

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 75/TT/2020**

**Coram:**

**Shri P.K. Pujari, Chairperson  
Shri I.S. Jha, Member  
Shri Arun Goyal, Member**

**Date of Order: 27.12.2021**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for determination of transmission tariff from COD to 31.3.2019 for 400 kV Transmission Line for reconfiguration of Biharsharif Ckt III and IV from present location to the Stage II side of Kahalgaon Switchyard of NTPC under "Split Bus arrangement for various Sub-stations in Eastern Region".

**And in the matter of:**

Power Grid Corporation of India Limited,  
"Saudamini", Plot No. 2, Sector-29,  
Gurgaon-122001,  
Haryana.

**....Petitioner**

**Vs.**

1. Bihar State Power (Holding) Company Limited,  
(Formerly Bihar State Electricity Board -BSEB),  
Vidyut Bhavan, Bailey Road,  
Patna – 800001.
2. West Bengal State Electricity Distribution Company Limited,  
Bidyut Bhawan, Bidhan Nagar,  
Block DJ, Sector-II, Salt Lake City,  
Calcutta – 700091.
3. Grid Corporation of Orissa Limited,  
Shahid Nagar,  
Bhubaneswar – 751007.
4. Jharkhand State Electricity Board,  
In front of Main Secretariat, Doranda,



Ranchi – 834002.

5. Damodar Valley Corporation,  
DVC Tower, Maniktala,  
Civic Centre, VIP Road,  
Calcutta – 700054.
6. Power Department,  
Government of Sikkim,  
Gangtok – 737101.
7. NTPC Limited,  
NTPC Bhawan, Core-7, Scope Complex,  
7, Institutional Area, Lodhi Road,  
New Delhi – 110003.

... Respondents

**For Petitioner** : Shri S.S. Raju, PGCIL  
Shri A.K. Verma, PGCIL  
Shri B. Dash, PGCIL  
Shri Ved Prakash Rastogi, PGCIL

**For Respondents** : Shri Manish Kumar Choudhary, Advocate, BSPHCL

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for determination of tariff for the period from the date of Commercial operation (COD) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) in respect of 400 kV Transmission Line for reconfiguration of Biharsharif Ckt III and IV from present location to the Stage-II side of Kahalgaon Switchyard of NTPC (hereinafter referred to as “transmission asset”) under “Split Bus arrangement for various Sub-stations in Eastern Region” (hereinafter referred to as “the transmission project”):

2. The Petitioner has made the following prayers in this petition:

*“1) Approve the Transmission Tariff for the tariff block 2014-19 block for the asset*



covered under this petition, as per para –9.2 above.

2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization projected to be incurred.

3) Allow the Petitioner's claim of IEDC on actual basis.

4) Allow the Petitioner to approach Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike, if any, during period 2014-19.

5) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided under clause 25 of the Tariff regulations 2014.

6) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.

7) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

8) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.

9) Allow the petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (negative) list at any time in future. Further any taxes and duties including cess, etc. imposed by any Statutory/Govt./Municipal Authorities shall be allowed to be recovered from the beneficiaries.

10) Allow tariff as 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.”

### **Background**

3. The brief facts of the case are as follows:



a) The Investment Approval (IA) and expenditure sanction for the transmission asset was accorded by the Board of Directors of the Petitioner company in its 285<sup>th</sup> meeting held on 28.3.2013 at an estimated cost of ₹13516 lakh including IDC of ₹514 lakh based on February, 2013 price level (communicated vide Memorandum Ref No. C/CP/Split bus arrangements in ER dated 5.4.2013). Further, the Revised Cost Estimate (RCE) of the transmission asset was accorded in the 324<sup>th</sup> meeting held on 12.1.2016 vide Memorandum No. C/CP/RCE-Split Bus Arrangement in ER dated 1.2.2016 for ₹14673 lakh including IDC of ₹859 lakh based on June 2015 price level.

b) The scope of work covered under the transmission project is as follows:

**Sub-stations**

- To carry out splitting arrangements with tie line breaker for the following 400 kV Sub-stations in Eastern Region to contain the short level below 40 kA
  - Maithan
  - Durgapur
  - Biharsharif

**Transmission Lines**

- 400 kV Transmission Line for swapping of Purnea bays (1 and 2) with Sasaram bays (# 3 and 4) and Kahalgaon # 1 bays with Sasaram # 1 bay at Biharsharif Sub-station
- 400 kV Transmission Line for reconfiguration of Biharsharif Ckt III and IV from its present position to Stage-II side of Kahalgaon Switchyard of NTPC.

c) As per IA dated 28.3.2013, the transmission asset was scheduled to be put into commercial operation within 15 months from the date of IA i.e. by



27.6.2014. However, the transmission asset was put under commercial operation (COD) on 26.1.2019 with a time over-run of 55 months.

4. The Respondents are distribution licensees, power departments and transmission utilities, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice has also 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 aforesaid notices published in the newspapers by the Petitioner. National Thermal Power Corporation Limited (NTPC), Respondent No. 7, has filed reply dated 9.7.2020 and has raised issues regarding time over-run. In response, the Petitioner has filed the rejoinder vide affidavit dated 1.9.2020. Further, NTPC has submitted sur-rejoinder vide affidavit dated 10.3.2021 to the Petitioner's rejoinder. The issues raised by NTPC and clarifications given by the Petitioner are dealt in the relevant portions of this order.

6. The hearing in this matter was held on 28.8.2020 through video conference and the order was reserved.

7. This order is issued considering the Petitioner's submissions in the main petition and affidavits dated 4.5.2020 and 23.9.2020, reply of NTPC dated 9.7.2020, and the Petitioner's rejoinder dated 1.9.2020, and NTPC's sur-rejoinder dated 10.3.2021.

8. Having heard the representatives of the Petitioner and Respondent and having perused the material on record, we proceed to dispose of the petition.



### **Annual Fixed Charges for 2014-19 Tariff Period**

9. The details of transmission charges claimed by the Petitioner for 2014-19 tariff period in respect of the transmission asset are as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>
	<b>2018-19 (Pro-rata for 65 days)</b>
Depreciation	37.32
Interest on Loan	41.35
Return on Equity	41.90
Interest on working capital	2.60
O&M Expenses	1.94
<b>Total</b>	<b>125.11</b>

10. The details of the Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset for 2014-19 period is as follows:

<b>Particulars</b>	<b>(₹ in lakh)</b>
	<b>2018-19 (Pro rata for 65 days)</b>
O&M Expenses	0.88
Maintenance Spares	1.59
Receivables	114.07
<b>Total</b>	<b>116.54</b>
Rate of Interest (%)	12.20
<b>Pro-rate Interest on Working Capital</b>	<b>2.60</b>

### **Commercial Operation Date (“COD”)**

11. The Petitioner has claimed COD of the transmission asset as 26.1.2019.

12. Regulation 4(3) of the 2014 Tariff Regulations provides as follows:

**“4. Date of Commercial Operation:** The date of commercial operation of a generating station or unit or block thereof a transmission system or element thereof shall be determined as under:

(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:



13. In support of COD of the transmission asset, the Petitioner has submitted CEA energisation certificate dated 24.9.2018 under Regulation 43 of CEA (Measures Related to Safety and Electricity Supply) Regulations, 2010, RLDC charging certificate dated 16.4.2019, self-declaration COD letter dated 19.4.2019 and CMD certificate as required under the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010.

14. Taking into consideration the RLDC charging Certificate, CEA Energisation Certificate and self-declaration COD letter of COD and CMD certificate submitted by the Petitioner, COD of the transmission asset is approved as 26.1.2019.

**Time over-run**

15. As per the Investment Approval (IA) dated 28.3.2013, the transmission asset was scheduled to be put into commercial operation within 15 months from the date of IA. Accordingly, the SCOD of the transmission asset was 28.6.2014. The transmission asset was put into commercial operation w.e.f. 26.1.2019. Accordingly, there is time over-run of 1673 days in case of the transmission asset.

16. The Petitioner has attributed the time over-run to delay in Bus Splitting of Kahalgaon STPS Stage-I and II by NTPC and RoW problems. The submissions made by the Petitioner regarding time over-run are as follows:

- a) The scope of work of the Petitioner under Bus Splitting at NTPC Kahalgaon Switchyard ("Scheme") involves re-configuration of Biharshariff Ckt III and IV from its present position to Stage-II side of Kahalgaon switchyard of NTPC ("Transmission asset") and the implementation of bays at Kahalgaon Sub-station where the line is being terminated is under the scope of NTPC.



b) The transmission system requirements were discussed and agreed upon in the Standing Committee Meeting (SCM) on Power System Planning in Eastern Region held on 20.9.2010 and also in the 15<sup>th</sup> Technical Coordination Committee (TCC) and ERPC Meeting held on 28.9.2010 at Rajarhat, Kolkata. The system studies had been carried out to examine the short circuit levels. The study results had suggested that short circuit levels were exceeding the permissible limit of 40 kA. Accordingly, it was planned to carry out step by step splitting arrangement with tie line breaker for NTPC's Kahalgaon Switchyard. The approval of work of transmission line associated with swapping of bays was accorded by the Board of Directors of the Petitioner in its 285<sup>th</sup> meeting held on 28.3.2013 and immediately upon its approval, LoA was issued in May, 2013. The line involved 42 locations, all of them in the vicinity of existing Kahalgaon switchyard of NTPC.

c) The time over-run was due to following two reasons:

- 1) Delay in Bus Splitting of Kahalgaon STPS Stage-I and Stage-II by NTPC.
- 2) RoW problem at location No. 3/0, 4/0, 5/0, 22/0, 22/1, 24/0 and other locations.

d) Details of the delay caused in COD of the transmission asset due to delay in Bus Splitting of Kahalgaon STPS Stage-I and Stage-II by NTPC are as follows:

(i) 28.9.2010: As per 15<sup>th</sup> meeting of ERPC, the splitting arrangement at Kahalgaon generation switchyard would be carried out by NTPC. The representative of NTPC stated that splitting at generation switchyard would be quite complex as compared to that of a sub-station.

(ii) 17.3.2011: In the 17<sup>th</sup> meeting of ERPC regarding splitting of bus, representative of NTPC intimated that the switchyard of KSTPS (Kahalgaon) had not been designed to allow bus splitting arrangement



as it was not envisaged at the design stage. It was apprehended that sufficient space was not available to allow physical separation of Stage-I and Stage-II bus. NTPC informed that Additional Capital Expenditure (ACE) for Thermal Generating Stations is not available under the 2009 Tariff Regulations. However, NTPC was requested to explore long term solution for this problem in view of high fault level as discussed in the SCM of CEA.

(iii) 1.7.2011: In the 18<sup>th</sup> meeting of ERPC, NTPC again informed that ACE for Thermal Generating Stations is not available under the 2009 Tariff Regulations. Therefore, consent for capitalisation of the expenditure and servicing of the same by the beneficiaries through tariff of the generating station has to be provided in minutes of meeting so that NTPC could take up the work if found feasible.

(iv) 24.9.2011: In the 19<sup>th</sup> meeting of ERPC, NTPC informed that bus splitting at Kahalgaon STPS was possible and the plan for the same will be put up in next TCC of ERPC.

(v) 17.12.2011: In the 20<sup>th</sup> ERPC, TCC agreed with the proposal of bus splitting at NTPC Kahalgaon STPS. TCC also recommended that the funding for the above bus splitting be met from Power System Development Fund (PSDF). ERLDC expressed its concern that as the project is intra-regional in nature, there might be problem in getting fund approved from PSDF. ERPC agreed with the views of ERPC Secretariat and approved the proposal of bus splitting at NTPC Kahalgaon STPS. ERPC recommended to get the funding for the project from PSDF and advised ERPC Secretariat to place a comprehensive proposal before the PSDF Managing Committee.

(vi) 17.1.2012: A comprehensive proposal was forwarded to PSDF Managing Committee by ERPC Secretariat.

(vii) 15.1.2013: ERPC informed that funding of bus splitting scheme at NTPC Kahalgaon switchyard from PSDF at this stage is uncertain.



(viii) 10.4.2013: In the Commercial Sub-Committee (under aegis of ERPC) meeting, NTPC informed that the scheme was finalized and submitted for the IA by Board of Directors of NTPC and, it required the concurrence of ERPC.

(ix) 27.4.2013: In the 24<sup>th</sup> ERPC meeting, it was recorded that NTPC has gone ahead with finalization of detailed engineering and other pre-tender activities e.g. finalization of cost estimate, number of packages, etc. However, in the absence of any commitment for recovery of this cost, NTPC is unable to proceed. Since bus splitting is a critical grid system requirement, members are required to discuss and agree for implementation of the scheme by NTPC at its cost and its sharing by beneficiaries through the tariff.

(x) As there was non-convergence of opinion regarding funding of the bus splitting scheme at Kahalgaon STPS, TCC decided to refer the issue of funding to ERPC. ERPC advised NTPC to go ahead with the scheme. It was decided that initially constituents of ER will share their portion of cost as per the tariff approved by the Commission for this purpose, and subsequently if there is release of fund from PSDF scheme, the same will be reimbursed to constituents.

(xi) 13.9.2014: In the 28<sup>th</sup> meeting of ERPC, NTPC informed that as advised by TCC, NTPC will submit the requisite formats to NLDC on behalf of beneficiaries for funding from PSDF. However, in the event that amount is not approved for funding from PSDF, the amount incurred would be borne by the beneficiaries and the members agreed.

(xii) 11.12.2014: NLDC informed that the Appraisal Committee of PSDF deliberated upon the eligibility of the scheme for funding from PSDF based on Para 5 "Utilization of Funds" of the approved procedure and guidelines for funding and it was decided that the scheme did not qualify for funding from PSDF.



(xiii) 31.12.2014: ERPC Secretariat requested PSDF Secretariat vide letter dated 31.12.2014 and the Commission vide letter dated 6.1.2015 to review the decision of funding the scheme from PSDF.

(xiv) Appraisal Committee of PSDF rejected the NTPC proposal for PSDF funding, subsequently, NTPC filed an Interlocutory Application before the Commission for in-principle approval to the work of 400 kV Bus Sectionaliser and capitalization of the associated expenditure for the purpose of tariff for safe and reliable operation of the grid.

(xv) 6.2.2015: The Commission vide order dated 6.2.2015 rejected NTPC's Interlocutory Application for in-principle approval on the ground that the 2014 Tariff Regulations does not provide for grant of in-principle approval. However, the Commission allowed NTPC for capitalization of the said work and observed that the same will be considered after prudence check in terms of provisions of the 2014 Tariff Regulations.

(xvi) 13.11.2015: In the 31<sup>st</sup> ERPC meeting, NTPC informed about it going ahead with the implementation of Bus Splitting of Kahalgaon STPS Stage-I and II in view of ever-increasing fault levels and for securing the grid operation. The implementation of Bus Splitting was expected to be completed by December, 2018.

(xvii) 20.2.2016: In the 32<sup>nd</sup> ERPC meeting, NTPC informed that Kahalgaon Bus Splitting scheme will be completed by the end of 2018. It was also noted that post-COD, constituents have to bear the cost of the line. The Constituents were of the view that since the delay in implementation of Bus Splitting scheme is due to NTPC, NTPC should bear the cost of line till the completion of Bus Splitting scheme.

(xviii) NTPC informed that Kahalgaon Bus Splitting scheme got delayed due to non-clearance of funding mechanism. As and when the funding mechanism is clear, the work would be completed within the



scheduled time. NTPC clarified that the bid has already been opened for bays' works and all efforts would be made to complete the bay work at the earliest. In ERPC meeting, the concern of the constituents was well considered but ERPC expressed that under the present Regulations, the tariff determined by the Commission will be shared by all.

(xix) 4.5.2016: In 121<sup>st</sup> and 122<sup>nd</sup> OCC meetings, NTPC stated that the bid for the 400/132 kV Switchyard was opened on 14.3.2016 and was awarded on 4.5.2016. NTPC reiterated that Kahalgaon Bus Splitting scheme would be completed by December, 2018.

(xx) The Petitioner vide letters dated 10.6.2015, 23.6.2015 and 6.7.2015 repeatedly requested NTPC to expedite the construction of bus splitting of Kahalgaon switchyard matching with the timeline of work of the Petitioner. The Petitioner also continuously sought the status of NTPC's scope of work and requested NTPC to provide the gantry position of split bus in their switchyard. Due to non-readiness of bay by NTPC, location of construction of tower in the premises of NTPC was not finalized till 5.10.2017. Finally, the erection and stringing work was completed at the same location by 23.8.2018. The Petitioner vide letters dated 7.6.2018 and 24.8.2018 had intimated NTPC regarding completion of the transmission asset and requested for clearance of existing Kahalgaon-Banka line for 4-5 days for connection at tapping point so that shutdown for this last part of the Petitioner's work could be availed accordingly. However, NTPC granted clearance only on 25.9.2018 and, accordingly, the entire work could be completed in conjunction with NTPC and later it commissioned w.e.f. 26.1.2019. Hence, the delay in Kahalgaon Bus Splitting scheme was due to non-clearance of funding mechanism for the said scope of works for NTPC and subsequent delay in the readiness of bays at Kahalgaon switchyard by NTPC. The delay due to the non-clearance of funding mechanism for NTPC's scope of work is quite significant



and spanned from 20<sup>th</sup> ERPC meeting (17.12.2011) to 31<sup>st</sup> ERPC meeting (13.11.2015) i.e. approximately 47 months.

(xxi) The delay had a bearing on the pace of NTPC's scope of work which eventually could be awarded on 4.5.2016. This uncertain situation in-turn had a natural cascading effect on the progress and timely execution of work of the transmission asset under scope of the Petitioner; even though the same was initiated without delay by the Petitioner (i.e. LoA was awarded in May, 2013).

e) The time over-run on account of RoW problems are as follows:

(i) The transmission line associated with swapping works passes through various villages i.e. Kharvatola, Shobhathpur, Laxmipur, Bhabhania, Kurma, Sanokhar, Madarganj and Adalpur under Kahalgaon and Sanhoula block of Kahalgaon Sub-division. RoW issues involved were demand of exorbitant amount of crop compensation, land compensation, manhandling of gang workers, etc. There was obstruction of work on account of RoW by landowners at location No. 5/0, 3/0, 4/0, 22/0, 22/1 and 24/0 that took about 40 months to resolve the issue. Persuasive measures were adopted to pacify the landowners/ villagers agitating against the line construction. However, at certain locations verbal persuasions did not suffice and eventually the help and assistance of district administration and police were sought to mitigate RoW issues. Many of the landowners had also taken the course of courts to oppose the construction of line through their premises.

(ii) Broad chronology of RoW issues faced, and steps taken by the Petitioner for mitigation of RoW issues are tabulated below:

<b>Date</b>	<b>Remarks</b>
January, 2015 onwards	Obstruction and RoW issues created by villagers and landowners.
19.3.2015	Letter by villagers to SDO, Kahalgaon along with CC to Chief Minister (Bihar), Power Minister (Govt. of Bihar) and others for stopping construction of towers.



<b>Date</b>	<b>Remarks</b>
7.6.2015	Letter by the Petitioner to Officer In charge Amdanda Police Station, Bhagalpur, for resolving the issues and providing police protection to carry out the work.
3.7.2015	Letter by the Petitioner to SDO, Kahalgaon regarding resolving the issues & providing police protection to carry out the work.
17.2.2016 and 23.4.2016	Villagers of Adalpur had complained to SDO, Kahalgaon to demand full compensation payment.
24.4.2016	SDO, Kahalgaon wrote letter to the Petitioner for clarification.
4.5.2016	SDO, Kahalgaon instructed Officer-in-Charge Amdanda to resolve the RoW at Loc. No 24/0
7.2.2017	Letter by the Petitioner to SDO, Kahalgaon regarding resolving the RoW issues at location no. 5/0 at Shobhnathpur Village/ provide police protection to carry out the work. ( <i>reference in letter dated 17.2.2017</i> )
17.2.2017	Letter by SDO, Kahalgaon to the Petitioner and land owners of location no. 5/0 to call on dt.25.2.2017 to clarify the matter.
25.2.2017	Meeting held between villagers and SDO, Kahalgaon to resolve RoW issue.
1.3.2017	Clarification/ information sought by SDO, Kahalgaon regarding compensation calculation.
16.3.2017	Letter by the Petitioner to SDO, Kahalgaon regarding information for calculation of compensation amount as per instruction of SDO, Kahalgaon vide meeting dated 25.2.2017.
7.4.2017	Letter by SDO, Kahalgaon to BDO, Kahalgaon regarding meeting on 15.4.2017 with villagers to resolve the RoW issues.
15.4.2017	Meeting held between villagers and SDO, Kahalgaon to resolve RoW issue.
17.5.2017	Letter by SDO, Kahalgaon to related land owners of village Shobhnathpur/ Kharwa Tola/ Gopalpur regarding meeting on 18.5.2017 to resolve the RoW issues.
18.5.2017	Meeting held between villagers and SDO, Kahalgaon to resolve RoW issue.
8.6.2017	Meeting held between villagers and SDO, Kahalgaon to resolve RoW issue.
21.6.2017	Letter by the Petitioner to DM, Bhagalpur and Copy to SDO Kahalgaon regarding intervene to resolve the issues with villagers/ provide police protection to carry out the work.
5.7.2017	Letter by SDO, Kahalgaon to the Petitioner and copy to SHO, BDO, CO, SDPO Kahalgaon and DM Bhagalpur to start construction work with Police force.
22.7.2017	Letter by SDO, Kahalgaon to the Petitioner and copy to SHO, Deputed Magistrate BDO, CO, SDPO Kahalgaon, SSP Bhagalpur & DM Bhagalpur to inform about Construction work
22.7.2017	Letter by the Petitioner to related land owners and copy to SHO, Deputed Magistrate BDO, CO, SDPO Kahalgaon, SSP



Date	Remarks
	Bhagalpur and DM Bhagalpur to inform that construction work is going to be restart from 26.7.2017.
30.7.2017	Letter by SDO, Kahalgaon to BAO (Deputy Magistrate) and copy to the Petitioner, SHO, BDO, CO, Kahalgaon, SSP Bhagalpur and DM Bhagalpur regarding interruptions and follow the instruction and insure the construction work
5.8.2017	Letter by the Petitioner to SDO, Kahalgaon regarding information for interruption in construction work by landowners and copy to SDPO Kahalgaon
21.8.2017	SAMMAN vide Case no. 642/17 to land owners
7.9.2017	Letter by villagers to SDO, Kahalgaon for stopping construction of towers.
9.9.2017	Letter by the Petitioner to SDO, Kahalgaon regarding information for interruption in construction work by land owners.
12.9.2017	Letter by SDO, Kahalgaon to the Petitioner regarding verification raised by villagers for construction work.
15.9.2017	Letter by the Petitioner to SDO, Kahalgaon regarding information about verification raising by villagers for construction work.,
25.9.2017	Letter by the Petitioner to SDO, Kahalgaon regarding information about interruption in construction work by land owners and to provide police force.
2.4.2018	Letter by the Petitioner to SDO, Kahalgaon regarding information about interruption in construction work by landowners at Location 2/0, 3/0, 4/0.
2.4.2018	Letter by contractor to the Petitioner regarding information about interruption in construction work by landowners at location 2/0, 3/0, 4/0.
3.4.2015	Letter of SDO, Kahalgaon to BDO/CO/Office-In-charge, Kahalgaon to resolve the RoW problem at location 2/0, 3/0, 4/0
23.6.2018	Letter by the Petitioner to SDO, Kahalgaon regarding information about interruption in construction work by land owners and for police protection to execute the work.
16.7.2018	Letter by the Petitioner to SDO, Kahalgaon regarding information about interruption in construction work by land owners at location 4/0-6/0.
There was delay of more than 40 months to overcome RoW issues at above mentioned locations.	

(iii) The topography of Kahalgaon end of the transmission line falls in the low-lying area which remains under submergence for more than half of the year. Besides, during the crop harvesting season, there



is further escalation in opposition leading to severe ROW problem which had hampered the progress of work.

(iv) After the grant of IA and expenditure sanction for the transmission asset by the Board of Directors on 28.3.2013, the implementation of the transmission asset was taken up with completion schedule of 15 months. LoA (Letter of Award) was issued immediately after IA and working gangs were timely mobilized to achieve the scheduled completion target. Further, proactive actions involving various adaptive and mitigatory steps were taken to overcome the hurdles associated with construction of transmission line in a compressed schedule. However, in spite of the best efforts of the Petitioner, due to the unforeseeable reasons, the completion of transmission line got delayed and went beyond its scheduled completion date.

17. The Petitioner was directed, vide RoP dated 13.2.2020, to submit detailed reasons for time over-run and correspondence exchanged, if any, along with chronology of time over-run and supporting documents. In response, the Petitioner vide affidavit dated 4.5.2020 has submitted the details as follows:

Activity	Period of activity				Time over-run in month(s) or day(s)	Reason (s) for time over-run
	Planned		Achieved			
	From	To	From	To		
Land Acquisition	-	-	-	-	-	-
LOA	1.5.2013	1.6.2013	30.5.2013	30.5.2013	NIL	The implementation of the asset was taken up with completion schedule of 15 months. The LOA (Letter of Award) was issued immediately
Supplies (Structures, equipment, etc.)	July, 2013	January, 2014	27.10.2013	8.12.2017	48 Month	



Foundation	August, 2013	November, 2013	5.2.2014	31.7.2018	55 Month	after Investment approval. Further, the working gangs were timely mobilized to achieve the scheduled completion target. Further, proactive actions involving various adaptive and mitigatory steps were taken to overcome the hurdles associated with construction of transmission line in a compressed schedule. In spite of the best efforts of the Petitioner, due to mentioned unforeseen reasons, the completion of transmission line got delayed and went beyond its schedule completion date.
Civil works/ Tower erection	September, 2013	January, 2014	15.12.2014	16.8.2018	55 Month	
Stringing	December, 2013	February, 2014	20.12.2015	7.1.2019	44 Month	
Delay in Bus Splitting of Kahalgaon STPS Stage-I&II by NTPC Limited	20.9.2010	13.11.2015	23.8.2018	December, 2018	36 Month	
RoW problem (mentioned location wise details)	August, 2013	January, 2014	5.2.2014	16.7.2018	54 Month	
Testing & commissioning	May, 2013	March, 2014	31.3.2014	23.1.2019	57 Month	

18. NTPC has submitted the following:

(i) It never declined to carry out Bus splitting at Kahalgaon but it could not proceed with the implementation of scheme as there was no clarity regarding recovery of the cost of such bus splitting, which worked out to be more than ₹100 crore.

(ii) In the 15<sup>th</sup> ERPC meeting held on 20.9.2010, it was discussed that splitting the switchyard would be a very complex exercise. Further, in the 17<sup>th</sup> ERPC meeting held on 17.3.2011, NTPC informed that the cost of the splitting is not provided under the 2009 Tariff Regulations. At the 18<sup>th</sup> ERPC meeting held on 1.7.2011, NTPC requested for an unqualified consent from all beneficiaries to capitalise the expenditure for this scheme but the same



was not given. Despite this, at the 19<sup>th</sup> ERPC meeting on 24.9.2011, NTPC informed that the bus splitting is possible and the plan for the same would be put up in the next TCC meeting. At the 20<sup>th</sup> ERPC (TCC) held on 17.12.2011, NTPC's proposal for bus splitting was expected and also recommended to get the project funded through PSDF. Despite not receiving any commitment from the beneficiaries to pay for the scheme or any reply from PSDF, NTPC finalised the scheme and the same was specifically informed by NTPC in the Commercial Sub-Committee meeting of ERPC held on 10.4.2013. NTPC also requested for concurrence of ERPC and beneficiaries to pay for the same. This was reiterated in several other meetings by NTPC before ERPC.

(iii) Northern Regional Load Despatch Centre (NRLDC), vide letter dated 11.10.2014 conveyed that the scheme did not qualify for funding from PSDF. Immediately thereafter, NTPC filed an I.A. No. 64 of 2014 in Petition No. 238/GT/2014 related to tariff approval for Kahalgaon for Stage-II for the period from 1.4.2014 to 31.3.2019. Through the I.A., NTPC prayed for in-principle approval of the capitalisation of the bus splitting work and requested the Commission to relax the provisions of the 2014 Tariff Regulations and grant approval. However, the Commission vide order dated 6.2.2015 rejected NTPC's I.A. for in-principle approval stating that the capitalisation of the said work would be considered after prudence check in terms of the 2014 Tariff Regulations.

(iv) At the 31<sup>st</sup> ERPC (TCC) meeting held on 13.11.2015 and 14.11.2015, NTPC informed that it is going ahead with the bus splitting work and the same is expected to be completed by December 2018.

(v) However, Board of Directors of the Petitioner accorded Investment Approval on 5.4.2013 for implementation of the transmission asset which is much before the NTPC Board's approval for bus splitting scheme at Kahalgaon. When the issue of implementation of bus splitting was deliberated in almost every ERPC meeting, and NTPC had expressed its inability to proceed due to non-clarity on the recovery of its costs, the



Petitioner's Board had already approved the present scheme. Even the revised cost estimate for the transmission asset was approved by the Petitioner's Board of Directors on 1.2.2016.

(vi) NTPC cannot be held liable for the delay in execution of the Petitioner's project. The Petitioner has admitted that as per IA, it had assumed the commissioning schedule of 15 months, which clearly shows that the Petitioner did not envisage any coordination with NTPC but had fixed its own timelines.

(vii) The Petitioner had to reconfigure the Biharshariff Ckt III and Ckt IV which is a 400 kV transmission line. It was only at the last location that the line termination depended on the Kahalgaon bus splitting scheme. The cost of the bus splitting scheme was in excess of ₹100 crore and there was no commitment by any of the beneficiaries to reimburse the costs to NTPC. Still, when the technical requirement of the scheme was discussed, NTPC agreed to implement the scheme and even requested for funding of the same through PSDF. After the rejection by PSDF on 11.12.2014, NTPC immediately filed IA No. 64/2014 in Petition No. 283/GT/2014 which was disposed of vide order dated 6.2.2015 wherein the prayer of NTPC for grant of in-principle approval for ACE of the said scheme was rejected. NTPC awarded the contract through competitive bidding on 4.5.2016.

(viii) Even if the approval had been immediately given by ERPC or the constituents had agreed to reimburse the costs of the bus splitting scheme, NTPC required a period of 3 years to execute the scheme. In the present case, after the order of the Commission on 6.2.2015 in I.A. No. 64 of 2014 in Petition No. 283/GT/2014, the work order was placed on 4.5.2016 and was completed by December 2018 i.e. within a period of 3 years.

(ix) Even on 12.2.2017 and 25.2.2017, NTPC sought details from the Petitioner on the switchyard layout and finally joined the protocol. However, the Petitioner was not ready with its entire work. NTPC in its email dated



11.12.2018 also asked the Petitioner to complete certain balance activities of the 400 kV Kahalgaon - Banka line-I&II to meet the charging plan.

(x) Finally, 400 kV Kahalgaon – Banka line- I and -II were charged and put into service on 9.1.2019 and 23.1.2019 respectively through the newly constructed portion of the respective lines of the Petitioner and the respective newly constructed switchyard bays of NTPC.

(xi) In accordance with the above, NTPC cannot be blamed for the time over-run, nor IDC and IEDC or transmission charges is payable by NTPC to the Petitioner since the time over-run is not attributable to NTPC.

19. In response, the Petitioner has submitted as follows:

(i) The Petitioner and NTPC were party to various discussions and deliberations from the beginning regarding the scheme in common forums of ERPC, OCC and SCM. Thus, the contention of NTPC regarding non-coordination by the Petitioner with respect to the subject scheme is misplaced. In various meetings, the discussion of scheme took place between the Petitioner and NTPC and the details of such meetings are as follows:

<b>Date</b>	<b>Meeting / Forum</b>
20.9.2010	SCM of ER
27.9.2010	15 <sup>th</sup> ERPC
28.12.2010	SCM of ER
17.3.2011	17 <sup>th</sup> ERPC
30.6.2011	18 <sup>th</sup> ERPC
23.9.2011	19 <sup>th</sup> ERPC
2.12.2011	19 <sup>th</sup> CCM
16.12.2011	20 <sup>th</sup> ERPC
27.3.2012	20 <sup>th</sup> CCM
20.4.2012	21 <sup>st</sup> ERPC
10.4.2013	21 <sup>st</sup> CCM
26.4.2013	24 <sup>th</sup> ERPC
12.9.2014	28 <sup>th</sup> ERPC
20.1.2015	28 <sup>th</sup> CCM
13.2.2015	29 <sup>th</sup> ERPC
20.6.2015	30 <sup>th</sup> ERPC
13.11.2015	31 <sup>st</sup> ERPC



30.03.2016	32 <sup>nd</sup> ERPC
24.06.2016	33 <sup>rd</sup> ERPC
18.11.2016	34 <sup>th</sup> ERPC
24.2.2017	35 <sup>th</sup> ERPC
1.9.2017	SCM of ER
13.9.2017	36 <sup>th</sup> ERPC
16.3.2018	37 <sup>th</sup> ERPC
29.6.2018	38 <sup>th</sup> ERPC
16.11.2018	39 <sup>th</sup> ERPC

(ii) As regards the contention of NTPC that the Petitioner had obtained IA for the transmission scheme on 28.3.2013 when the bus splitting arrangement was not even finalized by ERPC, it is pertinent to mention that the above system requirements were discussed and agreed in the SCM on Power System Planning in Eastern Region held on 20.9.2010 and also in the 15<sup>th</sup> TCC and ERPC Meeting held on 28.9.2010 at Rajarhat, Kolkata and the scheme was ratified in 11<sup>th</sup> SCM of ER dated 20.9.2010 and also in subsequent ERPC and TCC meetings. This has also been explicitly mentioned in the 32<sup>nd</sup> ERPC which is reproduced below:

*“TCC felt that NTPC did not execute the bus splitting scheme expeditiously even when the scheme was agreed upon in 11<sup>th</sup> SCM on 29.09.2010 with subsequent approval in TCC and ERPC well with in 2012. NTPC however pointed out that the delay is mainly due to finalisation of funding mechanism.”*

(iii) The Petitioner has actually taken cognizance of the technical, regulatory and funding issues faced by NTPC and had gone ahead with approval of IA on 28.3.2013 only after realizing that NTPC in its meetings dated 10.4.2013 and 27.4.2013 too is considering approval from their Board of Directors for the scheme. The details of meeting dated 10.4.2013 and 27.4.2013 is summarized below:

*“10.4.2013: In the Commercial Sub-Committee (under aegis of ERPC) meeting held on 10.4.2013, NTPC informed that it had finalized the scheme and submitted that for IA by Board of Directors of NTPC requires concurrence of ERPC.*

*27.4.2013: In the 24<sup>th</sup> ERPC meeting, it was informed by NTPC that it had gone ahead with the finalization of detailed engineering and other pre-tender activities e.g. finalization of cost estimate, no. of packages, etc.”*

(iv) The above-mentioned dates are approximately concurrent, and it is thus evident that the Petitioner had taken IA only after in-principle approval of the transmission scheme in SCM dated 29.9.2010 and ERPC dated



28.9.2010. The Petitioner has submitted that it had also considered NTPC's initial thought of approaching their Board for IA as already mentioned above. The Petitioner has submitted that the scheme of Split Bus in Eastern Region not only involved Kahalgaon Switchyard (NTPC) but was also comprising of various other Sub-stations viz. Maithon, Durgapur, Biharshariff and Sasaram which too had been experiencing rising fault levels. Thus, the Petitioner had to go ahead with their IA considering the dangerously rising fault levels at other Sub-stations too.

(v) Regarding non-readiness of entire work at the Petitioner's end, the available correspondences between the Petitioner and NTPC demonstrate that the drawings of dead-end tower initially made available by the Petitioner to NTPC were incomplete which was subsequently made available as desired by NTPC. These issues are part of the usual procedural activities and as such coordination is always expected between the agencies involved in this type of work when both the agencies are at the same place so that such issues are addressed immediately.

(vi) With regard to the contention of NTPC that the Petitioner has completed its works only by December 2018, the Petitioner has submitted that the same is misplaced as NTPC was well aware that the nature of works demanded parallel execution of work pace so as to achieve the target completion which has been coordinated through periodic ERPC/OCC meetings and, thus, it would be disingenuous to expect that the works under the scope of the Petitioner would have been completed by February, 2017.

(vii) The work plan suggested initially by NTPC in e-mail dated 9.12.2018 was based on charging of both the circuits at Kahalgaon end sequentially i.e. Ckt-I on 18.2.2018 and Ckt-II on 26.12.2018. NTPC had mentioned that as per above plan of charging the bays at their Kahalgaon switchyard, shall be made available to the Petitioner in this sequence only. Further, NTPC had requested shutdown from NLDC/ ERLDC according to the initial plan. The Petitioner however informed NTPC on 10.12.2018 that it was not possible to charge both circuits in isolation and requested NTPC



that arrangement may be made in such a way that both circuits could be charged simultaneously. NTPC was requested by the Petitioner to make both the bays available to the Petitioner for simultaneous charging of both the circuits.

(viii) Due to this technical constraint faced by the Petitioner, the proposal/ plan for shutdown submitted to NLDC/ ERLDC was revised and the charging thus got deferred to the month of January, 2019 subsequent to which COD in respect of the transmission asset was declared upon receipt of RLDC charging certificate.

(ix) The Petitioner has submitted that it also faced RoW issues as late as July, 2018 during the construction of its associated transmission line. Further, the scope of work under the Petitioner was completed by August, 2018 soon after which CEA clearance was also applied. The necessary approval was received from CEA in September, 2018. Concurrently after applying with CEA for requisite charging clearance, the Petitioner vide letter dated 24.8.2018, intimated NTPC of its work progress and requested NTPC for a completion plan and expediting the work associated with bays at Kahalgaon Switchyard. In response, NTPC vide its letter dated 25.9.2018 reverted with target completion of October, 2018 for its scope of works which was eventually revised to December, 2018. The Petitioner has submitted that the scope of works of the Petitioner were largely completed by August, 2018 (as is also clear from CEA clearance letter dated 24.9.2018) and only balance works related to line termination and charging were to be carried upon completion of associated bays undertaken by NTPC at Kahalgaon Switchyard which were eventually completed in December,2018/ January, 2019.

20. Further, NTPC has filed sur-rejoinder to the rejoinder of the Petitioner wherein, NPTC has reiterated its submissions made earlier in its reply. Additionally, NTPC has made the following submissions:



(a) The Petitioner has submitted that the split bus not only involved Kahalgaon switchyard of NTPC but also comprised of other sub-station of the Petitioner at Maithon, Durgapur, Biharsharif and Sasaram which were experiencing rise in fault levels. Therefore, the Petitioner was not dependent solely on Kahalgaon bus splitting to be carried out by NTPC. Hence, blaming NTPC for time over-run is without merit.

(b) There was a delay in finalisation of the drawings of dead-end tower by the Petitioner for which NTPC cannot be held responsible for time over-run.

(c) The Petitioner has sought to attribute NTPC for 47 months of time over-run in the original petition. However, as per the PERT chart and details, the delay on account of NTPC has been reduced to 36 months. In the rejoinder to the reply of NTPC, the Petitioner has stated that the delay was also caused due to ROW issues, meaning thereby, that even if NTPC had completed their part of job on time, the Petitioner could not have completed the work on time due to ROW issues.

(d) After ROW issues were resolved, the work was completed in August, 2018 after which CEA clearance was received in September, 2018. Therefore, NTPC cannot be blamed for the delay till September, 2018. At the maximum, the bus splitting issue would have come in the way of the Petitioner from October, 2018 to December, 2018. Therefore, entire delay cannot be attributed to NTPC.

(e) In response to the Commission's query on time over-run, the Petitioner vide its affidavit dated 4.5.2020, has submitted that time over-run on ROW issues, testing and commissioning, stringing, civil works/ tower erection, foundation and supplies is much more than the issue of bus being wrongly attributed to NTPC. The time over-run on all these factors is in the range of 44 months to 57 months which has nothing to do with NTPC and needs to be justified by the Petitioner on its merits and in an independent manner.



21. We have considered the submissions of the Petitioner and NTPC and perused the documents available on record. As per IA dated 28.3.2013, the transmission asset was scheduled to be put into commercial operation within 15 months of the IA i.e. by 28.6.2014. However, the transmission asset was put under commercial operation on 26.1.2019, with a time over-run of about 1673 days. The Petitioner has submitted that the time over-run was mainly due to the delay in bus splitting at Kahalgaon STPS Stage-I and Stage-II by NTPC and on account of RoW problems at Location No. 3/0, Location No. 4/0, Location No. 5/0, Location No. 22/0, Location No. 22/1, Location No. 24/0 and other locations. We note that the Petitioner was required to do reconfiguration of Biharshariff Ckt-III and Ckt-IV from the present location to Stage-II side of Kahalgaon switchyard of NTPC. On the other hand, NTPC was required to carry out bus splitting work at Kahalgaon Switchyard of NTPC. The Petitioner has submitted that the scheme was deliberated in various meetings of Standing Committee, ERPC and committees of ERPC before IA was accorded on 28.3.2013. After IA, the Petitioner placed LoA in the month of May 2013, but it was unable to complete the work within 15 months of scheduled time due to delay of work under the scope of NTPC and on account of RoW issues faced by it at various locations during construction of the transmission asset. We deal with various contentions raised by the Petitioner for the delay in COD of the transmission asset.

***Delay due to NTPC's delay in bus splitting work at Kahalgaon***

22. We first deal with contention of the Petitioner that delay in COD of the transmission asset was due to NTPC's delay in bus splitting work at Kahalgaon.



The Petitioner has attributed the time over-run up to 13.11.2015 due to delay in bus splitting work at Kahalgaon STPS of NTPC.

23. The Petitioner has claimed that splitting of the Bus at Kahalgaon Switchyard was to start from 2010. However, we did not come across any document where NTPC had agreed to start its work related to bus splitting at Kahalgaon Switchyard before 31<sup>st</sup> ERPC meeting held on 13.11.2015. There were deliberations in various ERPC meetings and other forums, but due to lack of clarity as regards funding, the matter did not proceed. We also note that request for funding from PSDF was made, but the same did not materialize and NRLDC, vide letter dated 11.10.2014, conveyed that the scheme did not qualify for funding from PSDF. NTPC had also filed I.A. No. 64 of 2014 in Petition No. 238/GT/2014 for in principle approval of taking up the bus splitting work, but the same was not granted by the Commission.

24. The Petitioner has submitted the chronology of the schedule for completion of bus splitting work, which is almost five years (i.e. 20.9.2010 to 13.11.2015). We, however, note that at the same time, the Petitioner has itself admitted that the bus splitting work by NTPC was delayed due to lack of clarity on funding. In such a situation, the claim of the Petitioner that IA for the transmission asset was based on 20.9.2010 as the start date of bus splitting is without any basis and merit.

25. We also note that the time required for bus splitting work to be carried out by NTPC was nearly three years. In fact, the Petitioner has considered this duration as over 5 years (20.9.2010 to 13.11.2015). On the other hand, the Petitioner as



per IA dated 28.3.2013, has considered only 15 months for SCOD of the transmission asset from date of IA. Thus, Petitioner had not factored in correctly the relevant time frames while seeking IA and planning to complete its work in 15 months from the date of IA.

26. The Petitioner has submitted that the scheme of Split Bus in Eastern Region not only involved Kahalgaon Switchyard (NTPC) but also various other Sub-stations viz. Maithon, Durgapur, Biharsharif and Sasaram which too had been experiencing rising fault levels. Therefore, the Petitioner had to go ahead with its IA considering the rising fault levels at all these sub-stations. Thus, IA for the transmission asset was granted along with other elements which did not concern bus splitting at Kahalgaon switchyard of NTPC and the bus splitting at Kahalgaon switchyard of NTPC was only one component of the entire scheme to be implemented by the Petitioner.

27. We note that initially the Petitioner claimed delay of 47 months on account of delay in works related to bus splitting at Kahalgaon STPS, which has been shown to be 36 months in the chronology of events furnished by the Petitioner subsequently.

28. We note that as per the Petitioner's own submission, NTPC informed ERPC that it had finally agreed to go ahead with the implementation of Bus Splitting in Kahalgaon only on 13.11.2015 in the 31<sup>st</sup> ERPC meeting. However, the Petitioner had obtained the IA much earlier, on 28.3.2013 though there was no clear decision on the part of NTPC regarding implementation of the work because of funding issues. The work under the scope of the Petitioner and NTPC are



associated and scope of the work under the Petitioner cannot be put into operation without the Bus Splitting at Kahalgaon Switchyard of NTPC. Therefore, we are of the considered view that the Petitioner should have waited for a clear indication from NTPC about the decision to implement the Bus Splitting in Kahalgaon Switchyard.

29. On the perusal of documents submitted by the Petitioner, we also note that though the Petitioner placed the LOA on 30.5.2013, it did not start any work till 2015.

30. It was only in February, 2016 that Board of Directors of NTPC granted approval for undertaking the bus splitting work and the same was completed in December, 2018.

31. We also note that the issues were discussed in various meetings and both the Petitioner and NTPC were informed of the status.

32. In view of the foregoing discussions, the claim of the Petitioner that the time over-run from 28.6.2014 to 13.11.2015 is on account of purported delay in bus splitting work under the scope of NTPC, is rejected.

***Delay on account of RoW issues faced by the Petitioner at various locations***

33. With respect to RoW problems, the Petitioner has submitted that it faced RoW problems from January 2015 to 16.7.2018 at various locations viz. Location No. 3/0, Location No. 4/0, Location No. 5/0, Location No. 22/0, Location No. 22/1 and Location No. 24/0. We have gone through the submissions of the Petitioner



and have referred to various letters addressed to SDO, Kahalgaon and other local authorities with respect to RoW issues.

34. The Petitioner has neither submitted valid reasons for the delay between January, 2015 and 7.6.2015 nor submitted any documentary proof for this period. Accordingly, the time over-run for the period from January, 2015 to 6.6.2015 is not condoned.

35. The Petitioner has submitted first documentary evidence with respect to RoW problem on 7.6.2015 at Location No 24/0. Thereafter, the Petitioner has submitted letters dated 3.7.2015, 17.2.2016, 23.4.2016, 24.4.2016, 4.5.2016, 7.2.2017, 17.2.2017, 25.2.2017, 1.3.2017, 16.3.2017, 7.4.2017, 15.4.2017, 17.5.2017, 18.5.2017, 8.6.2017, 21.6.2017, 5.7.2017, 22.7.2017, 30.7.2017, 5.8.2017, 21.8.2017, 7.9.2017, 9.9.2017, 12.9.2017, 15.9.2017, 25.9.2017, 2.4.2018, 3.4.2018, 23.6.2018 and 16.7.2018 for issues related to RoW problems and land compensation issues.

36. We have perused the various letters submitted by the Petitioner with respect to RoW problems for the period from 7.6.2015 to 16.7.2018. As reasons were beyond the control of the Petitioner, we condone the time over-run due to RoW problems for the period from 7.6.2015 to 16.7.2018.

37. The Petitioner has submitted that NTPC was requested to provide the gantry position of split bus in their switchyard. The location of construction of tower in the premises of NTPC was not finalized till 5.10.2017 and finally erection & stringing work was completed at the location by 23.8.2018. The Petitioner vide letters dated 7.6.2018 and 24.8.2018 had intimated NTPC regarding completion



of subject line and requested for shutdown of existing Kahalgaon-Banka Transmission Line for 4-5 days for connection at tapping point. It is observed that the Petitioner approached the Regional Inspectorial Organisation (RIO) on 14.9.2018 and obtained CEA energisation certificate on 24.9.2018 for energisation of 400 kV Kahalgaon-Banka Transmission Line consequent to implementation of bus splitting scheme at NTPC Kahalgaon. From the CEA energisation certificate dated 24.9.2018, we note that the Petitioner was not ready for charging before 24.9.2018. The Petitioner has not adduced any reason for time over-run for the period from 17.7.2018 to 24.9.2018. Accordingly, the time over-run for the period from 17.7.2018 to 24.9.2018 is not condoned.

38. As per the CEA energisation certificate dated 24.9.2018, the Petitioner was ready for COD of the transmission asset but not able to put it into commercial operation due to non-completion of bus splitting work at NTPC Kahalgaon under the scope of NTPC. From submissions of NTPC, we note that it has acknowledged that the bus splitting issue would have come in the way of the Petitioner only from October 2018. Since COD of the transmission asset has been approved as 26.1.2019, considering the submissions of the parties, IDC and IEDC from 1.10.2018 to 25.1.2019 shall be borne by NTPC and the same shall be not capitalised. We have not condoned time over-run for the period from 24.9.2018 to 30.9.2018 since the Petitioner would have required about a week's time to put the transmission asset into commercial operation after CEA energization certificate of 24.9.2018.

39. To sum up, time over-run of 420 days i.e. from 28.6.2014 to 6.6.2015 and from 17.7.2018 to 30.9.2018 is not condoned in view of the foregoing discussion,



while time over-run of 1136 days i.e. from 7.6.2015 to 16.7.2018 is condoned as it was due to RoW issues which was beyond the control of the Petitioner. As regards the time over-run of 117 days i.e. from 1.10.2018 to 25.1.2019, the same is not condoned, but the IDC and IEDC for the period shall be borne by NTPC and shall not be capitalised.

40. In view of the above, the details of the time over-run condoned and not condoned in case of the transmission asset is as follows:

<b>COD</b>	<b>Time over-run</b>	<b>Time over-run condoned</b>	<b>Time over-run not condoned</b>
26.1.2019	1673	1136	537*

\* For the time over-run of 117 days i.e. from 1.10.2018 to 25.1.2019, IDC and IEDC shall be borne by NTPC and shall not be capitalised.

### **Capital Cost**

41. Regulation 9(1) and Regulation 9(2) of the 2014 Tariff Regulation provide as follows:

*(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.

42. The capital cost claimed by the Petitioner based on Auditor's Certificate dated 23.5.2019 is as follows:

(₹ in lakh)					
Apportioned approved cost (FR)	Apportioned Approved cost (RCE)	Expenditure up to COD	Actual/ Projected Expenditure		Total Estimated Expenditure
			2018-19	2019-20	
4060.75	4362.76	3915.29	72.02	150.00	4137.31

**Cost over-run**

43. The Petitioner has submitted that FR apportioned approved cost of the transmission asset is ₹4060.75 lakh and the total estimated expenditure is ₹4137.31 lakh. Therefore, there is cost over-run of ₹76.56 lakh. However, it is within the RCE apportioned approved cost of ₹4362.76 lakh and, thus, there is no cost over-run in case of the transmission asset.

44. The Petitioner has submitted that the major variation in cost is attributable to (1) Price Variation and (2) Increase in IDC and IEDC and submitted the following reasons for cost variation:

(1) Price Variation (PV)

(a) It is attributable to inflationary trends prevalent during execution of the transmission asset from December, 2012 (first OBD under the project) to December, 2015 (period of major supplies), as may be seen from the trend of variation in indices of various major raw materials as indicated below:



<b>Name of Indices</b>	<b>December, 2012 (one month prior to first OBD)</b>	<b>During DPR (February 2013 PL)</b>	<b>March 2013</b>	<b>March 2014</b>	<b>December 2015</b>	<b>% Increase from first OBD</b>
<i>Tower Steel</i>	54765	53586	53478	53586	51741	-5.52%
<i>HG Zinc</i>	129200	132300	132900	159200	167600	29.72%
<i>EC Grade Al</i>	147033	148200	146700	143883	169217	15.09%
<i>CRGO</i>	167200	155234	156590	194009	220523	31.89%
<i>WPI</i>	168.8	170.9	170.1	178.9	178.7	5.86%
<i>WPI for Fuel &amp; Power</i>	190.4	195.5	191.6	212.6	194.6	2.21%
<i>CPI</i>	219	223	224	238	253	15.53%

(2) Variation in IDC and IEDC

(a) Total IDC and IEDC of the transmission asset has increased by ₹685.58 lakh in comparison to approved cost, as per the following break up:

(i) Increase in IEDC

As per IA, IEDC including contingencies for the transmission asset was estimated at ₹473.75 lakh on normative basis whereas, actual IEDC works out to ₹525.45 lakh resulting in increase of ₹51.70 lakh.

(j) Increase in IDC

As per IA, IDC in respect of the transmission asset as per approved DPR cost was estimated at ₹203.04 lakh against which the actual IDC works out to ₹836.92 lakh. Thus, there is an increase of ₹633.88 lakh. The main reason for increase in IDC is significant increase in the Project Time Cycle (PTC) from 15 months (as per IA) to about 70 months (actual execution) owing to unforeseen and uncontrollable reasons mentioned earlier.

45. The Petitioner has requested that the tariff may be allowed on the estimated completion cost of ₹4137.31 lakh. The reasons for item-wise cost variation



between approved cost (FR) and anticipated cost as on COD are explained in detail in Form-5.

46. Based on the Form-5 furnished by the Petitioner, it is observed that the variations are mainly due to items tabulated in the following table:

(₹ in lakh)

Sr. No.	Particulars	Cost details			Variation (+ within, - increase)	
		FR	RCE	Completion	w.r.t FR	w.r.t RCE
1	Preliminary works (investigation, Right of way, Forest clearance, PTCC etc.)	81.14	(*)	74.09	7.05	(*)
2	Transmission line (Steel, Conductor, Hardware, accessories etc.)	1907.36		1741.68	165.68	
3	Transmission Line Erection, Stringing and Civil works including Foundation	1128.63		767.80	360.83	
4	Taxes & Duties	266.83		191.37	75.46	
5	Overheads	473.75		525.45	-51.70	
8	IDC	203.04		836.92	-633.88	
	<b>Total</b>	<b>4060.75</b>		<b>4362.76</b>	<b>4137.31</b>	

(\*) The Petitioner has not submitted detailed breakup as per RCE.

47. The overall capital cost has increased due to increase in IEDC and IDC due to completion time of about 70 months against the schedule of 15 months, whereas all other items like preliminary works, transmission line material, transmission line erection, stringing, foundation and taxes and duties etc. have reduced due to actual site conditions and actual awarded price discovered based on market forces prevailing at the time of bidding.



48. The Petitioner has submitted RCE which has been duly approved by the Board of Directors of the Petitioner. It is observed that the FR apportioned approved capital cost of the transmission asset was ₹4060.75 lakh which was subsequently revised in RCE to ₹4362.76 lakh. The estimated completion cost of the transmission asset of ₹4137.31 lakh is within the RCE apportioned approved cost. Hence, there is no cost over-run as per RCE. Accordingly, capital cost claimed by the Petitioner is allowed.

**Interest during Construction (IDC)**

49. The Petitioner has claimed IDC in respect of the transmission asset and has submitted Auditor’s Certificates in support of the same. The Petitioner has submitted computation of IDC along with year-wise details of the IDC discharged.

50. The allowable IDC has been worked out considering the information submitted by the Petitioner in respect of the transmission asset separately on cash basis. The loan details submitted in Form-9C for 2014-19 period and IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis.

51. The details of the period of time over-run condoned and not condoned and the corresponding IDC is as follows:

Period of time over-run and number days of time over-run condoned/ non-condoned)				IDC (in ₹ lakh)
28.6.2014	31.12.2014	Not Condoned	187	92.85
01.01.2015	06.06.2015	Not Condoned	157	
07.06.2015	16.07.2018	Condoned	1136	585.67
17.07.2018	30.09.2018	Not Condoned	76	45.19
01.10.2018	25.01.2019	Not Condoned	117	69.56*

\* To be borne by NTPC



52. The Petitioner is eligible for the IDC for the period of time over-run condoned i.e. 7.6.2015 to 16.7.2018 and from the date of Investment Approval to 27.6.2014. Accordingly, IDC allowed and considered in the capital cost is as follows:

(₹ in lakh)				
IDC claimed by Petitioner (as per Auditor Certificate)	Entitled IDC up to COD	IDC disallowed as on COD due to time over-run	Un-discharged portion of entitled IDC as on COD	IDC allowed on cash basis as on COD
A	B	C=A-B	D	E=B-D
836.92	629.32	207.60	0.00	629.32

*The IDC has been allowed subject to adjustment, if any, if the Petitioner will submit the detailed justification of time over-run at the time of true-up.*

53. Further, as discussed in earlier paras NTPC shall bear IDC for the period from 1.10.2018 till 25.1.2019. Accordingly, the Petitioner shall recover IDC from NTPC for the period from 1.10.2018 till 25.1.2019.

#### **Incidental Expenditure during Construction (IEDC)**

54. The Petitioner has claimed IEDC of ₹525.45 lakh in respect of the transmission asset and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission asset.

55. The details of the period of time over-run condoned and not condoned and the corresponding IEDC is as follows:

Period of time over-run and number days of time over-run condoned/ non-condoned				IEDC (in ₹ lakh)
28.6.2014	31.12.2014	Not Condoned	187	84.86
1.1.2015	6.6.2015	Not Condoned	157	
7.6.2015	16.7.2018	Condoned	1136	280.24
17.7.2018	30.9.2018	Not Condoned	76	18.75
1.10.2018	25.1.2019	Not Condoned	117	28.86*

\* To be borne by NTPC



56. The Petitioner is eligible for the IEDC for the period of time over-run condoned i.e. 7.6.2015 to 16.7.2018 along with IEDC from the date of Investment Approval to 27.6.2014 which is worked out as ₹112.74 lakh. IEDC allowed is as follows:

(in ₹ lakh)		
IEDC Claimed (as per Auditor's Certificate)	Disallowed IEDC due to Time Over-run	Allowed IEDC
525.45	132.47	392.98

*IEDC has been allowed subject to adjustment, if any, if the petitioner will submit the detailed justification of time overrun at the time of true-up.*

57. As discussed earlier, NTPC shall bear the IEDC for the period from 1.10.2018 to 25.1.2019. Accordingly, the Petitioner can recover IEDC from NTPC for the period from 1.10.2018 to 25.1.2019. Further, the Petitioner is directed to submit the details and relevant documents of IEDC from Investment Approval date till SCOD at the time of true-up.

### **Initial Spares**

58. 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%”*

59. The Petitioner has claimed initial spares in respect of the transmission asset and prayed to allow the initial spares as per actuals. Initial spares claimed by the Petitioner are as follows:



Total plant and machinery cost under Sub-station excluding IDC and IEDC, Land & civil works (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Allowable Initial Spares worked out
			$D = [(A-B)*C/(100-C)]$ (₹ in lakh)
2774.94	27	1	27.76

60. The transmission asset was put into commercial operation on 26.1.2019 and accordingly the cut-off date is 31.3.2022.

61. The capital cost up to the cut-off date has been considered for computation of initial spares. The Petitioner's claim of initial spares in respect of the transmission asset is within the norms specified in Regulation 13(d) of the 2014 Tariff Regulations and the same is allowed and it is as follows:

Plant & machinery cost up to cut-off date (excluding IDC and IEDC as per Auditor's certificate) (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Allowable Initial Spares worked out	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
			$D = [(A-B)*C / (100-C)]$		
2774.94	27.00	1	27.76	0.00	27.00

62. The Commission directed the Petitioner to submit year wise discharge statement of initial spares and also to clarify that as per Auditor's Certificate dated 23.5.2019, ₹27.00 lakh has been claimed for initial spares for the transmission line. In response, the Petitioner has submitted that the entire initial spares of ₹27.00 lakh claimed are within the permissible limit and the same have been discharged up to COD. The Petitioner has further clarified that initial spares amounting to ₹27.00 lakh have been claimed in the Auditor's Certificate. The same have also been claimed in Form-5, which are subsumed under the cost of transmission line as per Form-5 and thus not depicted separately. Further, the total estimated cost is same as per Auditor's certificate and Form-5.



### **Capital Cost as on COD**

63. Accordingly, capital cost allowed as on COD is as follows:

(₹ in lakh)

Capital cost as on 1.4.2014 or COD whichever is later as per Auditor's Certificate	Less: IDC as on COD due to		Less: IEDC disallowed as on COD due to Time over-run not condoned	Capital cost considered as on 1.4.2014/COD whichever is later
	Time over-run not condoned	Un-discharged IDC		
3915.29	207.60	0.00	132.47	3575.22

### **Additional Capital Expenditure (ACE)**

64. The Petitioner has submitted that ACE incurred in respect of the transmission asset is on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for work executed with in cut-off date. ACE for 2018-19 period has been claimed under Regulation 14(1)(i) (Undischarged liabilities) of the 2014 Tariff Regulations.

65. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner on account of undischarged liability towards final payment/ withheld payment is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations. The details of ACE allowed are as follows:

(₹ in lakh)

Particulars	ACE
	2018-19
ACE to the extent of Balance & Retention Payments	72.02
Add: IDC Discharged	0.00
Add: Undischarged Initial Spares allowed as ACE	0.00
Total ACE allowed	72.02

### **Capital cost for 2014-19 period**

66. Accordingly, capital cost considered as on 31.3.2019 is as follows:



(₹ in lakh)

Capital Cost as on COD	ACE during 2014-19	Total Capital Cost as on 31.3.2019
3575.22	72.02	3647.24

### **Debt-Equity Ratio**

67. Regulation 19(1) of the 2014 Tariff Regulations specifies as follows:

*(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.*

68. The Petitioner has considered debt-equity ratio of 70:30 as on COD. Debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during 2014-19 period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission asset as on COD and as on 31.3.2019 are as follows:

Particulars	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	2502.66	70.00	2553.07	70.00
Equity	1072.57	30.00	1094.17	30.00
<b>Total</b>	<b>3575.22</b>	<b>100.00</b>	<b>3647.24</b>	<b>100.00</b>

### **Depreciation**

69. Regulation 27(2), Regulation 27(5) and Regulation 27(6) of 2014 Tariff Regulations provide as follows:

#### ***“Depreciation***

*(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.

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

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

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

70. 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 Substation (GIS)	25 years
(e) Hydro generating station including pumped Storage hydro generating stations	35 years
(f) Transmission line (including HVAC & HVDC)	35 years
(g) Communication system	15 years

*Provided that the useful life for AC and DC substations 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.”*

71. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. The Gross Block during 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is given in Annexure-1. Depreciation for 2014-19 period is allowed in



respect of the transmission asset as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations and it is as follows:

Particulars	(₹ in lakh)
	<b>2018-19 (Pro-rata for 65 days)</b>
Opening Gross Block	3575.22
ACE	72.02
Closing Gross Block	3647.24
Average Gross Block	3611.23
Weighted Average Rate of Depreciation (WAROD) (%)	5.28
Balance useful life at the beginning of the year (Year)	35
Aggregated Depreciable Value	3250.11
Remaining Depreciable Value	3216.15
<b>Depreciation during the year</b>	<b>33.96</b>

### **Interest on Loan (IoL)**

72. The Petitioner has claimed IoL in accordance with Regulation 26(5) and Regulation 26(6) of 2014 Tariff Regulations as follows:

*“(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.”*

73. The Petitioner has claimed IoL based on actual interest rates for each year during 2014-19 period. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been worked out as detailed below:



(i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.

(ii) The repayment for 2014-19 tariff period has been considered to be equal to the depreciation allowed for that period.

74. The details of IoL as calculated are as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata for 65 days)
Gross Normative Loan	2502.66
Cumulative Repayments up to Previous Year	0.00
Net Loan-Opening	2502.66
Addition due to ACE	50.42
Repayment during the year	33.96
Net Loan-Closing	2519.12
Average Loan	2510.89
Weighted Average Rate of Interest on Loan (%)	8.393
<b>Interest on Loan</b>	<b>37.53</b>

### Return on Equity ("RoE")

75. The Petitioner is entitled to RoE in respect of the transmission asset in terms of Regulations 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed the following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax (%)	Grossed up RoE [(Base Rate)/(1-t)] (%)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

76. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table below:



Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

77. The same MAT rates are considered for the purpose of grossing up of the rate of RoE for trueing up of the tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

78. Accordingly, RoE allowed in respect of the transmission asset is as follows:

(₹ in lakh)	
Particulars	2018-19 (Pro-rata for 65 days)
Opening Equity	1072.57
Addition due to ACE	21.60
Closing Equity	1094.17
Average Equity	1083.37
Return on Equity (Base Rate) (%)	15.500
Tax Rate applicable (%)	21.549
Rate of Return on Equity (Pre-tax)	19.758
<b>Return on Equity (Pre-tax)</b>	<b>38.12</b>

#### **Operation and Maintenance Expenses (“O&M Expenses”)**

79. The details of O&M Expenses claimed by the Petitioner in respect of the transmission asset for the purpose of tariff are as follows:

(₹ in lakh)	
Particulars	2018-19 (Pro-rata for 65 days)
<b>Sub-station bays</b>	
<b>AC Lines(₹ lakh/ km)</b>	
400 kV Transmission Line for reconfiguration of Biharsharif Circuit III & Circuit IV from present location to the Stage II side of Kahalgaon Switchyard of NTPS (km)	13.152
<b>Total O&amp;M Expenses</b>	<b>1.94</b>

80. The details of O&M Expenses in respect of the transmission asset allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as follows:



(₹ in lakh)	
Particulars	2018-19 (Pro-rata for 65 days)
<b>AC Lines (₹ lakh/ km)</b>	
400 kV Transmission Line for reconfiguration of Biharsharif Circuit III & Circuit IV from present location to the Stage II side of Kahalgaon Switchyard of NTPC (km)	13.152
<b>Norm (₹ lakh/km)</b>	
DC Twin / Triple Conductor	0.81
<b>Total O&amp;M Expenses allowed</b>	<b>1.89</b>

81. The Petitioner has further submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.

82. We have considered the submissions of Petitioner. We are of the view that O&M Expenses have been worked out as per the O&M Expenses norms specified in the 2014 Tariff Regulations. As regards the impact of wage revision, any application filed by the Petitioner in this regard will be dealt with in the accordance with the appropriate provisions of the 2014 Tariff Regulations.

### **Interest on Working Capital (“IWC”)**

83. The Petitioner is entitled to IWC as per Regulation 28 of the 2014 Tariff Regulations. The components of the working capital and the Petitioner’s entitlement to interest thereon are discussed as follows:

- (i) Receivables as a component of working capital will be equivalent to two months fixed cost. The Petitioner has claimed the receivables on the basis of 2 months annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.
- (ii) Maintenance spares Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @15% per annum of the O&M expenses. The value of maintenance spares has accordingly been worked out.



- (iii) O & M Expenses have been considered for one month as a component of working capital. The Petitioner has claimed O&M Expenses for one month of the respective year as claimed in the petition. This has been considered in the working capital.
- (iv) Rate of interest on working capital is allowed as per proviso 3 of Regulation 28 of the 2014 Tariff Regulation, SBI Base rate 8.70 % as on 1.4.2018 plus 350 basis points i.e. 12.20 % has been considered for the transmission asset as the rate of interest on working capital.

84. IWC allowed in respect of the transmission asset is as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata for 65 days)
Working Capital for O&M Expenses (Equivalent to one month's O&M Expenses)	0.88
Working Capital for Maintenance Spares (15% of annual O&M)	1.59
Working Capital for Receivables (Equivalent to two months of annual transmission charges)	106.56
<b>Total</b>	<b>109.04</b>
Rate of Interest on Working Capital (%)	12.20
<b>Interest of Working Capital</b>	<b>2.37</b>

#### **Approved Annual Fixed Charges for 2014-19 Tariff Period**

85. Accordingly, Annual Fixed Charges (AFC) approved for the transmission asset for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata for 65 days)
Depreciation	33.96
Interest on Loan	37.53
Return on Equity	38.12
O&M Expenses	1.89
Interest on Working Capital	2.37
<b>Total</b>	<b>113.86</b>

#### **Filing Fee and Publication Expenses**

86. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff



Regulations. We have considered the submission of the Petitioner. The Petitioner has filed the details of expenditure. The Petitioner shall be entitled for reimbursement of the filing fees and Publication Expenses in connection with the present petition, directly from the beneficiaries in accordance with Regulation 52(1) of the 2014 Tariff Regulations.

### **Licence Fee and RLDC Fees and Charges**

87. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 52(2)(b) of the 2014 Tariff Regulations for 2014-19 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulation 52(2)(a) of the 2014 Tariff Regulations for 2014-19 tariff period.

### **Goods and Services Tax**

88. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondents to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

89. We have considered the submissions of the Petitioner. Since GST is not levied on transmission service at present, we are of the view that the Petitioner's prayer is premature.



### **Sharing of Transmission Charges**

90. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by 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 transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

91. AFC allowed in respect of the transmission asset for 2014-19 period in the instant order are as follows:

Particulars	(₹ in lakh)
	2018-19 (Pro-rata for 65 days)
AFC	113.86

92. Annexure-I given hereinafter forms part of the order.

93. This order disposes of Petition No. 75/TT/2020 in terms of the above discussions and findings.

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

**sd/-**  
**(I.S. Jha)**  
**Member**

**sd/-**  
**(P. K. Pujari)**  
**Chairperson**



2014-19

Annexure-I  
Asset-I  
(₹ lakh)

Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations
					2018-19
Transmission Line	3575.22	72.02	3647.24	5.28	190.67
Total	3575.22	72.02	3647.24		190.67
Weighted Average Rate of Depreciation (%)					5.28
Average Gross Block (₹ in lakh)					3611.23

