

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 53/TT/2016

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member**

Date of Order : 27 .01.2017

In the matter of:

Approval of transmission tariff from COD to 31.3.2019 of Asset-I:11 nos. of OPGW links under Central Sector of 789.635 km; Asset-II: 3 nos. of OPGW links under Central Sector of 112.886 km; and Asset-III: 5 Nos. OPGW links under Central Sector of 527.751 km under the project Fiber Optic Communication System in ER under expansion of wide-band communication network in Eastern 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, 2014.

And in the matter of:

Power Grid Corporation of India Limited,
"Saudamani", Plot No.2,
Sector-29, Gurgaon -122 001.....**Petitioner**

Vs

1. NTPC,
NTPC Bhawan, Core-7, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003.
2. National Hydro Power Corporation (NHPC) Ltd.,
NHPC Office Complex,
Lodhi Road,
New Delhi-110003.
3. Orissa Hydro Power Corporation Ltd.,
Burla Power House, Dist. Sambalpur,
Burla-768017.



4. Mejia Thermal Power Station,
DVC, P.O.,
MTPC, Bankura District -722183.
5. West Bengal State Electricity Distribution Co. Ltd.,
BidyutBhawan, 8th Floor (A Block),
Block DJ, Salt Lake City,
Kolkata-700091.
6. Bihar State Electricity Board,
VidyutBhawan, Bailey Road,
Patna-800001.
7. Grid Corporation of Orissa Ltd.,
VidyutBhawan, Janpath,
Bhubaneshwar-751007.
8. Power Department,
Government of Sikkim,
Gangtok-727102.
9. Jharkhand State Electricity Board,
Engineering Building,
HEC Township,
Dhurwa, Ranchi-834004.
10. Damodar Valley Corporation
DVC Tower, VIP Road,
Kolkata-700054.
11. Powerlinks Transmission Ltd.,
Vidyut Nagar, P.O. Satellite Township,
Siliguri-734015.

....Respondents

For Petitioner : Shri S.S. Raju, PGCIL
Shri Rakesh Prasad, PGCIL
Shri S. K. Venkatesan, PGCIL
Shri M.M. Mondal, PGCIL

For Respondents : Shri R. B. Sharma, Advocate, BSP(H)CL



ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff of Asset-I: 11 nos. of OPGW links under Central Sector of 789.635 km; Asset-II: 3 nos. of OPGW links under Central Sector of 112.886 km; and Asset-III: 5 Nos. OPGW links under Central Sector of 527.751 km (hereinafter referred to as “transmission assets”) under the project Fiber Optic Communication System in Eastern Region under expansion of wide-band communication network in Eastern Region (hereinafter referred to as “transmission project”) for the tariff block 2009-14 in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter "the 2014 Tariff Regulations").

2. The investment approval for the transmission project was accorded by the Board of Directors of the petitioner company on 27.3.2012. The scope of the transmission project was discussed and agreed in 16th ERPC meeting held on 17.3.2010. The estimated cost of the project is ₹11580 lakh including IDC of ₹654 lakh (based on 4th quarter, 2011 price level).

3. The scope of work of the transmission project includes:-

- a) Installation of estimated 1159 km of OPGW fiber optic cable on the existing EHV transmission lines.
- b) Installation of estimated 2500 km of OPGW fiber optic cable on new/upcoming EHV transmission lines.



- c) Installation of 53 nos. of terminal Equipments for communication bases upon Synchronous Digital Hierarchy (SDH) technology in sub-stations of POWERGRID and Constituents and in generating stations.
- d) Installation of 76 nos. of Drop Insert Multiplexers at wide band nodes.
- e) Network Management System (NMS) to monitor the network, is also envisaged.
- f) 53 nos. of DC Power Supply has been envisaged at all the wideband locations. However, this requirement shall be optimized during detailed engineering.

4. The details of the assets covered in the transmission project are as follows:-

Name of Assets	Optical Fiber Length	COD	Petition No.
02 Nos. of OPGW Links under central sector	127.000 km	1.11.2013	81/TT/2015
03 Nos. of OPGW links under central sector	170.234 km	1.3.2014	
11 Nos. of OPGW Links under central sector	789.635 km	1.10.2014	53/TT/2016 (Instant Petition)
03 Nos. of OPGW Links under central sector	112.886 km	20.4.2015	
05 Nos. of OPGW Links under central sector	527.751 km	5.1.2016	
Total	1727.506 km		

5. During the hearing held on 5.7.2016 BSP(H)CL has submitted that the complete minutes of meeting of 16th ERPC and 16th TCC meeting has not been submitted. The petitioner has submitted only the relevant portion of the minutes of meeting. Complete set of minutes of meeting should be submitted. The petitioner



vide affidavit dated 9.11.2016 has submitted the complete minutes of meeting of 16th ERPC and 16th TCC meeting.

Date of Commercial operation

6. The petitioner has claimed the date of commercial operation of Assets I, II and III as 1.4.2014, 20.4.2015 and 5.1.2016 respectively.

7. The petitioner was directed vide ROP dated 5.7.2016, to submit the RLDC charging certificate along with COD letter under Regulation 5(2) of the 2014 Tariff Regulations. The petitioner was also directed to submit whether the instant assets are being used and whether communication signal has been established? In response, the petitioner vide affidavit dated 24.8.2016 has submitted that the data communication is established and the links are in operation. Communication signal from sending end to receiving end has taken place and the assets are being used.

8. During the hearing held on 5.7.2016 BSP(H)CL has submitted that the instant petition has not been filed in accordance with 2014 Tariff Regulations and documents like trial operation certificate, approval of CMD, certificate of Electrical Inspector have not been submitted. It was further stated that the detailed reasons for time over-run was also not furnished. The petitioner vide affidavit dated 9.11.2016 has submitted the RLDC Certificate however the petitioner has not submitted the certificate of the Electrical Inspector.

9. We have considered the submissions of petitioner and respondent. The petitioner has submitted RLDC charging certificate in support of commercial operation date. The petitioner is directed to confirm from CEA whether certificate of



the Electrical Inspector under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010 is required in the case of installation of OPGW links and if it is applicable, submit the same at the time of truing up. Simultaneously, the staff is directed to seek a clarification from CEA whether Electrical Inspector's certificate is required in the case of instant assets. As regards BSP(H)CL contention regarding non-submission of approval of CMD for the instant assets, the CMD's approval is required only when the asset in question is ready for commissioning and the corresponding upstream and downstream assets are not commissioned and not in the case of OPGW links like instant assets.

10. The date of commercial operation of Assets I, II and III is approved as 1.10.2014, 20.4.2015 and 5.1.2015 respectively as claimed by the petitioner subject to confirmation and submission of certificate of the Electrical Inspector at the time of truing up.

11. The transmission charges claimed by the petitioner for the instant asset are as follows:-

(₹ in lakh)					
Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	25.22	92.50	114.16	114.16	114.16
Interest on Loan	22.83	79.69	91.09	81.62	72.22
Return on equity	23.43	85.97	106.10	106.10	106.10
Interest on Working Capital	2.66	8.03	9.32	9.17	9.03
O & M Expenses	18.27	37.74	39.00	40.29	41.63
Total	92.41	303.93	359.67	351.34	343.14



(₹ in lakh)

Asset-II				
Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	4.80	19.17	20.75	20.75
Interest on Loan	3.38	16.02	15.84	14.12
Return on equity	3.75	17.82	19.29	19.29
Interest on Working Capital	1.81	2.14	2.24	2.23
O & M Expenses	15.29	16.72	17.27	17.85
Total	59.03	71.87	75.39	74.24

(₹ in lakh)

Asset-III				
Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	11.58	74.46	99.10	99.10
Interest on Loan	11.29	69.09	85.66	76.91
Return on equity	10.76	69.20	92.10	92.10
Interest on Working Capital	1.51	8.08	9.66	9.56
O & M Expenses	13.33	57.55	59.46	61.43
Total	48.47	278.38	345.98	339.10

12. The interest on working capital claimed by the petitioner is given hereunder:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	5.48	5.66	5.85	6.04	6.24
O & M expenses	3.05	3.15	3.25	3.36	3.47
Receivables	30.80	50.66	59.95	58.56	57.19
Total	39.33	59.47	69.05	67.96	66.90
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	5.31	8.03	9.32	9.17	9.03

(₹ in lakh)

Asset-II				
Particulars	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	2.42	2.51	2.59	2.68
O & M expenses	1.35	1.39	1.44	1.49
Receivables	10.40	11.99	12.58	12.38
Total	14.17	15.89	16.61	16.55
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	1.91	2.15	2.24	2.23

(₹ in lakh)

Asset-III				
Particulars	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	8.36	8.63	8.92	9.21
O & M expenses	4.64	4.80	4.96	5.12
Receivables	33.77	46.40	57.66	56.52



Total	46.77	59.83	71.54	70.85
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	6.31	8.08	9.66	9.56

13. 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. None of the respondents have filed any reply.

14. Having heard the petitioner and perused the material on record, we proceed to dispose of the petition.

Capital cost

15. Clause (2) of Regulation 9 of the 2014 Tariff Regulations provides as follows:-

"The Capital Cost of a new project shall include the following:

- (a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Increase in cost in contract packages as approved by the Commission;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- (e) capitalised Initial spares subject to the ceiling rates specified in Regulation of these regulations;
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) adjustment of any revenue earned by the transmission licensee by using the assets before COD."



16. The petitioner has submitted the apportioned approved cost and capital cost as on COD in the petition. The petitioner has also submitted Auditor Certificate dated 28.9.2015 for Asset I and Asset II and Management Certificate dated 17.2.2016 for Asset III. Later, vide affidavit dated 24.8.2016, the petitioner has submitted Auditor Certificate dated 19.8.2016 in case of Asset III based on actual COD. The detail of the approved apportioned cost, actual capital cost claimed as on actual COD(s) and estimated additional capital expenditure incurred or to be incurred as per Auditor's Certificate dated 28.9.2015 and 19.8.2016 are summarized below:-

Assets	Approved apportioned cost	Capital cost claimed as on actual COD	Projected additional capital expenditure			Total estimated cost claimed
			Expenditure from COD to 31.3.2015	2015-16	2016-17	
Asset-I	2438.90	487.08	636.40	680.00	-	1803.48
Asset-II	348.66	215.73	-	62.11	50.00	327.84
Asset-III	1630.04	761.88	-	36.71	767.01	1565.6
Total	4417.60	1464.69	636.4	778.82	817.01	3696.92

17. The estimated completion cost of the instant assets is ₹3696.92 lakh which is within the total approved apportioned cost of the instant assets of ₹4417.60 lakh. The estimated completion cost of the individual assets is also within approved apportioned cost. Thus, there is no cost over-run in case of the instant assets. Therefore, actual capital expenditure incurred as on COD of Assets I, II and II is considered as opening capital cost on respective CODs of the assets.

18. During the hearing held on 5.7.2016 BSP(H)CL has submitted that the petitioner has to de-capitalise the existing ground wire and the petitioner should be directed to submit the details of the revenue realized from sharing the lines with the



third parties and adjust the same with the capital cost. In response, the petitioner vide affidavit dated 9.11.2016 has submitted that only a part of the instant project has been completed so far and it would not be prudent to provide the details of de-capitalized existing ground wire in absence of complete value of the entire project. Therefore, the details of de-capitalization of the existing ground wire shall be submitted on completion of the entire scope of the subject project at the time of truing-up.

19. We have considered the submissions of the petitioner. The capital cost claimed by the petitioner is considered at this stage subject to the petitioner submitting the cost of decapitalised ground wire and prudence at the time of truing-up.

Time over-run

20. As per investment approval dated 27.3.2012, the assets covered in the instant petition were scheduled to be commissioned within 30 months from the date of investment approval. Accordingly, the scheduled date of commissioning of the instant asset was 26.9.2014, against which Assets I, II, and III were commissioned on 1.10.2014, 20.4.2015 and 5.1.2016 after a time over-run of 5 days, 6 months 25 days and 15 months 10 days respectively.

21. The petitioner has submitted that the time over-run was due to ROW problem at several locations during installation of OPGW cable and non-availability of OPGW cable and non-availability of PTW/shutdown from grid operators. The petitioner was directed to submit the details of time over-run along with documentary evidence and



chronology of the activities asset wise. In response, the petitioner vide affidavit dated 24.8.2016 has submitted that it has already submitted the details of time over-run along with documentary evidence with the main petition. However, petitioner has not submitted any documentary evidence to show that the time over-run is not attributable to the petitioner. The petitioner has neither substantiated the reasons nor submitted any documentary evidence in support of time over-run, despite seeking the same, either in the petition or in the affidavit dated 24.8.2016. As such, the time over-run in case of instant assets is not allowed.

Interest During Constructin (IDC)

22. The details of the IDC (on accrual basis) claimed by the petitioner, as per Auditor's Certificate dated 28.9.2015 and 19.8.2016 and the IDC discharged is summarised as shown below:-

Asset	IDC claimed on Accrual basis	IDC discharged as per IDC Statement			
		Upto COD	During 2014-15	During 2015-16	During 2016-17
Asset I	41.24	28.52	8.28	4.44	-
Asset II	15.88	6.34	-	9.54	-
Asset III	88.62	69.36	-	7.65	11.60

23. In case of Asset I, as per the IDC Statement submitted by the petitioner it is observed that the loan amount from Bond XLIII is ₹170.96 lakh but it is not matching with the loan amount of ₹162.05 lakh mentioned in Form 12B and Form 9C. As such, the amount specified in Form 12B and Form 9C has been considered for the purpose of computation of IDC. In case of Asset II, proposed loan has been mentioned in the IDC Statement submitted by the petitioner. However, no such loan has been shown in Form 12B and Form 9C. Therefore, for the purpose of



computation of IDC, the proposed loan claimed by the petitioner is not considered. In case of Asset III, proposed loan has been submitted as ₹113.76 lakh in the IDC Statement. However, loan amount has been shown as ₹100.28 lakh in Form 12B and Form 9C against the proposed loan. Therefore, for computation of IDC, the amount specified in Form 12B and Form 9C has been considered. Further, the petitioner in the IDC statement has mentioned the drawl date for Bond XXXVIII loan as 9.3.2012 which is prior to the investment approval date. Hence, the IDC has been allowed only from the date of investment approval dated 27.3.2012.

24. Based on available information and the above mentioned assumptions, the following IDC has been computed from the period from date of fund infusion till the scheduled COD for all three assets.

(₹ in lakh)				
Asset	IDC claimed	IDC disallowed due to time over-run	Undischarged IDC as on COD	IDC allowed on cash basis.
Asset I	41.24	0.81	12.62	27.81
Asset II	15.88	6.93	2.60	6.35
Asset III	88.62	49.26	0.00	39.36

25. The undischarged IDC as on COD is reduced from the capital cost as on COD. As the petitioner has not submitted the loan wise discharge of IDC, the same is not considered as additional capital expenditure. However, the petitioner is directed to submit the loan wise discharge of IDC after COD at the time of true-up.

Incidental Expenses During Construction (IEDC)

26. The petitioner has claimed IEDC of ₹5.56 lakh, ₹0.10 lakh and ₹22.98 lakh for Asset- I, Asset-II and Asset-III respectively and has submitted Auditor's certificate



dated 28.9.2015 and 19.8.2016 in support. The percentage of IEDC has been stated in abstract cost estimate as 10.75% and this percentage has been considered as the allowable limit. The IEDC claimed by the petitioner is within the allowable limit. As time over-run is not condoned, the IEDC claimed for the period of time over-run is not allowed. The details of IEDC claimed and allowed is as follows:-

(₹ in lakh)			
Asset	IEDC Claimed	IEDC disallowed	IEDC Allowed
Asset I	5.56	0.03	5.53
Asset II	0.10	0.02	0.08
Asset III	22.98	5.69	17.29

Treatment of initial spares

27. Regulation 13 of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

“13. Initial Spares

Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

(d) Transmission system

- (i) Transmission line - 1.00%
- (ii) Transmission Sub-station (Green Field) - 4.00%
- (iii) Transmission Sub-station (Brown Field) - 6.00%
- (iv) Series Compensation devices and HVDC Station - 4.00%
- (v) Gas Insulated Sub-station (GIS)-5.00%
- (vi) Communication system-3.5%

Provided that:

(i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

(ii) where the generating station has any transmission equipment forming part of the generation project, the ceiling norm for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:

(iii) Once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:



(iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break-up of head wise IDC & IEDC in its tariff application.”

28. The petitioner has claimed initial spares for Assets I, II and III amounting ₹30.12 lakh, ₹5.17 lakh and ₹30.12 lakh respectively. The initial spare claimed by the petitioner are within the limit specified in Regulation 13 of 2014 Tariff Regulations and hence the same is allowed. The details of initial spares claimed and allowed are as follows:-

(₹ in lakh)

Asset	Total estimated cost	Initial spares claimed and allowed
Asset I	1803.48	30.12
Asset II	327.84	5.17
Asset III	1565.6	30.12

Capital cost as on COD

29. Detail of the capital cost considered as on COD after making the necessary adjustment in respect disallowed IDC and IEDC and initial spares is as follows:-

(₹ in lakh)

Asset	Capital cost as on COD claimed by petitioner	IDC disallowed due to time over-run.	Un-discharged IDC as on COD	IEDC disallowed due to time over-run	Excess initial spares disallowed	Capital Cost as on COD considered for tariff calculation
1	2	3	4	5	6	7= (2-3-4-5-6)
Asset I	487.08	0.81	12.62	0.03	0.00	473.62
Asset II	215.73	6.93	2.60	0.02	0.00	206.18
Asset III	761.88	49.26	0.00	5.69	0.00	706.93
Total	1464.69	57.01	15.22	5.74	0.00	1386.73

30. The element wise break-up of capital cost as on COD are as follows:-



(₹ in lakh)

Asset-I		
Particulars	Capital cost as on COD as per Auditor's certificate dated 28.9.2015	Admitted capital cost
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipments	0.00	0.00
Communication Equipment	0.00	0.00
Fibre optic Cable	487.08	473.62
Total	487.08	473.62

(₹ in lakh)

Asset-II		
Particulars	Capital cost as on COD as per Auditor's certificate dated 28.9.2015	Admitted capital cost
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipments	0.00	0.00
Communication Equipment	29.80	28.48
Fiber optic Cable	185.93	177.70
Total	215.73	206.18

(₹ in lakh)

Asset-III		
Particulars	Capital cost as on COD as per Auditor's certificate dated 19.8.2016	Admitted capital cost
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipments	0.00	0.00
Communication Equipment	127.07	117.90
Fiber optic Cable	634.81	589.02
Total	761.88	706.93



Additional capital expenditure

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

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

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

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

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

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

Accordingly, the cut-off date for the above mentioned asset is 31.3.2017, 31.3.2018 and 31.3.2019 of Assets I, II and III respectively.

33. Details of the additional capital expenditure claimed by the petitioner from COD to 31.3.2019 for the assets are as follows:-

(₹ in lakh)		
Asset-I		
Particulars	2014-15	2015-16
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00



Sub-Station Equipments	0.00	0.00
Communication Equipment	83.50	80.00
Fibre optic Cable	552.90	600.00
Total	636.40	680.00

(₹ in lakh)

Asset-II		
Particulars	2015-16	2016-17
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipments	0.00	0.00
Communication Equipment	15.82	0.00
Fibre optic Cable	46.29	50.00
Total	62.11	50.00

(₹ in lakh)

Asset-III		
Particulars	2015-16	2016-17
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipments	0.00	0.00
Communication Equipment	10.50	4.86
Fibre optic Cable	26.21	762.15
Total	36.71	767.01

34. The additional capital expenditure claimed by the petitioner is within the cut-off dated and is considered for computation of tariff and it shall be subject to true-up. However, the undischarged IDC has not been considered as additional capital expenditure and the same will be considered at the time of truing-up based on the information submitted by the petitioner.

Capital cost as on 31.3.2019

35. Considering the admitted capital cost as on COD and admissible additional capital expenditure, capital cost as on 31.3.2019 works out as follows:-



(₹ in lakh)

Asset-I				
Particulars	As on COD	Additional capital expenditure		As on 31.3.2019
		2014-15	2015-16	
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00
Sub-Station Equipments	0.00	0.00	0.00	0.00
Communication Equipment	0.00	83.50	80.00	163.50
Fibre optic Cable	473.62	552.90	600.00	1626.52
Total	473.62	636.40	680.00	1790.02

(₹ in lakh)

Asset-II				
Particulars	As on COD	Additional capital expenditure		As on 31.3.2019
		2015-16	2016-17	
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00
Sub-Station Equipments	0.00	0.00	0.00	0.00
Communication Equipment	28.48	15.82	0.00	44.30
Fibre optic Cable	177.70	46.29	50.00	273.99
Total	206.18	62.11	50.00	318.29

(₹ in lakh)

Asset-III				
Particulars	As on COD	Additional capital expenditure		As on 31.3.2019
		2015-16	2016-17	
Freehold Land	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00
Sub-Station Equipments	0.00	0.00	0.00	0.00
Communication Equipment	117.90	10.50	4.86	133.26
Fibre optic Cable	589.02	26.21	762.15	1377.38
Total	706.93	36.71	767.01	1510.65

Debt- equity ratio

36. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-



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

Provided that:

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

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, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 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”

37. Details of the debt:equity ratio considered as on COD, for additional capital expenditure and as on 31.3.2019 are as follows:-

(₹ in lakh)

Asset-I					
Particular	Capital cost as on COD	Add-Cap for 2014-19		Capital cost as on 31.3.2019	%
		2014-15	2015-16		
Debt	331.53	445.48	476.00	1253.01	70.00
Equity	142.09	190.92	204.00	537.01	30.00
Total	473.62	636.40	680.00	1790.02	100.00



(₹ in lakh)

Asset-II					
Particular	Capital cost as on COD	Add-Cap for 2014-19		Capital cost as on 31.3.2019	%
		2015-16	2016-17		
Debt	144.32	43.48	35.00	222.80	70.00
Equity	61.85	18.63	15.00	95.49	30.00
Total	206.18	62.11	50.00	318.29	100.00

(₹ in lakh)

Asset-III					
Particular	Capital cost as on COD	Add-Cap for 2014-19		Capital cost as on 31.3.2019	%
		2015-16	2016-17		
Debt	494.85	25.70	536.91	1057.46	70.00
Equity	212.07	11.01	230.10	453.19	30.00
Total	706.93	36.71	767.01	1510.65	100.00

Return on Equity (RoE)

38. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014

Tariff Regulations specify as under:-

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

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

Provided that:

- (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:
- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:



- (iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:
- (v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- (vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.”

“25. Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

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

39. The petitioner has submitted that RoE has been calculated at the rate of 19.610% after grossing up the RoE with MAT rate as per the above Regulations. The petitioner has further submitted that the grossed up RoE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff



period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

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

41. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the RoE determined by the Commission is as given under:-

42. The details of return on equity calculated are as follows:-

(₹ in lakh)

Asset-I					
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	142.09	333.01	537.01	537.01	537.01
Addition due to Additional	190.92	204.00	0.00	0.00	0.00



Capitalization					
Closing Equity	333.01	537.01	537.01	537.01	537.01
Average Equity	237.55	435.01	537.01	537.01	537.01
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	23.23	85.30	105.31	105.31	105.31

(₹ in lakh)

Asset-II				
Particular	2015-16	2016-17	2017-18	2018-19
Opening Equity	61.85	80.49	95.49	95.49
Addition due to Additional Capitalization	18.63	15.00	0.00	0.00
Closing Equity	80.49	95.49	95.49	95.49
Average Equity	71.17	87.99	95.49	95.49
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14(MAT)	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	13.23	17.25	18.72	18.72

(₹ in lakh)

Asset-III				
Particular	2015-16	2016-17	2017-18	2018-19
Opening Equity	212.07	223.09	453.19	453.19
Addition due to Additional Capitalization	11.01	230.10	0.00	0.00
Closing Equity	223.09	453.19	453.19	453.19
Average Equity	217.58	338.14	453.19	453.19
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	10.14	66.31	88.87	88.87

Interest on loan

43. Regulation 26 of the 2014 Tariff Regulations provides as under:-

“(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.



(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalisation of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.

(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 depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.”

44. In keeping with the provisions of Regulation 26 of the 2014 Tariff Regulations, the petitioner's entitlement to interest on loan has been calculated on the following basis:-

- (i) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan given in Form 9C have been considered;
- (ii) The repayment for the tariff period 2014-19 shall deemed to be equal to the depreciation allowed for that period;
- (iii) 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;

(iv) As per Regulation 26(5) only actual loans have been considered for computation of weighted average rate of interest.

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

45. Detailed calculations in support of the weighted average rates of interest have been given in Annexure-I to III to this order.

46. The details of the normative interest on loan are as follows:-

(₹ in lakh)

Asset-I					
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	331.53	777.01	1253.01	1253.01	1253.01
Cumulative repayment up to previous Year	0.00	24.99	116.78	228.37	341.68
Net Loan-Opening	331.53	752.02	1136.24	1024.64	911.34
Addition due to Additional Capitalization	445.48	476.00	0.00	0.00	0.00
Repayment during the year	24.99	91.79	111.59	113.31	113.31
Net Loan-Closing	752.02	1136.24	1024.64	911.34	798.03
Average Loan	541.78	944.13	1080.44	967.99	854.68
Weighted Avg. Rate of Interest on Loan	8.38%	8.38%	8.38%	8.38%	8.40%
Interest	22.63	79.07	90.49	81.16	71.83

(₹ in lakh)

Asset-II				
Particular	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	144.32	187.80	222.80	222.80
Cumulative repayment upto previous year	0.00	14.24	32.34	52.48
Net Loan-Opening	144.32	173.56	190.46	170.32



Addition due to Additional Capitalization	43.48	35.00	0.00	0.00
Repayment during the year	14.24	18.10	20.15	20.15
Net Loan-Closing	173.56	190.46	170.32	150.17
Average Loan	158.94	182.01	180.39	160.24
Weighted Avg. Rate of Interest on Loan	8.54%	8.54%	8.56%	8.59%
Interest	12.87	15.55	15.43	13.76

(₹ in lakh)

Asset-III				
Particular	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	494.85	520.55	1057.46	1057.46
Cumulative Repayment up to Previous Yr	0.00	10.91	80.89	176.51
Net Loan-Opening	494.85	509.64	976.57	880.95
Addition due to Additional Capitalization	25.70	536.91	0.00	0.00
Repayment during the year	10.91	69.97	95.62	95.62
Net Loan-Closing	509.64	976.57	880.95	785.32
Average Loan	502.25	743.10	928.76	833.13
Weighted Avg. Rate of Interest on Loan	9.02%	9.04%	9.04%	9.06%
Interest	10.77	67.14	83.92	75.45

Depreciation

47. Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable



from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis

Xxx
Xxx

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

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

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

48. All the assets in the instant petition will complete 12 years beyond 2018-19 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-II. Accordingly, depreciation has been worked out on the basis of capital expenditure as on COD and additional capitalization incurred/ projected to be incurred thereafter, wherein depreciation for the first year has been calculated on pro-rata basis for the year/ part of year.

49. Based on the above, the depreciation has been considered are as follows:-

(₹ in lakh)					
Asset-I					
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	473.62	1110.02	1790.02	1790.02	1790.02
Addition during 2014-19 due to Projected Additional Capitalisation	636.40	680.00	0.00	0.00	0.00
Closing Gross Block	1110.02	1790.02	1790.02	1790.02	1790.02
Average Gross Block	791.82	1450.02	1790.02	1790.02	1790.02
Rate of Depreciation	6.3300%	6.3300%	6.2341%	6.3300%	6.3300%
Depreciable Value	712.64	1305.02	1611.02	1611.02	1611.02
Remaining Depreciable Value	712.64	1280.03	1494.24	1382.65	1269.34
Depreciation	24.99	91.79	111.59	113.31	113.31



(₹ in lakh)

Asset-II				
Particular	2015-16	2016-17	2017-18	2018-19
Opening Gross block	206.18	268.29	318.29	318.29
Addition during 2014-19 due to Projected Additional Capitalisation	62.11	50.00	0.00	0.00
Closing Gross Block	268.29	318.29	318.29	318.29
Average Gross Block	237.23	293.29	318.29	318.29
Rate of Depreciation	6.330%	6.171%	6.330%	6.330%
Depreciable Value	213.51	263.96	286.46	286.46
Remaining Depreciable Value	213.51	249.72	254.12	233.97
Depreciation	14.24	18.10	20.15	20.15

(₹ in lakh)

Asset-III				
Particular	2015-16	2016-17	2017-18	2018-19
Opening Gross block	706.93	743.64	1510.65	1510.65
Addition during 2014-19 due to Projected Additional Capitalisation	36.71	767.01	0.00	0.00
Closing Gross Block	743.64	1510.65	1510.65	1510.65
Average Gross Block	725.28	1127.14	1510.65	1510.65
Rate of Depreciation	6.3300%	6.2081%	6.3300%	6.3300%
Depreciable Value	652.75	1014.43	1359.58	1359.58
Remaining Depreciable Value	652.75	1003.51	1278.69	1183.07
Depreciation	10.91	69.97	95.62	95.62

Operation & Maintenance Expenses (O&M Expenses)

50. The O&M Expenses claimed by the petitioner vide affidavit dated 4.1.2016 details is given below:-

(₹ in lakh)

Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	18.27	37.74	39.00	40.29	41.63
Asset-II	0.00	15.29	16.72	17.27	17.85
Asset-III	0.00	13.33	57.55	59.46	61.43



51. The petitioner was directed to submit the details of actual year wise O&M Expenses and the reasons for claiming O&M Expenses in some petitions on actuals and in some petitions on the basis of 3.32% escalation. In response, the petitioner vide affidavit dated 24.8.2016 has submitted the actual O&M Expenses for the years 2014-15 and 2015-16, which is given in the table below. The petitioner has further submitted that the assets covered under instant petition were commissioned during 2014-19 block and the O&M Expenses are calculated for the instant assets @ of 7.5% of the capital cost as on COD and escalated @ of 3.32% for the subsequent years as per the 2009 Tariff Regulations. The details of the actual O&M Expenses submitted by the petitioner are as follows:-

(₹ in lakh)		
Assets	2014-15	2015-16
Asset-I	32.15	42.88
Asset-II	-	7.22
Asset-III	-	8.87

52. We have considered the submission of the petitioner. As regards O&M Expenses, the Commission in order dated 8.12.2011 in Petition No. 68/2010 held as under:-

“(C) O&M Charges:

27. We have examined the data submitted by the petitioner regarding actual O&M expenses during 2002-03 to 2009-10 for the communication system. It is observed that O&M charges for the year 2008-09 vary from 3.54% to 8.59% of the capital cost as on 31.03.2009 for different regions. We are of the view that the petitioner should be allowed O & M expenses on actual for the communication systems already in operation under ULDC schemes in different regions. However, for the new systems, the O&M norms would be decided at the time of framing of regulation for communication system.”

53. The actual O&M Expenses claimed by the petitioner for the years 2014-15 and 2015-16 are allowed and for the subsequent years, i.e. 2016-17, 2017-18 and



2018-19, O&M Expenses are allowed after escalating @ 3.32% per year. The allowable O&M Expenses for the instant assets are as under:-

Asset	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	32.15	42.88	44.30	45.77	47.28
Asset-II	0.00	7.22	7.45	7.69	7.94
Asset-III	0.00	8.87	9.16	9.46	9.77

54. Though the petitioner has submitted the actual O&M Expenses for 2014-15 and 2015-16, no Auditor Certificate has been filed in this regard. Therefore, the petitioner is directed to submit the actual O&M Expenses incurred towards the instant assets for all the years from COD to 31.3.2019 along with breakup duly certified by Auditor at the time of truing-up.

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

56. We have considered the submissions of the petitioner. Any application filed by the petitioner for revision of O&M Expenses on account of wage revision will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. The O&M Expenses are allowed for the instant transmission assets as per the prevailing norms.



Interest on working capital

57. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

“28. Interest on Working Capital

- (c)(i) Receivables equivalent to two months of fixed cost;
 - (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
 - (iii) Operation and maintenance expenses for one month”
- “(5) ‘Bank Rate’ means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

58. The petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the petitioner’s entitlement to interest thereon are discussed hereunder:-

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses. The value of maintenance spares has accordingly been worked out.



(iii) O & M Expenses

Operation and maintenance expenses have been considered for one month as a component of working capital. The petitioner has claimed O&M Expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

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

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.67	6.43	6.65	6.87	7.09
O & M expenses	5.37	3.57	3.69	3.81	3.94
Receivables	35.57	51.22	60.20	59.16	57.84
Total	50.61	61.22	70.54	69.84	68.87
Interest (13.50%)	3.41	8.27	9.52	9.43	9.30

(₹ in lakh)

Asset-II				
Particulars	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	1.14	1.12	1.15	1.19
O & M expenses	0.63	0.62	0.64	0.66
Receivables	8.59	9.99	10.61	10.37
Total	10.37	11.73	12.41	12.22
Interest (13.50%)	1.33	1.58	1.67	1.65

(₹ in lakh)

Asset-III				
Particulars	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	5.60	1.37	1.42	1.47
O & M expenses	3.11	0.76	0.79	0.81
Receivables	29.39	36.30	47.43	46.04
Total	38.10	38.43	49.64	48.32
Interest (13.50%)	1.22	5.19	6.70	6.52



Transmission charges

60. The transmission charges allowed for the transmission asset are as follows:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	24.99	91.79	111.59	113.31	113.31
Interest on Loan	22.63	79.07	90.49	81.16	71.83
Return on equity	23.23	85.30	105.31	105.31	105.31
Interest on Working Capital	3.41	8.27	9.52	9.43	9.30
O & M Expenses	32.15	42.88	44.30	45.77	47.28
Total	106.40	307.31	361.21	354.98	347.02

(₹ in lakh)

Asset-II				
Particular	2015-16	2016-17	2017-18	2018-19
Depreciation	14.24	18.10	20.15	20.15
Interest on Loan	12.87	15.55	15.43	13.76
Return on Equity	13.23	17.25	18.72	18.72
Interest on Working Capital	1.33	1.58	1.67	1.65
O & M Expenses	7.22	7.45	7.69	7.94
Total	48.89	59.93	63.67	62.22

(₹ in lakh)

Asset-III				
Particular	2015-16	2016-17	2017-18	2018-19
Depreciation	10.91	69.97	95.62	95.62
Interest on Loan	10.77	67.14	83.92	75.45
Return on Equity	10.14	66.31	88.87	88.87
Interest on Working Capital	1.22	5.19	6.70	6.52
O & M Expenses	8.87	9.16	9.46	9.77
Total	41.92	217.78	284.57	276.24

Filing fee and the publication expenses

61. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on



pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence fee and RLDC Fees and Charges

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

Service tax

63. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

64. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.



65. This order disposes of Petition No. 53/TT/2016.

sd/-

(Dr. M.K. Iyer)
Member

sd/-

(A.S. Bakshi)
Member

sd/-

(A.K. Singhal)
Member

sd/-

(Gireesh B. Pradhan)
Chairperson



Annexure-I

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
Bond – XLIII					
Gross loan opening	162.05	162.05	162.05	162.05	162.05
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00	13.50
Net Loan-Opening	162.05	162.05	162.05	162.05	148.55
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	13.50	13.50
Net Loan-Closing	162.05	162.05	162.05	148.55	135.04
Average Loan	162.05	162.05	162.05	155.30	141.79
Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
Interest	12.85	12.85	12.85	12.32	11.24
Rep Schedule	12 Annual installments from 20.5.2017				
Bond XLII					
Gross loan opening	170.00	170.00	170.00	170.00	170.00
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	170.00	170.00	170.00	170.00	170.00
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	170.00	170.00	170.00	170.00	170.00
Average Loan	170.00	170.00	170.00	170.00	170.00
Rate of Interest	8.80%	8.80%	8.80%	8.80%	8.80%
Interest	14.96	14.96	14.96	14.96	14.96
Rep Schedule	13.3.2023 Bullet Payment				
Rep Schedule	12 annual installments from 28.2.2018				
Total Loan					
Gross loan opening	332.05	332.05	332.05	332.05	332.05
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00	13.50
Net Loan-Opening	332.05	332.05	332.05	332.05	318.55
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	13.50	13.50
Net Loan-Closing	332.05	332.05	332.05	318.55	305.04
Average Loan	332.05	332.05	332.05	325.30	311.79
Weighted Average Rate of Interest	8.38%	8.38%	8.38%	8.38%	8.40%
Interest	27.81	27.81	27.81	27.28	26.20



Annexure-II

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
Details of Loan	2015-16	2016-17	2017-18	2018-19
Bond - XLIII				
Gross loan opening	80.00	80.00	80.00	80.00
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	6.67
Net Loan-Opening	80.00	80.00	80.00	73.33
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	6.67	6.67
Net Loan-Closing	80.00	80.00	73.33	66.67
Average Loan	80.00	80.00	76.67	70.00
Rate of Interest	7.93%	7.93%	7.93%	7.93%
Interest	6.34	6.34	6.08	5.55
Rep Schedule	12 Annual installments from 20.5.2017			
Bond XLVI				
Gross loan opening	64.33	64.33	64.33	64.33
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	64.33	64.33	64.33	64.33
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	64.33	64.33	64.33	64.33
Average Loan	64.33	64.33	64.33	64.33
Rate of Interest	9.30%	9.30%	9.30%	9.30%
Interest	5.98	5.98	5.98	5.98
Rep Schedule	3 equal installments on 4.9.2019, 4.9.2024 & 4.9.2029			
Total Loan				
Gross loan opening	144.33	144.33	144.33	144.33
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	6.67
Net Loan-Opening	144.33	144.33	144.33	137.66
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	6.67	6.67
Net Loan-Closing	144.33	144.33	137.66	131.00
Average Loan	144.33	144.33	141.00	134.33
Weighted Average Rate of Interest	8.54%	8.54%	8.56%	8.59%
Interest	12.33	12.33	12.06	11.53



Annexure-III

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
Details of Loan	2015-16	2016-17	2017-18	2018-19
Bond XXXVIII				
Gross loan opening	100.00	100.00	100.00	100.00
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	100.00	100.00	100.00	100.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	100.00	100.00	100.00	100.00
Average Loan	100.00	100.00	100.00	100.00
Rate of Interest	9.25%	9.25%	9.25%	9.25%
Interest	9.25	9.25	9.25	9.25
Rep Schedule	Bullet Payment on 9.3.2027			
Bond XLIV				
Gross loan opening	150.00	150.00	150.00	150.00
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	150.00	150.00	150.00	150.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	50.00
Net Loan-Closing	150.00	150.00	150.00	100.00
Average Loan	150.00	150.00	150.00	125.00
Rate of Interest	8.70%	8.70%	8.70%	8.70%
Interest	13.05	13.05	13.05	10.88
Rep Schedule	3 equal installments on 15.7.2018, 15.7.2023 & 15.7.2028			
SBI (2014-15) ADD ACP 2015-16				
Gross loan opening	0.00	25.70	25.70	25.70
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening		25.70	25.70	25.70
Additions during the year	25.70	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	25.70	25.70	25.70	25.70
Average Loan	12.85	25.70	25.70	25.70
Rate of Interest	9.55%	9.55%	9.55%	9.55%
Interest	1.23	2.45	2.45	2.45
Rep Schedule				
Bond XLVI				
Gross loan opening	100.00	100.00	100.00	100.00
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	100.00	100.00	100.00	100.00
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00
Net Loan-Closing	100.00	100.00	100.00	100.00



Average Loan	100.00	100.00	100.00	100.00
Rate of Interest	9.30%	9.30%	9.30%	9.30%
Interest	9.30	9.30	9.30	9.30
Rep Schedule	3 equal installments on 4.9.2019, 4.9.2024 & 4.9.2029			
Bond XLVII				
Gross loan opening	69.56	69.56	69.56	69.56
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	69.56	69.56	69.56	69.56
Additions during the year		0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	5.80
Net Loan-Closing	69.56	69.56	69.56	63.76
Average Loan	69.56	69.56	69.56	66.66
Rate of Interest	8.93%	8.93%	8.93%	8.93%
Interest	6.21	6.21	6.21	5.95
Rep Schedule	12 equal installments from 20.10.2018			
Bond LI Add Cap				
Gross loan opening	0.00	5.36	5.36	5.36
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	5.36	5.36	5.36
Additions during the year	5.36	0.00	0.00	0.00
Repayment during the year		0.00	0.00	0.00
Net Loan-Closing	5.36	5.36	5.36	5.36
Average Loan	2.68	5.36	5.36	5.36
Rate of Interest	8.40%	8.40%	8.40%	8.40%
Interest	0.23	0.45	0.45	0.45
Rep Schedule				
Total Loan				
Gross loan opening	419.56	450.62	450.62	450.62
Cumulative Repayment uptoCOD/previous year	0.00	0.00	0.00	0.00
Net Loan-Opening	419.56	450.62	450.62	450.62
Additions during the year	31.06	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	55.80
Net Loan-Closing	450.62	450.62	450.62	394.82
Average Loan	435.09	450.62	450.62	422.72
Weighted Average Rate of Interest	9.02%	9.04%	9.04%	9.06%
Interest	39.26	40.72	40.72	38.28

