When we have conducted a detailed survey for laying of the line it was observed that the said line was required to be set up through a large amount of forest area say about 78 kms. Now it has been decided to change from Triple to Quad configuration keeping in view future expansions for the following reasons:



- a. To minimize the usage of forest area (in case we go for expansion it may lead to usage to further forest area for laying additional line); and
- b. To optimize the right of way (ROW)

In this regard it is hereby clarified and confirmed that any additional tariff which may arise on account of increase in cost of Mahan – Sipat line due to change in configuration from Triple to Quad shall be borne by EPMPL and such cost shall not be passed on to Madhya Pradesh Electricity Board (MPEB) on account of transmission of power allocated to MPEB.”

44. The Commission, taking cognisance of the submissions made by the Petitioner and EPMPL, amended the transmission licence issued to the Petitioner by approving the modification of the configuration of the transmission line from triple moose conductor to quad moose conductor vide order dated 15.9.2009. The relevant portion of the order dated 15.9.2009 is as follows:

“2. The licensee vide its affidavit dated 29.8.2009 has submitted that one of its group company, namely Essar Power M.P. Limited (EPMPL) is in the process of setting up 2 x 600 MW pit head coal fired thermal power project in the State of M.P. for which licensee is constructing the transmission system. The licensee has further submitted that at the request of EPMPL, it has decided to change the configuration of 400 kV D/C Triple, Mahan-Sipat transmission line from Triple conductor to Quad Moose conductor, keeping in view future expansion for the following reasons, namely:

- (i) To minimize the usage of forest area; and*
- (ii) To optimize the right of way (ROW).*

3. According to the licensee, the Central Transmission Utility vide letter No. C/ENG/SEF/W/06/MAHAN, dated 8.5.2009 has conveyed it's no objection to the change of configuration from Triple conductor to Quad Moose conductor. EPMPL vide letter dated 21.8.2009 has confirmed that the additional tariff on account of increase in the construction cost of the transmission system because of change in configuration from Triple conductor to Quad Moose conductors shall not be passed on the consumers in the State of Madhya Pradesh, for transmission of power allocated from the generating station.

4. We have considered the request of the applicant and approve the modification in the configuration from Triple conductor to Quad Moose conductor for 400 kV D/C Mahan-Sipat transmission line.”

45. We, thus, note that vide letter dated 21.8.2009, EPMPL had agreed to bear additional tariff on account of change in conductor configuration (from triple moose to quad moose) of the 400 kV Mahan-Sipat Transmission Line. The Commission, taking cognisance of the said letter dated 21.8.2009 of EPMPL as well as taking into



consideration no objection of CTU vide letter dated 8.5.2009, approved amendment to the transmission license of the Petitioner vide order dated 15.9.2009. Therefore, additional tariff on account of change in the configuration of conductor is required to be borne by EPMPPL as committed by EPMPPL in its letter dated 21.8.2009.

46. In terms of above, additional tariff on account of increase in cost of Mahan-Sipat Transmission Line due to change in conductor configuration from triple moose conductor to quad moose conductor, is required to be determined that will be borne by EPMPPL.

47. However, the Petitioner has claimed tariff for the 400 kV D/C Mahan-Sipat Transmission Line (quad moose conductor) and submitted tariff forms accordingly. In order to identify the tariff that has to be borne by EPMPPL, we have considered the indicative capital cost of D/C transmission lines with quad moose conductor and triple moose conductor provided by CTU (and considered in Notification of Transmission Charges Payable by DICs). The indicative cost of D/C transmission lines with quad moose conductor and triple moose conductor owned and operated by PGCIL in 2018-19 are as follows:

Voltage level	Indicative cost of D/C quad moose conductor (₹ lakh/km)	Indicative cost of D/C triple moose conductor (₹ lakh/km)	Difference in cost (in %)
400 kV	197.00	159.00	24%

48. It is observed that the difference between the cost of D/C transmission lines with quad moose conductor and D/C transmission lines with triple moose conductor is about ₹38 lakh in 2018-19, i.e. the year in which the Mahan-Sipat Transmission Line achieved COD (it is about ₹39 lakh in January 2022). Thus, the capital cost of D/C quad moose conductor is about 24% more than D/C triple moose conductor.



Accordingly, in order to arrive at the capital cost corresponding to transmission line having configuration of triple conductor, 24% of the capital cost is required to be further reduced. Tariff corresponding to this 24% of capital cost is to be borne by EPMP. Tariff corresponding to the remaining 76% of the capital cost thus arrived shall be included in POC.

49. The Petitioner has submitted the documentary evidence in support of RoW expenses and cost of forest clearance. Accordingly, the expenditure of ₹35.57 crore towards RoW and ₹36.04 crore on account of forest clearance costs is allowed.

50. In terms of the above decisions, element-wise hard cost considered in the instant petition is as follows:

Sl. No.	Name of element	Length in km/ quantity in number	Amount (₹in crore)
(a)	Hard Cost claimed for 400 kV D/C Mahan-Sipat Transmission Line (quad moose conductor)	336.50 km	1052.72
(b)	Less: cost of Reactors at Mahan Switchyard and reactor at Sipat (Bilaspur) Pooling Station (not a part of EPC package)	50 MVAR x 4 Numbers 80 MVAR x 1 Numbers	19.50
(c)	Sub-Total (a)-(b)		1033.22
(d)	Less: 12% margin cost paid to EPIL		123.99
(e)	Sub-Total (c)-(d)		909.23
(f)	Less: 24% of cost on account of change in configuration from triple conductor to quad moose		218.22
(g)	Sub-Total (e)-(f)		691.01
(h)	Add: Right of Way Expenses		35.57
(i)	Add: Cost of forest clearance		36.04
(j)	Add: Cost of Line Bays including reactor bays at EPMP	2 Numbers	6.77
(k)	Add: Cost of Line Bays at Sipat	2 Numbers	11.26
(l)	Add: Cost of Reactors at Mahan Switchyard and reactor at Sipat (Bilaspur) Pooling Station (not a part of EPC package)	50 MVAR x 4 Numbers 80 MVAR x 1 Numbers	19.50



Sl. No.	Name of element	Length in km/ quantity in number	Amount (₹in crore)
(m)	Total hard cost considered (g)+(h) (i)+(j)+(k)+(l)		800.15

Time over-run

51. As per the Commission's order dated 10.4.2008 in Petition No. 157/2007, the instant transmission system was scheduled to be put into commercial operation in October 2010. Accordingly, the scheduled COD of the transmission assets under Stage-II was 1.11.2010 (first day of the next month in terms of the 2009 Tariff Regulations). However, the transmission assets under Stage-II were put into commercial operation on 22.9.2018 with time over-run of 2882 days (94 month and 21 days). The Petitioner has attributed the time over-run to (i) delay in grant of approval by the Ministry of Power (MoP), Government of India under section 164 of the Electricity Act, 2003, (ii) delay in grant of forest clearance, (iii) delay due to non-existent confusion regarding elephant corridor, (iv) delay due to non-disbursement of sanctioned term loans by the lenders for the Project due to the cancellation of Mahan coal block, and (v) delay in completing the Project due to RoW issues. The submissions made by the Petitioner for time over-run are dealt in the subsequent paragraphs.

Delay in grant of approval under Section 164 and Section 68 of the 2003 Act

52. The Petitioner has submitted that the application for approval under Section 164 of the 2003 Act was made on 10.3.2008 but approval was issued on 17.6.2009. The Petitioner has submitted the chronology of events from the date of filing the application to the issue of the approval. The Petitioner has further submitted that no time limit is prescribed in the procedure published by the Ministry of Power for grant of approval under Section 164 of the 2003 Act. Approval of Ministry of Power was



expected within a period of three months from the date the Petitioner applied for it but it took almost thirteen months for the Ministry of Power to grant such approval.

53. In addition to the above submissions, the Petitioner vide affidavit dated 29.9.2021 in I.A. No. 75/IA/2021 has highlighted the various steps taken by EPMPPL and EPTCL towards construction of the evacuation infrastructure/ transmission system, and claimed that the delay in grant of approval under Section 164 of the 2003 Act was not attributable to the Petitioner conduct and was for reasons purely beyond its control i.e., *force majeure* events. The Petitioner has submitted that since early 2006 (i.e., even prior to the date of Investment Approval i.e. 21.12.2006), EPTCL and EPMPPL had taken concrete steps for construction of the transmission system for evacuation of power from Mahan TPP. EPMPPL through PGCIL (CTU) conducted the system study/ load flow analysis and made necessary application for LTOA. Similarly, in February-March 2007, EPTCL hired a route survey agency and commenced preliminary route survey for the proposed transmission system. Although the IA was granted on 21.12.2006, the ATS to be set up for evacuation of power from Mahan TPP was identified only on 27.8.2007 (i.e., date on which the Minutes of the 9th Meeting of the Western Region Constitutes was published). Pursuant to this, EPTCL filed Petition No. 157/2007 seeking grant of transmission licence and made necessary applications for grant of approval under Section 68 of the 2003 Act on 10.12.2007 and for grant of approval under Section 164 of the 2003 Act on 10.3.2008. The Petitioner had intimated MoP that no objections/ representations had been received from any individuals to its scheme published, both in the newspapers and the Government of India Gazette. Placing reliance on North Karanpura Transmission Co. Ltd. v Central Electricity Regulatory Commission



and Ors. (Appeal No. 139 of 2013) and Commission's order dated 16.1.2015 in Petition No. 73/MP/2014 in the case of Jabalpur Transmission Company Limited vs. Adhunik Power and Natural Resources Limited & Ors, the Petitioner has submitted that the delay in grant of approval under Section 164 be considered as a *force majeure* event.

Delay in grant of forest clearance

54. The Petitioner has submitted that the Project involved use of forest as well as non-forest lands. The extent of forest land to be used was 359.18 hectares (i.e. 78 km out of total 336.5 km of transmission line). Since 78 km of forest land in length was non-contiguous, the length of transmission line actually impacted by the forest was around 110 km. To make use of forest land of such length for laying transmission line of 78 km, the Petitioner required non-forest land of 359.18 hectares for providing compensatory afforestation. The details of forest area in various districts are as follows:

(in hectares)					
Type of Forest	Katghora	Korea	South Sarguja	North Sarguja	Total
Protected	0.00	0.00	0.00	23.18	23.18
Reserved	16.77	0.00	37.78	74.50	129.04
Revenue	118.37	15.46	39.86	33.26	206.95
Total	135.14	15.46	77.64	130.94	359.18

55. The Petitioner has submitted that it had applied for permission to use the forest land for non-forest purposes to the District Forest Officer (DFO) of each of the above-mentioned four districts, namely, Kathghora, Korea, North Sarguja and South Sarguja on 5.12.2007. Ministry of Environment, Forests & Climate Change in Government of India (MoEF&CC), on being satisfied that the Petitioner has complied with all the conditions stipulated in the Stage-1 forest clearance, issued Stage-2 forest clearance for the Project to the Petitioner on 11.3.2013. After the grant of



forest clearance by MoEF&CC, the Petitioner paid an amount of ₹8.06 crore towards tree cutting, transportation, pillar construction etc. The final demand was made on 7.1.2014, after more than 10 months of the grant of forest clearance. The Petitioner made the payment and confirmed the same vide letter dated 15.1.2014. Thereafter, DFOs of the concerned districts separately granted permissions for tree cutting to the Petitioner in January 2014. The Petitioner has submitted that forest clearance has no meaning without the final approval for tree cutting.

56. The Petitioner has submitted that as per Covenant 5.4(iv) of the Common Loan Agreement ("CLA") made between lenders of the Project and the Petitioner, the Petitioner was required to obtain forest clearance for the Project within a period of 12 months from the date of initial draw down i.e. by 29.3.2012. However, there was an inordinate delay in issue of forest clearance and the lenders of the Project stopped disbursing sanctioned fund during 2012 and April 2013 due to which timely completion of the Project was adversely affected.

57. In addition to the above submissions, the Petitioner, vide affidavit dated 29.9.2021 in I.A No. 75/IA/2021, has submitted that it promptly completed all necessary formalities and continuously followed up with the concerned authorities to expedite the process of granting forest clearance and tree cutting/ corridor clearing permission, which is necessary for laying transmission lines and towers. On 5.12.2007 (i.e., prior to grant of the transmission licence on 10.4.2008), EPTCL took necessary steps for acquiring forest clearance for the Mahan-Sipat Transmission Line. The delay in grant of forest clearance by MoEF&CC is not attributable to Petitioner and is entirely due to reasons beyond its control. The Petitioner has submitted that it had infused ₹80 crore by March 2010 and ₹341 crore by March



2011. All this money was utilized towards ordering of supplies and ensuring that adequate material was available to undertake the Project execution work. At no point in time was work held up due to shortage of material at site. EPTCL took prudent steps to commence and complete works in non-forest areas.

58. The Petitioner has submitted that the applications for grant of forest clearance can only begin once the transmission route has been finalized. The process of forest clearance was started as early as 5.12.2007 prior to grant of transmission licence by the Commission on 10.4.2008. The Petitioner has submitted that no significant works can be started by a private entity such as EPTCL before obtaining transmission license. EPTCL had no prior license before beginning on the Project and any consideration of timeline can only begin after grant of transmission licence i.e., 10.4.2008. The Petitioner has further submitted that certain works can begin right upon obtaining Investment Approval as recognized by Hon'ble APTEL in Judgment dated 12.01.2012 in Appeal No. 104 of 2011 (*PGCIL vs CERC & Ors.*) where the time to be taken for construction has been calculated from award of EPC contract and not from date of Investment Approval.

Delay due to confusion regarding non-existent elephant corridor

59. The Petitioner in IA. No. 75/IA/2021 has submitted that the issue of Elephant Corridor arose much later i.e. after the grant of forest clearance by MoEF&CC. After the grant of forest clearance for the Project, the Petitioner approached the DFO, Balrampur for permission to cut the trees on 19.7.2013 and permission was granted on 28.10.2013. Thereafter, Forest Rangers inspected the concerned areas and submitted their estimated cost of cutting trees to the DFO, Balrampur who approved the same on 7.1.2014 for payment by the Petitioner. Accordingly, the Petitioner



made the payment of estimated amount of ₹3.67 lakh on 25.2.2014. The Petitioner could not commence the work of cutting trees till 26.2.2015 as the DFO, Balrampur directed the Petitioner not to cut the trees and informed that there has been a change in the authorised route alignment. The DFO simultaneously wrote to the Chief Conservator of Forest (CCF), Ambicapur. On inquiry, the Petitioner informed the CCF, Ambicapur on 17.4.2014 that there has been a change in the originally authorised route alignment consequent upon the permission granted by the Principal Chief Conservator of Forest (PCCF), Wildlife to avoid transmission line passing through the Elephant Corridor, a fact which was not known to the DFO, Balrampur. The PCCF finally clarified and confirmed to the DFO, Balrampur on 26.2.2015 that he has authorized the said change in the route alignment on 18.8.2010 itself. Due to this confusion on account of non-existent Elephant Corridor, the Petitioner was unable to undertake cutting of trees and laying of transmission line during the period from October 2013 to February 2015 i.e. for a period of about 1 year 4 months.

60. As per the timelines stipulated in the Forest (Conservation) Rules, 2003, forest clearance was required to be granted within 10 months. The time taken beyond the stipulated 10 months for grant of forest clearance is beyond the control of the Petitioner and is an uncontrollable factor as defined in terms of Regulation 12 of the 2014 Tariff Regulations.

Delay in completing the Project due to Right of Way issues

61. The Project involved laying of a transmission line of 336.5 km from Mahan to Sipat and setting up of two number of 400 kV bays along with two number of 50 MVAR shunt reactors, one number of 80 MVAR bus reactor at Mahan generating station switchyard, 2 number of 400 kV bays alongwith 2x50 MVAR shunt reactors



originally at Sipat (subsequently changed to Bilaspur Pooling Station). For execution of the works except the bays at the Pooling Station and the bays at switchyard, the Petitioner appointed EPIL that in turn appointed KPTL as its sub-contractor for execution of some of the works under the contract which included laying of the transmission line as per the terms and conditions of the two work orders dated 11.12.2009 and 13.4.2010. KPTL commenced the works relating to laying of the transmission line in October 2010 which were (i) laying 942 tower foundations at different locations, (ii) erecting 942 transmission towers at different location along the authorized route alignment, and (iii) stringing of 336.5 km of line length of conductors. EPIL and KPTL faced resistance right from the beginning both from the landowners and other vested interests in carrying out the works despite approval of MoP under Section 164 of the 2003 Act. The Petitioner made efforts to resolve the RoW issues and also approached Hon'ble Bilaspur High Court for adequate police protection. The Petitioner has submitted that some of the locations where the Petitioner faced issues while carrying out the balance works are as follows:

(a) **Location 0/1 to 20/1:** Local villagers/ landowners did not allow entry to the site location in Singrauli from plant gantry, around 20 km stringing stretch. Maximum resistance was encountered in Karsualal village of district Singrauli, which is close to the power plant. Villagers were demanding jobs and status of displaced person in addition to the compensation already paid to them.

(b) **Location 23/0 to 34/0:** In district Surajpur, the stretch is primarily inhabited by "Pandoh Tribe" close to protected forest and the area was formerly a naxalite belt. On the night of 7.7.2018, one tribal farmer was forced by a local leader to climb on a transmission tower and not to come till they succeeded in negotiating an exorbitant compensation, before allowing stringing. The officers of the Petitioner were surrounded by hundreds of villagers in pitch darkness and pro-naxalite slogans were being raised. The Collector, Surajpur had to dispatch



SDOP, Bhaiyathan to location 30/1, who succeeded to persuade the farmer to climb down at 2:30 am in the night.

(c) **Location 35/0 to 37/0:** In district Balrampur, the work was repeatedly held up due to resistance by tribal population at the instance of local leaders. The compensation demands were unrealistic and there were multiple claimants for compensation for the same piece of land.

(d) **Location 71/0 to 72/0:** In district Surajpur, this stretch of 3 km could not be completed till June 2018 despite the towers being erected in 2014 and insulator hoisting having been completed by 2015, due to the influence and unity of the local population to extract maximum money out of RoW compensation. They even refused double the normal compensation offered by SDM, Pratapur Tehsil in three public meetings. The strung conductor was left hanging on pullics in rough sag condition for nearly 5 months and the Ambicapur-Varanasi highway crossing was left undone.

(e) **Location 44/0 to 47B/0:** In district Balrampur, the engineers of the Petitioner were abducted, manhandled and tied to trees with ropes. Tools and materials were damaged. The labour had to flee from the camp at night leading to panic in workforce. The local leaders on a number of occasions organised 'chakkajam' and public gatherings. The local population deliberately planted trees and built temporary structures on the transmission corridors with a view to claim higher compensation.

(f) **Location 48/0 to 56B/0:** In district Balrampur, four drums (approximately 8 km) of conductor were stolen at location 55 near village Pandri in December 2017 in an armed robbery executed professionally with the help of trucks and crane. At location 53B/0, the local villagers removed the back-stay ropes during stringing leading to collapse of tower. The tower and foundation had to be made again and replaced with new ones.

(g) **Location 70/1:** In district Balrampur, there was a single land owner with influential network demanding unreasonable compensation. The efforts of



Tehsildar, SDM and the Collector also failed to resolve the issue. The tower was held-up for more than 4 months. The Petitioner was able to resolve the issue with the help of administration by agreeing to pay higher compensation.

Non-disbursement of sanctioned term loans by the lenders for the Project due to the cancellation of Mahan Coal Block

62. In 2006, EPL and Hindalco Industries Limited (HIL) were allotted Mahan Coal Block (MCB) by the Ministry of Coal, Government of India through the Screening Committee Route. The Hon'ble Supreme Court vide judgment dated 25.8.2014 cancelled all the allotments of the coal blocks, including MCB allotted to EPL and HIL. The Project was for evacuation of power to be generated by EPMPPL by using coal as fuel from MCB. As the allotment of MCB was cancelled by the Hon'ble Supreme Court, the lenders of the Petitioner stopped disbursing further funds sanctioned for the Project from August 2015 to July 2017 on the ground that the Project became economically unviable.

63. EPMPPL, after shutting down its generating station for 17 months from November 2014 to March 2016, started operating again as coal was made available to the Independent Power Producers (IPPs) by the Government. The lenders of the Petitioner on being satisfied regarding the economic viability of the Project, started disbursing funds for the Project from January 2018 to the Petitioner.

64. The Petitioner, vide affidavit dated 29.9.2021 in IA No. 75/IA/2021, further submitted that cancellation of the allotment of MCB was for no fault of EPL, EPMPPL or EPTCL. It was an unforeseen and unanticipated cause beyond the reasonable control of all parties. The Petitioner further submitted that EPMPPL had undertaken setting up Mahan TPP (Phase-1 – 2x600 MW) solely on the premise of availability of coal from MCB, which was allotted jointly to EPL and Hindalco. As a direct



consequence of cancellation of MCB by the Hon'ble Supreme Court, setting up of the power plant by EPMPPL as well as the transmission facilities being constructed by Petitioner for evacuation of power from Mahan TPP were jeopardised. Considering that the instant transmission Project was being constructed by Petitioner for evacuation of power, *inter alia*, from Mahan TPP, Petitioner's lenders (being common lenders to EPMPPL also) questioned the commercial viability of the transmission Project as well. In spite of all reasonable efforts made by Petitioner to convince the lenders about the commercial viability of the transmission assets under Stage-II which was being constructed, EPTCL's lenders stopped disbursing further term loans during the period from August 2015 to July 2017. As such, it became utterly impossible for Petitioner to complete the pending works at that point in time.

65. The Petitioner has further submitted in IA No.75/IA/2021 that Petitioner had infused ₹80 crore by March 2010 and ₹341 crore by March 2011. All this money was utilized towards ordering of supplies and ensuring adequate material was available to undertake the Project execution work. At no point in time was work held up due to shortage of material at site. This is evident from the fact that:

- (a) In October 2010, EPTCL commenced tower foundation works.
- (b) As on March 2012, 612 out of total 942 tower foundations (i.e., 66%) were completed.
- (c) 938 tower foundations were completed by May 2015 after progressive availability of front for foundation work in forest areas after receipts of Stage II FC approval in March 2013.
- (d) 4 tower foundations were held up till December 2017 due to severe RoW resistance
- (e) Erection of bays was completed in March 2013.



(f) Year-wise progress of erection of towers of the transmission line is as follows:

Financial Year Ending	Foundation (numbers)	Erection (numbers)	Stringing (km)
March, 2011	245	97	0
March, 2012	612	509	25.33
March, 2013	700	622	44.91
March, 2014	819	644	52.03
March, 2015	931	896	149.34
March, 2016	938	909	196.61
March, 2017	938	909	196.61
March, 2018	942	942	289.91
September, 2018	942	942	336.6

66. MPPMCL in its reply, vide affidavit dated 12.9.2019, has made the following submissions regarding time over-run:

(a) The Central Government has notified the Works of Licensee Rules, 2006 on 18.4.2006 and any licensee can execute the works of laying the transmission lines in accordance with these Rules. In the absence of an authorization under Section 164 of the 2003 Act, it cannot be said that a transmission licensee is without any legal authority to lay the transmission lines. The Works of Licensee Rules, 2006 permits a licensee to lay the transmission lines through the lands and buildings of public authorities and private individuals after obtaining their consents through the prescribed procedure. An authorization under Section 164 of the 2003 Act is not a condition precedent either for award of the Project or execution of the Project.

(b) The Petitioner has submitted that time taken for one year and four months in obtaining the authorization under Section 164 of the 2003 Act affected the Project schedule adversely. The Project execution schedules contain various stages such as financial closure, awarding of EPC contract, delivery of equipment, erections of the towers, installation of sub-stations, if any, stringing of lines, charging of lines, testing and commissioning of lines etc. The authorization under Section 164 of the 2003 Act is required at the time of erection of towers and stringing of lines which comes at a much later stage. The Petitioner should have taken action as per the schedule instead of making the authorization under Section 164 of the 2003 Act as a condition precedent



for the Petitioner to start the work. Time taken for authorization under Section 164 of the 2003 Act is not uncontrollable.

(c) Stage-I and Stage-II of the Transmission Project were initially dedicated transmission lines and later converted into ISTS. The Petitioner has also not signed any Transmission Service Agreement which clearly defines the provisions related to *force majeure* and also stipulates the condition regarding the notice of *force majeure*. Therefore, in absence of any clear definition of *force majeure* clause, the Petitioner's case would not fall within the ambit of *force majeure* condition.

(d) The Commission vide order dated 28.2.2018 in Review Petition No. 33/RP/2016 rejected the arguments of the Petitioner for time over-run in taking approval for Section 164 of the 2003 Act.

(e) As regards delay in approval under Section 68 of the 2003 Act, the sequence of events narrated by the Petitioner show that the time consumed by CEA and MoP was for the purpose of complying with mandatory procedural requirements. The Petitioner initiated the action for awarding the works contract by inviting the bids in May/July 2008 and awarded EPC contract on 15.7.2009. As the approval under Section 68 and Section 164 of the 2003 Act was available to the Petitioner before the award of EPC contract, time over-run in respect of the transmission Project cannot be attributed to the time consumed for obtaining approval under Sections 68 and 164 of the 2003 Act.

(f) The Petitioner has approached the Forest Authority for forest clearance with the revised proposal after 32 months (56 months after the date of Investment Approval i.e. 21.12.2006) of grant of transmission licence by the Commission and it took 25 months to get the forest clearance. The time over-run, if reckoned from the date of Investment Approval would be 86 months. The Petitioner has given the reason for cancellation of its earlier proposal as change of the route of 400 kV D/C transmission line from Hazira (Surat) to Jhanor (Bharuch) due to some techno-commercial problem. Had the Petitioner applied for forest clearance immediately after grant of transmission licence, it



would have saved about 32 months and the asset could have been put into commercial operation on time even after allowing 25 months taken in forest clearance.

(g) The Commission in its order dated 28.2.2018 in Review Petition No. 33/RP/2016 has fully dealt with the issue of time over-run in taking forest clearance. The reasons given are identical for time over-run in taking the forest clearance as were stated in Review Petition No. 33/RP/2016.

(h) The Petitioner has failed to give any reasons why they sought approval for non-forest tree cutting after 36 to 66 months from the date of Investment Approval.

(i) The reasons given by the Petitioner regarding time over-run due to non-existent confusion regarding Elephant Corridor are misplaced as the Petitioner applied for requisite approval after the time over-run of more than six years from Investment Approval dated 21.12.2006.

67. In response, the Petitioner in its rejoinder dated 30.9.2019 has refuted the contentions of MPPMCL and reiterated its submissions. The Petitioner has submitted that 2014 Tariff Regulations clearly define "*force majeure*". The Petitioner has submitted that it is entitled to an extension of the estimated construction period when such extension becomes necessary due to any *force majeure* cause or event. The Petitioner has submitted that time over-run in grant of approval under Section 164 of the 2003 Act has been held to be an event of *force majeure* by APTEL and the same has consistently been applied by the Commission. The Petitioner has submitted that computing the construction period from the date of Investment Approval in case of a transmission Project of a private player is unfair and the zero date for the Project should be after the transmission license has been granted. The Petitioner was granted license in April 2008 and was expected to complete the same in October



2010. The private entities such as the Petitioner are required to obtain transmission license and approval under Section 164 of the 2003 Act before starting even preliminary works for setting up a transmission Project. For an entity undertaking a transmission Project which is not a deemed licensee, no activity in relation to development of Project can be undertaken prior to grant of transmission license. The Petitioner has prayed for exercise of power under Regulations 54 and 55 of the 2014 Tariff Regulations to relax the provisions of the regulations and compute the timelines from the date of license and approval under Section 164 of the 2003 Act and not from the date of Investment Approval. The Petitioner has submitted that in North Karanpura case, APTEL specifically dealt with the issue of scope of Works of Licensee Rules and powers under Section 164 of the 2003 Act.

68. We have considered the submissions of the parties and have perused the record. As per the Commission's order dated 10.4.2008 in Petition No. 157/2007, the completion schedule for the transmission system was October 2010. Relevant portion of order dated 10.4.2008 is as under:

"14. The applicant in its application had indicated the estimated completion cost of the transmission system as Rs. 857.77 crore, which it proposes to finance with debt equity in the ratio of 70:30. The completion schedule for the transmission system has been indicated as October, 2010. The construction of the transmission system shall be executed through suitable packages and contract for these packages shall be awarded through competitive bidding."

69. Accordingly, scheduled COD was 1.11.2010 while the transmission assets under Stage-II achieved COD on 22.9.2018 with a time over-run of 2882 days. The Petitioner has contended that the transmission assets under Stage-II were delayed owing to delay in grant of approval by MoP under Section 164 of the 2003 Act, delay in grant of forest clearance, delay due to elephant corridor issue, delay in completing the Project due to RoW issues and delay due to non-disbursement of sanctioned



term loans by the lenders of the Project due to cancellation of Mahan Coal Block by Hon'ble Supreme Court. Per contra, MPPMCL has contended that the time over-run is attributable to the Petitioner and the petition is liable to be rejected. Based on the contentions and documents of the parties, we proceed to examine the issue of time over-run.

Time over-run due to delay in grant of approval under Section 164 and Section 68 of the 2003 Act

70. It is observed that the Petitioner applied for approval under Section 68 and Section 164 of the 2003 Act on 10.12.2017 and 10.3.2008 respectively. It obtained approval under Section 164 of the 2003 Act on 17.6.2009 after 464 days. The Petitioner has contended that no timeline is earmarked for approval under Section 164 of the 2003 Act, but such approval was expected within three months. MPPMCL has contended that the approval under Section 164 of the 2003 Act is not a pre-requisite for the commencement of the work and securing RoW depends on planning, engineering, procurement processes of the Petitioner. It is observed that the Petitioner has entered into EPC contract on 20.8.2009 which is effective from 15.7.2009. It is observed that the approval under Section 164 of the 2003 Act was available to the Petitioner well before the award and signing of EPC contract. Thus, time over-run cannot be attributed to the time consumed for obtaining approval under Section 68 and Section 164 of the 2003 Act. Accordingly, the Petitioner's prayer for condonation of 464 days taken for obtaining approval under Section 68 and Section 164 of the 2003 Act is not condoned.

Time over-run due to delay in grant of forest clearance

71. It is observed that the instant Project involved use of both forest and non-forest lands. It is seen from the record that for seeking permission to use the forest



land for non-forest purpose, the Petitioner submitted proposals to the Divisional Forest Officer (DFO) of Katghora on 12.12.2008, to DFO of Korba on 9.1.2009, to DFOs of North Sarguja and South Sarguja on 21.8.2009 for permission to divert forest lands for non-forest purposes of laying transmission line and facilities associated with it. The Petitioner obtained the Stage-II approval of forest clearance on 11.3.2013 and the tree cutting permission was given to the Petitioner on 7.1.2014. Accordingly, it took about 1600 days for obtaining the forest clearance. As per the Forest (Conservation) Amendment Rules, 2004 notified by MoEF&CC on 3.2.2004, the timeline for forest approval after submission of proposal is 210 days by the State Government and 90 days by the Forest Advisory Committee of Central Government i.e. total 300 days or 10 months. Accordingly, the Petitioner is required to build in the stipulated 300 days for obtaining forest approvals in the timeline. Therefore, forest clearance took 1300 days more than the stipulated 300 days. This period of 1300 days of time over-run cannot be attributed to the Petitioner and, accordingly, it is condoned.

Time over-run due to elephant corridor issue

72. It is observed that the Petitioner could not undertake tree cutting in a particular stretch of the forest because of Elephant Corridor issue from 12.3.2014 to 26.2.2015. On scrutiny of record, we find that letter dated 12.3.2014 is of DFO Balrampur and letter dated 26.2.2015 refers to final clearance by PCCF, Raipur. In view of the material placed on record, we are of the view that the period from 12.3.2014 to 26.2.2015 i.e. 351 days (11 months and 14 days) was beyond the control of the Petitioner and, accordingly, the same is condoned.

Time over-run due to RoW issues



73. From the materials placed on record, we find that the Petitioner encountered RoW problems and resistance to work starting from 28.10.2014 and the same continued till 11.9.2018 i.e. for 1414 days. The Petitioner faced RoW problems at Location 0/1 to 20/1, Location 23/0 to 34/0, Location 35/0 to 37/0, Location 71/0 to 72/0, Location 44/0 to 47B/0, Location 48/0 to 56 B/0 and Location 70/1. The Petitioner has submitted extensive details of correspondences exchanged with various authorities along with supporting documents. The Petitioner has submitted letters from 6.3.2014 to 20.7.2016 pertaining to RoW problems and court cases and compensation issues during this period. The time over-run up to 26.2.2015 due to elephant corridor has already been condoned. However, from the submission of the Petitioner, it is not clear when a specific RoW issue was resolved at a particular location. Accordingly, the time over-run for the period from 27.2.2015 to 20.7.2016 is not condoned.

74. The Petitioner has further submitted correspondence made with different authorities from 21.7.2016 to 9.7.2018 for issues related to RoW problems and land compensation issues. We have perused these letters. The reasons submitted by the Petitioner were beyond its control. It is also observed that the Petitioner filed online application on 16.5.2018 for issue of CEA energization certificate for the Mahan-Sipat Transmission Line and CEA inspected the same on 23.5.2018 and 31.7.2018 and granted Approval for Energisation on 13.9.2018. As the Petitioner filed the application for approval of energisation on 16.5.2018, we are of the view that all the RoW issues were resolved by 16.5.2018. Accordingly, the time over-run from 21.7.2016 to 16.5.2018 due to RoW problems is condoned.



75. The Petitioner applied for CEA Energization certificate on 16.5.2018, the CEA energisation certificate was issued on 13.9.2018 and the assets achieved the COD on 22.9.2018. It is observed that the CEA granted approval of anti-theft charging in four stages on 6.7.2018, 13.8.2018, 14.8.2018 and 13.9.2018. The Petitioner has not given any reason for the same. Moreover, the Petitioner should have considered the time for getting CEA approval in its timeline. Therefore, the time over-run of 126 days from 17.5.2018 to 22.9.2018 is not condoned.

Delay due to non-disbursement of sanctioned term loans

76. The Petitioner has not produced any document to show that some tranches of sanctioned term loans were requested by the Petitioner and they were not disbursed by REC and PFC to the Petitioner owing to cancellation of coal block allocated jointly to EPL and Hindalco by Hon'ble Supreme Court. From the record, we find that Hon'ble Supreme Court cancelled the coal block of the Petitioner's Group Company only on 24.9.2014. The Petitioner has, however, claimed 23 months, from 1.8.2015 to 1.7.2017, of time over-run without submitting any document in support of its efforts to get the loan disbursed. Further, the Petitioner on one hand has submitted that there was time over-run due to non-disbursal of loan and on the other hand has submitted that the Petitioner has infused sufficient money for ordering supplies and that, at no point, work was held up due to shortage of material at site. It is also observed that the Petitioner has claimed that it had laid foundation for 931 towers and erected 896 towers out of the 942 towers by March 2015. Thus, the statements made by the Petitioner are contradictory and from the submissions of the Petitioner it is clear that non-disbursal of loan did not affect the implementation of the project. Therefore, the time over-run claimed on account of non-disbursement of sanctioned loan is not condoned.



77. In view of above discussions, time over-run of 1300 days due to forest clearance, time over-run of 351 days due to confusion over non-existent elephant corridor, time over-run of 663 days due to RoW problems totalling to 2314 days is condoned as it was beyond the control of the Petitioner.

Interest During Construction (IDC)

78. The Petitioner vide Auditor’s certificate dated 5.12.2019 has claimed IDC of ₹78257.17 lakh on accrual basis and ₹64506.83 lakh (₹78257.17 - ₹13750.34) on cash basis in respect of the transmission assets under Stage-II. The Petitioner has submitted the discharge details of IDC as follows:

(₹ in lakh)		
IDC claimed as per Auditor certificates (on accrual basis)	IDC discharged	
	78257.17	Up to COD
	64506.83	13750.34

79. The Petitioner has submitted the statement of IDC which shows the combined loan for the transmission assets under Stage-I and Stage-II of the Project. Thus, there is non-availability of loan allocated to the transmission assets under Stage-II. Further, the Petitioner has claimed IDC for the transmission assets under Stage-II after allocating total interest to the transmission assets under Stage-I and Stage-II separately. Due to non-availability of loan allocated for the transmission assets under Stage-II separately, IDC has been computed based on information furnished in the statement of IDC and Form-12B. There is time over-run of 2882 days in case of Asset-A and Asset-B. Accordingly, IDC allowed for the transmission assets under Stage-II, taking into consideration the time over-run disallowed, is ₹46275.68 lakh. The Petitioner is directed to furnish loan agreements, actual repayment of loan and interest rate certificates issued by respective bank at the time of truing up. As it has



already been decided that tariff corresponding to 24% of capital cost of the transmission line will be borne by EPMPPL and tariff corresponding to the remaining 76% of capital cost of the transmission line will be included in PoC, IDC allowed is also required to be allocated in the same ratio. Accordingly, the IDC has been allocated as follows:

(₹ in lakh)	
Particulars	Amount
IDC to the extent of 76%	35169.52
IDC to the extent of 24%	11106.16
IDC Allowed	46275.68

Financing Charges (FC)

80. The Petitioner vide Auditor's certificate dated 5.12.2019 has claimed the FC of ₹710.02 lakh in respect of the transmission assets under Stage-II as a whole. Based on the IDC allowed vis-à-vis claimed, FC of ₹419.86 lakh has been allowed on proportionate basis.

81. As it has already been decided that tariff corresponding to 24% of capital cost of the transmission line will be borne by EPMPPL and tariff corresponding to the remaining 76% of capital cost of the transmission line will be included in PoC, FC allowed is also required to be allocated in the same ratio. Accordingly, the FC has been allocated as follows:

(₹ in lakh)	
Particulars	Amount
FC to the extent of 76%	319.09
FC to the extent of 24%	100.77
FC Allowed	419.86

Incidental Expenditure During Construction (IEDC)

82. The Petitioner has claimed IEDC of ₹4427.47 lakh in Form 12-A and ₹4420.25 lakh in Auditor's Certificate dated 5.12.2019 in respect of the transmission



assets under Stage-II as a whole. The Petitioner has claimed IEDC up to COD i.e. 22.9.2018. As sated above, out of the total delay of 2882 days in respect of Asset-A and Asset-B, delay of 2314 days has been condoned. Therefore, IEDC is required to be allowed up to 2.3.2017. The Petitioner in the Form 12-A has indicated that the expenditure of ₹3149.56 lakh has been incurred till 31.3.2017. The same has been considered and proportionate IEDC worked out on the basis of admitted COD is ₹3125.22 lakh. As it has already been decided that tariff corresponding to 24% of capital cost of the transmission line will be borne by EPMP and tariff corresponding to the remaining 76% of capital cost of the transmission line will be included in PoC, IEDC allowed is also required to be allocated in the same ratio. Accordingly, the IEDC has been allocated as follows:

(₹ in lakh)	
Particulars	Amount
IEDC to the extent of 76%	2375.17
IEDC to the extent of 24%	750.05
IEDC Allowed	3125.22

Initial Spares

83. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of the plant and machinery cost up to the cut-off date, subject to the following ceiling norms:

“(d) Transmission System

Transmission line: 1.00%

Transmission sub-station (Green Field): 4.00%

Transmission sub-station (Brown Field): 6.00%

GIS Sub-station: 5.00%”

84. The details of Initial Spares claimed by the Petitioner as per Auditor certificate dated 5.12.2019, submitted vide affidavit dated 6.12.2019, is as follows:



(₹ in lakh)

Element	Completion cost	Initial spares claimed
Transmission line	110541.42* (0.75%)	836.00
Sub-station	3753.00 (2.13%)	80.00

*The amount excludes ₹702 lakh of contingent liability on account of entry tax demand

85. We have considered the submission made by the Petitioner. The Initial Spares claimed by the Petitioner are within norms under Regulation 13(d) of the 2014 tariff Regulations. Accordingly, the initial spares allowed are as follows:

(₹ in lakh)

Element	Plant Machinery Cost excluding IDC, IEDC and Land Expenditure	Initial Spares claimed	Norm as per the 2014 Tariff Regulations	Initial spares allowed
Transmission Line	90923.36	836.00	1.00%	836.00
Sub-station	3753.00	80.00	4.00%	80.00

Capital Cost approved as on COD

86. Accordingly, the capital cost allowed as on COD under Regulation 9(2) of 2014 Tariff Regulations is as follows:

(₹ in lakh)

Latest RCE cost	Capital cost claimed as on COD	Hard Cost allowed (inclusive of initial spares) (A)	IDC allowed (B)	FC allowed (C)	IEDC allowed (D)	Capital cost considered as on COD (A)+(B)+(C)+(D)
198132.00	183931.52	80015.48	35169.52	319.09	2375.17	117879.26

Additional Capital Expenditure (ACE)

87. The Petitioner vide Audited Cost Certificate dated 5.12.2019, submitted vide affidavit dated 6.12.2019, has claimed the following ACE:

(₹ in lakh)

Particular	Amount
ACE claimed during 2018-19 (mainly on account of un-discharged IDC)	13750.34



88. There is mismatch of ACE given in the Auditor's Certificate and in Form-7. The Petitioner has submitted that ACE of ₹13750.34 lakh is towards un-discharged IDC.

89. We have considered the submissions of the Petitioner. ACE claimed is towards un-discharged liability. ACE of ₹13750.34 lakh is part of disallowed IDC. Therefore, the same is not considered.

90. Accordingly, the same capital cost of ₹117879.26 lakh as allowed as on COD has been considered as the capital cost as on 31.3.2019.

Debt-Equity Ratio

91. Regulation 19(1) of the 2014 Tariff Regulations provides as follows:

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

Provided that:

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

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

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

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

92. Debt-equity ratio is considered as per Regulation 19 of the 2014 Tariff Regulations. The Petitioner vide Form-6 has claimed the debt-equity ratio of 72.72:27.28 for the transmission assets under Stage-II as on the date of commercial operation. The Petitioner vide affidavit dated 30.12.2021 has submitted that out of



the total project cost ₹1981.32 crores, debt funding is of ₹1473.96 crore and equity funding of ₹507.34 crores. Accordingly, debt-equity ratio comes to 74.39:25.61. The equity deployed by the Petitioner is less than 30%. As per the first proviso to Regulation 19(1) of the 2014 Tariff Regulations, if the equity actually deployed is less than 30% of the capital cost, the actual equity deployed has to be considered. Accordingly, the debt-equity ratio claimed by the Petitioner vide affidavit dated 30.12.2021 is considered for computation of tariff and it is as follows:

Particulars	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	% age	Amount (₹ in lakh)	% age
Debt	87694.60	74.39	87694.60	74.39
Equity	30184.66	25.61	30184.66	25.61
Total	117879.26	100.00	117879.26	100.00

Depreciation

93. Regulation 27 of the 2014 Tariff Regulations provides as follows:

“Depreciation:

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

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

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

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



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

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

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

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.

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

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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2014 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 during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

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

94. Regulation 3(67) of 2014 Tariff Regulations defines useful life as follows:

“(67) ‘Useful life’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

- | | |
|--|----------|
| (a) Coal/Lignite based thermal generating station | 25 years |
| (b) Gas/Liquid fuel based thermal generating station | 25 years |
| (c) AC and DC sub-station | 25 years |
| (d) Gas Insulated Sub-station (GIS) | 25 years |
| (e) Hydro generating station including pumped | 35 years |



<i>Storage hydro generating stations</i>	
<i>(f) Transmission line (including HVAC & HVDC)</i>	35 years
<i>(g) Communication system</i>	15 years

Provided that the useful life for AC and DC Sub-stations and GIS for which Notice Inviting Tender is floated on or after 01.04.2014 shall be considered as 35 years.

Provided further that the extension of life of the projects beyond the completion of their useful life shall be decided by the Commission.”

95. Depreciation has been dealt in accordance with Regulation 27 of the 2014 Tariff Regulations. The transmission assets under Stage-II were put under commercial operation during 2018-19. Accordingly, they will complete 12 years beyond the tariff period 2014-19. The Gross Block during 2018-19 has been depreciated at weighted average rate of depreciation (WAROD) (as placed in Annexure-1). WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2018-19 is as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata for 191 days)
Opening Gross Block	117879.26
Addition during 2014-19 due to projected ACE	0.00
Closing Gross Block	117879.26
Average Gross Block	117879.26
Weighted average rate of Depreciation (WAROD) (in %)	5.28
Lapsed useful life at the beginning of the year (Year)	0.00
Balance useful life at the beginning of the year (Year)	35.00
Aggregated Depreciable Value	106091.33
Depreciation	3256.96
Cumulative Depreciation at the end of the year	3256.96
Remaining Aggregate Depreciable Value at the end of the year	102834.38

Interest on Loan (IOL)

96. Regulation 26 of 2014 Tariff Regulations defines IoL as follows:

“26. Interest on loan capital: (1) *The loans arrived at in the manner indicated in Regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*

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



gross normative loan.

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

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

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered: Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

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

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

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

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

97. The IoL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations. IoL has been calculated based on the rate considered by the Petitioner. Details of IoL allowed, subject to truing up, are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata for 191 days)
Gross Normative Loan	87694.60
Cumulative Repayment up to Previous Year	0.00
Net Loan-Opening	87694.60



Addition due to ACE	0.00
Repayment during the year	3256.96
Net Loan-Closing	84437.65
Average Loan	86066.12
Weighted Average Rate of Interest on Loan (in %)	14.71
Interest	6626.56

Return on Equity (RoE)

98. The Petitioner is entitled to RoE in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations.

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

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

Provided that:

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

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

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

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

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

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

25 Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case



may be. The actual tax income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of "effective tax rate".

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

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

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

Illustration-

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

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

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

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

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

(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore / Rs 1000 Crore = 24% (d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$

(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 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis."

99. The Petitioner has submitted that MAT rate is applicable to it. MAT rate applicable in the year 2018-19 has been considered for the purpose of RoE which will be trued-up with actual tax rate in accordance with Regulation 25(3) of the 2014 Tariff Regulations. RoE allowed, subject to truing up, in respect of the transmission asset is as follows:



(₹ in lakh)

Particulars	2018-19 (pro-rata for 191 days)
Opening Equity	30184.66
Additional Capitalization	0.00
Closing Equity	30184.66
Average Equity	30184.66
Return on Equity (Base Rate) (%)	15.50%
MAT rate for the financial year 2018-19 (%)	21.549%
Rate of Return on Equity (pre-tax) (%)	19.758%
Return on Equity (Pre-tax)	3120.83

Operation and Maintenance Expenses (O&M Expenses)

100. The Petitioner has claimed O&M Expenses *vide* affidavit dated 6.12.2019 for the transmission assets under Stage-II in terms of Regulation 29(4)(a) of the 2014 Tariff Regulations and it is as follows:

(₹ in lakh)

Element	2018-19
400 kV D/C (quad moose conductor) transmission line from Mahan TPP to Sipat Pooling Station (line length: 336.50 km)	407.17
400 kV Line bays at Mahan (2 numbers)	137.42
400 kV Line bays at Sipat (2 numbers)	137.42
400 kV bays of 80 MVAR bus reactor at Mahan (1 number)	68.71
Total O&M Expenses	750.72

101. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for transmission system and they are as follows:

“(3) Transmission system

(a) *The following normative operation and maintenance expenses shall be admissible for the transmission system:*

Norms for sub-stations (in Rs. Lakh per bay)	2014-15	2015-16	2016-17	2017-18	2018-19
765 kV	84.42	87.22	90.12	93.11.	96.20
400 kV	60.30	62.30	64.37	66.51	68.71
220 kV	42.21	43.61	45.06	46.55	48.10
132 kV and above	30.15	31.15	32.18	33.25	34.36
400 kV Gas Insulated Substation	51.54	53.25	55.02	56.84	58.73
Norms for AC and HVDC lines (in Rs. Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.707	0.731	0.755	0.780	0.806
Single Circuit (Bundled	0.606	0.627	0.647	0.669	0.691



Conductor with four sub-conductors)					
Single Circuit (Twin & Triple Conductor)	0.404	0.418	0.432	0.446	0.461
Single Circuit (Single Conductor)	0.202	0.209	0.216	0.223	0.230
Double Circuit (Bundled conductor with four or more sub-conductors)	1.062	1.097	1.133	1.171	1.210
Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.780	0.806
Double Circuit (Single Conductor)	0.303	0.313	0.324	0.334	0.346
Multi Circuit (Bundled conductor with four or more sub-conductors)	1.863	1.925	1.989	2.055	2.123
Multi Circuit (Twin & Triple Conductor)	1.240	1.282	1.324	1.368	1.413
Norms for HVDC Stations					
HVDC Back-to-back stations (Rs. Lakh per 500 MW)	578	627	679	736	797
Rihand-Dadri HVDC bi-pole scheme (Rs. Lakh)	1511	1637	1774	1922	2082
Talcher- Kolar HVDC bi-pole scheme (Rs. Lakh)	1173	1271	1378	1493	1617
Balia-Bhiwadi HVDC bi-pole scheme (Rs. Lakh)	1537	1666	1805	1955	2119

Provided that operation and maintenance expenses for new HVDC bi-pole scheme for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expense for 2000 MW, Talcher-Kolar HVDC bi-pole scheme for the respective year:

Provided further that the O&M expenses norms for HVDC bi-pole line shall be considered as Single Circuit quad AC line.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of bays and kms of line length with the applicable norms for the operation and maintenance expenses per bay and per km respectively.

(c) The operation and maintenance expenses of communication system forming part of inter-state transmission system shall be derived on the basis of the actual O&M expenses for the period of 2008-09 to 2012-13 based on audited accounts excluding abnormal variations if any after prudence check by the Commission. The normalised O&M expenses after prudence check, for the years 2008-09 to 2012-13 shall be escalated at the rate of 3.02% for computing base year expenses for FY 2012-13 and 2013-14 and at the rate of 3.32% for escalation from 2014-15 onwards."

102. We have considered the submissions of Petitioner. The O&M Expenses have been worked out as per the norms under the 2014 Tariff Regulations. Accordingly,



the O&M Expenses allowed for the transmission assets under Stage-II are as follows:

(₹ in lakh)	
Element	2018-19 (pro-rata for 191 days)
336.50 km Mahan-Sipat Double circuit (Bundled conductor with four or more sub-conductors) (191/365*1.21*336.5) O&M expenses allowed to the extent of 76%	161.93
3 number of 400 kV Reactor bays (191/365*68.71*3)	107.87
4 number of 4 line bays (191/365*68.71*4)	143.82
Total for Asset-B	413.61

Interest on Working Capital (IWC)

103. The Petitioner is entitled for IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. Regulation 28(1)(c) and Regulation 3(5) of the 2014 Tariff Regulations specify as follows:

“28. Interest on Working Capital: (1) *The working capital shall cover:*

(a) Xxxxx

(b) Xxxxx

(c) *Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:*

(i) *Receivables equivalent to two months of fixed cost;*

(ii) *Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and*

(iii) *Operation and maintenance expenses for one month*

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

“(5) “Bank Rate” means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

104. The components of the working capital and the Petitioner’s entitlement to interest thereon are as follows:

(i) Receivables



Receivables has been worked out on the basis of two annual transmission charges.

(ii) Maintenance spares

Maintenance spares has been worked out @ 15% per annum of the O&M expenses.

(iii) O & M Expenses

O&M Expenses have been considered for one month as a component of working capital.

(iv) Rate of Interest on Working Capital

As per Regulation 28(3) of the 2014 Tariff Regulations, SBI Base Rate of 8.7% as on 1.4.2018 Plus 350 bps i.e. 12.20% has been considered as the rate of IWC for the transmission assets under Stage-II as under:

Particulars	(₹ in lakh)
	2018-19 (pro-rata for 191 days)
Working Capital for O&M Expenses (O&M Expenses for 1 Month)	65.87
Working Capital for Maintenance Spares (15% of O&M)	118.56
Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	4366.13
Total Working Capital	4550.56
Rate of Interest (in %)	12.20
Interest on Working Capital	290.51

Annual Transmission charges

105. The transmission charges allowed for the transmission assets under Stage-II (excluding tariff corresponding to 24% of the capital cost of the transmission line), subject to truing up, are as follows:

Particulars	(₹ in lakh)
	2018-19 (pro-rata for 191 days)
Depreciation	3256.96
Interest on Loan	6626.56
Return on Equity	3120.83
O & M Expenses	413.61
Interest on Working Capital	290.51
Total	13708.47

Sharing of Transmission Charges



106. As discussed in earlier part of this order, tariff corresponding to 24% of capital cost is to be borne by EPMPPL and tariff corresponding to the remaining 76% of the capital cost shall be included in PoC computation. Accordingly, tariff allowed above in paragraph 105 shall be included in the common pool under the 2020 Sharing Regulations.

107. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of the transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of the 2014 Tariff Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations.

108. Tariff corresponding to 24% of capital cost (including IDC, FC and IEDC) to be borne by EPMPPL and, accordingly, billed bilaterally on EPMPPL are as follows:

(₹ in lakh)	
Particulars	2018-19 (pro-rata for 191 days)
Depreciation	933.29
Interest on Loan	1898.85
Return on Equity	894.28
O & M Expenses	51.14
Interest on Working Capital	79.89
Total	3857.44

109. The Petitioner is directed to submit a petition for truing up of the transmission charges allowed in this order for the period from its COD to 31.3.2019 and determination of tariff for the 2019-24 tariff period as per the applicable tariff



regulations within a period of 60 days from the date of issue of this order impleading all the beneficiaries and the DICs as respondents.

110. Annexure-1 given hereinafter shall form part of the order.

111. This order disposes of Petition No. 145/TT/2018 along with IA No.89/IA/2018, IA No. 47/IA/2020 and IA No.75/IA/2021 in terms of the above discussions and findings.

sd/-
(P.K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member

sd/-
(P.K. Pujari)
Chairperson



Annexure-1

Element	Admitted Capital Cost as on COD for tariff purpose (₹ in lakh)	Projected Additional capitalisation (₹ in lakh)		Rate of Depreciation as per Regulation	Annual Depreciation as per Regulation (₹ in lakh)
		2018-19	Total		2018-19
Transmission Line	114018.39	0.00	114018.39	5.28%	6020.17
Sub-Station Equipment	3860.87	0.00	3860.87	5.28%	203.85
Total	117879.26	0.00	117879.26		6224.02
Average Gross Block (₹ in lakh)					117879.26
Weighted Average Rate of Depreciation					5.28%

