

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 166/TT/2013

Coram:

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

**Date of Hearing: 03.02.2016
Date of Order : 17.03.2016**

In the matter of:

Determination of transmission tariff for 2009-14 block in respect of Raigarh PS (Near Kota)-Raipur PS (Near Tamnar) 765 kV D/C T/L with associated bays, 765/400 kV 1500 MVA Auto-transformer and 765 kV 4*80 MVAR Bus Reactor at Raigarh (near Tamnar) with associated bays under establishment of Pooling stations at Raigarh (near Kotra) and Raigarh (near Tanmar) for IPP Generation Projects in Chhattisgarh (Set "B"/WR1-IPPB) in Western Region under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999, and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

And in the Matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Trading Company Ltd.
Shakti Bhawan, Rampur
Jabalpur - 482 008
2. Maharashtra State Electricity Distribution Co. Ltd.
Prakashgad, 4th Floor
Andheri (East), Mumbai - 400 052
3. Gujarat Urja Vikas Nigam Ltd.
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara - 390 007



4. Electricity Department Govt. Of Goa
Vidyut Bhawan, Panaji,
Ner Mandvi Hotel, Goa - 403 001
5. Electricity Department
Administration Of Daman & Diu
Daman - 396 210
6. Electricity Department
Administration Of Dadra Nagar Haveli
U.T., Silvassa - 396 230
7. Chhattisgarh State Electricity Board
P.O.Sunder Nagar, Dangania, Raipur
Chhatisgaarh-492013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road,
Indore-452 008
9. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
Vidyut Bhawan, Vidyut Marg,
Jaipur - 302005.
10. Ajmer Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
11. Jaipur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
12. Jodhpur Vidyut Vitran Nigam Ltd.,
400 kV GSS Building (Ground Floor),
Ajmer Road,
Heerapura, Jaipur
13. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla - 171 004.
14. Punjab State Electricity Board,
The Mall, Patiala - 147 001.
15. Haryana Power Purchase Centre,
Shakti Bhawan, Sector - 6
Panchkula (Haryana) - 134 109



16. Power Development Department,
Govt. of Jammu and Kashmir
Mini Secretariat, Jammu.
17. Uttar Pradesh Power Corporation Ltd.,
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226 001.
18. Delhi Transco Ltd.,
Shakti Sadan, Kotla Road,
New Delhi - 110 002
19. BSES Yamuna Power Ltd.,
Shakti Kiran Building, Karkardooma,
Delhi – 110 092.
20. BSES Rajdhani Power Ltd.,
BSES Bhawan, Nehru Place,
New Delhi.
21. North Delhi Power Ltd.,
Power Trading & Load Dispatch Group,
Cennet Building,
Adjacent to 66/11kV Pitampura - ,
Grid Building, Near PP Jewellers,
Pitampura, New Delhi - 110 034
22. Chandigarh Administration,
Sector - 9, Chandigarh
23. Uttarakhand Power Corporation Ltd.,
Urja Bhawan, Kanwali Road,
Dehradun
24. North Central Railway,
Allahabad
25. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi - 110 002
26. Karnataka Power Transmission Corporation Ltd.,
(KPTCL), Kaveri Bhavan, Bangalore – 560009
27. Transmission Corporation of Andhra Pradesh Ltd.
(APTRANSCO), Vidyut Soudha,
Hyderabad- 500082



28. Kerala State Electricity Board,
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram - 695 004
29. Tamil Nadu Generation and Distribution Corporation Ltd
(Formerly Tamilnadu Electricity Board -TNEB)
NPKRR Maaligai, 800, Anna Salai Chennai - 600 002
30. Electricity Department
Govt of Pondicherry, Pondicherry – 605001
31. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)
P&T Colony, Seethmmadhara Vishakhapatnam,
Andhra Pradesh
32. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL)
Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road,
Kesavayana Gunta, Tirupati-517 501,
Chittoor District, Andhra Pradesh
33. Central Power Distribution Company of Andhra Pradesh limited (APCPDCL)
Corporate Office, Mint Compound,
Hyderabad- 500 063, Andhra Pradesh
34. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
Opp. NIT Petrol Pump Chaitanyapuri, Kazipet,
Warangal - 506 004 Andhra Pradesh
35. Bangalore Electricity Supply Company Ltd.,(BESCOM),
Corporate Office, K.R.Circle Bangalore - 560 001 Karnataka
36. Gulbarga Electricity Supply Company Ltd., (GESCOM)
Station Main Road, Gulbarga, Karnataka
37. Hubli Electricity Supply Company Ltd., (HESCOM)
Navanagar, PI3 Road Hubli, Karnataka
38. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
Mangalore - 575 001, Karnataka
39. Chamundeswari Electricity Supply Corporation Ltd., (CESC)
927,L J Avenue Ground Floor,
New Kantharaj Urs Road Saraswatipuram,
Mysore – 570009, Karnataka
40. R. K. M. Power Limited
147, Gitanjali Nagar, Avanti Vihar, Sector-I,
Raipur (C.G.) – 492004



41. Athena Chhattisgarh Power Pvt. Ltd.
7-1-24 B block, 5th floor, "Roxana Towers",
Greenlands, Begumpet, Hyderabad-500016
42. Jindal power limited
Post Box No. - 16,
Kharsia Road, Raigarh - 496001
43. SKS Power Generation (Chhattisgarh) Ltd. 501 B,
Elegant Business Park, Andheri Kurla Road, J. B. Nagar,
Andheri(E), Mumbai - 400059
44. Korba West Power Co. Ltd.
2nd floor, Centrum Plaza, Golf Course Road,
Sector - 53, Gurgaon - 122002
45. KSK Mahanadi Power Company Ltd.
8-2/293/82/A/431/A, Road No. 22, Jubilee hills,
Hyderabad - 500033
46. Visa power ltd.
HUL building, 2nd floor, 9,
Shakespeare Sarani, Kolkata — 700071
47. D. B. Power ltd.
Plot no.-813, Phase-v,
Udyog Vihar, Gurgaon-122016
48. TRN Energy Pvt. Ltd.
4735/22, Ground Floor,
Prakashdeep Building, Ansari Road,
Darya Ganj, New Delhi-110002

.....Respondents

The following were present:

For Petitioner: Shri S.S. Raju, PGCIL
Shri Jasbir Singh, PGCIL
Shri Rakesh Prasad, PGCIL
Shri M.M. Mondal, PGCIL
Shri J Majumder, PGCIL
Shri Shashi Bhushan, PGCIL
Smt. Sangeeta Edwards, PGCIL
Shri S.C. Taneja, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Smt. Sonam Gangwar, PGCIL
Shri A.M. Pavgi, PGCIL
Shri Mohd. Mohsin, PGCIL

For Respondents: None



ORDER

The petition has been preferred by Power Grid Corporation of India Limited (“the petitioner”), for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) for the period from COD to 31.3.2014 in respect of Raigarh PS (Near Kota)-Raipur PS (Near Tamnar) 765 kV D/C T/L with associated bays and 765/400 kV 1500 MVA Auto-transformer and 765 kV 4*80 MVAR Bus Reactor at Raigarh (near Tamnar) with associated bays under establishment of Pooling stations at Raigarh (near Kotra) and Raigarh (near Tamnar) for IPP Generation Projects in Chhattisgarh (Set “B”/WR1-IPPB) in Western Region (hereinafter referred to as “the transmission assets”).

2. The respondents are distribution licensees, who are procuring transmission service from the petitioner, mainly beneficiaries of Western Region.

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

a) Investment approval for the said system was accorded by Board of Directors of Powergrid vide Memorandum C/CP/Chhattisgarh-IPP dated 31.5.2011 at an estimated cost of ₹196187 lakh including IDC of ₹12572 lakh based on 4th quarter, 2010 price level. Revised Cost Estimate was accorded by Board of Directors on 11.3.2016 at an estimated cost of ₹231058 lakh, including IDC of ₹16500 lakh (Based on December, 2015 price level).

b) The scope of work covered under the project broadly includes following transmission lines and sub-stations:-



Transmission Lines:

- a. Champa Pooling Station-Raipur Pooling Station 765 kV D/C line -150 km
- b. Raigarh Pooling Station (near Kotra)-Raigarh Pooling Station- 50 km (near Tamnar) 765 kV D/C line
- c. Champa Pooling Station-Dharamjaygarh/ near Korba Switching - 50 km Station 765 kV S/C line
- d. Raigarh Pooling Station (near Kotra) Champa Pooling Station - 105 km 765 kV S/C line

Sub-stations:

- a. Establishment of 765/400 kV, 6x1500 MVA Champa Pooling Station
- b. Establishment of 765/400 kV, 3x1500 MVA Raigarh Pooling Station (near Tamnar)
- c. Bay extensions at 765/400 kV Raigarh Pooling Station (near Kotra), 765 kV Raipur Pooling Station and Dharamjaygarh Pooling Station

c) As per the investment approval, the project was scheduled to be commissioned within 36 months from the date of Investment Approval. The date of Investment Approval was 31.5.2011 and accordingly the schedule date of completion of the instant was 1.6.2014.

d) The petitioner initially claimed the transmission tariff for the instant transmission assets with an anticipated COD of 1.10.2013, based on estimated capital expenditure incurred up to the anticipated date of commercial operation and estimated additional capital expenditure projected to be incurred from anticipated date of commercial operation to 31.3.2014, vide affidavit dated 13.8.2013.

e) The petitioner, vide affidavit dated 18.9.2015, has submitted the actual date of commercial operation of Raigarh PS (Near Kota)-Raipur PS (Near Tamnar) 765 kV D/C T/L with associated bays (referred as “**Asset-I**”),

765/400 kV 1500 MVA ICT-1 along with associated bays (referred as “**Asset II-a**”) and 765 kV 4*80 MVAR Bus Reactor at Raigarh (near Tamnar) along with associated bays (referred as “**Asset II-b**”) as 1.11.2013, 1.11.2013 and 1.12.2013 respectively. The petitioner has submitted the revised Auditor Certificates, vide affidavit dated 18.9.2015 as per revised date of commercial operation and also revised tariff forms pertaining to these assets. The details of the assets covered in the instant petition and their date of commercial operation are as follows:-

| Asset | Asset Description | Actual COD |
|--------------|--|-------------------|
| Asset-I | Raigarh PS (Near Kota)-Raipur PS (Near Tamnar) 765 kV D/C T/L with associated bays | 1.11.2013 |
| Asset II-a | 765/400 kV 1500 MVA ICT-1 along with associated bays | 1.11.2013 |
| Asset II-b | 765 kV 4*80 MVAR Bus Reactor at Raigarh (near Tamnar) along with associated bays | 1.12.2013 |

f) The petitioner has submitted the letters declaring the date of commercial operation of the transmission assets and CEA energisation certificates in support of claim of the commercial operation date of the instant assets.

g) The petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/objections have been received from the public in response to the notice in newspapers.

h) Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL), Respondent No. 2, has filed a reply to the petition vide affidavit dated 15.10.2013. MSEDCL has raised certain objections regarding the anticipated COD of the transmission asset, estimated additional capital expenditure, additional O&M charges worked out by the petitioner, recovery/refund of annual fixed charges on account of return on equity, interest rates for loan computations, reimbursement of expenditure towards filing fees, service tax claims, licensee fee and the total estimated completion cost of the assets. The petitioner has not submitted any rejoinder to the reply filed by MSEDCL. The petitioner has submitted additional information regarding actual COD, Auditor Certificates along with revised tariff forms for the instant transmission assets vide affidavits dated 8.5.2014, 2.7.2014, 18.9.2015, 15.2.2016 and 19.2.2016.

i) The hearing in this matter was held on 3.2.2016. Having heard the representatives of the parties and perused the records we proceed to dispose of the petition. While doing so, we also take care of the submissions of the respondents in their replies and address them in the relevant paragraphs.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

4. The transmission charges claimed by the petitioner based on the actual date of commercial operation are as below:-

(₹ in lakh)

| Particulars | Asset I | Asset II-a | Asset II-b |
|-----------------------------|----------------|---------------|---------------|
| | 2013-14 | 2013-14 | 2013-14 |
| Depreciation | 563.95 | 137.79 | 43.26 |
| Interest on Loan | 570.87 | 154.80 | 45.38 |
| Return on Equity | 670.93 | 159.07 | 50.17 |
| Interest on Working Capital | 50.13 | 13.70 | 4.77 |
| O & M Expenses | 176.21 | 65.46 | 30.55 |
| Total | 2032.09 | 530.82 | 174.13 |

5. The details submitted by the petitioner in support of its claim for Interest on Working Capital are as below:-

(₹ in lakh)

| Particulars | Asset-I | Asset-II | Asset-III |
|--------------------------------------|---------------|---------------|---------------|
| | 2013-14 | 2013-14 | 2013-14 |
| Maintenance Spares | 63.44 | 23.57 | 13.75 |
| O & M expenses | 35.24 | 13.09 | 7.64 |
| Receivables | 812.84 | 212.33 | 87.07 |
| Total | 911.52 | 248.99 | 108.46 |
| Rate of Interest | 13.2% | 13.20% | 13.20% |
| Interest on Working Capital | 120.32 | 32.87 | 14.32 |
| Pro-rata Interest on Working Capital | 50.13 | 13.70 | 4.77 |

Capital Cost

6. Regulation 7 of the 2009 Tariff Regulations provides that:-

“(1) Capital cost for a project shall include:-

(a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9: Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.



(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff”

7. The details of apportioned approved cost, capital cost as on the date of commercial operation, and additional capital expenditure incurred for the assets covered in the instant petition, claimed by the petitioner, are summarized below:-

(₹ in lakh)

| Asset | Apportioned approved cost as per FR | Apportioned approved cost as per RCE | Actual cost incurred as on COD* | Additional capital expenditure during 2013-14 | Total completion cost up to 31.3.2014 |
|------------|-------------------------------------|--------------------------------------|---------------------------------|---|---------------------------------------|
| Asset I | 27786.63 | 34556.94 | 25582.11 | 3577.66 | 29159.77 |
| Asset II-a | 12395.32 | 8081.20 | 5969.64 | 1039.06 | 7008.70 |
| Asset II-b | | 4212.95 | 2053.73 | 1009.61 | 3063.34 |

*inclusive of initial spares discharged up to COD

8. The petitioner has claimed an incidental expenditure during construction (IEDC) of ₹288.24 lakh, ₹79.19 lakh and ₹30.01 lakh and interest during construction (IDC) of ₹1664.53 lakh, ₹504.49 lakh and ₹180.68 lakh for Asset I, Asset II-a and Asset II-b respectively as on date of commercial operation. In response to query of the Commission, the petitioner has submitted, vide affidavit dated 18.9.2015, the details of IDC discharged up to COD and from COD to 31.3.2014. The petitioner has also submitted the year wise details of liability discharged corresponding to initial spares. The admissible capital cost of the transmission asset as on COD is worked out in the subsequent paragraphs after the treatment of initial spares and IEDC & IDC amount.

Cost Variation

9. There is cost variation in certain components of the assets with reference to the cost approved in FR. The petitioner, vide affidavit dated 8.5.2014, has submitted the reasons and justifications for cost variation in certain elements of Asset I. The justification given by the petitioner are as follows:-

- a) Preliminary investigation, Right of way, forest clearance, PTCC, general civil works, compensation etc., colony along T/L Line: The cost of total preliminary works increased from ₹154.91 lakh as per Feasibility Report cum Detailed Project Report to ₹1540.88 lakh. The increase in cost is mainly due to variation in the amount of crop/tree compensation which was estimated to be ₹74.00 lakh as per FR. However, based on the assessment by Revenue Authorities, the actual amount paid towards crop/tree compensation increased to ₹809.56 lakh. Further, as per FR cum DPR, the amount of Forest NPV/Compensation was ₹75.91 lakh. However, based on the assessment by Forest Authorities, the amount paid towards forest compensation increased to ₹458.01 lakh. In addition, ₹91.34 lakh was incurred towards railway crossing approval and blockage charges, which was not envisaged in FR cum DPR.
- b) Roads and Drainages: The cost increased from ₹200 lakh as per FR cost to ₹297.12 lakh due to change in design after detailed engineering and due to actual site conditions.
- c) Foundation for structure and structure for Switch yard: The number of structures has increased against the FR estimates considered as per initial site inspection. There was a corresponding increase in the number of foundations resulting in the increased cost.



- d) Towers Steel: The cost of tower steel increased from ₹5011.82 lakh to ₹7031.37 lakh mainly on account of increase in tower weight to 10244 MT (actual) as against 7895 MT as estimated in FR cum DPR due to reasons stated in the subsequent paragraphs. During the preparation of FR/DPR, the 765 kV D/C towers were under development stage. The actual weight of towers increased after detailed engineering and testing. Feasibility Report was prepared from initial site inspection. However as per actual site condition, in order to avoid populated areas, minimize the forest area, minimize the ROW constraints and to consider various power line crossings, more number of angle towers were used.
- e) Conductor: The cost of conductor increased from ₹4390.55 lakh (as per FR cum DPR) to ₹5341.63 lakh (actual). The increase in cost of conductor is due to actual price received in competitive bidding.
- f) Hardware Fittings: The cost of hardware fittings increased from ₹739.78 lakh (as per FR cum DPR) to ₹1056.09 lakh (actual). This is due to the increase in angle towers resulting in the increase in quantity of Quad Tension string.
- g) Erection, Stringing and Civil Works: The cost of erection, stringing and civil works increased from ₹2666.55 lakh (as per FR cum DPR) to ₹3213.88 lakh (actual). The increase in cost is due to change in type of towers and based on the actual soil conditions existing on the site.

10. The petitioner has submitted the following reasons and justification for cost variation in case of Asset-II:-

- a) Foundation for Structure: The cost of foundation for structure increased from ₹269.28 lakh (as per FR cum DPR) to ₹1095.59 lakh (actual). In the Feasibility Report, cost of RCC works for transformer foundation including rail works (for one bank) was considered as ₹44.80 lakh but after detailed engineering, the cost increased to ₹187 lakh as per actual site condition. In addition to this, the number of structures also increased resulting in overall increase in foundation cost.
- b) Compensating Equipment: The cost of compensating equipment increased from ₹2139.20 lakh (as per FR cum DPR) to ₹2695.07 lakh (actual). The increase in cost is due to the increased price received in competitive bidding.
- c) Control Relay and Protection Panel: The cost of Control Relay and Protection Panel increased from ₹173.94 lakh (as per FR cum DPR) to ₹206.39 lakh. The increase in cost is due to the increased price received in competitive bidding.
- d) Auxiliary System: The cost of Auxiliary System increased from ₹97.69 lakh (as per FR cum DPR) to ₹126.79 lakh (actual). The increase in cost is due to the increased price received in competitive bidding.

11. We have considered the submissions made by the petitioner regarding cost variation in case of the instant transmission assets. It is observed that the cost variation is mainly on account of increase in compensation paid, variation in quantity and market conditions. Further, the completion cost up to 31.3.2014 is within the revised apportioned cost of the assets. Accordingly, the variation in cost of the instant assets is allowed.

Time over-run

12. As per investment approval, the project is to be commissioned within 36 months from the date of investment approval. The date of investment approval is 31.5.2011 and accordingly the schedule date of commercial operation works out to be 1.6.2014. As against this, the Asset I, and Asset II-a were put under commercial operation on 1.11.2013 and Asset II-b was put under commercial operation on 1.12.2013. Thus there is no time over-run in the commissioning of the transmission assets.

13. The petitioner had initially claimed an additional RoE of 0.50% on account of timely commissioning of the transmission assets. MSEDCL has raised the issue of additional ROE claimed by the petitioner. The petitioner has submitted revised tariff claims vide affidavit dated 18.9.2015 along with the revised forms excluding claim of additional ROE, so the petitioner's prayer for additional ROE does not exist anymore.

Interest During Construction

14. The petitioner was directed to submit the details of IDC on cash basis paid up to COD. The petitioner has submitted the details of IDC discharged on cash basis up to COD and thereafter. The details of IDC discharged up to COD and thereafter, as submitted by the petitioner, are as below:-

Asset I:

| (₹ in lakh) | |
|---|----------------|
| IDC discharged on cash basis | |
| IDC discharged up to COD 1.11.2013 | 1282.29 |
| Accrual IDC up to COD (discharged during 2013-14) | 276.41 |
| Accrual IDC up to COD (discharged during 2014-15) | 105.83 |
| Total IDC | 1664.53 |

Asset II-a:

(₹ in lakh)

| IDC discharged on cash basis | |
|---|---------------|
| IDC discharged up to COD 1.11.2013 | 427.56 |
| Accrual IDC up to COD (discharged during 2013-14) | 47.69 |
| Accrual IDC up to COD (discharged during 2014-15) | 29.24 |
| Total IDC | 504.49 |

Asset II-b:

(₹ in lakh)

| IDC discharged on cash basis | |
|---|---------------|
| IDC discharged up to COD 1.12.2013 | 85.32 |
| Accrual IDC up to COD (discharged during 2013-14) | 24.66 |
| Accrual IDC up to COD (discharged during 2014-15) | 70.70 |
| Total IDC | 180.68 |

15. The petitioner has submitted that the accrued IDC discharged during 2013-14 is not included in the additional capital expenditure certified by the Auditor's Certificate dated 21.5.2015 for Asset I and dated 24.7.2015 for Asset II-a and Asset II-b.

16. Based on the above submissions of the petitioner, IDC is being capitalised to the tune of ₹1282.29 lakh, ₹427.56 lakh and ₹85.32 lakh up to COD in Asset-I and Asset II-a and Asset II-b respectively and IDC discharged during 2013-14 will be added to the additional capital expenditure during 2013-14.

Incidental Expenditure During Construction

17. The petitioner has submitted that entire IEDC to the tune of ₹288.24 lakh, ₹79.19 lakh and ₹30.01 lakh has been discharged as on COD for Asset I, Asset II-a and Asset II-b respectively. Hence, IEDC claimed by the petitioner has been

considered for the purpose of tariff determination and complete IEDC is being capitalised as on COD for the transmission assets.

Initial Spares

18. The petitioner has submitted the details of liability discharged corresponding to the initial spares vide affidavit dated 18.9.2015 and has included it in the capital cost as on COD of the transmission assets. The petitioner has submitted the year-wise liability discharged in respect of the initial spares, as tabulated below:-

Asset I:

(₹ in lakh)

| Liabilities discharged in respect of initial spares | Sub-Station + TL |
|--|-------------------------|
| Up to COD and included in Auditor Certificate up to COD | 234.26 |
| Expenditure for 2013-14 (Add Cap) | 18.10 |
| Expenditure for 2014-15 (Add Cap) | 3.89 |
| Expenditure for 2015-16 (Add Cap) | 207.79 |
| Total | 464.04 |

Asset II-a:

(₹ in lakh)

| Liabilities discharged in respect of initial spares | Sub-Station |
|--|--------------------|
| Up to COD and included in Auditor Certificate up to COD | 43.04 |
| Expenditure for 2013-14 (Add Cap) | 233.71 |
| Expenditure for 2014-15 (Add Cap) | 2.74 |
| Expenditure for 2015-16 (Add Cap) | 48.72 |
| Total | 328.21 |

Asset II-b:

(₹ in lakh)

| Liabilities discharged in respect of initial spares | Sub-Station |
|--|--------------------|
| Up to COD and included in Auditor Certificate up to COD | |
| Expenditure for 2013-14 (Add Cap) | 168.63 |
| Expenditure for 2014-15 (Add Cap) | |
| Expenditure for 2015-16 (Add Cap) | 42.04 |
| Total | 210.67 |

19. The cut-off date in accordance with the 2009 Tariff Regulations falls beyond the 31.3.2014 which is beyond the scope of the 2009 Tariff Regulations. Therefore, the admissible initial spares have been worked out by considering the capital cost up to 31.3.2014. Details of the initial spares claimed and allowed up to 31.3.2014 are as under:-

| Particulars | Formula | (₹ in lakh) | | | |
|--|------------------------|-------------|---------|------------|------------|
| | | Asset I | | Asset II-a | Asset II-b |
| | | TL | S/S | S/S | S/S |
| Capital cost as on cut off date as on cut-off date claimed by the petitioner | (a) | 22933.51 | 9991.70 | 7877.00 | 4034.00 |
| Capital Cost restricted up to 31.3.2014 (including restriction of IDC) | (b) | 21415.63 | 7638.31 | 6979.46 | 2992.64 |
| Initial Spares claimed (up to 31.3.2014) | (c) | 106.07* | 146.29* | 276.75 | 168.63 |
| Ceiling limit as per Regulation 8 of 2009 regulations | (e) | 0.75% | 2.50% | 2.50% | 2.50% |
| Initial spares worked out | (f)= (b-c)/(1/(1-e)-1) | 161.03 | 192.10 | 171.86 | 72.41 |
| Initial Spares claimed up to COD | (g) | 234.26 | | 43.04 | Nil |
| Excess initial spares claimed up to COD | (h)=(g)-(f) | 0.00 | 0.00 | 0.00 | 0.00 |

The excess initial spares will be reviewed and excluded from the capital cost included during the tariff period of 2014-19 by considering additional capitalization during 2014-19 and actual discharge of liability towards the initial spares.

20. The petitioner may claim the balance initial spares based on additional capital expenditure during next tariff period. The initial spares claimed by the petitioner as discharged up to COD of the transmission assets are within the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations and hence the same is allowed.

21. Accordingly, the admitted capital cost on COD is as follows:-

Asset I:

(₹ in lakh)

| Capital Cost as on COD | As per petitioner | IDC discharged after COD | Capital cost after allowing IDC/IEDC on cash basis* |
|--------------------------|-------------------|--------------------------|---|
| Land – Freehold | 1296.91 | 0.00 | 1296.91 |
| Land – Leasehold | | 0.00 | 0.00 |
| Building and Civil Works | 1217.77 | 19.17 | 1198.60 |
| Transmission Line | 19542.69 | 307.59 | 19235.10 |
| Sub Station | 3422.55 | 53.87 | 3368.68 |
| PLCC | 102.19 | 1.61 | 100.58 |
| Total | 25582.11 | 382.24 | 25199.87 |

*incl. IDC= ₹1282.29 lakh, IEDC= ₹288.24 lakh, initial spares = ₹234.26 lakh

Asset II-a:

(₹ in lakh)

| Capital Cost as on COD | As per petitioner | IDC discharged after COD | Capital cost after allowing IDC/IEDC on cash basis* |
|-------------------------------|-------------------|--------------------------|---|
| Land – Freehold | - | - | - |
| Land – Leasehold | - | - | - |
| Building Civil Works & Colony | 547.62 | 7.06 | 540.56 |
| Transmission Line | - | - | - |
| Sub Station | 5422.02 | 69.87 | 5352.15 |
| PLCC | - | - | - |
| Total | 5969.64 | 76.93 | 5892.71 |

*incl. IDC= ₹427.56 lakh, IEDC= ₹79.19 lakh, initial spares = ₹43.04 lakh

Asset II-b:

(₹ in lakh)

| Capital Cost as on COD | As per petition on COD 1.12.2013 | IDC discharged after COD | Capital cost after allowing IDC/IEDC on cash basis* |
|-------------------------------|----------------------------------|--------------------------|---|
| Land – Freehold | - | - | - |
| Land – Leasehold | - | - | - |
| Building Civil Works & Colony | 268.19 | 12.45 | 255.74 |
| Transmission Line | - | - | - |
| Sub Station | 1785.54 | 82.91 | 1702.63 |
| PLCC | - | - | - |
| Total | 2053.73 | 95.36 | 1958.37 |

*incl. IDC= ₹85.32 lakh, IEDC= ₹30.01 lakh, initial spares = Nil

Additional Capital Expenditure

22. Clause (1) of Regulation 9 of the 2009 Tariff Regulations provides as under:-

“Additional Capitalisation: (1) The capital expenditure 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;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law.”

23. Further, clause (11) of Regulation 3 of the 2009 Tariff Regulations defines ‘cut-off’ date as under:

“cut-off date” means 31st March of the year closing after 2 years of the year of commercial operation of the project, and in case 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 3 years of the year of commercial operation”.

24. As per the above definition, the cut-off date in respect of the transmission assets is 31.3.2016.

25. The petitioner has claimed additional capital expenditure of ₹3577.6 lakh, ₹1039.06 lakh and ₹1009.61 lakh for the period from COD to 31.3.2014 for Asset I, Asset II-a and Asset II-b respectively. The additional capital expenditure claimed is towards balance and retention payments.

26. MSEDCL has requested to allow the additional capital expenditure claimed by the petitioner after prudence check. In response to query regarding balance and retention payments, the petitioner has submitted the payments made on actual basis from COD to 31.3.2014. The petitioner has submitted the details of

IDC and the initial spares discharged from COD to 31.3.2014 as covered in Para 14 and 18 above and additional expenditure has been considered to the extent of expenditure incurred from COD to 31.3.2014.

27. It is observed that the initial spares worked out are ₹349.31 lakh, ₹171.86 lakh and ₹72.41 lakh in Asset-I, Asset II-a and Asset II-b respectively. The initial spares claimed by the petitioner in respect of Asset I is within the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations and hence the same is allowed. The initial spares in case of Asset II-a is restricted to the total of ₹171.86 lakh (₹43.04 lakh up to COD and ₹128.83 lakh from COD to 31.3.2014). The initial spares in case of Asset II-b are restricted to a total of ₹72.41 lakh (Nil up to COD and ₹72.41 lakh from COD to 31.3.2014). Thus, the initial spares are allowed as additional capital expenditure as shown below:-

(₹ in lakh)

| Particulars | Asset I | | Asset II-a | Asset II-b |
|---|---------|---------|------------|------------|
| | TL | S/S | S/S | S/S |
| Initial Spares claimed up to 31.3.2014 | 106.07* | 146.29* | 276.75 | 168.63 |
| Initial spares worked out in Para 17 | 161.03 | 192.10 | 171.86 | 72.41 |
| Excess initial spares claimed up to 31.3.2014 | 0.00 | 0.00 | 104.89 | 96.22 |

*since the petitioner has not submitted initial spares discharged separately for TL and S/S in Asset I, the same has been considered on pro-rata basis based on the capital cost of TL and S/S

Initial spares allowed as additional capital expenditure:-

Asset I:

(₹ in lakh)

| Liabilities discharged in respect of initial spares | TL & Sub-Station |
|---|------------------|
| Up to COD and included in Auditor Certificate up to COD | 234.26 |
| Expenditure being allowed during 2013-14 | 18.10 |
| Total | 252.36 |

Asset II-a:

(₹ in lakh)

| Liabilities discharged in respect of initial spares | S/S |
|--|---------------|
| Up to COD and included in Auditor Certificate up to COD | 43.04 |
| Expenditure being allowed during 2013-14 | 128.83 |
| Total | 171.86 |

Asset II-b:

(₹ in lakh)

| Liabilities discharged in respect of initial spares | S/S |
|--|--------------|
| Up to COD and included in Auditor Certificate up to COD | - |
| Expenditure being allowed during 2013-14 | 72.41 |
| Total | 72.41 |

28. The additional capital expenditure claimed is within the cut-off date and is on account of Balance/Retention payments, hence the same is allowed as mentioned below:-

(₹ in lakh)

| Asset | Revised Approved apportioned cost | Capital Cost as on COD | Additional Capital expenditure 2013-14 | Capital cost as on 31.3.2014 |
|--------------|--|-------------------------------|---|-------------------------------------|
| Asset I | 34556.94 | 25199.87 | 3854.07 (3577.66+276.41) | 29053.94 |
| Asset II-a | 8081.20 | 5892.71 | 981.87 (1039.06+47.69-104.88) | 6874.58 |
| Asset II-b | 4212.95 | 1958.37 | 938.05 (1009.61+24.66-96.22) | 2896.42 |

29. The debt-equity ratio 70:30 as claimed by the petitioner is in accordance with the Regulation 12 (3) of 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure.

Debt: Equity

30. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“12. Debt-Equity Ratio. (1) For a project declared under commercial operation on or after 1.4.2009, 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, the actual equity shall be considered for determination of tariff:

.....

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

31. The debt:equity ratio of 70:30 has been considered as on the date of commercial operation for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

Asset I:

(₹ in lakh)

| Funding | Claimed | | Admissible | |
|--------------|-----------------|---------------|-----------------|---------------|
| | As on COD | % | As on COD | % |
| Debt | 17907.48 | 70.00 | 17639.91 | 70.00 |
| Equity | 7674.63 | 30.00 | 7559.96 | 30.00 |
| Total | 25582.11 | 100.00 | 25199.87 | 100.00 |

Asset II-a:

(₹ in lakh)

| Funding | Claimed | | Admissible | |
|--------------|----------------|---------------|----------------|---------------|
| | As on COD | % | As on COD | % |
| Debt | 4178.75 | 70.00 | 4124.90 | 70.00 |
| Equity | 1790.89 | 30.00 | 1767.81 | 30.00 |
| Total | 5969.64 | 100.00 | 5892.71 | 100.00 |

Asset II-b:

(₹ in lakh)

| Funding | Claimed | | Admissible | |
|--------------|----------------|---------------|----------------|---------------|
| | As on COD | % | As on COD | % |
| Debt | 1437.61 | 70.00 | 1370.86 | 70.00 |
| Equity | 616.12 | 30.00 | 587.51 | 30.00 |
| Total | 2053.73 | 100.00 | 1958.37 | 100.00 |

32. The normative debt:equity ratio of 70:30 has been considered for the estimated additional capitalization in accordance with the 2009 Tariff Regulations as under:

Asset I:

(₹ in lakh)

| Funding | As on COD | % | Additional capital expenditure during 2009-14 | % | As on 31.3.2014 | (%) |
|--------------|-----------------|---------------|---|---------------|-----------------|---------------|
| Debt | 17639.91 | 70.00 | 2697.85 | 70.00 | 20337.76 | 70.00 |
| Equity | 7559.96 | 30.00 | 1156.22 | 30.00 | 8716.18 | 30.00 |
| Total | 25199.87 | 100.00 | 3854.07 | 100.00 | 29053.94 | 100.00 |

Asset II-a:

(₹ in lakh)

| Funding | As on COD | % | Additional capital expenditure during 2009-14 | % | As on 31.3.2014 | (%) |
|--------------|----------------|---------------|---|---------------|-----------------|---------------|
| Debt | 4124.90 | 70.00 | 687.31 | 70.00 | 4812.21 | 70.00 |
| Equity | 1767.81 | 30.00 | 294.56 | 30.00 | 2062.37 | 30.00 |
| Total | 5892.71 | 100.00 | 981.87 | 100.00 | 6874.58 | 100.00 |

Asset II-b:

(₹ in lakh)

| Funding | As on COD | % | Additional capital expenditure during 2009-14 | % | As on 31.3.2014 | (%) |
|--------------|----------------|---------------|---|---------------|-----------------|---------------|
| Debt | 1370.86 | 70.00 | 656.64 | 70.00 | 2027.50 | 70.00 |
| Equity | 587.51 | 30.00 | 281.42 | 30.00 | 868.93 | 30.00 |
| Total | 1958.37 | 100.00 | 938.05 | 100.00 | 2896.42 | 100.00 |

Return on Equity (“ROE”)

33. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide as follows:-

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

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

Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

34. Regulation 15 of the 2009 Tariff Regulations provides for grossing up of ROE with the actual tax rate for the purpose of ROE. The petitioner has prayed that it may be allowed to recover the shortfall or refund the excess due to change in MAT rate. The petitioner has submitted the MAT rate applicable during the various years of 2009-14 tariff period.

(₹ in lakh)

| Return on Equity | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
|----------------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| Opening Equity | 7559.96 | 1767.81 | 587.51 |
| Additions | 1156.22 | 294.56 | 281.42 |
| Closing Equity | 8716.18 | 2062.37 | 868.93 |
| Average Equity | 8138.07 | 1915.09 | 728.22 |
| Return on Equity (Base Rate) (%) | 15.500 | 15.500 | 15.500 |



| Return on Equity | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
|----------------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| MAT Rate for respective year (%) | 20.961 | 20.961 | 20.961 |
| Rate of Return on Equity (%) | 19.610 | 19.610 | 19.610 |
| Return on Equity | 664.96 | 156.48 | 47.60 |

Interest on Loan (“IoL”)

35. Clause (5) and (6) of Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL as under:

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

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.”

36. MSEDCL has requested that the weighted average rate of interest on the basis of actual loan portfolio at the beginning of each year can be considered for computation of interest on loan.

37. The weighted average rate of IoL has been considered on the basis of actual loan portfolio and the rate of interest submitted by the petitioner. The IoL has been worked out in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of weighted average rate of interest for 2009-14 tariff period are placed at Annexure-1 and the IoL has been worked out and allowed as follows:-

(₹ in lakh)

| Interest on Loan | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
|---|----------------------------------|-------------------------------------|-------------------------------------|
| Gross Normative Loan | 17639.91 | 4124.90 | 1370.86 |
| Cumulative Repayment upto Previous Year | 0.00 | 0.00 | 0.00 |
| Net Loan-Opening | 17639.91 | 4124.90 | 1370.86 |
| Additions | 2697.85 | 687.31 | 656.64 |
| Repayment during the year | 558.67 | 135.56 | 41.03 |
| Net Loan-Closing | 19779.08 | 4676.64 | 1986.47 |
| Average Loan | 18709.50 | 4400.77 | 1678.66 |
| Weighted Average Rate of Interest on Loan (%) | 7.2574 | 8.3042 | 7.6951 |
| Interest on Loan | 565.76 | 152.27 | 43.06 |

Depreciation

38. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations provided as under

“Depreciation.

(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

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

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

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-III** 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 date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) 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.”

39. The depreciation allowed for the instant assets is as follows:-

| (₹ in lakh) | | | |
|----------------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| Depreciation | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
| Opening Gross Block | 25199.87 | 5892.71 | 1958.37 |
| Additional Capitalization | 3854.07 | 981.87 | 938.05 |
| Closing Gross Block | 29053.94 | 6874.58 | 2896.42 |
| Average Gross Block | 27126.91 | 6383.64 | 2427.40 |
| Freehold Land (Av. Cost) | 4.94 | 5.10 | 5.07 |
| Rate of Depreciation (%) | 23247.00 | 5745.28 | 2184.66 |
| Balance Useful life of the asset | 33 | 25 | 25 |
| Elapsed life | 0 | 0 | 0 |
| Remaining Depreciable Value | 1734.33 | 441.84 | 422.12 |
| Depreciation during the year | 558.67 | 135.56 | 41.03 |

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

40. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. Normative O&M Expenses in respect of the transmission assets covered in the instant petition are as under:-

| (₹ in lakh) | | | |
|--|----------------------------------|-------------------------------------|-------------------------------------|
| Particulars | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
| 765 kV Bays: | | | |
| No. of Bays | 4 | 1 | 1 |
| Norms (₹ lakh/Bay) | 91.64 | 91.64 | 91.64 |
| 400 kV Bays: | | | |
| No. of Bays | - | 1 | - |
| Norms (₹ lakh/Bay) | - | 65.46 | - |
| Transmission Line: | | | |
| D/C (4 or more sub c) (km) | 47.986 | | |
| Norms (₹ lakh/km) | 1.174 | | |
| Total O&M Expenses (₹ lakh) | 176.21 | 65.46 | 30.55 |

41. The petitioner has submitted that O&M expenses for the period 2009-14 was arrived at on the basis of normalized actual O&M expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M Expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for additional manpower cost on account of wage revision (if any) during the tariff block 2009-14 for claiming in the tariff. MSEDCL has submitted that higher O&M charges have been claimed by the petitioner than that prescribed by the Tariff Regulations.

42. While specifying the norms for the O & M Expenses in the 2009 Tariff Regulations, the Commission has given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms.

Interest on Working Capital (“IWC”)

43. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations. The IWC allowed is as under:-

(₹ in lakh)

| Interest on Working Capital | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
|------------------------------------|---|--|--|
| O & M expenses | 35.24 | 13.09 | 7.64 |
| Maintenance Spares | 63.43 | 23.57 | 13.75 |
| Receivables | 806.15 | 209.32 | 83.42 |
| Total | 904.82 | 245.98 | 104.81 |



| Interest on Working Capital | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
|-----------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| Rate of Interest (%) | 13.20 | 13.20 | 13.20 |
| Interest on Working Capital | 49.77 | 13.53 | 4.61 |

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

44. Based on the foregoing, the annual fixed charges for the transmission assets for the 2009-14 tariff period is summarised below:-

| Particulars | (₹ in lakh) | | |
|---|----------------------------------|-------------------------------------|-------------------------------------|
| | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
| Depreciation | | | |
| Opening Gross Block | 25199.87 | 5892.71 | 1958.37 |
| Additional Capitalisation | 3854.07 | 981.87 | 938.05 |
| Closing Gross Block | 29053.94 | 6874.58 | 2896.42 |
| Average Gross Block | 27126.91 | 6383.64 | 2427.40 |
| Rate of Depreciation | 4.94 | 5.10 | 5.07 |
| Depreciable Value | 23247.00 | 5745.28 | 2184.66 |
| Balance Useful life of the asset | 33 | 25 | 25 |
| Elapsed Life | 0 | 0 | 0 |
| Remaining Depreciable Value | 1734.33 | 441.84 | 422.12 |
| Depreciation during the year | 558.67 | 135.56 | 41.03 |
| Cumulative depreciation (incl. of AAD) | 558.67 | 135.56 | 41.03 |
| Interest on Loan | | | |
| Gross Normative Loan | 17639.91 | 4124.90 | 1370.86 |
| Cumulative Repayment upto Previous Year | 0.00 | 0.00 | 0.00 |
| Net Loan-Opening | 17639.91 | 4124.90 | 1370.86 |
| Additions | 2697.85 | 687.31 | 656.64 |
| Repayment during the year | 558.67 | 135.56 | 41.03 |
| Net Loan-Closing | 19779.08 | 4676.64 | 1986.47 |
| Average Loan | 18709.50 | 4400.77 | 1678.66 |
| Weighted Average Rate of Interest on Loan (%) | 7.2574 | 8.3042 | 7.6951 |
| Interest on Loan | 565.76 | 152.27 | 43.06 |
| Return on Equity | | | |
| Opening Equity | 7559.96 | 1767.81 | 587.51 |
| Additions | 1156.22 | 294.56 | 281.42 |
| Closing Equity | 8716.18 | 2062.37 | 868.93 |
| Average Equity | 8138.07 | 1915.09 | 728.22 |
| Return on Equity (Base Rate) | 15.500 | 15.500 | 15.500 |

| Particulars | Asset I 2013-14 (pro-rata) | Asset II-a 2013-14 (pro-rata) | Asset II-b 2013-14 (pro-rata) |
|------------------------------------|---|--|--|
| MAT rate for the respective year | 20.961 | 20.961 | 20.961 |
| Rate of Return on Equity | 19.610 | 19.610 | 19.610 |
| Return on Equity | 664.96 | 156.48 | 47.60 |
| Interest on Working Capital | | | |
| O & M expenses | 35.24 | 13.09 | 7.64 |
| Maintenance Spares | 63.43 | 23.57 | 13.75 |
| Receivables | 806.15 | 209.32 | 83.42 |
| Total | 904.82 | 245.98 | 104.81 |
| Rate of Interest | 13.20 | 13.20 | 13.20 |
| Interest on Working Capital | 49.77 | 13.53 | 4.61 |
| | | | |
| Annual Transmission Charges | | | |
| Depreciation | 558.67 | 135.56 | 41.03 |
| Interest on Loan | 565.76 | 152.27 | 43.06 |
| Return on Equity | 664.96 | 156.48 | 47.60 |
| Interest on Working Capital | 49.77 | 13.53 | 4.61 |
| O & M Expenses | 176.21 | 65.46 | 30.55 |
| Total | 2015.37 | 523.30 | 166.85 |

Filing Fee and the Publication Expenses

45. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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 Regulation 42 of the 2009 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

46. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations for 2009-14 tariff period. The petitioner shall also be entitled for recovery of RLDC fee &

charges in accordance with Regulations 42A (1) (a) of the 2009 Tariff Regulations for 2009-14 tariff period.

Service Tax

47. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

48. 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.

49. This order disposes of Petition No. 166/TT/2013.

Sd/-

(Dr. M.K. Iyer)
Member

Sd/-

(A.S. Bakshi)
Member

Asset I**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST**

(₹ in lakh)

| Particulars | Interest Rate (%) | Loan deployed as on COD | Additions during the tariff period | Total |
|---|-------------------|-------------------------|------------------------------------|-----------------|
| BOND-XXXV-DOCO DRAWL ON 01-NOV-2013- | 9.64 | 50.00 | 0.00 | 50.00 |
| BOND XXXVI-DOCO DRAWL ON 01-NOV-2013- | 9.35 | 310.00 | 0.00 | 310.00 |
| BOND XXXVII doco-(3)- | 9.25 | 1500.00 | 0.00 | 1500.00 |
| BOND XXXIX-doco-(4)- | 9.40 | 1500.00 | 0.00 | 1500.00 |
| SBI (21.03.2012)-doco-(5)- | 10.24 | 2506.34 | 0.00 | 2506.34 |
| BOND XL-doco-(6)- | 9.30 | 2000.00 | 0.00 | 2000.00 |
| BOND - XLI-doco-(7)- | 8.85 | 2000.00 | 0.00 | 2000.00 |
| IFC (IFC - A LOAN) (31419-00)-Loan 8-62.36 | 3.28 | 918.41 | 0.00 | 918.41 |
| FC - BOND (17.01.2013)-Loan 8-62.36 | 3.875 | 6122.73 | 0.00 | 6122.73 |
| BOND - XLIII-ADDCAP FOR 2013-2014 addcap-1- | 7.93 | 0.00 | 565.00 | 565.00 |
| BOND - XLIII-doco-(7)- | 7.93 | 500.00 | 0.00 | 500.00 |
| BOND - XLIV-ADDCAP FOR 2013-2014 addcap-2- | 8.70 | 0.00 | 1939.36 | 1939.36 |
| BOND - XLIV-doco-(9)- | 8.70 | 500.00 | 0.00 | 500.00 |
| Total | | 17907.48 | 2504.36 | 20411.84 |

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

| | |
|---|-----------------|
| Particulars | 2013-14 |
| Gross Opening Loan | 17907.48 |
| Cumulative Repayments of Loans upto Previous Year | 0.00 |
| Net Loans Opening | 17907.48 |
| Add: Draw(s) during the Year | 2504.36 |
| Less: Repayments of Loan during the year | 0.00 |
| Net Closing Loan | 20411.84 |
| Average Net Loan | 19159.66 |
| Rate of Interest on Loan (%) | 7.2574% |
| Interest on Loan | 1390.50 |

Asset II-a

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST

(₹ in lakh)

| Particulars | Interest Rate (%) | Loan deployed as on 1.4.2013 | Additions during the tariff period | Total |
|---|-------------------|------------------------------|------------------------------------|----------------|
| | | | | (Rs in lakh) |
| BOND-XXXV-DOCO- | 9.64 | 125.00 | 0.00 | 125.00 |
| BOND XXXVI-DOCO- | 9.35 | 225.00 | 0.00 | 225.00 |
| BOND XXXVII-DOCO- | 9.25 | 300.00 | 0.00 | 300.00 |
| BOND XXXIX-DOCO- | 9.40 | 300.00 | 0.00 | 300.00 |
| SBI (21.03.2012)-DOCO- | 10.24 | 1000.00 | 0.00 | 1000.00 |
| BOND XL-DOCO- | 9.30 | 600.00 | 0.00 | 600.00 |
| BOND -XLI-DOCO- | 8.85 | 656.90 | 0.00 | 656.90 |
| IFC (IFC - A LOAN) (31419-00)-DOCO-62.36 | 3.28 | 374.16 | 0.00 | 374.16 |
| FC - BOND (17.01.2013)- DOCO-62.36 | 3.88 | 498.88 | 0.00 | 498.88 |
| BOND - XLIV-ADDCAP FOR 2013-2014 addcap-1- | 8.70 | 0.00 | 727.34 | 727.34 |
| BOND -XLIV-DOCO- | 8.70 | 98.81 | 0.00 | 98.81 |
| Total | | 4178.75 | 727.34 | 4906.09 |

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

| Particulars | 2013-14 |
|---|----------------|
| Gross Opening Loan | 4178.75 |
| Cumulative Repayments of Loans upto Previous Year | 0.00 |
| Net Loans Opening | 4178.75 |
| Add: Draw(s) during the Year | 727.34 |
| Less: Repayments of Loan during the year | 0.00 |
| Net Closing Loan | 4906.09 |
| Average Net Loan | 4542.42 |
| Rate of Interest on Loan (%) | 8.3042% |
| Interest on Loan | 377.21 |



Asset II-b**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST**

(₹ in lakh)

| Particulars | Interest Rate (%) | Loan deployed as on 1.4.2010 | Additions during the tariff period | Total |
|--|-------------------|------------------------------|------------------------------------|----------------|
| BOND-XXXV-doco- | 9.64 | 10.36 | 0.00 | 10.36 |
| BOND XXXVI-doco- | 9.35 | 313.00 | 0.00 | 313.00 |
| BOND XXXVII-doco- | 9.25 | 150.00 | 0.00 | 150.00 |
| BOND XXXIX-doco- | 9.40 | 100.00 | 0.00 | 100.00 |
| SBI (21.03.2012)-doco- | 10.25 | 91.28 | 0.00 | 91.28 |
| BOND XL-doco- | 9.30 | 120.00 | 0.00 | 120.00 |
| BOND - XLI-doco- | 8.85 | 179.72 | 0.00 | 179.72 |
| IFC (IFC - A LOAN) (31419-00)-doco-62.87 | 3.28 | 205.76 | 0.00 | 205.76 |
| FC - BOND (17.01.2013)-doco-62.87 | 3.88 | 267.49 | 0.00 | 267.49 |
| BOND - XLIV-ADDCAP FOR 2013-2014 addcap- | 8.70 | 0.00 | 706.73 | 706.73 |
| Total | | 1437.61 | 706.73 | 2144.34 |

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

| | |
|---|----------------|
| Particulars | 2013-14 |
| Gross Opening Loan | 1437.61 |
| Cumulative Repayments of Loans upto Previous Year | 0.00 |
| Net Loans Opening | 1437.61 |
| Add: Draw(s) during the Year | 706.73 |
| Less: Repayments of Loan during the year | 0.00 |
| Net Closing Loan | 2144.34 |
| Average Net Loan | 1790.98 |
| Rate of Interest on Loan (%) | 7.6951% |
| Interest on Loan | 137.82 |