

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 215/TT/2012

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri M. Deena Dayalan, Member
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member**

Date of Hearing : 20.10.2014

Date of Order : 22.01.2015

In the matter of:

Approval of transmission tariff for (i) 765 kV S/C Satna-Bina Ckt-2 transmission line along with associated bays at Satna and Bina Sub-station, (ii) 765 kV, 3x80 MVAR Bus Reactor at Satna, (iii) 765 kV, 4x333 MVA, ICT-1 at Satna along with associated bays of 765 kV and 400 kV and (iv) Upgradation of the existing Seoni-Bina Transmission Line at 765 kV level along with associated bays at Seoni Sub-station and Bina Sub-station under Sasan UMPP transmission system in Western Region (Notional DOCO-1.7.2012) for tariff block 2009-14, 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 Limited,
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001

.....**Petitioner**

Vs

1. Madhya Pradesh Power Trading Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482 008
2. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road,
Indore-452 008
3. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,

Jaipur- 302 005

4. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur
5. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur
6. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur
7. Punjab State Electricity Board,
The Mall, Patiala-147 001
8. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula (Haryana)-134 109
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226 001
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110 002
11. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place
New Delhi
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi
13. North Delhi Power Limited,
Power Trading & Load Dispatch Group,
Cennet Building, Adjacent to 66/11kV Pitampura-3,
Grid Building, Near PP Jewellers,
Pitampura, New Delhi-110 034
14. Chandigarh Administration,
Sector-9, Chandigarh
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun

16. North Central Railway,
Allahabad

17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110 002

18. Sasan Power Limited,
1st Floor, I Block,
Dhirubhai Ambani Knowledge City (DAKC),
Thane-Belapur Road, Koparkhairane,
Navi Mumbai

.....Respondents

For petitioner : Shri S. K. Venkatesan, PGCIL
Shri M. M. Mondal, PGCIL
Ms. Seema Gupta, PGCIL
Ms. Sangeeta Edwards, PGCIL
Shri S.S Raju, PGCIL

For respondent : None

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) for approval of transmission charges for (i) 765 kV S/C Satna-Bina Ckt-2 transmission line along with associated bays at Satna and Bina Sub-station (Asset-I), (ii) 765 kV, 3x80 MVAR Bus Reactor at Satna (Asset-II), (iii) 765 kV, 4x333 MVA, ICT-1 at Satna along with associated bays of 765 kV and 400 kV (Asset-III) and (iv) Upgradation of the existing Seoni-Bina Transmission Line at 765 kV level along with associated bays at Seoni Sub-station and Bina Sub-station (Asset-IV) (Actual DOCO-1.7.2012) under Sasan UMPP transmission system in Western Region (hereinafter referred to as “transmission assets”) from the date of commercial operation of all the assets to 31.3.2014 for tariff block 2009-14 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations’ 2009

(hereinafter referred to as the "2009 Tariff Regulations").

2. The petitioner has been entrusted with the implementation of SASAN UMPP Transmission System in Western and Northern Region. The Investment approval (IA) of the project was accorded by the Board of Directors of PGCIL vide their letter C/CP/Sasan dated 10.12.2008 at an estimated cost of ₹703188 lakh including IDC of ₹76782 lakh (based on 2nd quarter, 2008 price level). The estimated completion cost for Asset-I, Asset-II, Asset-III and Asset-IV is ₹51038.77 lakh, ₹5884.71 lakh, ₹8191.12 lakh and ₹12587.43 lakh against apportioned approved cost estimate of ₹60600.62 lakh, ₹7810.62 lakh, ₹11610.51 lakh and ₹11983.22 lakh respectively. The total estimated completion cost of all assets combined is ₹77702.03 lakh against apportioned approved cost estimate of ₹92004.97 lakh. The project scope was scheduled to be commissioned within 48 months from the date of Investment Approval (IA) i.e. by 1.1.2013. The scope of project broadly includes:-

Part-A: Transmission System of Sasan (4000MW) UMPP

Transmission Lines:

- i) Sasan-Satna 765 kV 2xS/C line : Ckt-I-268 km & Ckt-II-279 km
- ii) Satna-Bina 765 kV 2xS/C line : Ckt-I-272km & Ckt-II-274 km
- iii) LILO of both circuits of one of Vindhyanchal-
Jabalpur 400 kV D/C line at Sasan : 8 km
- iv) Bina-Bina (MPPTCL) 400 kV D/C line : 5 km
- v) Sasaram-Fatehpur 765 kV S/C line : 352 km
- vi) Fatehpur-Agra 765 kV S/C line : 340 km

Sub-stations:

- i) Establishment of 765/400 kV, 2x1000 MVA sub-station at Satna
- ii) Line bays for operation of Agra-Gwalior-Bina-Seoni S/C lines at 765 kV level

Part-B: Regional System Strengthening in WR for Sasan UMPP

Transmission Lines:

- i) Bina-Indore 765 kV S/C line : 320 km
- ii) Indore-Indore (MPPTL) 400 kV D/C (Quad) line : 60 km

Sub-stations:

- i) Establishment of 765/400 kV, 2x1500 MVA sub-station at Indore
- ii) Upgrading Bina and Gwalior Sub-stations to 765/400 kV: 2x1000 MVA, 765/400 kV at Bina and 2x1500 MVA, 765/400 kV at Gwalior

3. The four assets covered in the instant petition and their scheduled and the actual date of commercial operation (DOCO) is as follows:-

Particulars	Schedule DOCO as per IA	Actual DOCO
765 kV S/C Satna-Bina Ckt-2 transmission line along with associated bays at Satna and Bina Sub-station-(Asset-I)	1.1.2013	1.7.2012
765 kV, 3x80 MVAR Bus Reactor at Satna-(Asset-II)	1.1.2013	1.7.2012
765 kV, 4x333 MVA, ICT-1 at Satna along with associated bays of 765 kV and 400 kV-(Asset-III)	1.1.2013	1.7.2012
Upgradation of the existing Seoni-Bina Transmission Line at 765 kV level along with associated bays at Seoni Sub-station and Bina Sub-station-(Asset-IV)	1.1.2013	1.7.2012

4. The provisional tariff in respect of the above mentioned four assets was approved by the Commission vide its order dated 21.9.2012. This was

subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.

5. In response to a query by the Commission, the petitioner has submitted that the Sasan UMPP was agreed in the 5th WRPC meeting held on 6.10.2007 and the transmission charges for Part-A were to be shared by only the beneficiaries of Sasan UMPP, whereas for Part-B the transmission charges were to be shared by all the constituents of Western Region.

6. The petitioner has filed the instant petition on the basis of actual DOCO. The petitioner has submitted that the assets covered in the instant petition have been combined in response to Order No. C-7/189(204)/2009-CERC dated 28.3.2012 of the Commission and are covered under Part-A of the Project.

7. The transmission charges have been claimed for Combined Assets as follows:-

(₹ in lakh)

Particulars	Combined Assets	
	2012-13 (Pro-rata)	2013-14
Depreciation	2678.80	3880.10
Interest on Loan	3184.24	4321.40
Return on Equity	2659.60	3852.17
Interest on working capital	234.72	331.78
O & M Expenses	697.79	983.53
Total	9455.15	13368.98

8. The details submitted by the petitioner in support of its claim for interest on working capital are as overleaf:-

Particulars	Combined Assets	
	2012-13 (Pro-rata)	2013-14
Maintenance Spares	139.56	147.53
O & M Expenses	77.53	81.96
Receivables	2101.14	2228.16
Total	2318.23	2457.65
Rate of Interest	13.50%	13.50%
Interest	234.72	331.78

9. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. Respondent No. 7 Punjab State Power Corporation Limited (PSPCL) and Respondent No. 4 Ajmer Vidyut Vitran Nigam Limited (AVVNL) have filed replies vide affidavits dated 11.2.2013 and 23.5.2013 respectively. The petitioner has filed rejoinders to the reply of PSPCL and AVVNL vide affidavits dated 10.11.2014. The respondents have broadly raised the issue of additional capitalisation cost, additional manpower cost, coverage of the project/certain elements to ensure benefits to concerned respondents. The objections raised by the respondents and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

10. PSPCL, Respondent No. 7, vide their affidavit dated 13/02/2013 has raised the following issues:-

- a) Bina is connected to 765 kV Satna as well as 765 kV Seoni but the upgrading of the Bina-Gwalior-Agra lines is not yet achieved. Thus, the scheme is incomplete since NR is to receive power at 765 kV from WR

through the Gwalior-Agra section which is presently operating at 400 kV and has not yet been upgraded to 765 kV.

- b) The approved project includes the upgrading of Agra-Gwalior-Bina-Seoni lines to 765 kV, but with upgrading of Bina-Seoni section only without upgrading the Agra-Gwalior-Bina section, the project remains incomplete. The project as per approval was to be completed in 48 months i.e. by December, 2012. Thus, incomplete execution of works of project, will not give the benefits envisaged and tariff should be allowed only when the complete section from Agra-Gwalior-Bina-Seoni have been upgraded to 765 kV.
- c) As per section 38 (2) (b) (vii) of the Electricity Act 2003, CTU is to coordinate with “Licensees”. Hence, CTU is required to coordinate to ensure that the Seoni-Bina-Gwalior-Agra section is upgraded in a coordinated and composite manner. As such, the DOCO of Seoni-Bina section should be considered only when the complete section from Seoni to Agra has been upgraded from 400 kV to 765 kV.
- d) Petitioner has not mentioned 240 MVAR 765 kV Bus Reactor at Satna. It may be clarified under which letter/order of PGCIL Board, this bus reactor has been approved.
- e) As per the details of transmission system approved in the 27th meeting of Standing Committee “Fixed series compensation 30% on both of Satna-Bina 2xD/C” has been stated under the heading “Sasan transmission” and accordingly 765 kV Satna-Bina lines are planned to operate with 30% fixed series compensation. A line which does not have 30% FSC will have lower MW capacity. As such, PGCIL should clarify whether or not the 765 kV

Satna-Bina circuit-II shown to have been commissioned on 1.7.2012 has been commissioned with 30% FSC. In case the line has not been commissioned with 30% FSC, then PGCIL needs to submit the time frame, within which the 30% FSC is to be provided, as the claim for full transmission charges due to non-commissioning of 30% FSC is not justified.

- f) The 765 kV Satna-Bina circuit-I is also a part of the project as approved by PGCIL. It is stated that this line has been charged at 400 kV on 1.2.2012. The present status of Satna-Bina Circuit-I may be informed as to whether it is operating at 400 kV or at 765 kV.
- g) The petitioner has submitted the upgrading cost of 765 kV bays from 400 kV, at Seoni and Bina (for Seoni-Bina line) as ₹12,587.43 lakh. However, with the commissioning of 765 kV bays, the earlier 400 kV bays would become idle/spare. Whereas, prior to this upgrading from 400 kV to 765 kV, the transmission tariff of the line would have included the 400 kV bays equipment at Seoni and Bina Sub-stations. However, with the 400 kV termination equipment/bays being replaced with 765 kV bays, the transmission tariff of the upgraded 765 kV lines would be required to be re-determined by de-capitalizing the cost of 400 kV bays/termination equipment now rendered idle. As such, the petitioner needs to submit details of how the cost of 400 kV dismantled/idle bays has been de-capitalized and whether a petition has been filed for re-determination of the transmission tariff of this line.

11. In response to PSPCL's query, the petitioner vide affidavit dated 10.11.2014, has submitted as under:-

- a. The elements under the project have been commissioned phase-wise in a progressive manner as and when available for commissioning. While commissioning of assets the over-all time line of the project is considered and the elements are tried to be commissioned well within the time-line in order to avoid any delay in future.
- b. 240 MVAR, 765 kV Bus Reactor at Satna is covered under the head "Establishment of 765/400 kV, 2x1000 MVA Sub-station at Satna" of the Investment Approval.
- c. Although 30% Fixed Series Compensation on both ends of Satna-Bina 2xD/C was considered in the 27th SCM of WR but the final scheme as appeared in the 28th SCM of WR was taken up for Investment Approval, wherein the 30% FSC on both ends of Satna-Bina 2xD/C was not considered.
- d. The 765 kV Satna-Bina ckt-I has been covered under Petition No. 95/TT/2012. It was charged at 400 kV level on 1.2.2012 and was later upgraded to 765 kV level on 1.10.2012.
- e. The DOCO information along with the DOCO letters (in line with the 2009, Tariff Regulations) of the elements covered in the instant petition have already been submitted along with the petition.

f. The 400 kV bay at Bina Sub-station has been utilized for Bina-Bina (MPPTCL) ckt-3 and is covered under Petition No. 214/TT/2012. Further, the 400 kV bay at Seoni is covered under Barh Transmission System (Petition No. 238/TT/2010) and shall be dealt therein.

12. We have considered the submission of the respondent, PSPCL and the petitioner and in regard to various issues observe as under:-

a. With regard to up-gradation of the Bina-Gwalior-Agra-Seoni lines the petitioner is commissioning the elements under the Sasan UMPP project phase-wise in a progressive manner as and when available for commissioning. The petitioner had up-graded Bina-Gwalior Line ckt-I and II, covered in Petition No. 51/TT/2013 and 214/TT/2012 w.e.f 1.4.2013, Gwalior-Agra Ckt-I and II, covered in Petition No. 51/TT/2013 w.e.f. 1.4.2013 and Seoni-Bina Line w.e.f. 1.7.2012 in the instant petition.

b. As regards, the 240MVAR, 765 kV Bus Reactor at Satna Sub-station, the petitioner has taken approval for Sasan UMPP Transmission System vide letter dated 10.12.2008. The scope of work for ATS of Sasan UMPP clearly indicates Satna 765/400 kV Sub-station and the scope of work at Satna Sub-station includes 240 MVAR, Bus Reactor at Satna Sub-station.

c. As regards, 30% Fixed Series Compensation on both ends of Satna-Bina 2xD/C, it is evident that the scheme was discussed in the 27th Standing Committee but was finalized in the 28th Standing Committee meeting held

on 6.12.2008 and 30% FSC on both ends of Satna-Bina 2xD/C was not considered.

d. With regard to non-utilization of 400 kV bays at Bina and Seoni Sub-stations the petitioner has initially commissioned Bina-Seoni line at 400 kV w.e.f. 1.4.2010 and the same was up-graded to 765 kV w.e.f. 1.7.2012. The vacated 400 kV bay at Bina Sub-station was utilised with Bina-Bina (MPPTCL) ckt-3 and is covered under Petition No. 214/TT/2012. Further, the 400 kV bay at Seoni Sub-station was idle w.e.f. 1.7.2012. The O&M allowed for Seoni-Bina line at Seoni end shall be treated accordingly at the time of truing up in Petition No. 238/TT/2010.

e. As regard, Satna-Bina Ckt-I, the petitioner has filed the same in Petition No. 95/TT/2012. Initially it was charged at 400 kV level w.e.f. 1.2.2012 and was later upgraded to 765 kV level w.e.f. 1.10.2012.

f. The petitioner is directed to submit the details and cost of 400 kV dismantled/idle bays at Bina, Seoni, Gwalior and Satna Sub-stations, and the usage of assets i.e. transmission line and bays of full scheme at the time of truing-up.

13. AVVNL, Respondent no. 4 vide their reply dated 23.5.2013 have raised the issues that the transmission elements covered in the instant petition is for evacuation of power from SASAN UMPPTS and in case generation unit is not commissioned then there is no use of this transmission systems. As such, instead of the beneficiaries, the SASAN UMPPTS should be directed to make the payment for the transmission system.

14. In response to AVVNL, the petitioner vide affidavit dated 10.11.2014, has submitted as under:-

- a. The Transmission System associated with Sasan UMPP has been commissioned progressively as per the requirements/contingency schemes which have evolved over time and discussed and agreed at various forums.
- b. The petitioner being CTU is performing its duty of coordination in line with Electricity Act, 2003. In an integrated system, the transmission system of a generation project is planned after considering the other transmission schemes likely to be available in that time frame. Thus, even if a generation project does not materialize, its associated transmission system (except radial dedicated transmission line) may be required for other generation coming up in same or later time frame. Keeping this philosophy in view, the transmission system of VSTPP-IV and Rihand-III was planned considering the availability of Sasan UMPP transmission system. However, due to delay in transmission system associated with VSTPP-IV & Rihand-III, WR and NR constituents agreed to utilize the transmission system of Sasan for evacuation of power from these NTPC projects. Accordingly, a contingency scheme for evacuation of VSTPP-IV and Rihand-III was approved in SCM of WR and NR. Thus, Sasan UMPP transmission elements were commissioned prior to Sasan generation due to their requirement in the grid. The contingency arrangement integrated with the Sasan UMPP scheme has been deliberated and agreed in various Standing Committee Meetings of Western Region Constituents (29th, 32nd, 33rd, 35th and 36th SCM) and has undergone changes as per the progress of various transmission lines.

15. We have considered the submission of the respondent and the petitioner. The petitioner is commissioning the elements under the Sasan UMPP project phase-wise in a progressive manner as and when available for commissioning. A contingency scheme for evacuation of VSTPP-IV and Rihand-III was deliberated and agreed in various Standing Committee Meetings of Western Region Constituents (29th, 32nd, 33rd, 35th and 36th SCM), as there is a delay in commissioning of transmission system associated with VSTPP-IV and Rihand-III and it was agreed by WR and NR constituents to utilize the transmission system of Sasan for evacuation of power from these NTPC projects.

16. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

Capital Cost

17. Regulation 7 of the 2009 Tariff Regulations provides as follows:-

“(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:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.”

18. The petitioner has submitted the capital cost incurred and capital cost projected to be incurred as per actual DOCO as per the auditor’s certificate in the petition.

19. The details of apportioned approved cost, capital cost as on DOCO and estimated additional capital expenditure incurred or projected to be incurred for the assets covered in the petition are as under:-

(₹ in lakh)

Particulars	Apportioned approved cost	Cost incurred up to DOCO	Projected expenditure			Total estimated completion Cost
			DOCO to 31.3.2013	2013-2014	2014-2015*	
Asset-I	60600.62	46125.96	2183.19	1637.39	1092.23	51038.77
Asset-II	7810.62	4298.58	779.12	584.34	222.67	5884.71
Asset-III	11610.51	5406.72	1117.41	838.06	828.93	8191.12
Asset-IV	11983.22	7693.79	4107.91	423.64	362.09	12587.43
Combined Assets	92004.97	63525.05	8187.63	3483.43	2505.92	77702.03

*Additional Capital expenditure of 2014-15 is not considered as it does not fall within the tariff period of 2009 Tariff Regulations.

20. The petitioner has submitted that, the 765 kV S/C Satna-Bina Ckt-1 TL covered in the project was initially charged at 400 kV level from 1.2.2012 and upgraded to 765 kV from 1.10.2012. Consequently the 400 kV bays,

which became spare, have been used for the 400 kV ICT bay at Satna Sub-station and is covered in the Asset-III of the instant petition. However, the cost of 400 kV bay has not been included in the instant petition (as per Auditor's Certificate) as it was already considered in Petition No. 95/TT/2012 along with 765 kV S/C Satna-Bina Ckt-1 TL charged at 400 kV level from 1.2.2012. In view of the above, the capital cost of 400 kV ICT at Satna Sub-station (Asset-III) as submitted has been considered for allowing the tariff. The tariff of 400 kV bay at Satna Sub-station shall be recovered through tariff allowed in Petition No. 95/TT/2012.

21. The petitioner has further submitted that in the case of Asset-IV of the instant petition due to up-gradation of 765 kV Seoni-Bina line, the 400 kV bay at Seoni Sub-station was idle with effect from 1.7.2012. The tariff for 400 kV bay at Seoni was claimed in Petition No. 238/TT/2010. Accordingly, the petitioner is directed to submit the affidavit for de-capitalization of the cost of 400 kV bay at Seoni Sub-station from 1.7.2012 in the respective petition.

Cost Over-run

22. The petitioner has commissioned all four assets simultaneously and claimed combined tariff. The estimated completion cost, except for Asset-IV, is within the apportioned approved cost for the each individual asset covered in the instant petition. Accordingly, the capital cost of Asset-IV is restricted to the apportioned approved cost as there is cost over-run in commissioning of the asset. However, the capital cost in respect of Asset-IV shall be reviewed at the time of truing-up, subject to the petitioner filing the

RCE and justification for cost over-run. This approach has been upheld by the Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No. 165 of 2012, and subsequently the Commission, vide its order dated 18.2.2014 in Petition number 216/TT/2012, has considered the apportioned approved cost of individual asset for restricting the capital expenditure due to cost over-run for the purpose of tariff determination. The same approach has been adopted in the present case and capital expenditure has been restricted to apportioned approved cost. Further, there is variation in cost of certain items due to decrease in cost of Asset-I, Asset-II and Asset-III but increase in cost of Control, Relay & Protection Panel, Bus Bars conductors/insulators, Structures for Switch yard and Auxiliary system. As regards cost variations, though the petitioner has stated to have taken various steps to make the cost estimates realistic, in actuality there continues to be wide variation between the FR cost and the actual cost. We are of the view that the petitioner should analyze the reasons for such huge variations and come out with the methodologies or procedure for preparation of cost estimates which are realistic and do not vary widely from the actual expenditure.

23. Accordingly, capital cost considered for combined assets covered in the petition is as given overleaf:-

(₹ in lakh)

Particulars	Apportioned Approved Cost	Expenditure Incurred up to DOCO	Add. Cap.		Estimated Completion Cost
			DOCO to 31.3.2013	2013-14	
	A	B	C	D	E=B+C+D
Combined-Assets	92004.97	63525.04	8187.64	3241.31*	74953.99

*The estimated completion cost of Asset-IV is ₹12587.43 lakh, which is more than the Apportioned approved cost (₹11983.22 lakh). Hence, the capital cost has been restricted to apportioned approved cost for tariff calculation in the absence of RCE.

Time Over-run

24. The commissioning schedule of the project is 48 months from the date of IA i.e. 10.12.2008. Hence, the assets were to be commissioned by 10.12.2012 i.e. 1.1.2013. All the Assets have been simultaneously commissioned on 1.7.2012. Hence, there is no time over-run in commissioning of the instant assets filed in the instant petition. Accordingly, the IDC and IEDC have been allowed as claimed and included in the capital cost for the purpose of tariff.

Treatment of Initial Spares

25. The petitioner has claimed the cost of the initial spares as ₹315.74 lakh, ₹49.78 lakh, ₹66.92 lakh and ₹257.78 lakh for Asset-I, Asset-II, Asset-III and Asset-IV respectively i.e. ₹690.22 lakh for combined assets. It is observed that initials spares claimed by the petitioner are within the ceiling limit specified in clause 8 of Tariff Regulations, 2014 and hence same have been allowed in the capital cost.

26. The capital cost as on date of commercial operation after taking into accounting cost variation, capitalization of IDC, IEDC and admissible cost of

initial spares has been considered for the purpose of the determination of transmission tariff as under:-

Particulars	(₹ in lakh)
	Combined Assets
Freehold land	-
Leasehold land	-
Building and Civil works	-
Transmission Line	36819.68
Sub-Station Equipments	26585.81
PLCC	119.55
Total Capital Cost	63525.04

Projected Additional Capital Expenditure

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

“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.”

28. 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”.

Therefore, the cut-off date for the instant assets is 31.3.2015.

29. The admissibility of additional capital expenditure (Add. Cap.) incurred after DOCO is to be dealt in accordance with the provisions of Regulation 9 (1) of the 2009 Tariff Regulations. The projected additional capital expenditure claimed is mainly on account of balance and retention payments. The details of Add-cap claimed by the petitioner and allowed are as follows:-

(₹ in lakh)

Particulars	Additional Capital expenditure claimed		Additional Capital expenditure allowed	
	2012-13	2013-14	2012-13	2013-14
Asset-I	2183.20	1637.39	2183.20	1637.39
Asset-II	779.12	584.34	779.12	584.34
Asset-III	1117.41	838.06	1117.41	838.06
Asset-IV*	4107.91	423.64	4107.91	181.52
Combined Assets	8187.64	3483.43	8187.64	3241.31

*The completion cost of Asset-IV has been restricted to the apportioned approved cost by reducing the additional capital expenditure of 2013-14.

30. We have considered the submissions made by the petitioner. We have noted that the additional capital expenditure incurred and projected to be incurred for the transmission assets from the date of commercial operation to 31.3.2013 and during 2013-14 is on account of Balance/Retention payments. The additional capital expenditure claimed by the petitioner is within the cut-off date and accordingly it is allowed in terms of Regulation 9 (1) (i) of the 2009 Tariff Regulations. Projected additional capital expenditure shall be reviewed at the time of truing up on the submission of the actual additional capital expenditure.

Debt- Equity Ratio

31. Regulation 12 of the 2009 Tariff Regulations provides as follows:-

“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:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

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

(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.”

32. The petitioner has claimed debt-equity ratio as on date of commercial operation of the assets, additional capitalization is 70:30 which is in accordance with the above regulations. The debt-equity ratio of 70:30 has been considered to work out the tariff.

Return on Equity

33. Regulation 15 of the 2009 Tariff Regulations provides as under:-

“15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations

and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(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:

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

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 financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".

34. Regulation 15 of 2009 Tariff Regulation provides for working out return on equity. Accordingly, return on equity has been worked out as under:-

Particulars	₹ in lakh)	
	2012-13 (Pro-rata)	2013-14
Opening Equity	19057.51	21513.80
Addition due to Additional Capitalization	2456.29	972.39
Closing Equity	21513.80	22486.19
Average Equity	20285.66	22000.00
Return on Equity (Base Rate)	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%
Return on Equity (Pre Tax)	2659.60	3845.82

Additional Return on Equity (RoE)

35. In the instant petition, the petitioner has not claimed additional RoE of 0.5% under Regulation 15(2) of the 2009 Tariff Regulations as the assets covered in the petition are part of augmentation work at Bina, Satna and Seoni Sub-stations and not new sub-stations. Accordingly, no additional RoE has been considered in the instant petition.

36. The petitioner's prayer for recovery of the shortfall or refund the excess Annual Fixed Charges, on account of RoE due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly without making any application before the Commission shall be dealt with Regulation 15 (3) of 2009, Tariff Regulation. RoE has been computed @ 17.481% p.a on average equity as per Regulation 15 of the 2009 Tariff Regulations.

Interest on Loan

37. Regulation 16 of the 2009 Tariff Regulations provides as under:-

"16. **Interest on loan capital** (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

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

(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.

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

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

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

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

38. In keeping with the provisions of Regulation 16 of the 2009 Tariff Regulations, the petitioner’s entitlement to interest on loan has been calculated on the following basis:-

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

(b) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.

(c) Weighted average rate of interest on actual average loan worked out as per (a) above is applied on the notional average loan during the year to arrive at the interest on loan.

(d) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

39. Accordingly, the interest on loan has been calculated on the basis of prevailing rate available as on the date of commercial operation. Any change in rate of interest subsequent to date of commercial operation will be considered at the time of truing up.

40. Detailed calculations in support of the weighted average rates of interest have been given at Annexure.

41. Based on the above, interest on loan allowed is as given hereunder:-

Particulars	(₹ in lakh)	
	2012-13 (Pro-rata)	2013-14
Gross Normative Loan	44467.53	50198.88
Cumulative Repayment upto Previous Yr	0.00	2678.80
Net Loan-Opening	44467.53	47520.08
Addition due to Additional Capitalisation	5731.35	2268.92
Repayment during the year	2678.80	3873.70
Net Loan-Closing	47520.08	45915.29
Average Loan	45993.80	46717.69
Weighted Avg. Rate of Interest on Loan	9.2309%	9.2339%
Interest	3184.24	4313.87

Depreciation

42. Regulation 17 of the 2009 Tariff Regulations provides as follows:-

“17. **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 up to 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.”

43. The petitioner has claimed actual depreciation as a component of Annual Fixed Charges. The instant transmission assets were put under commercial operation during 2012-13. Accordingly, all assets will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the

2009 Tariff Regulations, as per details hereunder:-

(₹ in lakh)

Particulars	Combined Assets	
	2012-13 (Pro-rata)	2013-14
Opening Gross Block	63525.04	71712.68
Additional Capital Expenditure	8187.64	3241.31
Closing Gross Block	71712.68	74953.99
Average Gross Block	67618.86	73333.34
Rate of Depreciation	5.2822%	5.2823%
Depreciable Value	60856.97	66000.00
Remaining Depreciable Value	60856.97	63321.20
Depreciation	2678.80	3873.70

Operation & Maintenance Expenses (O&M Expenses)

44. The norms for O&M Expenses for the transmission system based on the type of sub-station and the transmission line are prescribed vide clause (g) of Regulation 19 of the 2009 Tariff Regulations. The norms for assets covered in this petition are as under:-

Norms for AC and HVDC lines:

(₹ lakh per km)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
S/C (Bundled Conductor with four or more sub-conductors)	0.537	0.568	0.600	0.635	0.671

Norms for Sub-station:

(₹ lakh per bay)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV bay	52.40	55.40	58.57	61.92	65.46
765 kV bay	73.36	77.56	81.99	86.68	91.64

45. The petitioner has submitted that the bay was considered w.e.f. 1.2.2012 to 30.6.2012 under Satna-Bina ckt-I in Petition No. 95/TT/2012. Same bay is considered w.e.f. 1.7.2012 with 765/400 kV ICT-I at Satna Sub-station.

46. The petitioner had filed asset 765 kV S/C Satna-Bina Ckt-I in Petition No. 95/TT/2012 and had submitted that 765 kV S/C Satna-Bina Ckt-I was initially charged at 400 kV level w.e.f. 1.2.2012, and the same line was upgraded to 765 kV level w.e.f. 1.10.2012. The O&M Expenses for 400 kV bay at both ends of ckt-I were allowed in Petition No. 95/TT/2012 from 1.2.2012 to 30.9.2012. Thus, the O&M Expenses for 400 kV bay at Satna end of Satna-Bina Ckt-I line (the bay associated with ICT-I at Satna end) is allowed w.e.f. 1.10.2012 in the instant petition. The petitioner has also submitted that the Satna-Bina 765 kV S/C ckt-II was commissioned w.e.f. 1.7.2102 and ICT-I at Satna was being utilized with Satna-Bina Ckt-II w.e.f. 1.7.2012. The O&M Expenses for 765 kV bay of ICT-I are allowed w.e.f. 1.7.2012.

47. The O&M Expenses of 400 kV bays at both ends of Satna-Bina Ckt-I were allowed from 1.2.2012 to 30.9.2012 in Petition No. 95/TT/2012. However, the 400 kV bay at Satna end has been said to be utilized for ICT-I at Satna end w.e.f 1.7.2012. As such, it is observed that Satna-Bina 400 kV Ckt-I was not in use from 1.7.2012 to 30.9.2012. Accordingly, O&M Expenses allowed for the above period shall be reviewed and adjusted at the time of truing up. The petitioner is directed to submit details of usage of all the Assets (Bays and Transmission Line) under the project (Sasan UMPP) at the time of truing up.

48. Accordingly, as per norms specified in CERC Tariff Regulations, 2009, O&M Expenses have been allowed are given overleaf:-

(₹ in lakh)		
Element	2012-13 (Pro-rata)	2013-14
Asset-I	131.27	184.95
Asset-II	291.00	432.02
Asset-III	130.02	183.28
Asset-IV	130.02	183.28
Combined Assets	682.31	983.53

Interest on Working Capital

49. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months of annual 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 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses as part of the working capital from 1.4.2009. The value of maintenance spares has accordingly been worked out.

(iii) O & M Expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for O&M Expenses for one month to be included in the working capital.

The petitioner has claimed O&M expenses for 1 month of the respective year. This has been considered in the working capital.

(iv) Rate of Interest on Working Capital

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and shall be equal to State Bank of India Base Rate @ 13.50% (Base rate as on 1.4.2012 and 350 basis points) for asset. The interest on working capital for the assets covered in the petition has been worked out accordingly.

50. Computations in support of interest on working capital allowed are as follows:-

(₹ in lakh)

Particulars	Combined Assets	
	2012-13 (Pro-rata)	2013-14
Maintenance Spares	136.46	147.53
O & M Expenses	75.81	81.96
Receivables	2097.51	2224.71
Total	2309.78	2454.20
Rate of Interest	13.50%	13.50%
Interest	233.87	331.32

Transmission Charges

51. The transmission charges allowed for the Combined Assets are given as overleaf:-

(₹ in lakh)

Particulars	Combined Assets	
	2012-13 (Pro-rata)	2013-14
Depreciation	2678.80	3873.70
Interest on Loan	3184.24	4313.87
Return on Equity	2659.60	3845.82
Interest on Working Capital	233.87	331.32
O & M Expenses	682.31	983.53
Total	9438.82	13348.24

Filing Fee and the Publication Expenses

52. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of the 2009 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 Regulation 42A (1) (a) of the 2009 Tariff Regulations.

Licence Fee

53. The petitioner has submitted that in O&M norms for tariff block 2009-14, the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. The petitioner has submitted that the licence fee has been a new component of cost to the transmission licence under O&M stage of the project and has become incidental to the petitioner only from 2008-09. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

Service Tax

54. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. The petitioner submitted that service tax on transmission has been put on negative list w.e.f. 1.4.2012 and therefore the transmission charges, is exclusive of service tax and shall be born and additionally paid by the respondents. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

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.

56. This order disposes of Petition No. 215/TT/2012.

sd/-	sd/-	sd/-	sd/-
(A.S. Bakshi)	(A. K. Singhal)	(M. Deena Dayalan)	(Gireesh B. Pradhan)
Member	Member	Member	Chairperson

Annexure

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
	Details of Loan	2012-2013	2013-14
1	Bond XXX		
	Gross loan opening	3600.00	3600.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3600.00	3600.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	300.00
	Net Loan-Closing	3600.00	3300.00
	Average Loan	3600.00	3450.00
	Rate of Interest	8.80%	8.80%
	Interest	316.80	303.60
	Rep Schedule	12 annual instalments from 29.09.2013	
2	Bond XXXII		
	Gross loan opening	3760.00	3760.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3760.00	3760.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	313.33
	Net Loan-Closing	3760.00	3446.67
	Average Loan	3760.00	3603.33
	Rate of Interest	8.84%	8.84%
	Interest	332.38	318.53
	Rep Schedule	12 annual instalments from 29.03.2014	
3	Bond XXXIII		
	Gross loan opening	4040.00	4040.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4040.00	4040.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4040.00	4040.00
	Average Loan	4040.00	4040.00
	Rate of Interest	8.64%	8.64%
	Interest	349.06	349.06
	Rep Schedule	12 annual instalments from 08.07.2014	
4	Bond XXXIV		
	Gross loan opening	230.00	230.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	230.00	230.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	230.00	230.00

	Average Loan	230.00	230.00
	Rate of Interest	8.84%	8.84%
	Interest	20.33	20.33
	Rep Schedule	12 annual instalments from 21.10.2014	
5	Bond XXXV		
	Gross loan opening	4910.00	4910.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4910.00	4910.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4910.00	4910.00
	Average Loan	4910.00	4910.00
	Rate of Interest	9.64%	9.64%
	Interest	473.32	473.32
	Rep Schedule	12 annual instalments from 31.05.2015.	
6	Bond XXXVI		
	Gross loan opening	4110.00	4110.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4110.00	4110.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4110.00	4110.00
	Average Loan	4110.00	4110.00
	Rate of Interest	9.35%	9.35%
	Interest	384.29	384.29
	Rep Schedule	15 annual instalments from 29.08.2016.	
7	Bond XXXVII		
	Gross loan opening	3510.00	3510.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3510.00	3510.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	3510.00	3510.00
	Average Loan	3510.00	3510.00
	Rate of Interest	9.25%	9.25%
	Interest	324.68	324.68
	Rep Schedule	12 annual instalments from 26.12.2015.	
8	Bond XXXVIII		
	Gross loan opening	3510.00	3510.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	3510.00	3510.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	3510.00	3510.00
	Average Loan	3510.00	3510.00
	Rate of Interest	9.25%	9.25%
	Interest	324.68	324.68
	Rep Schedule	Bullet Payment as on	

		09.03.2027	
9	Bond XXXIX		
	Gross loan opening	13681.34	13681.34
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	13681.34	13681.34
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	13681.34	13681.34
	Average Loan	13681.34	13681.34
	Rate of Interest	9.40%	9.40%
	Interest	1286.05	1286.05
	Rep Schedule	Bullet Payment as on 29.03.2027	
10	Bond XL		
	Gross loan opening	480.00	480.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	480.00	480.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	480.00	480.00
	Average Loan	480.00	480.00
	Rate of Interest	9.30%	9.30%
	Interest	44.64	44.64
	Rep Schedule	12 annual instalments from 28.06.2016	
11	Bond XXIX		
	Gross loan opening	2250.00	2250.00
	Cumulative Repayment upto DOCO/previous year	0.00	187.50
	Net Loan-Opening	2250.00	2062.50
	Additions during the year	0.00	0.00
	Repayment during the year	187.50	187.50
	Net Loan-Closing	2062.50	1875.00
	Average Loan	2156.25	1968.75
	Rate of Interest	9.20%	9.20%
	Interest	198.38	181.13
	Rep Schedule	12 annual instalments from 12.03.2013	
12	SBI		
	Gross loan opening	386.18	386.18
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	386.18	386.18
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	386.18	386.18
	Average Loan	386.18	386.18
	Rate of Interest	10.75%	10.75%
	Interest	41.51	41.51
	Total Loan		
	Gross loan opening	44467.52	44467.52
	Cumulative Repayment upto DOCO/previous year	0.00	187.50
	Net Loan-Opening	44467.52	44280.02

	Additions during the year	0.00	0.00
	Repayment during the year	187.50	800.83
	Net Loan-Closing	44280.02	43479.19
	Average Loan	44373.77	43879.60
	Rate of Interest	9.2309%	9.2339%
	Interest	4096.11	4051.81