

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 398/TT/2014

Coram:

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

**Date of Hearing : 08.02.2016
Date of Order : 31.03.2016**

In the matter of:

Determination of transmission tariff for **Asset-I:** 220 kV D/C Mariana (New)-Mokokchung (POWERGRID) Transmission line along with associated bays at Mariana and Mokokchung (POWERGRID) Substations, **Asset-II:** 132 kV D/C Mokokchung (POWERGRID)-Mokokchung (Nagaland) Transmission line along with associated bays, 7x10 MVA, 220/132 kV ICT-I & II and 220 kV & 132 kV GIS bays at Mokokchung (POWERGRID) Sub-station and **Asset-III:** 400 kV D/C Silchar-Imphal Transmission line along with associated bays at Silchar and Imphal Substations under "Transmission system associated with Pallatana GBPP and Bongaigaon TPS" in North- Eastern Region for 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. Assam Electricity Grid Corporation Limited
(Formerly Assam State Electricity Board),
"Bijulee Bhawan", Paltanbazar, Guwahati- 781 001
2. Meghalaya Energy Corporation Ltd.
(Formerly Meghalaya State Electricity Board)
Short Round Road, "Lumjingshai",
Shillong-793 001



3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh
4. Power and Electricity Department,
Govt. of Mizoram,
Aizawl, Mizoram
5. Manipur State Electricity Distribution
Company Ltd. (Formerly Electricity Department,
Government of Manipur)
Keishampat, Imphal
6. Department of Power,
Government of Nagaland
Kohima, Nagaland
7. Tripura State Electricity Corporation Ltd.,
Vidhyut Bhawan, North Banamalipur,
Agartala, Tripura (W) – 799001
8. OTPC (ONGC Tripura Power Corporation Limited
6th Floor, A Wing, IFCI Towers,
New Delhi- 110019
9. NTPC (National Thermal Power Corporation Limited)
NTPC Bhawan,
SCOPE Complex, Institutional Area, Lodhi Road,
New Delhi- 110003

....Respondents

The following were present:-

For Petitioner: Shri S.K Venkatasan, PGCIL
 Shri S.S. Raju, PGCIL
 Shri Rakesh Prasad, PGCIL
 Shri Jasbir Singh, PGCIL
 Shri Subhash S. Taneja, PGCIL
 Shri M.M. Mondal, PGCIL

For Respondent: None



ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (“the petitioner”) for determination of tariff for **Asset-I**: 220 kV D/C Mariana (New)-Mokokchung (POWERGRID) Transmission line along with associated bays at Mariana and Mokokchung (POWERGRID) Substations, **Asset-II**: 132 kV D/C Mokokchung (POWERGRID)-Mokokchung (Nagaland) Transmission line along with associated bays, 7x10 MVA, 220/132 kV ICT-I & II and 220 kV & 132 kV GIS bays at Mokokchung (POWERGRID) Sub-station and **Asset-III**: 400 kV D/C Silchar-Imphal Transmission line along with associated bays at Silchar and Imphal Substations under “Transmission system associated with Pallatana GBPP and Bongaigaon TPS” in North-Eastern Region (herein referred as transmission asset) for 2014-19 Tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) for the period from COD to 31.3.2019.

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

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

(a) The investment approval for the project was accorded by Board of Directors of the petitioner company vide Memorandum no. C/CP/Pallatana Bongaigaon dated 26.2.2010 at an estimated cost of



₹214400.00lakh, which included IDC of ₹17835 lakh. Further, RCE for the project was accorded by Board of Directors of the petitioner's company dated 29.1.2016 at an estimated cost of ₹293288 lakh including IDC of ₹38804 lakh.

(b) The scope of the instant project is as per RCE dated 29.1.2016 is as under:-

Transmission Line:

- a. Bongaigaon TPS-Bongaigaon 400 kV D/C line
- b. Silchar-Badarpur (PG) Switching Station interconnecting 132 kV D/C line
- c. Pallatana-Surajmaninagar (TSECL) 400 kV D/C line (charged at 132 kV)
- d. Silchar-Purba Kanchanbari (TSECL) 400 kV D/C line (charged at 132 kV)
- e. Silchar-Melriat (New) 400 kV D/C line (charged at 132 kV)
- f. Melriat (New)- Sihhmui (Mizoram) 132 kV D/C line (charged at 132 kV).
- g. Silchar-Imphal (Powergrid) 400 kV D/C line (charged at 132 kV)
- h. LILO of 132 kV Aizwal-Zemabawk (Mizoram) line at Melriat (New) sub-station.
- i. LILO of Imphal- Ningthoukhong (Manipur) 132 kV S/C line at Imphal
- j. LILO of Kathalguri-Misa 400 kV S/C line at Mariani (New) (charged at 220 kV)
- k. Mariani(New)- Mokokchung (Powergrid) 220 kV D/C line
- l. Mokokchung (Powergrid)- Mokokchung (Nagaland) 132 kV D/C line (with zebra conductor)
- m. Pasighat- Roing 132 kV S/C line (on D/C tower).
- n. Roing-Tezu 132 kV S/C line (on D/C tower)
- o. Tezu-Namsai 132 kV S/C line (on D/C tower)
- p. Silchar-Srikona 132 kV D/C
- q. Silchar- Hailakandi 132 kV D/C.

Sub-station:

- a. 2x200 MVA, 400/132 kV New sub-station at Silchar
- b. New sub-station at Melriat New (upgradable to 400 kV)
- c. Extension of 132/33 kV Imphal (Powergrid) sub-station along with 2x50 MVA, 132 kV/33 kV Transformers.



- d. 220 kV New Switching station at Mariani
- e. 7x10 MVA, 220/132 kV New sub-station at Mokokchung
- f. 2x15 MVA, 132/33 kV New sub-station at Roing.
- g. 2x15 MVA, 132/33 kV New sub-station at Tezu
- h. 2x15 MVA, 132/33 kV New sub-station at Namsai
- i. 400 kV Bongaigaon sub-station Extension
- j. 132 kV Badarpur sub-station extension
- k. 132 kV Shuimui (Mizoram) sub-station extension
- l. 132 kV Mokokchung (Nagaland) sub-station extension
- m. 132 kV Ziro sub-station extension.
- n. 132 kV Pasighat (Govt of Arunachal Pradesh) sub-station extension
- o. 132 kV Surajmaninagar (TSECL) sub-station extension
- p. 132 kV Purba Kanchan Bari (TSECL) sub-station extension
- q. 132 kV Hailakandi (AEGCL) sub-station extension
- r. 132 kV Srikona sub-station extension

(c) The instant petition was filed on 10.10.2014 claiming tariff for Asset-I, Asset-II and Asset-III and Annual Fixed Cost was allowed under Regulation 7(7) of the 2014 Tariff Regulations vide order dated 24.12.2014. However, the AFC allowed was withdrawn from the PoC computation as the assets were not commissioned within 180 days of filing the petition.

4. The petitioner submitted that Asset-II has been split into two parts for the tariff purpose based on the date of commissioning i.e. Asset II on 1.8.2015 and Asset-II (A) on 1.9.2015. It is observed that the petitioner has not placed any documents on record to show that the splitting of asset has been discussed with the beneficiaries and that the beneficiaries have been apprised about the segregated tariff of the assets. We are of the considered view that the petitioner should notify the beneficiaries about such changes. The splitting of the instant asset on the basis of date of commercial operation is allowed in the instant case,



however, the petitioner is directed to follow a practice to inform the beneficiaries about such splitting of assets.

(d) The details of commissioning and approved apportioned cost of the instant assets are given in the table below:-

Assets	Actual COD	Approved apportioned cost (₹ in lakh)
Asset-I: 220 kV D/C Mariana (New)-Mokokchung (POWERGRID) Transmission line along with associated bays at Mariana and Mokokchung (POWERGRID) Substations	1.8.2015	10125.59
Asset-II: 132 kV D/C Mokokchung (POWERGRID)-Mokokchung (Nagaland) Transmission line along with associated bays, 3x10 MVA, 220/132 kV ICT- II and 220 kV& 132 kV GIS bays at Mokokchung (POWERGRID) S/S	1.8.2015	4145.13
Asset-II(A) -3x10 MVA, 220/132 kV, ICT-I along with associated bays at Mokokchung (Powergrid) sub-station	1.9.2015	1319.74
Asset-III: 400 kV D/C Silchar- Imphal transmission line (to be charged at 132 kV) alongwith associated bays at Silchar and Imphal sub-stations	22.3.2015	62130.54

5. The petitioner has claimed the revised transmission charges as under:-

(₹ in lakh)				
Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	303.17	489.23	499.20	499.20
Interest on Loan	353.04	535.36	502.96	458.53
Return on Equity	337.90	545.55	556.77	556.77
Interest on Working Capital	29.87	46.97	47.06	46.41
O&M Expenses	126.39	195.92	202.37	209.15
Total	1150.37	1813.03	1808.36	1770.06



(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	98.67	181.04	194.82	194.82
Interest on Loan	124.82	215.78	215.97	198.52
Return on Equity	119.09	216.99	232.98	232.98
Interest on Working Capital	15.25	25.53	26.60	26.59
O&M Expenses	133.21	206.43	213.28	220.40
Total	491.04	845.77	883.65	873.31

(₹ in lakh)

Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciation	30.78	62.15	64.88	64.88
Interest on Loan	37.03	70.71	68.16	62.13
Return on Equity	34.29	69.25	72.28	72.28
Interest on Working Capital	4.76	8.92	9.13	9.14
O&M Expenses	43.61	77.24	79.80	82.46
Total	150.47	288.27	294.25	290.89

(₹ in lakh)

Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	66.16	2502.50	2620.32	2777.60	2858.17
Interest on Loan	79.69	2899.27	2811.26	2755.95	2598.97
Return on Equity	73.89	2796.51	2930.39	3106.18	3195.94
Interest on Working Capital	5.41	202.33	206.55	213.41	214.20
O&M Expenses	6.42	246.66	254.79	263.24	272.02
Total	231.57	8647.27	8823.31	9116.38	9139.30

6. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-



(₹ in lakh)

Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	28.44	29.39	30.36	31.37
O & M Expenses	15.80	16.33	16.86	17.43
Receivables	287.59	302.17	301.39	295.01
Total	331.83	347.89	348.61	343.81
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	44.80	46.97	47.06	46.41
Pro-rata interest	29.87	46.97	47.06	46.41

(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	29.97	30.96	31.99	33.06
O & M Expenses	16.65	17.20	17.77	18.37
Receivables	122.76	140.96	147.28	145.55
Total	169.38	189.12	197.04	196.98
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	22.87	25.53	26.60	26.59
Pro-rata interest	15.25	25.53	26.60	26.59

(₹ in lakh)

Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	11.21	11.59	11.97	12.37
O & M Expenses	6.23	6.44	6.65	6.87
Receivables	42.99	48.05	49.04	48.48
Total	60.43	66.08	67.66	67.72
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	8.16	8.92	9.13	9.14
Pro-rata interest	4.76	8.92	9.13	9.14

(₹ in lakh)

Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	35.82	37.00	38.22	39.49	40.80
O & M Expenses	19.90	20.56	21.23	21.94	22.67
Receivables	1435.66	1441.21	1470.55	1519.40	1523.22
Total	1491.38	1498.77	1530.00	1580.83	1586.69
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50



Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Interest	201.34	202.33	206.55	213.41	214.20
Pro-rata interest	5.41	202.33	206.55	213.41	214.20

7. The petitioner has submitted additional information vide affidavits dated 15.12.2014, 18.3.2015, 4.11.2015 and 4.2.2016. The petitioner was also directed vide affidavit dated 8.2.2016 to submit certain information. In response, the petitioner submitted its response vide affidavit dated 19.2.2016. The petitioner has also submitted the revised tariff forms vide affidavit dated 4.2.2016 for Asset-I, Asset-II and Asset-II(A) along with the Auditor's Certificate dated 14.10.2015. Tariff forms in respect of Asset-III were submitted, vide affidavit dated 4.11.2015, as per Auditor's Certificate dated 18.5.2015.

8. The petitioner has served the petition on 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"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 8.2.2016. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

Commercial Operation Date (COD)

9. The petitioner has claimed the date of the commercial operation of the instant transmission asset as 1.8.2015, 1.8.2015, 1.9.2015 and 22.3.2015 for



Asset-I, Asset-II, Asset-II (A) and Asset-III. 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”

10. The petitioner has submitted RLDC certificate issued by NERLDC, POSOCO vide letter dated 10.9.2015 and 31.7.2015, in support of the claim of commercial operation in accordance with Regulation 5(2) of the 2014 Tariff Regulations indicating completion of successful trial run operation. Accordingly, the commercial operation date of the transmission asset has been considered and the tariff has been worked out from COD to 31.3.2019 for the assets.

11. The petitioner has also submitted the CEA Energisation certificate, RPC approval and SLD of the said assets vide affidavit dated 4.2.2016 for Asset-I, Asset-II and Asset-II (A) and vide affidavit dated 4.11.2015 for Asset-III.

Capital Cost

12. The petitioner vide affidavit dated 4.2.2016 and 4.11.2015 has submitted the revised tariff forms for the said assets. In the revised tariff forms, the petitioner has claimed capital cost of ₹8235.67lakh, ₹2713.28lakh, ₹877.17lakh



and ₹46721.82lakh as on COD of the assets based on Auditor's certificate. The petitioner has submitted the Auditor's Certificate dated 14.10.2015 for Asset-I, Asset-II, Asset-II (A) and Auditor's Certificate dated 18.5.2015 for Asset-III certifying the capital cost claimed.

13. The petitioner has however considered capital cost of ₹8148.15 lakh, ₹2656.30 lakh and ₹873.00 lakh for Asset-I, Asset-II and Asset-II(A) respectively after adjustment of IDC on cash basis for purpose of tariff computation. The capital cost of ₹46721.82 lakh as on COD is claimed for Asset-III is as per Auditor's certificate.

14. 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.”

Time over-run

15. As per the investment approval dated 26.2.2010, the scheme was scheduled to be commissioned within 34 months from the date of investment approval. Accordingly, the schedule completion date works out to 1.1.2013. However, the actual commissioning of the subject assets was Asset-I: 1.8.2015, Asset-II: 1.8.2015, Asset-II (A): 1.9.2015 and Asset-III: 22.3.2015. The petitioner has submitted that there is a delay of 943 days (31 months) for Asset-I and Asset-II, delay of 974 days (32 months) for Asset-II (A) and delay of 811 days (27 months) for Asset-III.

16. The petitioner has submitted, vide affidavit dated 4.2.2016, the following reasons for delay for Asset-I, Asset-II and Asset-II (A):-

- a) **Delay due to forest clearance-** The petitioner has submitted that, out of 48.41 kms (approx.) of 220 kV D/C Mariani-Mokokchung transmission line, only 3.5 kms (approx.) line falls in plain area. Balance portion of the line



(approx. 4-5 kms) passes through reserve forest, dense forest area, highly disturbed area, hilly terrains, where number of clearances were required before start of construction line. The work in forest area could not be started due to late receipt of forest clearance. Forest clearance proposal was submitted to Govt. of Assam on 28.7.2010. Forest clearance of line was accorded only on 21.9.2013, i.e. after 38 months. The documents submitted regarding the same include:-

- a. Forest clearance proposal dated 28.7.2010
- b. Proposal for diversion of 32.0253 Ha reserved forest land dated 15.3.2013, 21.9.2013

- b) **Difficult terrain conditions-** Most of the route of the lines passes through very difficult terrain conditions with altitude ranging from 88Mtrs. to 1350Mtrs. Material shifting to most of the locations requires head-loading which consumed additional time. During the monsoons there was disruption of construction works causing significant loss.
- c) **Poor road conditions-** The road from Mariani to Mokochung which connects the projects gets badly deteriorated during long monsoons which make transportation very difficult.
- d) **Restriction on entry labourers-** Very limited local labourers are available in Nagaland area for working on project sites. Engagement of labourers from outside state involves long process of obtaining special entry permit from state authority. Further, various student bodies and other groups resisted entry of these labourers. Hence, labourers are not willing to work



causing high labour shortage all through.

- e) **Law and order situation-** It is submitted that, in order to ensure execution and commissioning of projects well within time. The petitioner placed all orders for supply of material and erection works pertaining to towers, sub-station and other related works of the said project well in time. However, during actual execution there were approximately 290 bandhs, blockades and obstructions.
- f) **Delay in acquiring sub-station land and finishing infrastructure works-** There were public protests over handing of agricultural land to the petitioner, for construction of Mariani sub-station. However, final possession of the land was obtained with support from the local administration.
- g) **Right of Way-** In respect of execution of work for Asset-II (Mokochung (PG))- Mokochung (NG) transmission line) there have been severe ROW problem at 4 locations of the line. These locations belong to single land owner who resisted execution of the said transmission line work due to non-settlement of his dispute related with compensation with Dept. of Power, Nagaland. This issue persisted from July 2013 to May 2015. The line was commissioned in August 2015, with deployment of security forces and the ROW problems persisted even after commissioning of line.

17. The petitioner vide affidavit dated 4.11.2015 submitted reasons for delay for Asset-III as follows:-



- a) **Statutory Clearances:** 39.5 km of the 400 kV D/C Silchar-Imphal line falls in Reserve Forest area. The forest clearance proposal for Assam portion (9.5 km) and Manipur portion (30 km) was submitted on July, 2010. Final clearance accorded by MoEF was obtained on 25.3.2013 for Assam portion and on June 2013 for Manipur portion.
- b) **Difficult terrain conditions-** Most routes (105 kms) pass through very difficult terrain. Due to conveyance issues, material shifting was problematic. Further due to unprecedented rains during monsoons of 2011 and 2012 many locations were unapproachable.
- c) **Poor road conditions-** Frequent landslides in highway from Shillong to Imphal via Silchar, which was the route for transportation of materials.
- d) **Restriction on entry of labourers**
- e) **Law and order situation-** There were constant threats from various underground organizations to working gangs, engineers for which work had to be restored by deployment of security forces. Further, approximate 357 days of bandhs, strikes and blockades by various organizations (like UNC, ATSUM, JAC etc.) on different issues.
- f) **Diversion of route alignment due to upcoming railway line-** NF railway was to introduce train services in Manipur and accordingly new railway lines are coming up across the state. The route alignment of Silchar-Imphal transmission line was done prior to finalization of railroad tracks in Manipur. So, infringement with railway track was observed at several locations. Since it was not possible to divert all railway tracks the



transmission line had to be diverted, as in Rangkhong area stretch where foundation was already cast and had to be diverted later.

g) ROW issues- Severe ROW issues were observed in Noney area from location 309/0 to 316/0 (8 locations). Finally route had to be diverted due to resistance of villagers. The line was finally commissioned in March 2015 with deployment of security.

18. We have considered the submissions of the petitioner. There has been delay of 943 days (31 months) in Asset-I and Asset-II, 974 days (32 months) in Asset- II(A) and 811 days (27 months) in Asset-III in the commissioning of the assets. The reasons for time over-run were due to delay in approval of forest clearances, delay due to ROW issues, difficult terrain conditions, poor road conditions, restriction on entry of laborers, due to law and order problem and delay in acquiring sub-station land and finishing infrastructure works. It is observed that the substantial time was lost due to forest clearance and ROW. It is observed that the petitioner has submitted the relevant documents for Asset-I, Asset-II and Asset-II (A) as follows:-

Srl. No.	Period		Details of Hindrance	Documents submitted
	From	To		
1	26.2.2010		Date of Investment Approval	
2	7.12.2010		Imposition of Prohibitory order U/s 144 Cr P.C	Letter dated 7.12.2010
3	28.7.2010		Forest Proposal Submitted	Letter dated 28.7.2010, 15.3.2013 and 21.9.2013
4	July 2011	July 2012	Flash Floods	Newspaper cutting dated 17.7.2011, 19.9.2011
5	17.2.2012	24.5.2012	Nagaland-Assam Border tension	Newspaper cutting dated 17.2.2012, 24.5.2012



Srl. No.	Period		Details of Hindrance	Documents submitted
	From	To		
6	15.3.2013	13.5.2013	Final Forest Clearance. Line erection works could be started only after 2nd week of May 2013 due to resistance from local Nagaland village council prohibiting excavation works	Forest clearance dated 21.9.2013
7	July 2013	May 2015	Hindrance in construction of Moko-Mokok line caused by local land owners.	Letter by PGCIL dated 27.7.2013
8	May 2013	June 2013	Letter from PGCIL to Chief Secretary, Govt of Nagaland, requesting assistance from Govt. of Nagaland in completing the Mariani-Mokokchung line as the same was facing lot of hindrances due to frequent bandhs and road blockades, which has affected vehicular movements.	Letter by PGCIL dated 4.6.2013
9	23.10.2013	26.10.2013	96 hours Assam bandh affected the deployment of Erection and stringing gangs in subject line	Mail dated 24.10.2013
10	April 2014	May 2014	Indefinite road blockade called by MDTOA due to deplorable road condition	Village road repair article dated 3.5.2014 in Nagaland Post, Newspaper cutting dated 7.5.2014
11	Sept 2014	Dec 2014	Transport union strikes and frequent road blockades on Mariani-Mokochong road.	
12	March 2015	May 2015	Construction activities could finally be resumed after court order passed for payment to land owner	Letter dated 22.10.2014 (ROW-132kV Mokochung-Mokochung), order dated 29.4.2015



19. For Asset-III, the relevant documents submitted include:

Srl. No.	Hindrance details	Documents Submitted
1	Poor road conditions	Letter dated 31.12.2013
2	Restriction entry of labourers	Letter dated 10.9.2014
3	Law and order situation	Letter from PGCIL dated 23.5.2011 to Inspection General of Police, letter dated 8.8.2013, 11.4.2014, 19.4.2014, 12.8.2014, 19.1.2015
4	Diversion and route alignment due to upcoming railway line	Letter dated 5.7.2013 (joint survey at railways Rangkhong area), letter dated 8.7.2013, 27.8.2013, 23.10.2013, 7.11.2013
5	ROW issues	Letter dated 9.7.2013, 4.8.2014

20. We are of the view that the entire delay in the commissioning of assets is due to forest clearances, ROW and delay in acquisition of sub-station land in the instant case and was beyond the control of the petitioner.

21. 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. Accordingly, we condone the delay of 943 days in case of Asset-I, Asset-II, 974 days for Asset-II (A) and 811 days for Asset-III and the IDC and IEDC is allowed to be capitalized.

Cost over-run

22. The petitioner has submitted that cost variation is due to variation in award cost received in competitive bidding compared to initial estimates (FR cost). For procurement, open competitive bidding route is followed by providing equal opportunity to all eligible firms. Lowest possible market prices for required



product and services are obtained and contracts are awarded on basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than cost estimate depending upon prevailing market conditions. The reasons of cost variation is submitted by petitioner vide affidavit dated 4.2.2016 for Asset-I, Asset-II and Asset-II(A) and vide affidavit dated 4.11.2015 for Asset-III.

Asset-I:

- a. Expenditure towards crop, tree and PTCC has resulted in increase of around ₹453 lakh in cost of actual project due to actual compensation paid based on rates issued by district revenue authorities. The expenditure towards forest compensation has reduced ₹188 lakh as forest involvement reduced as per final route.
- b. Reduction of ₹286 lakh and ₹1079 lakh in awarded cost of GIS equipment and 245 kV XLPE cable respectively
- c. Variation of ₹245 lakh towards transmission lines due to increase in number of tension towers due to hilly terrain. Variation of ₹914 lakh towards civil works of sub-station.

Asset-II and Asset-II (A):

- a. Cost reduction for the asset has been due to difference in award cost of 220kV and 145 kV GIS equipment w.r.t the estimated cost. The quoted/awarded price of said GIS equipments is lower than estimated cost by ₹2616 lakh and ₹1229 lakh for Asset-II and Asset-II(A) respectively.



Asset-III:

- a. **Variation in Quantity:** The Silchar and Imphal transmission line had to be further aligned considering various obstacles, suitability of spotting towers and avoidance of populated area. In some places local public also caused hindrances. All the above factors, has lead to an increase in transmission line length from 140 km to 167 km. Increase in line length has led to increase in quantity of conductor, hardware fitting, earth wire, insulators, civil works etc. in addition to increase in numbers of 480 towers against 395. Further, there has been considerable change in type of towers i.e. increase in number of tension towers to 404 nos against 254 nos, in FR. This resulted in increase in cost of ₹13511 lakh.
- b. **Variation in Cost:**FR cost of individual items/materials is exclusive of taxes and duties while cost of items is as per actual expenditure inclusive of taxes and duties.
- c. **Price Variation:**There is price variation of ₹30 lakh from the FR (i.e. August 2009) up to September 2014 is attributable to inflationary trends prevalent during the execution of project and also market forces prevailing at the time of bidding process of various packages.
- d. **Land and Compensation:** Expenditure towards crop, tree and PTCC has resulted in increase in around ₹1628 lakh in project cost due to actual compensation paid based on rates issued by district revenue authorities.

23. We have considered the submissions of the petitioner. It is observed that as per RCE dated 26.1.2016, completion cost claimed by the petitioner for all the



assets is within the approved apportioned cost of the assets as shown in subsequent paras.

Treatment of Initial spares:

24. Regulation 13(d) of the 2014 Tariff Regulations provides that initial spares shall be capitalised as a percentage of plant and machinery cost upto cut-off date, subject to following ceiling norms:-

- “(a) Coal-based/lignite-fired thermal generating stations - 4.0%
- (b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%
- (c) Hydro generating stations including pumped storage hydro generating station. - 4.0%
- (d) Transmission system
 - (i) Transmission line - 1.00%
 - (ii) Transmission Sub-station (Green Field) - 4.00%
 - (iii) Transmission Sub-station (Brown Field) - 6.00%
 - (iv) Series Compensation devices and HVDC Station - 4.00%
 - (v) Gas Insulated Sub-station (GIS) - 5.00%
 - (vi) Communication system - 3.5%”

25. The petitioner has not claimed any initial spares for Asset-II (A). The initial spares calculated for Asset-I, Asset-II and Asset-III are as shown below:-

Description	Capital cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
	(a)	(b)	(c)	$(d) = \frac{(a-b) \times c}{(100-c)\%}$	$(e) = (d) - (b)$
Asset-I (Transmission line)	4727.17	84.78	1.00%	46.89	37.89
Asset-I (Sub-station)	2773.84	42.65	4.00%	113.80	0.00
Asset-II	308.63	0.00	1.00%	3.12	0.00



Description	Capital cost as on cut-off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
	(a)	(b)	(c)	(d)=*((a-b)*c)/(100-c)%	(e)=(d)-(b)
(Transmission Line)					
Asset-II (Sub-station)	2362.49	216.86	4.00%	89.40	127.46
Asset-III (Transmission Line)	52890.88	277.86	1.00%	531.44	0.00
Asset-III (Sub-station)	1434.18	17.03	4.00%	59.05	0.00

26. We have considered submissions of the petitioner. Accordingly, excess initial spares in case of Asset-I and Asset-II have been deducted from the capital cost as on COD.

IDC and IEDC

27. As held above, since the complete time over-run of the assets has been condoned hence entire IDC and IEDC has been considered in the capital cost.

28. The petitioner has submitted the cash basis IDC for Asset-I, Asset-II and Asset-II (A) vide affidavit dated 4.12.2016 and vide affidavit dated 4.11.2015 for Asset-III. The details submitted are as follows:-

(₹ in lakh)					
Particulars	IDC discharged upto COD	IDC to be discharged in 2014-15	IDC to be discharged in 2015-16	IDC to be discharged in 2016-17	Total IDC
Asset-I	1178.55	-	87.52	-	1266.07
Asset-II	457.92	-	56.98	-	514.90



Particulars	IDC discharged upto COD	IDC to be discharged in 2014-15	IDC to be discharged in 2015-16	IDC to be discharged in 2016-17	Total IDC
Asset-II (A)	164.91	-	2.43	1.74	169.08
Asset-III	4669.83	138.3	1086.75	-	5894.88
Total	6471.21	138.30	1233.68	1.74	7844.93

29. It is observed that petitioner has considered IDC on cash basis for Asset-I, Asset-II and Asset-II (A), whereas for Asset-III entire IDC has been considered as on COD of the assets. However, for computation of tariff we have considered IDC on cash basis for all the assets. The capital cost approved for the instant assets is as follows:-

(₹ in lakh)					
Asset Name	Approved apportioned cost of the asset	Capital cost claimed (a)	IDC adjustment (IDC discharged in 2014-19)(b)	Deduction of excess initial spares (c)	Capital cost approved in this order (a-b-c)
Asset-I	10125.59	8235.67	87.52	37.89	8110.26
Asset-II	4145.13	2713.28	56.98	127.46	2528.84
Asset-II (A)	1319.74	877.17	4.17	-	873.00
Asset-III	62130.54	46721.82	1225.05	-	45496.77
Total	77720.97	58547.94	1373.72	165.35	57008.87

Additional Capital Expenditure

30. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

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

- (i) Undischarged liabilities recognised to be payable at a future date;



- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law or compliance of any existing law.”

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

30. 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;”

The cut-off date in the case of instant transmission asset is 31.3.2018.

31. The petitioner has proposed additional capitalization of ₹846.99 lakh, ₹703.44 lakh ₹250.00 lakh and ₹1627.08 lakh for the years 2015-16, and ₹381.32 lakh, ₹543.43 lakh ₹101.53 lakh and ₹2924.54 lakh 2016-17 for Asset-I, Asset-II, Asset-II (A) and Asset-III respectively towards balance and retention payment under Regulation 14(1)(i) of 2014 Tariff Regulations.

32. The petitioner was directed to submit the balance and retention payment amount yet to be made along with details of contract for which payment has been



retained along with amount retained. The petitioner, vide affidavit dated 19.2.2016, has submitted the desired information.

33. It is observed that total estimated completion cost of ₹9426.09 lakh, ₹3832.69 lakh, ₹1228.70 lakh and ₹54325.06 lakh for Asset-I, Asset-II, Asset-II(A) and Asset-III respectively including the additional capitalization (after adjustment of IDC on cash basis for respective years) is as shown below. The completion cost is within the approved apportioned cost of the assets and it is within the cut-off date. Accordingly, additional capitalization proposed by the petitioner is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations.

(₹ in lakh)

Asset Name	Approved Apportioned Cost	Capital Cost as on COD	Additional Capitalization				Total Additional Capitalization	Total capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18		
Asset-I	10125.59	8110.26	-	934.51	381.32	-	1315.83	9426.09
Asset-II	4145.13	2528.84	-	760.42	543.43	-	1303.85	3832.69
Asset-II (A)	1319.74	873.00	-	252.43	103.27	-	355.70	1228.70
Asset-III	62130.54	45496.77	138.30	2713.83	2924.54	3051.62	8828.29	54325.06
Total	77720.97	57008.87	138.30	4661.19	3952.56	3051.62	11803.67	68812.54

Debt:EquityRatio

34. 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:

- 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.”

35. The petitioner has considered debt:equity ratio as 70:30 as on COD. We have considered debt:equity ratio of 70:30 as on COD and for additional capitalization during 2014-15, 2015-16, 2016-17 and 2017-18. The details of the debt:equity as on the date of COD for the assets and 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:-

(₹ in lakh)

Particulars	As on COD		Additional capitalization during 2014-19		As on 31.3.2019	
	Amount	(%)	Amount	(%)	Amount	(%)
Asset-I						
Debt	5677.18	70.00	921.08	70.00	6598.26	70.00
Equity	2433.08	30.00	394.75	30.00	2827.83	30.00
Total	8110.26	100.00	1315.83	100.00	9426.09	100.00
Asset-II						
Debt	1770.19	70.00	912.70	70.00	2682.88	70.00
Equity	758.65	30.00	391.16	30.00	1149.81	30.00
Total	2528.84	100.00	1303.85	100.00	3832.69	100.00
Asset-II (A)						
Debt	611.10	70.00	248.99	70.00	860.09	70.00
Equity	261.90	30.00	106.71	30.00	368.61	30.00
Total	873.00	100.00	355.70	100.00	1228.70	100.00
Asset-III						
Debt	31847.74	70.00	6179.80	70.00	38027.54	70.00
Equity	13649.03	30.00	2648.49	30.00	16297.52	30.00
Total	45496.77	100.00	8828.29	100.00	54325.06	100.00

Interest on Loan (“IOL”)

36. 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.”

37. 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 trying 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)			
Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross loan opening	5677.18	6331.34	6598.26	6598.26
Cumulative Repayment upto previous year	0.00	301.84	789.06	1286.26
Net Loan-Opening	5677.18	6029.50	5809.20	5312.00
Additions during the year	654.16	266.92	0.00	0.00
Repayment during the year	301.84	487.23	497.20	497.20



Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Net Loan-Closing	6029.50	5809.20	5312.00	4814.81
Average Loan	5853.34	5919.35	5560.60	5063.41
Rate of Interest (%)	9.0250	9.0074	9.0092	9.0198
Interest	352.17	533.18	500.96	456.71

(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross loan opening	1770.19	2302.48	2682.88	2682.88
Cumulative Repayment upto previous year	0.00	96.66	274.68	466.49
Net Loan-Opening	1770.19	2205.82	2408.20	2216.39
Additions during the year	532.29	380.40	0.00	0.00
Repayment during the year	96.66	178.02	191.81	191.81
Net Loan-Closing	2205.82	2408.20	2216.39	2024.58
Average Loan	1988.01	2307.01	2312.30	2120.48
Rate of Interest (%)	9.0176	9.0181	9.0176	9.0232
Interest	119.51	208.05	208.51	191.34

(₹ in lakh)

Asset-II(A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross loan opening	611.10	787.80	860.09	860.09
Cumulative Repayment upto previous year	0.00	35.17	97.32	162.20
Net Loan-Opening	611.10	752.63	762.77	697.89
Additions during the year	176.70	72.29	0.00	0.00
Repayment during the year	35.17	62.15	64.88	64.88
Net Loan-Closing	752.63	762.77	697.89	633.02
Average Loan	681.86	757.70	730.33	665.46
Rate of Interest (%)	9.2794	9.2787	9.2769	9.2749
Interest	36.82	70.30	67.75	61.72

(₹ in lakh)

Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross loan opening	31847.74	31944.55	33844.23	35891.41	38027.54
Cumulative Repayment upto previous year	0.00	65.59	2538.30	5156.28	7931.54



Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Net Loan-Opening	31847.74	31878.96	31305.93	30735.13	30096.00
Additions during the year	96.81	1899.68	2047.18	2136.13	0.00
Repayment during the year	65.59	2472.71	2617.98	2775.27	2855.83
Net Loan-Closing	31878.96	31305.93	30735.13	30096.00	27240.17
Average Loan	31863.35	31592.45	31020.53	30415.56	28668.08
Rate of Interest (%)	9.0724	9.0723	9.0718	9.0711	9.0772
Interest	78.98	2866.18	2814.11	2759.04	2602.27

Return on Equity("ROE")

38. Clause (1)& (2) of Regulation 24 and Clause (2) of Regulation 25 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"

"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."



39. The petitioner has submitted ROE at the rate of 20.243% after grossing up the ROE of 15.50% with MAT rate as per the above 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.

40. 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.

41. 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 is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 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)

Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	2433.08	2713.43	2827.83	2827.83
Additional Capitalization	280.35	114.40	0.00	0.00
Closing Equity	2713.43	2827.83	2827.83	2827.83
Average Equity	2573.26	2770.63	2827.83	2827.83
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
Tax rate for the year (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	336.41	543.32	554.54	554.54

(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	758.65	986.78	1149.81	1149.81
Additional Capitalization	228.13	163.03	0.00	0.00
Closing Equity	986.78	1149.81	1149.81	1149.81
Average Equity	872.72	1068.29	1149.81	1149.81
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
Tax rate for the year (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	114.09	209.49	225.48	225.48

(₹ in lakh)

Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	261.90	337.63	368.61	368.61
Additional Capitalization	75.73	30.98	0.00	0.00
Closing Equity	337.63	368.61	368.61	368.61
Average Equity	299.76	353.12	368.61	368.61
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
Tax rate for the year (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610



Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Return on Equity (Pre Tax)	34.21	69.25	72.28	72.28

(₹ in lakh)

Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Equity	13649.03	13690.52	14504.67	15382.03	16297.52
Additional Capitalization	41.49	814.15	877.36	915.49	0.00
Closing Equity	13690.52	14504.67	15382.03	16297.52	16297.52
Average Equity	13669.78	14097.60	14943.35	15839.78	16297.52
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax rate for the year (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	73.24	2764.54	2930.39	3106.18	3195.94

Depreciation

42. 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."



43. 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 pumpedStorage hydro generating stations 35 years
- (e) Transmission line (including HVAC & HVDC) 35 years
- (f) Communication system 15 years”

44. The petitioner has claimed depreciation considering capital cost as on COD and additional capitalisation claimed by it for the 2014-19 tariff period.

45. We have considered the submissions of the petitioner and have computed depreciation considering capital expenditure of ₹8110.26 lakh, ₹2528.84, ₹873.00 lakh and ₹45496.77 as on COD for Asset-I, Asset-II, Asset-II (A) and Asset-III with additional capitalization of ₹1315.83lakh, ₹1303.85 lakh, ₹355.70 lakh and ₹8828.29 lakh for Asset-I, Asset-II, Asset-II (A) and Asset-III respectively. The weighted average useful life of the assets has been considered as 32, 26, 25 and 35 years for Asset-I to Asset III in accordance with the above regulation. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)				
Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross block	8110.26	9044.77	9426.09	9426.09
Additional Capitalization	934.51	381.32	0.00	0.00



Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Closing Gross block	9044.77	9426.09	9426.09	9426.09
Average Gross block	8577.52	9235.43	9426.09	9426.09
Rate of Depreciation (%)	5.278	5.276	5.275	5.275
Depreciable Value	7719.77	8311.89	8483.48	8483.48
Elapsed Life of the assets at beginning of the year	0	1	2	3
Weighted Balance Useful life of the assets	32	31	30	29
Remaining Depreciable Value	7719.77	8010.05	7694.42	7197.22
Depreciation	301.84	487.23	497.20	497.20

(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross block	2528.84	3289.26	3832.69	3832.69
Additional Capitalization	760.42	543.43	0.00	0.00
Closing Gross block	3289.26	3832.69	3832.69	3832.69
Average Gross block	2909.05	3560.98	3832.69	3832.69
Rate of Depreciation (%)	4.984	4.999	5.005	5.005
Depreciable Value	2618.15	3204.88	3449.42	3449.42
Elapsed Life of the assets at beginning of the year	0.00	1.00	2.00	3.00
Weighted Balance Useful life of the assets	26.00	25.00	24.00	23.00
Remaining Depreciable Value	2618.15	3108.22	3174.74	2982.93
Depreciation	96.66	178.02	191.81	191.81

(₹ in lakh)

Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Gross block	873.00	1125.43	1228.70	1228.70
Additional Capitalization	252.43	103.27	0.00	0.00
Closing Gross block	1125.43	1228.70	1228.70	1228.70
Average Gross block	999.22	1177.07	1228.70	1228.70
Rate of Depreciation (%)	5.280	5.280	5.280	5.280



Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Depreciable Value	899.29	1059.36	1105.83	1105.83
Elapsed Life of the assets at beginning of the year	0.00	1.00	2.00	3.00
Weighted Balance Useful life of the assets	25.00	24.00	23.00	22.00
Remaining Depreciable Value	899.29	1024.19	1008.51	943.63
Depreciation	35.17	62.15	64.88	64.88

(₹ in lakh)

Asset-III	2014- 15(pro-rata)	2015-16	2016-17	2017-18	2018-19
Opening Gross block	45496.77	45496.77	48210.60	51135.14	54186.76
Additional Capitalization	138.30	2713.83	2924.54	3051.62	0.00
Closing Gross block	45635.07	48210.60	51135.14	54186.76	54186.76
Average Gross block	45565.92	46853.69	49672.87	52660.95	54186.76
Rate of Depreciation (%)	5.268	5.262	5.256	5.256	5.257
Depreciable Value	41009.33	42292.79	44830.05	47519.33	48892.55
Elapsed Life of the assets at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the assets	35	34	33	32	31
Remaining Depreciable Value	41009.33	42227.20	42291.76	42363.05	40961.01
Depreciation	65.59	2472.71	2617.98	2775.27	2855.83

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

46. The petitioner has computed normative O&M Expenses as per Regulation 29(4)(a) of the 2014 Tariff Regulations. Accordingly, the petitioner’s entitlement to O&M expenses have been worked out as given hereunder:-

Particulars	Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Norms as per Regulation	Double Circuit (Single Conductor) (in ₹lakh/km)	0.313	0.324	0.334	0.346
	220 kV Bays (in ₹ lakh/bay)	43.61	45.06	46.55	48.1
Actual	Double Circuit (Single	48.41	48.41	48.41	48.41



Particulars	Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
	Conductor) (kms)				
	220 kV Bays (Nos)	4	4	4	4
Total O&M Expenses (in ₹ lakh)		126.39	195.92	202.37	209.15

Particulars	Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Norms as per Regulation	Double Circuit (Single Conductor) (in ₹lakh/km)	0.313	0.324	0.334	0.346
	220 kV Bays (in ₹lakh/bay)	43.61	45.06	46.55	48.1
	132 kV and below Bays(in ₹lakh/bay)	31.15	32.18	33.25	34.36
Actual	Double Circuit (Single Conductor) (in lakh/km)	1.45	1.45	1.45	1.45
	220 kV Bays (nos.)	1	1	1	1
	132 kV and below Bays(nos.)	5	5	5	5
Total O&M Expenses (in ₹lakh)		133.21	206.43	213.28	220.40

Particulars	Asset-II(A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Norms as per Regulation	220 kV Bays (in ₹lakh/bay)	43.61	45.06	46.55	48.1
	132 kV and below Bays(in ₹lakh/bay)	31.15	32.18	33.25	34.36
Actual	220 kV Bays (nos.)	1	1	1	1
	132 kV and below Bays(nos.)	1	1	1	1
Total O&M Expenses (in ₹lakh)		43.51	77.24	79.8	82.46

Particulars	Asset-III	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Norms as per Regulation	Double Circuit (Twin & Triple Conductor)	0.707	0.731	0.755	0.78	0.806
	132 kV and below Bays	30.15	31.15	32.18	33.25	34.36
Actual	Double Circuit (Twin & Triple Conductor) (km)	166.98	166.98	166.98	166.98	166.98
	132 kV and below Bays(nos.)	4	4	4	4	4
Total O&M Expenses (₹in lakh)		6.52	246.66	254.79	263.24	272.02



47. The petitioner submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner is due during the 2014-19 tariff period and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

48. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

Interest on Working Capital (“IWC”)

49. 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).

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

(₹ in lakh)

Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	18.96	29.39	30.36	31.37
O & M expenses	10.53	16.33	16.86	17.43
Receivables	191.10	301.08	300.33	293.98
Total	220.59	346.79	347.55	342.78
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	29.78	46.82	46.92	46.28

(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	19.98	30.96	31.99	33.06
O & M expenses	11.10	17.20	17.77	18.37
Receivables	79.74	137.85	144.21	142.54
Total	110.82	186.02	193.98	193.96
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	14.96	25.11	26.19	26.18

(₹ in lakh)

Asset-II(A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	6.53	11.59	11.97	12.37
O & M expenses	3.63	6.44	6.65	6.87
Receivables	25.76	47.97	48.97	48.41
Total	35.91	66.00	67.59	67.65
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest	4.85	8.91	9.13	9.13

(₹ in lakh)



Asset-III	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.98	37.00	38.22	39.49	40.80
O & M expenses	0.54	20.55	21.23	21.94	22.67
Receivables	38.28	1425.04	1470.64	1519.53	1523.38
Total	39.81	1482.59	1530.09	1580.95	1586.85
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	5.37	200.15	206.56	213.43	214.23

Annual Transmission Charges

51. 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)				
Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Block				
Opening Gross Block	8110.26	9044.77	9426.09	9426.09
Additional Capitalisation	934.51	381.32	0.00	0.00
Closing Gross Block	9044.77	9426.09	9426.09	9426.09
Average Gross Block	8577.52	9235.43	9426.09	9426.09
Rate of Depreciation	5.278	5.276	5.275	5.275
Depreciable Value	7719.77	8311.89	8483.48	8483.48
Elapsed Life of the assets at beginning of the year	0	1	2	3
Weighted Balance Useful life of the assets	32	31	30	29
Remaining Depreciable Value	7719.77	8010.05	7694.42	7197.22
Depreciation	301.84	487.23	497.20	497.20
Interest on Loan				
Gross Normative Loan	5677.18	6331.34	6598.26	6598.26
Cumulative Repayment upto Previous Year	0.00	301.84	789.06	1286.26



Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Net Loan-Opening	5677.18	6029.50	5809.20	5312.00
Additions	654.16	266.92	0.00	0.00
Repayment during the year	301.84	487.23	497.20	497.20
Net Loan-Closing	6029.50	5809.20	5312.00	4814.81
Average Loan	5853.34	5919.35	5560.60	5063.41
Weighted Average Rate of Interest on Loan (%)	9.0250	9.0074	9.0092	9.0198
Interest	352.17	533.18	500.96	456.71
Return on Equity				
Opening Equity	2433.08	2713.43	2827.83	2827.83
Additions	280.35	114.40	0.00	0.00
Closing Equity	2713.43	2827.83	2827.83	2827.83
Average Equity	2573.26	2770.63	2827.83	2827.83
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	336.41	543.32	554.54	554.54
Interest on Working Capital				
Maintenance Spares	18.96	29.39	30.36	31.37
O & M expenses	10.53	16.33	16.86	17.43
Receivables	191.10	301.08	300.33	293.98
Total	220.59	346.79	347.55	342.78
Interest	29.78	46.82	46.92	46.28
Annual Transmission Charges				
Depreciation	301.84	487.23	497.20	497.20
Interest on Loan	352.17	533.18	500.96	456.71
Return on Equity	336.41	543.32	554.54	554.54



Asset-I	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Interest on Working Capital	29.78	46.82	46.92	46.28
O & M Expenses	126.39	195.92	202.37	209.15
Total	1146.60	1806.47	1801.98	1763.87

(₹ in lakh)

Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Block				
Opening Gross Block	2528.84	3289.26	3832.69	3832.69
Additional Capitalisation	760.42	543.43	0.00	0.00
Closing Gross Block	3289.26	3832.69	3832.69	3832.69
Average Gross Block	2909.05	3560.98	3832.69	3832.69
Rate of Depreciation	4.984	4.999	5.005	5.005
Depreciable Value	2618.15	3204.88	3449.42	3449.42
Elapsed Life of the assets at beginning of the year	0.00	1.00	2.00	3.00
Weighted Balance Useful life of the assets	26.00	25.00	24.00	23.00
Remaining Depreciable Value	2618.15	3108.22	3174.74	2982.93
Depreciation	96.66	178.02	191.81	191.81
Interest on Loan				
Gross Normative Loan	1770.19	2302.48	2682.88	2682.88
Cumulative Repayment upto Previous Year	0.00	96.66	274.68	466.49
Net Loan-Opening	1770.19	2205.82	2408.20	2216.39
Additions	532.29	380.40	0.00	0.00
Repayment during the year	96.66	178.02	191.81	191.81
Net Loan-Closing	2205.82	2408.20	2216.39	2024.58
Average Loan	1988.01	2307.01	2312.30	2120.48
Weighted Average Rate of Interest on Loan (%)	9.0176	9.0181	9.0176	9.0232
Interest	119.51	208.05	208.51	191.34
Return on Equity				



Asset-II	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Opening Equity	758.65	986.78	1149.81	1149.81
Additions	228.13	163.03	0.00	0.00
Closing Equity	986.78	1149.81	1149.81	1149.81
Average Equity	872.72	1068.29	1149.81	1149.81
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	114.09	209.49	225.48	225.48
Interest on Working Capital				
Maintenance Spares	19.98	30.96	31.99	33.06
O & M expenses	11.10	17.20	17.77	18.37
Receivables	79.74	137.85	144.21	142.54
Total	110.82	186.02	193.98	193.96
Interest	14.96	25.11	26.19	26.18
Annual Transmission Charges				
Depreciation	96.66	178.02	191.81	191.81
Interest on Loan	119.51	208.05	208.51	191.34
Return on Equity	114.09	209.49	225.48	225.48
Interest on Working Capital	14.96	25.11	26.19	26.18
O & M Expenses	133.21	206.43	213.28	220.40
Total	478.44	827.11	865.28	855.21

(₹ in lakh)

Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Block				
Opening Gross Block	873.00	1125.43	1228.70	1228.70
Additional Capitalisation	252.43	103.27	0.00	0.00



Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Closing Gross Block	1125.43	1228.70	1228.70	1228.70
Average Gross Block	999.22	1177.07	1228.70	1228.70
Rate of Depreciation	5.280	5.280	5.280	5.280
Depreciable Value	899.29	1059.36	1105.83	1105.83
Elapsed Life of the assets at beginning of the year	0	1	2	3
Weighted Balance Useful life of the assets	25	24	23	22
Remaining Depreciable Value	899.29	1024.19	1008.51	943.63
Depreciation	35.17	62.15	64.88	64.88
Interest on Loan				
Gross Normative Loan	611.10	787.80	860.09	860.09
Cumulative Repayment upto Previous Year	0.00	35.17	97.32	162.20
Net Loan-Opening	611.10	752.63	762.77	697.89
Additions	176.70	72.29	0.00	0.00
Repayment during the year	35.17	62.15	64.88	64.88
Net Loan-Closing	752.63	762.77	697.89	633.02
Average Loan	681.86	757.70	730.33	665.46
Weighted Average Rate of Interest on Loan (%)	9.2794	9.2787	9.2769	9.2749
Interest	36.82	70.30	67.75	61.72
Return on Equity				
Opening Equity	261.90	337.63	368.61	368.61
Additions	75.73	30.98	0.00	0.00
Closing Equity	337.63	368.61	368.61	368.61
Average Equity	299.76	353.12	368.61	368.61
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610
Return on Equity (Pre	34.21	69.25	72.28	72.28



Asset-II (A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Tax)				
Interest on Working Capital				
Maintenance Spares	6.53	11.59	11.97	12.37
O & M expenses	3.63	6.44	6.65	6.87
Receivables	25.76	47.97	48.97	48.41
Total	35.91	66.00	67.59	67.65
Interest	4.85	8.91	9.13	9.13
Annual Transmission Charges				
Depreciation	35.17	62.15	64.88	64.88
Interest on Loan	36.82	70.30	67.75	61.72
Return on Equity	34.21	69.25	72.28	72.28
Interest on Working Capital	4.85	8.91	9.13	9.13
O & M Expenses	43.51	77.24	79.80	82.46
Total	154.56	287.85	293.84	290.47

(₹ in lakh)

Asset-III	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Block					
Opening Gross Block	45496.77	45496.77	48210.60	51135.14	54186.76
Additional Capitalisation	138.30	2713.83	2924.54	3051.62	0.00
Closing Gross Block	45635.07	48210.60	51135.14	54186.76	54186.76
Average Gross Block	45565.92	46853.69	49672.87	52660.95	54186.76
Rate of Depreciation	5.268	5.262	5.256	5.256	5.257
Depreciable Value	41009.33	42292.79	44830.05	47519.33	48892.55
Elapsed Life of the assets at beginning of the year	0	1	2	3	4
Weighted Balance Useful life of the assets	35	34	33	32	31
Remaining Depreciable Value	41009.33	42227.20	42291.76	42363.05	40961.01



Asset-III	2014-15(Pro-rata)	2015-16	2016-17	2017-18	2018-19
Depreciation	65.59	2472.71	2617.98	2775.27	2855.83
Interest on Loan					
Gross Normative Loan	31847.74	31944.55	33844.23	35891.41	38027.54
Cumulative Repayment upto Previous Year	0.00	65.59	2538.30	5156.28	7931.54
Net Loan-Opening	31847.74	31878.96	31305.93	30735.13	30096.00
Additions	96.81	1899.68	2047.18	2136.13	0.00
Repayment during the year	65.59	2472.71	2617.98	2775.27	2855.83
Net Loan-Closing	31878.96	31305.93	30735.13	30096.00	27240.17
Average Loan	31863.35	31592.45	31020.53	30415.56	28668.08
Weighted Average Rate of Interest on Loan (%)	9.0724	9.0723	9.0718	9.0711	9.0772
Interest	78.98	2866.18	2814.11	2759.04	2602.27
Return on Equity					
Opening Equity	13649.03	13690.52	14504.67	15382.03	16297.52
Additions	41.49	814.15	877.36	915.49	0.00
Closing Equity	13690.52	14504.67	15382.03	16297.52	16297.52
Average Equity	13669.78	14097.60	14943.35	15839.78	16297.52
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	73.24	2764.54	2930.39	3106.18	3195.94
Interest on Working Capital					
Maintenance Spares	0.98	37.00	38.22	39.49	40.80
O & M expenses	0.54	20.55	21.23	21.94	22.67
Receivables	38.28	1425.04	1470.64	1519.53	1523.38
Total	39.81	1482.59	1530.09	1580.95	1586.85
Interest	5.37	200.15	206.56	213.43	214.23



Asset-III	2014-15(Pro-rata)	2015-16	2016-17	2017-18	2018-19
Annual Transmission Charges					
Depreciation	65.59	2472.71	2617.98	2775.27	2855.83
Interest on Loan	78.98	2866.18	2814.11	2759.04	2602.27
Return on Equity	73.24	2764.54	2930.39	3106.18	3195.94
Interest on Working Capital	5.37	200.15	206.56	213.43	214.23
O & M Expenses	6.52	246.66	254.79	263.24	272.02
Total	229.71	8550.23	8823.84	9117.16	9140.29

Filing Fee and Publication Expenses

52. 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

53. 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



54. 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.

Sharing of Transmission Charges

55. 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.

56. This order disposes of Petition No. 398/TT/2014.

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)

Asset-I	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXI-16.DOCO Funding-	8.90	938.00	0.00	938.00
BOND XXXIII-1.doco funding-	8.64	244.00	0.00	244.00
BOND-XXXIV-2.doco funding-	8.84	125.00	0.00	125.00
BOND-XXXV-3.doco funding-	9.64	50.00	0.00	50.00
BOND XXXIII-LOAN 6-	9.35	50.00	0.00	50.00
BOND XXXII-LOAN 5-	9.25	100.00	0.00	100.00
BOND XXXVIII-6.doco funding-	9.25	100.00	0.00	100.00
BOND-XXXIX-7.doco funding	9.40	200.00	0.00	200.00
SBI(21.03.2012)-8.doco funding-	9.95	200.00	0.00	200.00
BOND XL-99.doco funding-	9.30	200.00	0.00	200.00
BOND-XLI-10.doco funding-	9.33	200.00	0.00	200.00
BOND XLII-18. Doco Funding-	8.80	290.00	0.00	290.00
BOND-XLIII-17. Doco Funding-	7.93	550.00	0.00	550.00
BOND-XLIV-11.doco funding-	8.70	450.00	0.00	450.00
BOND-XLV-12.doco funding-	9.65	300.00	0.00	300.00
SBI (2014-15)-13.doco funding-	9.95	500.00	0.00	500.00
BOND-XLVI-14.doco funding-	9.30	500.00	0.00	500.00
BOND XLVII-15. doco funding-	8.93	400.00	0.00	400.00
BOND XLVIII-20.Doco funding-	8.20	87.14	0.00	87.14
Proposed Loan 2015-2016 (8.40%)-19. Doco Funding-	8.40	219.57	0.00	219.57
Total		5703.71	0.00	5703.71

(₹ in lakh)

Asset-II	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXIV-1.doco funding-	8.84	520.00	0.00	520.00
BOND XXXV-2.doco funding-	9.64	50.00	0.00	50.00
BOND XXXVI-3.doco funding-	9.35	50.00	0.00	50.00



Asset-II	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXVII-4.doco funding-	9.25	25.00	0.00	25.00
BOND XXXVIII-5.doco funding-	9.25	100.00	0.00	100.00
BOND XXXIX-6.doco funding-	9.40	135.00	0.00	135.00
SBI (21.03.2012)-7. doco funding-	9.95	100.00	0.00	100.00
BOND-XL 8.doco funding-	9.30	100.00	0.00	100.00
BOND XLI-9. doco funding-	8.85	150.00	0.00	150.00
BOND-XLII-10.doco funding-	8.80	150.00	0.00	150.00
BOND-XLIII-11. doco funding-	7.93	125.00	0.00	125.00
BOND XLIV-12.doco funding-	8.70	95.00	0.00	95.00
BOND-XLV-13.doco funding-	9.65	50.00	0.00	50.00
SBI (2014-15)- Doco funding-	9.95	100.20	0.00	100.20
Proposed Loan 2015-2016 (8.40%)-Doco Funding-	8.40	109.21	0.00	109.21
Total		1859.41	0.00	1859.41

(₹ in lakh)

Asset-II(A)	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
BOND XXXIX-Doco Funding-	9.40	60.42	0.00	60.42
BOND XL-2.Doco Funding-	9.30	530.00	0.00	530.00
Proposed Loan (2015-2016) (8.40%)-3. Doco Funding-	8.40	20.68	0.00	20.68
Total		611.10	0.00	611.10

(₹ in lakh)

Asset-III	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXI-DOCO Funding-	8.9	700	0.00	700
BOND XXXIII-DOCO Funding-	8.64	659	0.00	659
BOND-XXXIV-DOCO Funding-	8.84	500	0.00	500
BOND-XXXV-DOCO Funding-	9.64	718.00	0.00	718.00
BOND XXXVII-DOCO Funding-	9.25	888.00	0.00	888.00



Asset-III	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
BOND XXXVIII-DOCO Funding-	9.25	1500.00	0.00	1500.00
BOND XXXIX-DOCO Funding-	9.4	1500	0.00	1500.00
SBI (21.03.2012)-DOCO Funding-	10.25	600	0.00	600.00
BOND XL-DOCO Funding-	9.3	2000	0.00	2000.00
BOND - XLI-DOCO Funding-	8.85	4000	0.00	4000.00
BOND - XLII-DOCO Funding-	8.8	5000	0.00	5000.00
BOND - XLIII-DOCO Funding-	7.93	1654.32	0.00	1654.32
BOND - XLIV-DOCO Funding-	8.7	3000	0.00	3000.00
BOND - XLV-DOCO Funding-	9.65	2769.79	0.00	2769.79
BOND XLVI -DOCO Funding-	9.3	7216.16	0.00	7216.16
Total		32705.27	0.00	32705.27



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

(₹ in lakh)

Asset-I	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	5703.71	5703.71	5703.71	5703.71
Cumulative Repayments of Loans upto Previous Year	211.59	308.51	484.78	731.88
Net Loans Opening	5492.12	5395.20	5218.93	4971.83
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	96.92	176.27	247.10	430.43
Net Closing Loan	5395.20	5218.93	4971.83	4541.40
Average Net Loan	5443.66	5307.07	5095.38	4756.62
Rate of Interest on Loan (%)	9.0250	9.0074	9.0092	9.0198
Interest on Loan	491.29	478.03	459.05	429.04

(₹ in lakh)

Asset-II	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	1859.41	1859.41	1859.41	1859.41
Cumulative Repayments of Loans upto Previous Year	47.50	92.91	175.74	273.16
Net Loans Opening	1811.91	1766.50	1683.67	1586.25
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	45.41	82.83	97.42	129.09
Net Closing Loan	1766.50	1683.67	1586.25	1457.16
Average Net Loan	1789.21	1725.09	1634.96	1521.71
Rate of Interest on Loan (%)	9.0176	9.0181	9.0176	9.0232
Interest on Loan	161.34	155.57	147.43	137.31

(₹ in lakh)

Asset-II(A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Gross Opening Loan	611.10	611.10	611.10	611.10
Cumulative Repayments of Loans upto Previous Year	0.00	0.00	44.17	88.34
Net Loans Opening	611.10	611.10	566.93	522.76
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00
Less: Repayment(s) of Loan during the year	0.00	44.17	44.17	44.17
Net Closing Loan	611.10	566.93	522.76	478.59
Average Net Loan	611.10	589.02	544.85	500.68



Asset-II(A)	2015-16 (Pro-rata)	2016-17	2017-18	2018-19
Rate of Interest on Loan (%)	9.2794	9.2787	9.2769	9.2749
Interest on Loan	56.71	54.65	50.54	46.44

(₹ in lakh)

Asset-III	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19
Gross Opening Loan	32705.27	32705.27	32705.27	32705.27	32705.27
Cummulative Repayment of loan upto previous year	213.26	213.26	502.01	1345.31	2557.29
Net Loan Opening	32492.01	32492.01	32203.26	31359.96	30147.98
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	288.75	843.30	1211.98	2211.98
Net Loan Closing	32492.01	32203.26	31359.96	30147.98	27936.00
Average Loan	32492.01	32347.65	31781.64	30754.00	29042.02
Weighted Average Rate of Interest	9.072%	9.072%	9.072%	9.071%	9.077%
Interest	2947.81	2934.69	2883.16	2789.74	2636.21

