

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 272/TT/2015

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

Date of Order : 20.09.2017

In the matter of:

Determination of transmission tariff for (a) 315 MVA 400/220 kV ICT-I and associated bays and 03 Nos. 220 kV line bays at Saharanpur Sub-station, (b) 315 MVA 400/220 kV ICT-II and associated bays and 03 Nos. 220 kV line bays at Saharanpur Sub-station (c) 50 MVA, 400 kV Bus Reactor-I at Saharanpur Sub-station and (d) 50 MVA, 400 kV Bus Reactor-II at Saharanpur Sub-station under "Northern Region Transmission Strengthening Scheme" in Northern Region for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

Power Grid Corporation of India Ltd.
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Vidyut Marg, Jaipur - 302 005
2. Ajmer Vidyut Vitran Nigam Ltd
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
3. Jaipur Vidyut Vitran Nigam Ltd
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Ltd
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.



5. Himachal Pradesh State Electricity Board
Vidyut Bhawan, Kumar House Complex Building II
Shimla-171 004
6. Punjab State Power Corporation Limited
Thermal SHED TIA
Near 22 Phatak, Patiala-147001
7. Haryana Power Purchase Centre
Shakti Bhawan, Sector-6, Panchkula (Haryana) 134 109
8. Power Development Deptt.
Government of Jammu & Kashmir
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Ltd.
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg, Lucknow - 226 001
10. Delhi Transco Ltd
Shakti Sadan, Kotla Road,
New Delhi-110 002
11. BSES Yamuna Power Ltd,
BSES Bhawan, Nehru Place,
New Delhi.
12. BSES Rajdhani Power Ltd,
BSES Bhawan, Nehru Place, New Delhi
13. North Delhi Power Ltd,
Power Trading & Load Dispatch Group
CENNET Building, Adjacent To North Central Railway
Allahabad.
14. New Delhi Municipal Council
Palika Kendra, Sansad Marg, New Delhi-110002
15. U.P. Power Transmission Corporation Limited
11th Floor, Shakti Bhawan, 14 -Ashok Marg,
Lucknow -226001

....Respondents



The following were present:-

For Petitioner: Shri S.S. Raju, PGCIL
Shri S.C Taneja, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Aryaman Saxena, PGCIL
Smt. Manju Gupta, PGCIL
Shri Sanjay Sen, Advoate, PGCIL
Shri Swapna Seshadri, Advocate, PGCIL

For Respondent: Shri S. K. Agarwal, Advocate, Rajasthan Discoms
Shri S. P. Das, Advocate, Rajasthan Discoms

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("the petitioner") for determination of tariff for (a) 315 MVA 400/220 kV ICT-I and associated bays and 03 Nos. 220 kV line bays at Saharanpur Sub-station (hereinafter referred to as "Asset-I"); (b) 315 MVA 400/220 kV ICT-II and associated bays and 03 Nos. 220 kV line bays at Saharanpur Sub-station (hereinafter referred to as "Asset-II") (c) 50 MVA, 400 kV Bus Reactor-I at Saharanpur Sub-station (hereinafter referred to as "Asset-III") and (d) 50 MVA, 400 kV Bus Reactor-II at Saharanpur Sub-station (hereinafter referred to as "Asset-IV") under "Northern Region Transmission Strengthening Scheme" in Northern Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") for the period from date of commercial operation to 31.3.2019 for the subject assets.



2. The respondents are distribution licensees or electricity departments or power procurement companies of States, who are procuring transmission service from the petitioner, mainly beneficiaries of Northern Region.

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

(a) The administrative approval and expenditure sanction to the transmission project was accorded by the Board of Directors of the petitioner company vide Memorandum C/CP/NRTSS dated 17.3.2010 in the meeting held on 16.3.2010 with an estimated cost of ₹96558 lakh including IDC of ₹7003 lakh (based on 3rd Quarter, 2009 price level). The total apportioned approved cost for the instant assets is ₹8295.10 lakh.

(b) The scope of work covered under “Northern Regional Transmission Strengthening Scheme” in Northern Region is as follows:-

Transmission lines:

- Bhiwani-Jind 400 kV DC line
- LILO of both circuits of 400 kV D/C Ballia-Lucknow line at Sohawal
- LILO of both circuits 400 kV D/C Dehradoon-Bagpat (Quad) at Saharanpur
- LILO of both circuits 400 kV D/C Lucknow-Bareilly (POWERGRID) line (Quad) at Shahjahanpur
- LILO of both circuits of 400 kV D/C Agra-Jaipur line (Quad) at Jaipur (South)

Sub-stations:

- New 2x315 MVA, 400/220 kV Sub-station at Sonawal
- New 2x315 MVA, 400/220 kV Sub-station at Shahajanpur
- **New 2x315 MVA, 400/220 kV Sub-station at Saharanpur**
- New 2x315 MVA, 400/220 kV Sub-station at Jind
- New 2x315 MVA, 400/220 kV Sub-station at Jaipur (South)
- Extension of Bhiwadi 400/220 kV Sub-station- 1x315 MVA 400/220 kV transformer
- Extension of Gurgaon 400/220 kV gas insulated Sub-station
- Extension of Bhiwani 765/400/220 kV Sub-station



- Extension of Jaipur (Bassi) 400/220 kV Sub-staion
- Extension of Bareilly 400/220 kV Sub-station

4. The petitioner, in its original petition dated 30.10.2015, had claimed the transmission charges for all the assets based on anticipated COD and had submitted separate tariff forms for each of the instant assets. Subsequently, the petitioner has submitted that assets considered in the petition were commissioned on 9.5.2016 and also submitted combined tariff forms for all assets (hereinafter referred to as “Combined Assets”) vide affidavit dated 25.5.2016 as per the following details:-

Assets	Name of Asset (as filed in the petition dated 30.10.2015)	Anticipated COD	Asset	Name of Combined Asset (as in the final revised submission dated 25.5.2016)	Actual COD
Asset-I	(a) 315 MVA 400/220 kV ICT-I and associated bays and 03 Nos. 220 kV line bays at Saharanpur sub-station	31.12.2015	Combined Assets	(a) 315 MVA 400/220 kV ICT-I and associated bays and 03 Nos. 220 kV line bays at Saharanpur sub-station	9.5.2016
Asset-II	(b) 315 MVA 400/220 kV ICT-II and associated bays and 03 Nos. 220 kV line bays at Saharanpur sub-station			(b) 315 MVA 400/220 kV ICT-II and associated bays and 03 Nos. 220 kV line bays at Saharanpur sub-station	
Asset-III	(c) 50 MVA, 400 kV Bus Reactor-I at Saharanpur sub-station and			(c) 50 MVA, 400 kV Bus Reactor-I at Saharanpur sub-station and	
Asset-IV	(d) 50 MVA, 400 kV Bus Reactor-II at Saharanpur sub-station			(d) 50 MVA, 400 kV Bus Reactor-II at Saharanpur sub-station	



5. The petitioner has submitted the Auditor Certificates and revised tariff forms based on the actual COD of all the elements of the instant transmission asset vide affidavit dated 25.5.2016. The capital cost claimed by the petitioner, as certified vide Auditor's Certificate dated 25.5.2016 and the estimated additional capital expenditure of the subject asset during 2014-19 tariff period, is as below :-

(₹ in lakh)

FR apportioned approved cost	Capital cost up to COD	Estimated additional capital expenditure		Total estimated completion cost as on 31.3.2019
		2016-17	2017-18	
8295.10	13696.68	1037.52	866.00	15600.20

6. The transmission charges claimed for the subject asset by the petitioner are as under:-

(₹ in lakh)

Particulars	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	431.85	527.55	547.32
Interest on Loan	686.27	777.36	754.72
Return on Equity	752.24	896.61	922.21
Interest on Working Capital	73.61	85.94	87.64
O&M Expenses	553.17	638.44	659.64
Total	2497.14	2925.90	2971.53

7. The details submitted by the petitioner in support of its claim for interest on working capital for the subject asset is given hereunder:-

(₹ in lakh)

Particulars	2016-17 (pro-rata)	2017-18	2018-19
O & M Expenses	51.50	53.20	54.97
Maintenance Spares	92.69	95.77	98.95
Receivables	464.94	487.65	495.26
Total	609.13	636.62	649.18



Particulars	2016-17 (pro-rata)	2017-18	2018-19
Rate of Interest (%)	13.50	13.50	13.50
Interest	73.61	85.94	87.64

8. The annual fixed charges for the elements of the instant asset were allowed under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC charges vide order dated 25.1.2016 based on the anticipated COD of these elements. The petitioner has filed a Review Petition No.16/RP/2016 against the order dated 25.1.2016 in Petition No. 272/TT/2015 on the issue of sharing of the transmission charges. The Commission has disposed the review petition vide order dated 31.5.2016 and held as under:-

“15. We direct that the petition be listed for hearing on 4.7.2016 on the issue of declaration of COD under proviso (ii) to Regulation 4 (3) of 2014 Tariff Regulations in respect of the assets covered in the petition. We direct UPPTCL/UPPCL, who are developing the downstream assets to be present during the hearing to explain the reasons for delay in commissioning of the downstream assets and assist the Commission. We also direct NRLDC to submit a report regarding the readiness of the transmission assets covered under the petition for declaration of COD and depute its representative to assist the Commission during the hearing.

16. The Commission has observed that the petitioner has been seeking approval of COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations in the petition filed for determination of tariff. We feel that the issue of declaration of COD in such cases should be decided first before the petitioner files the petition for determination of tariff. This will facilitate disposal of the tariff petition expeditiously. The petitioner should file separate application for obtaining approval of the Commission under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulation only if the transmission assets are ready in all respects for commissioning but cannot be commissioned due to non-commissioning of generating station or upstream/downstream transmission system as case may be. The petitioner shall also be required to obtain a trial operation under no load condition from the RLDC concerned. Accordingly, we direct that whatever the petitioner requires approval of COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, it should file a separate petition setting out the facts in details, the efforts made by the petitioner for matching commissioning or the transmission assets with the commissioning of the generating station of upstream/downstream assets as the



case may be, the readiness of the transmission assets for commissioning supported by a certificate for the COD in terms of sub-clause (vi) of Clause(4) of Regulation 6.3A of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulation 2010, a certificate from concerned RLDC for trial operation under no load condition. The petitioner should also implead the generator or developer of the upstream/downstream assets as the case may be and concerned STU, DICs and RLDC so that an informed decision regarding the COD can be taken.”

9. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (“the Act”).

10. UPPCL, Respondent No. 9 has submitted its reply on 28.11.2015. The three discoms of Rajasthan namely Ajmer Vidyut Vitran Nigam Ltd (Respondent No. 2), Jaipur Vidyut Vitran Nigam Ltd (Respondent No. 3) and Jodhpur Vidyut Vitran Nigam Ltd (Respondent No. 4) (collectively referred as “Rajasthan Discoms”) have submitted a joint reply vide affidavit dated 15.1.2016. The final hearing in this matter was held on 27.6.2016.

11. The petitioner has submitted the present status of commissioning of the downstream transmission system vide affidavit dated 23.6.2016. The petitioner has submitted that there are six no. of 220 kV line bays at Saharanpur Sub-station covered in Asset-I and Asset-II which is to be connected to the associated downstream Sub-station of UPPTCL, whose commissioning was however delayed. During the hearing dated 27.6.2016, the petitioner submitted that 4 nos. line bays of 220 kV have not yet been commissioned due to non-availability of downstream system of UPPTCL. It has submitted that since the 4 nos. 220 KV



line bays cannot be commissioned in absence of associated downstream system, the same may be excluded from Asset I and Asset II (2 line bays from each Asset I and Asset II) for the purpose of tariff determination. The petitioner has requested to consider the remaining assets for the tariff fixation in the instant petition. The petitioner also submitted the cost of the 4 bays on provisional basis subject to true up.

12. Having heard the representatives of the petitioner and respondents and perused the material on record, we proceed to determine the tariff of all the assets except 4 nos. 220 kV line bays, covered in the Asset I and Asset II, in accordance with the 2014 Tariff Regulations. The petitioner is at the liberty to file separate petition for the assets which have not yet been commissioned due to non-commissioning of its downstream system in line with observations in Para 16 of the order dated 31.5.2016 in the Petition No. 16/RP/2016 in Petition No. 272/TT/2015. Thus, the assets considered in the present order are as given below:

Asset	Name of Combined Asset (as in the final revised submission dated 25.5.2016)	COD (current status)
Combined Assets	<p>(a) 315 MVA 400/220 kV ICT-I and associated bays and 01 Nos. 220 kV line bays at Saharanpur sub-station</p> <p>(b) 315 MVA 400/220 kV ICT-II and associated bays and 01 Nos. 220 kV line bays at Saharanpur sub-station</p> <p>(c) 50 MVA, 400 kV Bus Reactor-I at Saharanpur sub-station and</p> <p>(d) 50 MVA, 400 kV Bus Reactor-II at Saharanpur sub-station</p>	9.5.2016 (actual)



Date of Commercial Operation (COD)

13. 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 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

xxx”

14. The petitioner, vide affidavit dated 25.5.2016, has submitted RLDC certificates dated 16.5.2016 for the combined assets (except 4 nos. of line bays of 220 kV at Saharanpur) in accordance with Regulation 5(2) of the 2014 Tariff Regulations indicating completion of successful trial operation. Accordingly, the commercial operation date considered for the subject assets is 9.5.2016. The tariff is worked out for the instant assets from the COD to 31.3.2019.

Capital Cost

15. The petitioner, vide affidavit dated 25.5.2016, has submitted the Auditor Certificates and revised tariff forms for the subject asset. The following capital cost is claimed by the petitioner:-



(₹ in lakh)

FR apportioned approved cost	Capital cost up to COD (9.5.2016)	Estimated additional capital expenditure		Total estimated completion cost as on 31.3.2019
		2016-17	2017-18	
8295.10	13696.68	1037.52	866.00	15600.20

16. Regulation 9 (1) and (2) and 10 (1) of the 2014 Tariff Regulations specify as follows:-

“9. 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;
- 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.”

“10. Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time: Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run,



competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff.”

17. The petitioner vide affidavit dated 25.5.2016 has submitted the cost of 4 nos. 220 kV line bays which have not been commissioned as ₹800.00 lakh. Hence, the cost of 4 line bays of 220 kV has been reduced from sub-station cost as on COD. Accordingly, apportioned approved cost has also been reduced. Following capital cost has been considered for analysis after deducting the cost of 4 nos. of 220 kV line bays as on COD:-

(₹ in lakh)

FR apportioned approved cost	Capital cost up to COD	Estimated Additional Capital Expenditure		Total estimated completion cost as on 31.3.2019
		2016-17	2017-18	
7869.72*	12896.68*	1037.52	866.00	14800.20

(*Amount of ₹800 lakh reduced as per the affidavit dated 25.5.2016 subject to review at the time of true up)

18. The admissible capital cost of the transmission asset as on COD is worked out in the subsequent paragraphs taking into consideration time and cost overrun, and the amount of initial spares claimed by the petitioner.

Cost over-run

19. The petitioner has submitted that all the assets have been commissioned except 4 nos. of 220 kV line bays at Saharanpur. Hence, the total apportioned approved cost for the instant assets i.e. ₹8295.10 lakh is proportionately reduced to ₹7869.72 lakh. The petitioner has claimed the capital cost as on COD is



₹13696.68 lakh and total estimated completion cost of subject asset is ₹15600.20 lakh.

20. We have reduced the cost of 4 nos. of 220 kV line bays amounting to ₹800.00 lakh from the cost of sub-station as on COD. Hence, the capital cost as on COD works out to ₹12896.88 lakh and total estimated completion cost of instant asset except 4 line bays of 220 kV is ₹14800.20 lakh. The capital cost as on COD i.e ₹12896.88 lakh exceeds the proportionately reduced FR cost of ₹7869.72 lakh and there is cost over-run for the instant assets.

21. The petitioner has submitted reasons for cost variation in few elements with respect to the original FR cost. The cost variation is mainly attributed to increase in land cost, IDC and rate variation. Rajasthan Discoms and UPPTCL have submitted that the reason for cost variation is not explained by the petitioner, and the estimated completion cost has been increased from ₹8294.94 lakh to ₹15664.41 lakh i.e. 88.84%, and have requested to disallow the cost variation. Rajasthan Discoms have further submitted that cost has increased due to increase in land cost, IDC and rate variation, which led to the completion cost of ₹15664.00 lakh, and that the details have not been submitted by the petitioner subsequent to 26.6.2011 when the land came under the possession of the petitioner.

22. It is observed that the petitioner has submitted the reasons for cost variation in Form 5-B of petition. The petitioner has submitted that the rate variation for



awarding contract is based on competitive bid price and the best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market condition on which petitioner has no control whatsoever. We have considered the submissions of the petitioner. The capital cost of the instant asset as on COD is restricted to the proportionately apportioned FR cost as follows:

(₹ in lakh)

FR apportioned approved cost	Capital cost up to COD	Estimated Additional Capital Expenditure		Total estimated completion cost as on 31.3.2019
		2016-17	2017-18	
7869.72	7869.72	0.00	0.00	7869.72

Time over-run

23. As per the investment approval, the scheduled COD of the project was 32 months from the date of investment approval. The investment approval was accorded on 17.3.2010 and thus the schedule date of commercial operation was 15.11.2012. The actual COD of the instant asset is 9.5.2016. Hence, there is time over-run of 1271 days in commissioning of the instant asset. UPPCL has submitted that the IDC and IEDC on account of time over-run is not justified and should not be allowed. The petitioner has attributed the time over-run to delay in acquisition of land, ROW issues and non-commissioning of downstream assets. The submissions made by the petitioner regarding time over-run are as follows:-

a. Land Acquisition



The petitioner has submitted that though the land acquisition process for Saharanpur Sub-station was started on 19.1.2009, complete/full physical possession of the land could only be obtained on 25.6.2011. The petitioner has further submitted that though the entire land acquisition process took almost 2.5 years, it had expedited other activities resulting in the delay being reduced to 6-8 months. The petitioner has submitted the chronology of events/correspondences to justify the delay caused due to land acquisition issues which can be summarised as below:-

Date	Events causing delay
19.1.2009	Ministry of Power, Govt. of India Approved the construction of a new 400/220KV Sub-station at Saharanpur, UP
28.1.2009	The petitioner sought help of DM, Saharanpur for identification of land for construction of new Sub-station
29.4.2009	The petitioner Roorkee, identified 03 alternative sites for finalisation of best alternative by Technical Committee
29.6.2009	Technical Committee submitted the recommendation to approve the land at Kankarkui village
29.7.2009	Competent Authority approved the recommendation of site selection committee
21.8.2009	DM, Saharanpur expressed inability to provide the land at the site selected by the committee and suggested another piece of land at nearby area of Manani village
6.10.2009	Proposal for land acquisition to Special land Acquisition officer (SLAO), Saharanpur.
10.10.2009	The petitioner came to know that the land suggested by DM, Saharanpur was notified for acquisition by GAIL for their gas pipeline project, POWERGRID filed an objection to GAIL for shifting of gas pipeline. GAIL officials expressed their inability to shift the pipeline as Gazette Notification was already published on 20.4.2009.
30.10.2009	Fresh exercise was started by the POWER GRID for identification of another land for new substation at Saharanpur
20.12.2009	Land finalised after change at Village Mohanpur Gada.,10 km from Saharanpur
21.1.2010	The case for acquisition of Land was resubmitted to SLAO, Saharanpur
14.5.2010 & 27.5.2010	Notification and publication u/s 4 of Land Acquisition Act, 1894



Date	Events causing delay
2.7.2010	Court case at Allahabad High Court
11.8.2010	Gazette Notification u/s 6 of Land Acquisition Act, 1894
11.8.2010	Publication of notification u/s 6 kept under hold
7.12.2010	News paper publication of notification u/s 6
11.1.2011	Notification u/s 9 issued
10.2.2011	First meeting of committee members held with land owners under Karaar Adhinium
24.2.2011	Second meeting of committee members held with land owners under Karaar Adhinium
14.3.2011	Third Meeting of committee members held with land owners under Karaar Adhinium
25.6.2011	Possession of land total area 42.77 acre (17.317 hectare)

b. ROW problems created by concerned land owners at various locations

The petitioner has submitted that the 400 kV Saharanpur Sub-station was to be connected to 400 kV Roorkee Sub-station through 400 kV D/C (Quad) Roorkee-Saharanpur line (covered under NRSS-XXI) and the construction activities of transmission line Roorkee-Saharanpur started in the month of April, 2011. It has submitted that the work on above transmission line was stopped by farmers of Roorkee, Saharanpur and Muzzafarnagar districts in April, 2011. The petitioner has also submitted additional delay reasons vide affidavit dated 25.5.2016. It has further submitted that delay due to RoW issues in the above line was due to the reasons depicted below:

“The kisan unions were demanding unreasonable compensation of transmission line. This has seriously affected the construction work the said transmission line. The above issue was brought to the notice of DMs of the concerned area, Commissioners from time to time and our officers had series of meetings with District authorities as well as secretary, Energy UP. Powergrid released compensation against damages caused during construction of transmission line based on assessment and valuation by



Revenue/Forest authorities. The farmers demanded for the additional compensation, the issue of right of way is under persuasion with district administration and the same is anticipated to be put under commercial operation in the month of 15.6.2016. The detailed chronology of RoW up to Oct' 2015 along with the supporting documents has been submitted in Petition at Page no.41 to 210.

Further ROW problem is continuously persisting and 400 KV D/C (Quad) Roorkee- Saharanpur line is anticipated to be commissioned on 15th Jun '2016. Additional documents of ROW problem is enclosed hereto as Encl-6, page 57 to 85.

In view of ROW issue in 400 KV D/C (Quad) Roorkee- Saharanpur line, the T/L could not be completed and accordingly Saharanpur S/Stn could not be commissioned in time. Further it is submitted that one circuit of Roorkee- Saharanpur line have completed the trial operation on 08.05.2016(Copy of trial operation is enclosed hereto as Encl-7 Page no. 86. The DOCO of Roorkee-Saharanpur line will be declared after commissioning of the 2nd circuit.”

The detailed chronology of time over-run due to RoW issues as submitted by the petitioner is as below:

Date	Events causing delay
21.12.2010 and 3.1.2011	Letter submitted to DM, Saharanpur against the farmers protest. In response DM (District Magistrate), Saharanpur issues instruction to administration to provide help for resuming the work
7.1.2011	The petitioner held a meeting with DM, Saharanpur and explained that the petitioner was ready to pay the compensation as per Indian Telegraph Act, 1885 and Indian Electricity Act, 2003, the petitioner has submitted newspaper cutting
3.2.2011	The Commissioner Saharanpur wrote a letter to the petitioner for payment of compensation as per the compensation provided by GAIL.
24.3.2011	The petitioner wrote letter to DM, Saharanpur to resolve the issue.
24.6.2011	DM, Saharanpur vide letter directed all SDM of Saharanpur for helping the petitioner to start the work in cases where compensation had already been paid.
13.10.2011	CMD of the petitioner's company had written letter to the Special Secretary (Energy), Govt. of Uttar Pradesh and described the conditions.



Date	Events causing delay
25.10.2011	In response, Special Secretary (Energy), Govt. of Uttar Pradesh forwarded the letter of the Commissioner, Saharanpur to the petitioner and asked for comments regarding the demands of farmers union. Further, the petitioner replied to Special Secretary (Energy), Govt. of Uttar Pradesh that the compensation could only be paid as per the provisions of the Electricity Act, 2003 and Indian Telegraph Act- 1885.
20.4.2012	DM, Saharanpur directed SLAO, Saharanpur to take up the matter with farmers and unions.
News paper cutting dated 28.4.2012	SLAO, Saharanpur asked unions to put their demand in writing. In response the Unions had submitted the demands in writing to the petitioner. The petitioner had calculated financial implication of the demands of forum which came around ₹4.87 crore per km as against the petitioner's practice of ₹6.00 lakh per km.
29.6.2012, 4.1.2013	CMD of the petitioner's company wrote letter to Chief Secretary, Govt. of Uttar Pradesh describing the matter and requested for early action to resolve the issue.
31.7.2012	Additional Secretary, Ministry of Power, Govt. of India asked to the concerned DMs to resolve the issue.
3.8.2012	The petitioner met with DM, Saharanpur on with reference to the letter of Additional Secretary, Ministry of Power, Govt. of India and requested to resolve the issue.
13.1.2013	The work was in Tehsil Deoband was restarted in presence of Police Force.
30.1.2013	DM, Saharanpur issued instruction to SDM, Sadar for providing assistance to the petitioner, so that work could be started in Rorkee Saharanpur line in the village 'Chhachhreki'.
17.4.2013 and 18.4.2013	CMD of the petitioner's company met Chief Secretary, Govt. of UP and Secretary (Home), Govt. of UP and apprised them of the problems and status of the transmission lines. In response Chief Secretary, Govt. of UP and Secretary (Home), Govt. of UP assured to take suitable action to resolve the issue.
29.6.2013	The work was resumed in all transmission line. The erection work also started in Saharanpur District in Dehradun - Bagpat Line and foundation work in LILO of Dehradun - Bagpat line.
26.8.2013	Local members of Aam Aadmi Party called for a meeting with the petitioner and UPPCL in presence of DM, Saharanpur.
20.12.2013 and 30.12.2013	The petitioner had reported to SDM, Sadar that foundation work in Rorkee - Saharanpur line was stopped by farmers at loc. No. 17/1 in village gadaula, tehsil sadar, District Saharanpur.
14.3.2014	The matter was reported to SDM, Deoband as foundation work and erection was not allowed by farmers in Dehradun - Bagpat transmission line at different locations in Deoband,
29.4.2014	The matter was reported to DM, Saharanpur with regard to conductor of incomplete stringing work of Dehradun - Bagpat



Date	Events causing delay
	transmission line in village Satpura and Kurdikhera, Tehsil - Behat cut & theft led to snapping of conductor on ground compromising public safety letter.
2.6.2014	Villagers did not allow for stringing of incomplete section of Dehradun - Bagpat transmission line of Satpura, Mirjapur & Mohammadpur Tehsil - Behat. The petitioner wrote letter dated 2.6.2014 to DM, Saharanpur along with the list of villagers opposing work.
3.7.2014	Meeting was held between the petitioner and Chief Secretary, UP to resolve ROW issue and also appraised that leader of Aam Aadmi Party are opposing the construction of lines in western UP. In response, Chief Secretary, UP nominated DM, Shamli to resolve the issue immediately.
4.7.2014	Farmers of various villages of Behat, Saharanpur along with Member of Parliament met with DM and put their demand for land compensation & increased crop/ tree compensation.
News paper cutting dated 27.7.2014	Various meetings were held by the petitioner with DM, Shamli/ Saharanpur, SDM Baraut, Commissioner Saharanpur/ Meerut union leaders and leaders from political parties from 5.7.2014 to 30.9.2014 meanwhile riots were erupted in Saharanpur and curfew was imposed for some time.
9.10.2014	Work of stringing was restarted on 9.10.2014 in the A-3 package of Dehradun - Bagpat transmission line in the presence of police force, In response the farmers protested the police action and approached DM, Saharanpur along with local MP.
27.10.2014	DM, Saharanpur wrote to the petitioner that he had no power to approve the rates as per the Electricity Act, 2003 as it is a mutual agreement which is to be followed by both the parties and DM had no role in this.
2.11.2015	Farmers in Behat village of Saharanpur stopped the stringing work in Dehradun - Bagpat line and man handled Chief manager and the staff of the petitioner's company.
7.11.2014	The petitioner had requested SDM, Rorkee to resume the work in Rorkee - Saharanpur line, in response SDM, Roorkee instructed SHO, Bhagwanpur for providing assistance but he refused to take any action in absence of magistrate. SHO, Bhagwanpur called a meeting of farmers to resolve the issue in Rorkee - Saharanpur line on 13.11.2014 in that meeting farmers demanded huge compensation of ₹ 40.00 lakh per tower and double of rates provided by GAIL.
25.2.2015	Executive Director of the petitioner's company had met with Chief Secretary, Govt. of UP for resolving RoW issues in different lines of western UP, in response, Chief Secretary, UP telephonically directed concerned DMs to resolve the issue.
18.4.2015	Hon'ble High Court, Allahabad issued order in the matter of Akhtar Hasan and 30 others, resident of village - Mohanpur Gada that construction works of lines cannot be stopped for



Date	Events causing delay
	the demand of payment of compensation, however petitioners may move application before their claim, there-after appropriate orders shall be passed by DM, Saharanpur within six weeks.
22.4.2015	A meeting was held under the Chairmanship of Special Secretary, Ministry of Power, Govt. of India for RoW issues in western UP, DM Saharanpur submitted in that meeting that construction of LILO lines at Saharanpur shall be impossible seeking the severity of the protest and asked the petitioner to drop the LILO lines.
1.4.2015	Administrative help was sought from DM Saharanpur and SDM Bhagwanpur for in locations Mohanpur Gada, Tejjupur, Ruhalki and Chudiyala. SMD of the petitioner company met with Chief Minister Uttarakhand and Chief Secretary, Govt. of Uttarakhand and apprised them the problems and status of transmission lines.
29.5.2015	The petitioner intimated DM Saharanpur that construction of LILO had been cancelled as per his recommendation and the petitioner asked him to provide police force in village Mohanpur Gada.
8.6.2015 and 18.6.2015	Several attempts were taken in presence of police force but farmers obstructed the work and called ex MLA who also refused for construction work in support of farmers. DM Saharanpur called joint meeting with the petitioner and farmers of village Mohanpur Gada on 8.7.2015 to resolve the issue but farmers was not agreed.
22.9.2015	The petitioner also wrote letter to Chief Secretary, Govt. of UP with regard to ROW issue at Saharanpur. Chief Secretary, Govt. of UP directed the matter to DM Saharanpur.
21.2.2015, 20.6.2015, 27.3.2015, 25.7.2015, 18.8.2015, 7.9.2015, 10.9.2015, 17.9.2015, 5.1.2016, 30.1.2016 and 4.3.2016	The petitioner wrote several letters to DM Saharanpur to resolve RoW issue at Mohanpur Gada
11.3.2015, 17.10.2015, 10.12.2015, 17.12.2015 and 4.3.2016	The petitioner had also written several letters dated to SDM, Sadar Saharanpur to resolve the RoW issue.
27.11.2015	District court of Saharanpur had also issued order in which it had been decided that compensation would be paid as per the norms and assessment made by District Agriculture officer and other Govt. officials.



Date	Events causing delay
5.1.2016, 18.1.2016 5.3.2016, 12.3.2016 and 21.3.2016	The petitioner has submitted letter of Sub Divisonal Magistrate Sadar, Saharanpur to Range/ Field officer dated for deputing police force on 16.1.2016, 22.1.2016, 7.3.2016, 14.3.2016 and 26.3.2016 at Mohanpura Gada village to complete the work.
21.1.2016	The petitioner has also written letter to SSP, Saharanpur to provide Police Force on 22.1.2016. The petitioner wrote another letter to SSP, Saharanpur to provide Police Force from 26.3.2016 to 10.4.2016 to complete the work at Mohanpura Gada.

c. Downstream System

Petitioner's submission with respect to delay due to downstream system is as follows:-

“There are six no. of 220 kV line bays at Saharanpur sub-station which is to be connected to UPPTCL Sub-station. This 220 kV line of UPPTCL was getting delayed and several correspondences were made with UPPTCL regarding charging of Saharanpur and status of downstream bay. Out of this 2 line Saharanpur (PG)-Saharanpur (UPPTCL) and Saharanpur (PG)-Nanauta got commissioned along with Saharanpur (PG) S/s. In order to match commissioning of Powergrid T/L (400 kV D/C (Quad) Roorkee–Saharanpur line) and Saharanpur S/s with the 220 kV line of UPPTCL ((Saharanpur (PG)-Saharanpur (UPPTCL)) and Saharanpur (PG)–Nanauta, commissioning of Saharanpur s/s got delayed and finally commissioned on 9.5.2016.”

24. The petitioner has submitted several letters to show the correspondences with UPPTCL to substantiate its claim of delay due to downstream system. The petitioner has submitted that the time over-run is due to unforeseen reasons and uncontrollable factors and has requested to condone the same as provided under Regulation 12(2)(i) of the 2014 Tariff Regulations.

25. The respondent, UPPCL has submitted that the work was hindered from 30.6.2011 to 31.12.2015 i.e. 54 months and 1 day and the total period during



which the work could be done was 22 months and 18 day. It has submitted that the petitioner has submitted justification for the delay of only 31 months and 13 days and has not justified the delay of remaining 5 months and 17 days for which beneficiaries have to pay IDC and IEDC. It has accordingly requested to disallow IDC and IEDC of this period.

26. We have considered the submissions of the petitioner and the respondent with respect to the time over-run. It is observed that instant assets are connected with 400 kV D/C (Quad) Roorkee-Saharanpur line covered under NRSS-XXI. The tariff for 400 kV D/C (Quad) Roorkee-Saharanpur line was allowed in order dated 30.5.2016 in Petition No. 263/TT/2015 on the basis of anticipated COD and the Commission observed that the time over-run in commissioning of the said line would be considered at the time of truing up. However, the IDC and IEDC for the period of time over-run was disallowed. The relevant portion of the order dated 30.5.2016 is extracted hereunder:-

“29. The time over-run for Asset-H is not being considered in this order since the asset is on anticipated COD. The petitioner is directed to submit the complete details of time over-run along with documentary evidence, IDC/IEDC till SCOD and from SCOD to actual COD, on cash basis at the time of truing up of the petition. The tariff for Asset-H, in this order has been determined considering NIL IDC and IEDC and the total Capital Cost has been limited to the approved apportioned cost of the asset.

...

33. The time over-run in case of the instant assets is due to reasons beyond the control of the petitioner and accordingly we condone the entire delay in case of all the assets except Asset-H. The time over-run in case of Asset-H will be considered on its actual COD at the time of truing up. The Hon'ble Appellate Tribunal for Electricity in its judgement dated 27.4.2011 in Appeal No.72/2010



has held that the additional cost due to time over-run due to factors beyond the control of project developer shall be capitalised. Therefore, the IDC and IEDC in case of the instant assets, except Asset-H, shall be capitalised”

27. We are of the view that the time over-run in case of the instant assets should be considered alongwith the time over-run in case of the 400 kV D/C (Quad) Roorkee-Saharanpur line at the time of truing-up. Accordingly, the time over-run of 1271 days in case of the instant assets is not considered in this order. A view on time over-run in case of the instant assets and the 400 kV D/C (Quad) Roorkee-Saharanpur line will be considered at the time of truing-up of the 2014-19 tariff. Accordingly, the corresponding IDC and IEDC are not considered at this stage for purpose of tariff computation.

IDC and IEDC

28. The petitioner, vide Auditor’s Certificate dated 25.6.2016 has claimed IDC and IEDC discharged upto COD for the instant transmission asset as `1586.64 lakh and `931.90 lakh respectively. The petitioner vide affidavit dated 26.5.2016 has submitted that entire IDC and IEDC have been discharged upto COD.

29. The petitioner has also submitted the details of IDC discharged on cash basis vide its affidavit dated 25.5.2016. As per the submission, entire IDC was discharged upto COD.

30. IDC and IEDC corresponding to time over-run of 1271 days has not been considered. Consequently, the Capital cost is as follows:-



(₹ in lakh)

Capital cost after restricting to apportioned approved cost	Disallowed IDC	Disallowed IEDC	Capital cost up to COD	Estimated Additional Capital Expenditure		Total estimated completion cost as on 31.3.2019
				2016-17	2017-18	
7869.72	897.87	527.36	6444.49	0.00	0.00	6444.49

Initial Spares

31. The petitioner has claimed initial spares of ₹166.84 lakh vide Auditor's certificate dated 25.5.2016 for the subject in respect of Sub-station based on the estimated cost up to cut-off date of 31.3.2019.

32. The proportionate initial spares claimed with regard to the restricted capital cost is worked out as ₹68.92 lakh. The initial spares claimed by the petitioner for the subject asset is within the limits prescribed under Regulation 13 of the 2014 Tariff Regulation and therefore allowed for capitalization.

33. Thus, the capital cost considered for tariff calculations is ₹6444.49 lakh after considering the time over-run and cost over-run based on the approved apportioned cost for the subject asset.

Additional Capital Expenditure

34. The petitioner has proposed additional capitalization of ₹1903.52 lakh during 2014-19 period for the subject asset towards balance and retention payment under Regulation 14(1) of 2014 Tariff Regulations.



35. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” date as under:-

“cut-off date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation”.

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;”

36. The cut-off date of the transmission asset is 31.3.2019. The additional capital expenditure claimed by the petitioner is certified vide Auditor's certificate dated 25.5.2016 for the subject asset and is on account of balance and retention payments. However, the total estimated completion cost after deducting the cost of 4 nos. 220 kV line bay as ₹800.00 lakh from sub-station is ₹14800.20 lakh which exceeds the apportioned approved cost and has been restricted to proportionate apportioned approved cost of ₹7869.72 lakh as on COD. Thus, entire additional capital expenditure is disallowed subject to true up on actual basis. IDC and IEDC has been deducted from capital cost with regard to time over-run. Following capital cost have been considered for the purpose of tariff determination:-

(₹ in lakh)

FR apportioned approved cost	Capital cost up to COD after considering time overrun	Estimated Additional Capital Expenditure		Total estimated completion cost as on 31.3.2019
		2016-17	2017-18	
7869.72	6444.49	0.00	0.00	6444.49



Debt: Equity Ratio

37. Regulation 19 (1) of the 2014 Tariff Regulations specifies as under:-

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

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.”

38. The petitioner has considered debt:equity ratio as 70:30 as on COD and debt:equity ratio as 70:30 for additional capitalization during 2014-19 tariff period. Accordingly, we have considered the same for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Funding	As on COD	(%)	Additional capital expenditure during 2014-19	(%)	As on 31.3.2019	(%)
Debt	4511.14	70.00	0.00	0.00	4511.14	70.00
Equity	1933.35	30.00	0.00	0.00	1933.35	30.00
Total	6444.49	100.00	0.00	0.00	6444.49	100.00

Interest on Loan (“IOL”)

39. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations provides as under:-

“(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.”

40. We have considered the weighted average rate of IOL on the basis of rate prevailing as on 1.4.2014. Further, the petitioner has prayed to allow it 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. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The petitioner’s prayer to bill and adjust the impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2014-19 period from the respondents will be considered at the time of truing up. The details of weighted average rate of interest are placed at **Annexure-I** and the IOL has been worked out as follows:-

(₹ in lakh)

Particulars	2016-17 (pro-rata)	2017-18	2018-19
Gross loan opening	4511.14	4511.14	4511.14
Cumulative Repayment upto previous year	0.00	185.71	393.00
Net Loan-Opening	4511.14	4325.43	4118.14
Additions during the year	0.00	0.00	0.00
Repayment during the year	185.71	207.29	207.29
Net Loan-Closing	4325.43	4118.14	3910.85
Average Loan	4418.29	4221.78	4014.49
Rate of Interest (%)	7.8753	7.8352	7.7910
Interest on Loan	311.73	330.78	312.77



Return on Equity (“ROE”)

41. Clause (1) & (2) of Regulation 24 and Clause (2) of Regulation 25(2) of the 2014 Tariff Regulations specify as under:-

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

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

xxx

xxx”

“25. Tax on Return on Equity:

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

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

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

42. The petitioner has claimed ROE at the rate of 19.705% after grossing up the ROE of 15.5% with MAT rate as per the above said Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial



year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

43. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/ adjustable after completion of income tax assessment of the financial year.

44. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate of 21.342% is applicable to the petitioner's company during 2015-16. Accordingly, the MAT rate applicable during 2015-16 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. The ROE allowed for the instant transmission asset is given below:-

	(₹ in lakh)		
Return on Equity	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	1933.35	1933.35	1933.35
Additions	0.00	0.00	0.00
Closing Equity	1933.35	1933.35	1933.35
Average Equity	1933.35	1933.35	1933.35
Return on Equity (Base Rate) (%)	15.500	15.500	15.500



Return on Equity	2016-17 (pro-rata)	2017-18	2018-19
MAT Rate for respective year (%)	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705
Return on Equity	341.31	380.97	380.97

Depreciation

45. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. 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.”

46. Clause (67) of Regulation 3 of the 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
- (d) Hydro generating station including pumped Storage hydro generating stations 35 years
- (e) Transmission line (including HVAC & HVDC) 35 years



(f) Communication system 15 years”

47. The weighted average useful life of the asset has been considered as 25 years for the subject asset and in accordance with the above regulation. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)

Particulars	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross block	6444.49	6444.49	6444.49
Additional Capitalization	0.00	0.00	0.00
Closing Gross block	6444.49	6444.49	6444.49
Average Gross block	6444.49	6444.49	6444.49
Freehold Land	2226.23	2226.23	2226.23
Rate of Depreciation (%)	3.22	3.22	3.22
Depreciable Value (excluding free hold land)	3796.43	3796.43	3796.43
Balance useful life of the asset	25	24	23
Elapsed life	0	1	2
Remaining Depreciable Value	3796.43	3610.72	3403.43
Depreciation during the year	185.71	207.29	207.29
Cumulative depreciation	185.71	393.00	600.29

Operation & Maintenance Expenses (“O&M Expenses”)

48. The petitioner has submitted that the wage revision of the employees of the petitioner company is due during 2014-19 and actual impact of wage hike which will be effective from a future date has also not been factored in fixation of the normative O&M rate specified for the 2014-19 tariff period. The petitioner has also submitted that it will approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

49. We have considered the submissions of the petitioner. We would like to clarify that any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate



provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission assets as per the prevailing norms.

50. Clause 3(a) of Regulation 29 of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The total allowable O&M Expenses for the instant assets are as follows:-

(₹ in lakh)

Particulars	2016-17 (pro-rata)	2017-18	2018-19
400 kV bay			
Norms (₹ lakh/bay)	64.37	66.51	68.71
220 kV bay			
Norms (₹ lakh/bay)	45.06	46.55	48.10

(₹ in lakh)

Particulars	2016-17 (pro-rata)	2017-18	2018-19
400 kV bay			
No.	4	4	4
220 kV bay			
No.	4	4	4
Total O&M Expenses (₹ lakh)	392.15	452.24	467.24

Interest on Working Capital (“IWC”)

51. As per 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

(i) Receivables

As per Regulation 28(1) (c) (i) of the 2014 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being



allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance Spares

Regulation 28 (1) (c) (ii) of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from 1.4.2014. The petitioner has claimed maintenance spares for the instant asset and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

(iii) O & M Expenses

Regulation 28 (1) (c) (iii) of the 2014 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M Expenses for the instant asset and value of O & M Expenses has accordingly been worked out by considering 1 month O&M Expenses.

(iv) Rate of interest on working capital

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 transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later. Further, the '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. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

52. The interest on working capital allowed is shown in the table below:-

(₹ in lakh)

Interest on Working Capital	2016-17 (pro-rata)	2017-18	2018-19
O & M expenses	36.48	37.69	38.94
Maintenance Spares	65.66	67.84	70.09
Receivables	236.61	236.24	235.80
Total	338.75	341.76	344.83
Rate of Interest (%)	13.50	13.50	13.50
Interest on Working Capital	40.97	46.14	46.55

Annual Transmission Charges

53. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-

(₹ in lakh)

Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Depreciation			
Opening Gross Block	6444.49	6444.49	6444.49
Additional Capitalisation	0.00	0.00	0.00
Closing Gross Block	6444.49	6444.49	6444.49
Average Gross Block	6444.49	6444.49	6444.49
Rate of Depreciation (%)	3.22	3.22	3.22
Depreciable Value	3796.43	3796.43	3796.43
Balance Useful life of the asset	25	24	23
Elapsed Life	0	1	2
Remaining Depreciable Value	3796.43	3610.72	3403.43
Depreciation	185.71	207.29	207.29
Cumulative depreciation	185.71	393.00	600.29
Interest on Loan			
Gross Normative Loan	4511.14	4511.14	4511.14



Particulars	2016-17 (Pro-rata)	2017-18	2018-19
Cumulative Repayment upto Previous Year	0.00	185.71	393.00
Net Loan-Opening	4511.14	4325.43	4118.14
Additions	0.00	0.00	0.00
Repayment during the year	185.71	207.29	207.29
Net Loan-Closing	4325.43	4118.14	3910.85
Average Loan	4418.29	4221.78	4014.49
Weighted Average Rate of Interest on Loan (%)	7.8753	7.8352	7.7910
Interest	311.73	330.78	312.77
Return on Equity			
Opening Equity	1933.35	1933.35	1933.35
Additions	0.00	0.00	0.00
Closing Equity	1933.35	1933.35	1933.35
Average Equity	1933.35	1933.35	1933.35
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT rate for the respective year (%)	21.342	21.342	21.342
Rate of Return on Equity (%)	19.705	19.705	19.705
Return on Equity	341.31	380.97	380.97
Interest on Working Capital			
O & M expenses	36.48	37.69	38.94
Maintenance Spares	65.66	67.84	70.09
Receivables	236.61	236.24	235.80
Total	338.75	341.76	344.83
Rate of Interest (%)	13.50	13.50	13.50
Interest on working capital	40.97	46.14	46.55
Annual Transmission Charges			
Depreciation	185.71	207.29	207.29
Interest on Loan	311.73	330.78	312.77
Return on Equity	341.31	380.97	380.97
Interest on Working Capital	40.97	46.14	46.55
O & M Expenses	392.15	452.24	467.24
Total	1271.87	1417.43	1414.83

Filing Fee and Publication Expenses

54. 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. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

55. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2) (b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service Tax

56. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer of service tax is premature.

Foreign Exchange Rate Variation

57. The petitioner has sought recovery of FERV on foreign loans deployed under clause 50 of 2014 Tariff Regulations. The petitioner is entitled to recover the FERV directly from the beneficiaries or the long term transmission customers/DICs, as the case may be, in accordance with Regulation 51(1) of the 2014 Tariff Regulations.



Goods and Services Tax

58. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. Rajasthan Discoms have submitted that prayer for GST is not tenable in view of the likely commencement of GST Act wherein several taxes would come under one umbrella at uniform rate. In reply, the petitioner has submitted that the Commission should allow to recover GST from the beneficiaries, if imposed on transmission charges under the proposed GST when implemented by Government of India. We are of the view that petitioner's prayer is premature.

Sharing of Transmission Charges

59. The billing, collection and disbursement of the transmission charges approved 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 as provided in Regulation 43 of the 2014 Tariff Regulations.

60. This order disposes of Petition No. 272/TT/2015.

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

Sd/-
(A.S. Bakshi)
Member



ANNEXURE-I**DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO 2014-19**

(in ₹ lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2015/COD	Additions during the tariff period	Total
BOND XXXVIII-DOCO-	9.25	250.00	0.00	250.00
BOND XXXIX-DOCO-	9.40	500.00	0.00	500.00
SBI (21.03.2012)-DOCO-	9.55	450.00	0.00	450.00
BOND XL-DOCO-	9.30	2500.00	0.00	2500.00
FC -BOND (17.01.2013)-DOCO-67.08	4.10	2153.80	0.00	2153.80
BOND XLIII -DOCO-	7.93	1200.00	0.00	1200.00
SBI (2014-15) -DOCO-	9.55	1194.26	0.00	1194.26
BOND XLVI-DOCO-	9.30	200.00	0.00	200.00
BOND - XLVII- DOCO-	8.93	100.00	0.00	100.00
BOND - XLVIII -DOCO-	8.20	250.00	0.00	250.00
BOND - L -DOCO-	8.40	500.00	0.00	500.00
BOND LI -DOCO-	8.40	100.00	0.00	100.00
SBI (2014-15)-DOCO Loan 11-	8.13	189.61	0.00	189.61
Total		9587.67	0.00	9587.67

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2014-19

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
Gross Opening Loan	9587.67	9587.67	9587.67
Cumulative Repayments of Loans upto Previous Year	0.00	249.24	598.48
Net Loans Opening	9587.67	9338.43	8989.19
Add: Draw(s) during the Year	0.00	0.00	0.00
Less: Repayments of Loan during the year	249.24	349.24	357.57
Net Closing Loan	9338.43	8989.19	8631.62
Average Net Loan	9463.05	9163.81	8810.41
Rate of Interest on Loan (%)	7.8753%	7.8352%	7.7910%
Interest on Loan	745.25	718.00	686.42

