

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 264/TT/2017**

**Coram:**

**Shri P. K. Pujari, Chairperson**

**Shri A. K. Singhal, Member**

**Shri A. S. Bakshi, Member**

**Dr. M. K. Iyer, Member**

**Date of Order: 20.07.2018**

**In the matter of:**

Approval of transmission tariff for 400 kV Anta Bay at Kota Sub-station for 400 kV S/C Anta-Kota line (line owned by RVPNL) under "Northern Region System Strengthening Scheme-XXVII" for 2014-19 period in Northern 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  
"Saudamini", Plot No.2,  
Sector-29, Gurgaon -122 001

**.....Petitioner**

**Vs**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg, Jaipur
2. Ajmer Vidyut Vitran Nigam Limited  
400 kV GSS Building, Ajmer Road,  
Heerapura, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited  
400 kV GSS Building, Ajmer Road,  
Heerapura, Jaipur.
4. Jodhpur Vidyut Vitran Nigam Limited  
400 kV GSS Building, Ajmer Road,  
Heerapura, Jaipur
5. Himachal Pradesh State Electricity Board  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171004
6. Punjab State Electricity Board



The Mall, Patiala-147001

7. Haryana Power Purchase Centre  
II Floor Shakti Bhawan, Sector-6  
Panchkula (Haryana) 134109
8. Power Development Department  
Govt. of Jammu & Kashmir,  
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited  
10th Floor Shakti Bhawan, 14, Ashok Marg,  
Lucknow - 226001
10. Delhi Transco Limited  
Shakti Sadan, Kotla Road,  
NewDelhi-110002
11. BSES Yamuna Power Limited  
BSES Bhawan, Nehru Place,  
New Delhi.
12. BSES Rajdhani Power Ltd,  
BSES Bhawan, Nehru Place, New Delhi
13. North Delhi Power Ltd.  
Power Trading & Load Dispatch Group Cennet Building,  
Adjacent to 66/11 kV, Pitampura, Grid Building,  
Near PP Jewellers, Pitampura,  
New Delhi-110034
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-110002

....**Respondents**

**For Petitioner** : Shri Vivek Kumar Singh, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri S. K. Venkatesan, PGCIL  
Shri S. S. Raju, PGCIL  
Shri V. P. Rastogi, PGCIL

**For Respondents** : Shri R. B. Sharma, BRPL



## ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (PGCIL) for determination of tariff of 400 kV Anta Bay at Kota Sub-station for 400 kV S/C Anta-Kota Line (line owned by RVPNL) (hereinafter called the “transmission assets”) under “Northern Region System Strengthening Scheme XXVII” (hereinafter referred to as “transmission system”) for 2014-19 period in Northern Region under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The petitioner has made the following prayers:-

“(i) Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition, as per para -7 above.

(ii) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.

(iii) Allow tariff upto 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 CERC (Terms and Conditions of tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.

(iv) Condone the delay in completion of subject assets on merit of the same being out of the control of Petitioner in line with CERC Regulations' 2014 12(2)(i) "uncontrollable factors"

(v) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, 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 as provided under clause 25 of the Tariff regulations 2014.

(vi) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission(Terms and Conditions of Tariff) Regulations, 2014, and other expenditure (if any) in relation to the filing of petition.

(vii) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

(viii) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2014-19 period, if any, from the respondents.

(ix) Allow the approach the Hon'ble Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike from 01.01.2017 onwards.



(x) Allow the petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (negative) list at any time in future. Further any taxes and duties including cess, etc. imposed by any Statutory/Govt./ Municipal Authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.”

3. The Investment Approval and expenditure sanction for the transmission project was accorded by the Board of Directors (on 6.12.2012) of the petitioner vide Memorandum ref. C/CP/NRSS- XXVII dated 19.12.2012 at an estimated cost of ₹9627 lakh including IDC of ₹445 lakh based on August, 2012 price level. The scope of the scheme was approved in 29<sup>th</sup> Standing Committee Meeting held on 29.12.2010 and 19<sup>th</sup> (special) NRPC Meeting held on 4.1.2011.

4. The scope of work as per Investment Approval includes the following:-

**Transmission Line:**

- (i) LILO of Dehar- Bhiwani 400 kV S/C line at Rajpura Sub-station (PSTCL)
- (ii) LILO of dehar- Panipat 400 kV S/C line at Panchkula Sub-station

**Sub-stations**

- (i) Extension of Rajpura 400/220 kV Sub-station (PSTCL\*)
- (ii) Extension of Panchkula 400/220 kV Sub-station
- (iii) Extension of Kota 400/220 kV Sub-station- 1 no. of 400 kV line bay
- (iv) Extension of Chamera 400/220 kV Pooling Sub-station (GIS) – 1 no. of 220 kV line bay

\* The line bays are to be carried out on deposit work basis by PSTCL on behalf of petitioner

5. The tariff for the instant asset was claimed by the petitioner in Petition No. 62/TT/2015. The petitioner in the said petition had stated that the downstream assets being executed by RRVPNL was not ready. Accordingly, tariff was not granted for the instant asset and the Commission directed the petitioner to file fresh petition seeking tariff for the instant bay after COD of the downstream Anta-Kota Transmission Line



under the scope of RRVPNL. In pursuance of the Commission's directions in order dated 27.5.2016 in Petition No.62/TT/2015, the petitioner has filed the present petition.

6. The transmission charges claimed by the petitioner for the instant bay at Kota are as under:-

(₹ in lakh)				
Asset	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	1.03	32.00	36.91	39.17
Interest on Loan	1.14	34.13	36.59	35.90
Return on Equity	1.12	34.97	40.39	42.90
Interest on Working Capital	0.20	5.88	6.30	6.51
O & M Expenses	2.18	64.37	66.51	68.71
<b>Total</b>	<b>5.67</b>	<b>171.35</b>	<b>186.70</b>	<b>193.19</b>

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

(₹ in lakh)				
Particulars	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	9.36	9.66	9.98	10.31
O & M expenses	5.20	5.36	5.54	5.73
Receivables	27.02	28.56	31.12	32.20
<b>Total</b>	<b>41.58</b>	<b>43.58</b>	<b>46.64</b>	<b>48.23</b>
Interest Rate	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	<b>5.61</b>	<b>5.88</b>	<b>6.30</b>	<b>6.51</b>

8. The petitioner has published notice of this application in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as "the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. RRVPNL (Respondent No. 1), BRPL (Respondent No. 12) and UPPCL (Respondent No. 9) have filed their replies vide affidavits dated 15.5.2018, 16.2.2018 and 30.12.2017 respectively. The petitioner has filed its rejoinder to the said replies vide affidavits dated 12.2.2018, 26.2.2018 and 25.5.2018 respectively. The issues raised by RRVPNL, BRPL and UPPCL and the clarifications given by the petitioner are dealt in relevant paragraphs of this order.



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

10. The details of the other assets covered in the instant project are as under:-

Scope as approved in investment approval	Scheduled COD	COD	Petition No.
LILO of Dehar-Bhiwani 400 kV S/C line at Rajpura Sub-station	6.8.2014	27.6.2016	62/TT/2015
LILO of Dehar-Panipat 400 kV S/C line at Panchkula Sub-station		2.4.2015	
Extension of Chamera 400/220 kV pooling Sub-station (GIS) 1 no. of 220 kV line bay		6.8.2014	
<b>Asset-A:</b> 400 kV anta bay at Kota Sub-station for 400 kV S/C Anta-Kota line (line owned by RRVPNL)		19.3.2016	Instant petition

#### **Date of Commercial Operation (CoD)**

11. The petitioner has submitted that 400 kV Anta Bay at Kota Sub-Station was constructed for 400 kV S/C Anta-Kota Line and the said line is under the scope of RRVPNL. Since the 400 kV S/C Anta-Kota line is yet to be put into commercial operation by RRVPNL, the petitioner is unable to put into commercial operation the 400 kV bay at Anta. Therefore, the petitioner has sought approval of the instant asset as 19.3.2016 in terms of the proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. The petitioner has submitted the COD letter, RLDC certificate and CEA energization letter in respect of the instant asset. The petitioner has further submitted that the instant asset was put into commercial operation prior to the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fourth Amendment) Regulations i.e. 6.4.2017. Hence, the CMD certificate is not issued for the instant bays.



12. RRVPNL has submitted that the delay in execution of 400 kV S/C Anta-Kota line was due to retendering, forest clearance, RoW issues etc. which affected the progress of the bay at Kota under the scope of the petitioner. RRVPNL has submitted that the time over-run in COD of the transmission lines, under its scope, is due to reasons beyond the control of RRVPNL. RRVPNL has submitted that most of the work of the transmission line has been completed and the remaining work is expected to be completed by 31.5.2018.

13. We have considered the submissions of the petitioner and RRVPNL. Proviso (ii) of Regulation 4(3) provides as under:-

“in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.”

14. As per the said provision, if a transmission asset is prevented from being put into regular service for reasons not attributable to the transmission licensee, like the petitioner, but due to delay in COD of upstream or downstream assets, the transmission licensee can approach the Commission for approval of COD of the transmission asset. As per Regulation 5(2) of the 2014 Tariff Regulations, a transmission licensee, including the petitioner is required to submit a certificate from the concerned RLDC certifying the successful charging of the transmission system or an element thereof for 24 hours at continuous flow of power and transmission of communication signal from the sending end to the receiving end and with requisite metering system, telemetry and protection system in service. Further, as per the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2016, the petitioner is required to submit a certificate from the CMD/CEO/MD of the Company to show that the assets concerned conform to the relevant Grid Standard and Grid Code and are capable of operation to their full capacity.



15. The petitioner has submitted the self-declaration COD letter dated 28.4.2016, RLDC certificate dated 4.4.2016 in accordance with Regulation 5(2) of the 2014 Tariff Regulations and the CEA letter dated 15.3.2016 approving the energisation under Regulation 43 of the CEA (Measures relating to safety and Electric Supply) Regulations, 2010 for the instant bays. Taking into consideration the RLDC certificate dated 4.4.2018 certifying the successful completion of trial operation of the transmission element, we approve the COD of the instant bays as 19.3.2016 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations and Regulation 6.3A(4) of the Grid Code, as the petitioner was prevented from putting the bay into commercial operation as the downstream assets under the scope of RRVPNL was not ready. The RRVPNL has claimed that delay in execution of downstream line i.e. 400 kV S/C anta-Kota line was due to re-tendering forest clearance and ROW issues. On the other hand, the petitioner has stated that it delayed COD of its assets to match the downstream assets. We are of the view that the COD of assets in present petition having been decided and that the delay being on account of non-commissioning of downstream assets, RRVPNL shall bear the transmission charges. Accordingly, the transmission charges from the date of commercial operation of the instant bay, which was 19.3.2016 upto the COD of the downstream assets under the scope of RRVPNL will be borne by RRVPNL. Thereafter, the transmission charges shall be included in the PoC charges.

### **Capital Cost**

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





“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

(2) The Capital Cost of a new project shall include the following:

- (a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Increase in cost in contract packages as approved by the Commission;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- (e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

17. The details of approved apportioned cost, capital cost on COD, additional capital expenditure projected to be incurred and estimated completion cost claimed by the petitioner are given below:-

(₹ in lakh)

Approved apportioned cost	Estimated expenditure as on actual COD	Estimated additional capital expenditure				Total completion cost
		2015-16	2016-17	2017-18	2018-19	
750.46	547.08	0.00	96.68	85.49	0.00	729.25

18. BRPL has submitted that it is evident from Form 5 (element-wise break up of project cost for transmission system) that almost all the items have cost over-run and as the supply and erection of the asset have been awarded with escalation in price, the cost over-run may be disallowed. In response, the petitioner has submitted that the



estimated completion cost is ₹729.25 against the approved apportioned cost of ₹750.46 lakh and thus there is no cost over-run.

19. We have examined the submissions of the petitioner as well as BRPL. Against the total apportioned approved cost of ₹750.46 lakh, the estimated completion cost is ₹729.25 lakh which is within the approved apportioned cost. The capital cost upto 31.5.2018 is worked out by adding the additional capitalization upto 31.5.2018 in capital cost of COD.

### **Time over-run**

20. The instant assets were to be put into commercial operation on 6.8.2014 as per the Investment Approval dated 6.12.2012. However, the petitioner has put the instant assets into commercial operation 19.3.2016 and claimed approval of the COD as 19.3.2016 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. Taking into consideration the submissions of the petitioner and RRVPNL, we have already approved the COD of the instant assets as 19.3.2016. Thus, there is a time over-run of 19 months and 13 days in COD of the instant assets.

21. The petitioner has submitted that 400 kV S/C Anta-Kota line along with Anta bay is being made by RRVPNL and bay at Kota for inter-connection of the said line is being made by the petitioner. RRVPNL, in 31st and 33rd NRPC meeting, had stated that 400 kV S/C Anta-Kota line was scheduled to be commissioned by August, 2015. Taking into consideration of matching with the line, the petitioner had postponed the COD of the asset. Further, the petitioner vide letters dated 7.11.2014, 27.11.2014, 15.12.2014, 24.10.2015 and 2.8.2017 to RRVPNL had inquired about the commissioning status of their line for commissioning of the instant asset matching with Anta-Kota Transmission Line of RRVPNL but no response came from RRVPNL. Since the petitioner had



already awarded the contract and work was complete, it was not possible to stretch the timeline beyond a certain limit due to which the asset, bay extension at Kota had to be commissioned w.e.f. 19.3.2016. Accordingly, the petitioner has prayed for condonation of the said delay in completion of the subject assets.

22. In response, RRVPNL has submitted that the delay is due to ROW problems and court cases. BRPL has submitted that the petitioner, being a CTU is required to plan the construction of the transmission system to match with the completion of downstream transmission project in coordination with others. It has further submitted that the petitioner could not be allowed to take advantage by claiming the tariff of the asset which are of no use till the downstream transmission line is constructed and the petitioner should have coordinated with RRVPNL as provided under Section 38(2) of the Electricity Act, 2003. Hence, no tariff should be allowed for the instant bays as per the principle laid down by the Tribunal in the Barh-Balia case. In response, the petitioner has submitted that the petitioner, through various letters to RRVPNL had enquired about the status of the asset but no reply was received. It has also submitted that the elements under its scope have been put into commercial operation and the STU should be made liable for the delay in COD of the assets under its scope.

23. We have considered the submissions of the petitioner, RRVPNL and BRPL. The petitioner has attributed the time over-run purely to the time taken for matching the COD of the instant bay with the COD of the associated transmission lines under the scope of RRVPNL and no other reason has been given by the petitioner for the time over-run. The petitioner has not produced document to show that the COD of the instant bay was postponed to match with the downstream assets under the scope of RRVPNL. We are of the view that the time over-run from the scheduled COD of 6.8.2014 to the deemed COD of 19.3.2016 cannot be condoned and therefore, the IDC



and IEDC for the said period is not capitalised.

24. The details of the IDC and IEDC claimed and allowed is as under:-

(₹ in lakh)		
	Claimed	Allowed
<b>IDC</b>	31.78	10.30
<b>IEDC</b>	16.79	8.52

### **Initial Spares**

25. 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 breakup of head wise IDC & IEDC in its tariff application.”

26. The petitioner has claimed initial spares amounting to ₹41.28 lakh. However, the initial spares claimed by the petitioner is not within the ceiling limit specified in the 2014



Tariff Regulations and accordingly the same is restricted to 6% for Brown field Sub-station in terms of the above said regulation. The details of initial spares claimed and allowed is as under:-

(₹ in lakh)		
Initial spares claimed	Initial spares allowed	Initial spares disallowed
41.28	40.81	0.47

### **Additional Capital Expenditure**

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

“(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.”

28. The petitioner has claimed add-cap for the asset as under:-

(₹ in lakh)	
2016-17	2017-18
98.74	85.49

29. The additional capital expenditure is claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations for Balance and Retention Payments and accrual IDC and therefore the same is allowed.

### **Capital Cost allowed**



30. Based on the above, the capital cost allowed as on COD under Regulation 9(2) of the 2014 Tariff Regulation is summarized as under:-

(₹ in lakh)			
Capital Cost as on COD	2016-17	2017-18	Capital Cost as on 31.3.2019
516.86	96.68	85.49	699.03

### **Debt- Equity Ratio**

31. 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.”

32. The gross loan and equity for instant asset has been considered as on COD. Further, the additional expenditure approved above has been allocated in debt-equity ratio of 70:30.

(₹ in lakh)



<b>Gross Loan 70% as on COD</b>	<b>Equity 30% as on COD</b>	<b>Capital Cost as on COD</b>	<b>Gross Loan 70% as on 31.3.2019</b>	<b>Equity 30% as 31.3.2019</b>	<b>Capital Cost as on 31.3.2019</b>
361.81	155.05	516.86	489.33	209.70	699.03

### **Return on Equity (RoE)**

33. Clause (1) and (2) of Regulation 24 and Clause (1) and (2) of Regulation 25 of the 2014 Tariff Regulations specify as follows:-

“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 nongeneration 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.”

34. The petitioner has submitted that RoE has been calculated at the rate of 19.610% after grossing up the RoE with MAT rate of 20.961% 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. It has further submitted that adjustment due to any additional tax demand including interest received from the authorities shall be recoverable/ adjustable during or after completion of income tax assessment of the financial year.

35. 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 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 details of return on equity calculated are as given under:-

Particulars	(₹ in lakh)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Opening Equity	155.05	155.05	184.06	209.70
Addition due to Additional Capitalization	0.00	29.00	25.65	0.00
Closing Equity	155.05	184.06	209.70	209.70
Average Equity	155.05	169.56	196.88	209.70
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%
<b>Return on Equity (Pre-tax)</b>	<b>1.08</b>	<b>33.25</b>	<b>38.61</b>	<b>41.12</b>

### **Interest on Loan (IoL)**

36. Regulation 26 of the 2014 Tariff Regulations with regard to Interest on Loan specifies 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.”

37. In these calculations, interest on loan has been worked out as hereinafter:-

- i) Gross amount of loan, repayment of installments and rate of interest have been considered as per Form-9C given in the petition.
- ii) The Normative repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.
- iii) 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.

38. The petitioner has submitted that the IoL has been considered on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, for the project needs to be claimed/ adjusted over the tariff block of 5 years directly from the beneficiaries. We would like to clarify that the interest on loan has been calculated on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing up.

39. Detailed calculations in support of interest on loan have been given in the **Annexure** to this order. The details of Interest on Loan calculated are as under:-

Particulars	(₹ in lakh)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Normative Loan	361.81	361.81	429.49	489.33
Cumulative Repayment upto previous Year	0.00	0.99	31.42	66.70
Net Loan-Opening	361.81	360.82	398.07	422.63
Addition due to Additional Capitalization	0.00	67.68	59.84	0.00
Repayment during the year	0.99	30.43	35.28	37.54
Net Loan-Closing	360.82	398.07	422.63	385.09



Average Loan	361.32	379.45	410.35	403.86
Weighted Average Rate of Interest on Loan	8.58%	8.55%	8.53%	8.53%
<b>Interest on Loan</b>	<b>1.10</b>	<b>32.45</b>	<b>34.98</b>	<b>34.44</b>

## Depreciation

40. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies 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

(3) 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 station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

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

Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(2) 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.



(3) 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.”

41. The instant transmission assets were put under commercial operation during 2014-19 tariff period. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

42. Based on the above, the depreciation has been considered as under:-

Particulars	(₹ in lakh)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Gross Block as on COD	516.86	516.86	613.54	699.03
Addition during 2014-19	0.00	96.68	85.49	0.00
Gross Block	<b>516.86</b>	<b>613.54</b>	<b>699.03</b>	<b>699.03</b>
Average Gross Block	<b>516.86</b>	<b>565.20</b>	<b>656.29</b>	<b>699.03</b>
Rate of Depreciation	5.39%	5.38%	5.38%	5.37%
Depreciable Value	465.18	508.68	590.66	629.13
Remaining Depreciable Value	465.18	464.19	433.76	398.48
<b>Depreciation</b>	<b>0.99</b>	<b>30.43</b>	<b>35.28</b>	<b>37.54</b>

### **Operation & Maintenance Expenses (O&M Expenses)**

43. Regulation 29(4) (a) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system based on the type of bays and GIS bays. Norms specified in respect of the elements covered in the instant petition are as under:-

Element	(₹ in lakh)			
	2015-16	2016-17	2017-18	2018-19
400 kV bay (₹ in lakh/bay)	62.30	64.37	66.51	68.71

44. The Petitioner has claimed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. The petitioner has submitted



that O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13.

45. BRPL has submitted that the increase in the employee cost, if any, due to wage revision must be taken care by improvement in their productivity levels by the petitioner company. In response, the petitioner has submitted that the wage revision of the employees is due w.e.f. 1.1.2017 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike from 1.1.2017 onwards, if any.

46. We have considered the submissions of the petitioner and BRPL. The O&M Expenses have been worked out as per the norms specified in the 2014 Tariff Regulations. As regards the impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations. Accordingly, the O&M expenses have been calculated as given below:-

Element	₹ in lakh			
	2015-16	2016-17	2017-18	2018-19
1 no. 400 kV bay COD 19.3.2016	2.22	64.37	66.51	68.71

### **Interest on Working Capital (IWC)**

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

#### **“28. Interest on Working Capital:**

(1) The working capital shall cover:

(c) Hydro generating station including pumped storage hydro electric generating



station and transmission system including communication system:

- (i) Receivables equivalent to two months of fixed cost;
- (i) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
- (ii) Operation and maintenance expenses for one month”

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later”

“(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;”

48. The petitioner is entitled to claim Interest on working capital in terms of 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 of annual 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**

O&M Expenses have been considered for one month as a component of working capital.

**(iv) Rate of Interest on Working Capital**



As per proviso 3 of Regulation 28 of the 2014 Tariff Regulations, SBI base rate plus 350 Bps of 13.50% has been considered for the purpose of calculating interest on working capital.

49. Based on the above, the interest on working capital as determined is shown in the table given below:-

Particulars	(₹ in lakh)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Maintenance Spares	0.33	9.66	9.98	10.31
O & M expenses	0.19	5.36	5.54	5.73
Receivables	0.93	27.71	30.26	31.37
<b>Total</b>	<b>1.45</b>	<b>42.73</b>	<b>45.78</b>	<b>47.40</b>
Interest	<b>0.20</b>	<b>5.77</b>	<b>6.18</b>	<b>6.40</b>

#### **Annual Transmission charges**

50. The annual transmission charges allowed for the instant transmission assets are summarized as follows:-

Particulars	(₹ in lakh)			
	2015-16 (pro-rata)	2016-17	2017-18	2018-19
Depreciation	0.99	30.43	35.28	37.54
Interest on loan	1.10	32.45	34.98	34.44
Return on Equity	1.08	33.25	38.61	41.12
Interest on Working Capital	0.20	5.77	6.18	6.40
O&M Expenses	2.22	64.37	66.51	68.71
<b>Total</b>	<b>5.59</b>	<b>166.27</b>	<b>181.56</b>	<b>188.21</b>

51. The petitioner has submitted that the claim for transmission charges and other charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess and charges or any other kind of impositions etc. The same, if imposed, shall be borne and additionally paid by the respondents. The petitioner is entitled to FERV as provided under Regulation 50 of the 2014 Tariff Regulations and the petitioner can make other claims as per the 2014 Tariff Regulations.

### **Filing Fee and the Publication Expenses**

52. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. We are of the view that the petitioner shall be entitled for reimbursement of the filing fees, publication expenses and licence fee in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause 1 of the Regulation 52 of the 2014 Tariff Regulations.

### **Licence Fee and RLDC fees and Charges**

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

### **Goods and Services Tax**

54. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. GST is not levied on transmission at present and we are of the view that the prayer of the petitioner is premature.

### **Sharing of Transmission Charges**

55. The transmission tariff allowed from the deemed COD of 19.3.2016 upto the COD of the Anta-Kota line shall be recovered from RRVPNL through bilateral billing. Thereafter, it will be included in the PoC pool and shall be shared as per Regulation 43 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014. These charges shall be recovered under the billing collection and disbursement of Transmission Charges and shall be governed by provision of Central





Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010.

56. This order disposes of Petition No. 264/TT/2017.

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

Sd/-  
**(A. S. Bakshi)**  
**Member**

Sd/-  
**(A. K. Singhal)**  
**Member**

Sd/-  
**(P. K. Pujari)**  
**Chairperson**



**Annexure**

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(₹ in lakh)

Sri. no.	Name of loan	Particulars	2015-16	2016-17	2017-18	2018-19
1	SBI 10000 (1.5.2014)	Net opening loan	80.00	80.00	80.00	80.00
		Add: Addition du. the period	-	-	-	-
		Less: Repayment du. the period	-	-	-	-
		Net Closing Loan	<b>80.00</b>	<b>80.00</b>	<b>80.00</b>	<b>80.00</b>
		Average Loan	80.00	80.00	80.00	80.00
		Rate of Interest	9.5500%	9.5500%	9.5500%	9.5500%
		<b>Interest</b>	<b>7.64</b>	<b>7.64</b>	<b>7.64</b>	<b>7.64</b>
	Rep Scheduled					
2	Bond XLIX	Net opening loan	91.17	91.17	91.17	91.17
		Add: Addition du. the period	-	-	-	-
		Less: Repayment du. the period	-	-	-	-
		Net Closing Loan	<b>91.17</b>	<b>91.17</b>	<b>91.17</b>	<b>91.17</b>
		Average Loan	91.17	91.17	91.17	91.17
		Rate of Interest	8.1500%	8.1500%	8.1500%	8.1500%
		<b>Interest</b>	<b>7.43</b>	<b>7.43</b>	<b>7.43</b>	<b>7.43</b>
	Rep Scheduled					
3	BOND LI	Net opening loan	210.35	210.35	211.79	211.79
		Add: Addition du. the period	-	1.44	-	-
		Less: Repayment du. the period	-	-	-	-
		Net Closing Loan	<b>210.35</b>	<b>211.79</b>	<b>211.79</b>	<b>211.79</b>
		Average Loan	210.35	211.07	211.79	211.79
		Rate of Interest	8.4000%	8.4000%	8.4000%	8.4000%
		<b>Interest</b>	<b>17.67</b>	<b>17.73</b>	<b>17.79</b>	<b>17.79</b>
	Rep Scheduled					
4	Bond LVIII	Net opening loan	-	-	45.00	45.00
		Add: Addition du. the period	-	45.00	-	-
		Less: Repayment du. the period	-	-	-	-
		Net Closing Loan	-	<b>45.00</b>	<b>45.00</b>	<b>45.00</b>
		Average Loan	-	22.50	45.00	45.00
		Rate of Interest	7.8900%	7.8900%	7.8900%	7.8900%
		<b>Interest</b>	-	<b>1.78</b>	<b>3.55</b>	<b>3.55</b>
	Rep Scheduled					
1	SBI (2016-2017) (Q4)	Net opening loan	-	-	22.68	22.68
		Add: Addition du. the period	-	22.68	-	-
		Less: Repayment du. the period	-	-	-	-
		Net Closing Loan	-	<b>22.68</b>	<b>22.68</b>	<b>22.68</b>
		Average Loan	-	11.34	22.68	22.68
		Rate of Interest	0.0000%	8.9000%	8.9000%	8.9000%
		<b>Interest</b>	-	<b>1.01</b>	<b>2.02</b>	<b>2.02</b>
<b>Gross Total</b>	Net opening loan	381.52	381.52	450.64	450.64	
	Add: Addition du. the period	0.00	69.12	0.00	0.00	



		Less: Repayment du. the period	0.00	0.00	0.00	0.00
		Net Closing Loan	381.52	450.64	450.64	450.64
		Average Loan	381.52	416.08	450.64	450.64
		<b>Rate of Interest</b>	<b>8.58%</b>	<b>8.55%</b>	<b>8.53%</b>	<b>8.53%</b>
		Interest	32.74	35.58	38.43	38.43

