

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 44/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 : 23.07.2018**

**In the matter of:**

Approval of transmission tariff for **Asset-I:** Rajarhat-Farakka portion of 400 kV D/C Rajarhat-Purnea transmission line including LILO of one ckt of Rajarhat-Purnea transmission line at Farakka and associated line bays at Rajarhat and Farakka along with 2X80 MVAR Switchable line reactor at Rajarhat GIS and 1X80 MVAR line reactor at Farakka Sub-station, **Asset-II:** Farakka-Purnea portion of 400 kV D/C Rajarhat-Purnea transmission line alongwith 02 Nos of 80 MVAR switchable line reactor at Purnea Sub-station, **Asset-III:** LILO of one circuit of Rajarhat-Purnea transmission line at Gokarna and associated line bays at Gokarna alongwith 1X80 MVAR bus reactor at Gokarna Sub-station, **Asset-IV:** LILO of 400 kV S/C Subhasgram – Jeerat line at Rajarhat and associated bays; 01 no. 400/220 kV, 500MVA ICT (1st) and associated bays alongwith 02 nos 220 kV line bays at Rajarhat Sub-station, **Asset-V:** 01 no 400/220 kV, 500 MVA ICT (2nd) and associated bays at Rajarhat Sub-station, **Asset-VI:** 01 no. 125 MVAR Bus Reactor (1<sup>st</sup>) and associated bays at Rajarhat Sub-station, **Asset-VII:** 01 no 125 MVAR Bus Reactor (2nd) and associated bay at Rajarhat Sub-station, **Asset-VIII:** 04 nos 220 kV line bays at Rajarhat Sub-station, **Asset IX:** 02 Nos of 400 kV Line bays for termination of LILO of 02<sup>nd</sup> Ckt of Jamsedpur Rourkela 400 kV Line at Chaibasa Sub-station under Eastern Region Strengthening Scheme-V in Eastern Region from COD to 31.3.2019 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. Bihar State Electricity Board  
Vidyut Bhawan,  
Bailey Road, PATNA - 800 001



2. West Bengal State Electricity Distribution Company Limited  
Bidyut Bhawan, Bidhan Nagar  
Block DJ, Sector-II, Salt Lake City  
Calcutta - 700 091
3. Grid Corporation of Orissa Ltd.  
Shahid Nagar, Bhubaneswar - 751007
4. Damodar Valley Corporation  
DVC Tower, Maniktala, Civic Centre,  
VIP Road, Calcutta - 700 054
5. Power Department  
Govt. of Sikkim, Gangtok - 737 101
6. Jharkhand State Electricity Board  
In Front Of Main Secretariat  
Doranda, Ranchi - 834002

.....**Respondents**

**For Petitioner** : Shri Vivek Kumar Singh, PGCIL  
Shri S. K. Venkatesan, PGCIL  
Shri S. S. Raju, PGCIL  
Shri Rakesh Prasad, PGCIL  
Shri A. Choudhary, PGCIL

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

### **ORDER**

The present petition has been filed by the petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff for **Asset-I:** Rajarhat-Farakka portion of 400 kV D/C Rajarhat-Purnea transmission line including LILO of one ckt of Rajarhat-Purnea transmission line at Farakka and associated line bays at Rajarhat and Farakka along with 2X80 MVAR Switchable line reactor at Rajarhat GIS and 1X80 MVAR line reactor at Farakka Sub-station, **Asset-II:** Farakka-Purnea portion of 400 kV D/C Rajarhat-Purnea transmission line alongwith 02 Nos of 80 MVAR switchable line reactor at Purnea Sub-station, **Asset-III:** LILO of one circuit of Rajarhat-Purnea transmission line at Gokarna and associated line bays at Gokarna alongwith 1X80 MVAR bus reactor



at Gokarna Sub-station, **Asset-IV:** LILO of 400 kV S/C Subhasgram – Jeerat line at Rajarhat and associated bays; 01 no. 400/220 kV, 500MVA ICT (1st) and associated bays alongwith 02 nos 220 kV line bays at Rajarhat Sub-station, **Asset-V:** 01 no 400/220 kV, 500 MVA ICT (2nd) and associated bays at Rajarhat Sub-station, **Asset-VI:** 01 no. 125 MVAR Bus Reactor (1<sup>st</sup>) and associated bays at Rajarhat Sub-station, **Asset-VII:** 01 no 125 MVAR Bus Reactor (2nd) and associated bay at Rajarhat Sub-station, **Asset-VIII:** 04 nos 220 kV line bays at Rajarhat Sub-station, **Asset IX:** 02 Nos of 400 kV Line bays for termination of LILO of 02<sup>nd</sup> Ckt of Jamsedpur Rourkela 400 kV Line at Chaibasa Sub-station (hereinafter referred to as “transmission assets”) under Eastern Region Strengthening Scheme-V in Eastern Region (hereinafter referred to as “transmission system”) for 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. The system strengthening scheme in ER was discussed and agreed by CEA and beneficiaries of ER to be implemented by the petitioner as a regional strengthening scheme (ERSS-V) during SCM on power system planning of ER held on 20.9.2010 and 28.12.2010 and subsequently during 16<sup>th</sup> ERPC and 17<sup>th</sup> ERPC meeting held on 17.12.2010, 18.12.2010 and 17.3.2011.

3. The Investment Approval (IA) for implementation of "Eastern Region Strengthening Scheme-V (ERSS-V)" was accorded by the Board of Directors of the petitioner vide the Memorandum Ref: C/CP/ERSS-V dated 31.10.2013 at an estimated cost of ₹136452 lakh including an IDC of ₹5911 lakh (based on August, 2013 price level). Further, Revised Cost Estimate (RCE) of the instant assets was approved by the board of directors of the petitioner vide



Memorandum dated 30.3.2017 for ₹189141 lakh including an IDC of ₹13969 lakh (based on December, 2016 price level).

4. The petitioner has made the following prayers:-

“(a) Approve the Transmission Tariff for the tariff block 2014-19 block for the assets covered under this petition, as per para –7.2 above.

(b) Allow tariff as 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.

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

(d) Allow the petitioner to “Invoke the provision of regulation -4(3)(ii) of CERC (Terms and Conditions of Tariff) Regulations’ 2014 and Regulation – 24 of CERC (Conduct of Business) Regulations’ 1999 for approval of COD of Asset as 31.8.2016”.

(e) Tariff may be allowed on the estimated completion cost, since few elements of the project are yet to be completed, the completion cost for the assets covered under instant Petition are within the overall project cost.

(f) 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.

(g) 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.

(h) Allow the petitioner to bill and recover Licensee fee and RLDC fees and

(i) Charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

(j) 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.

(k) Allow the Petitioner to bill and recover 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. Further, any taxes and duties including cess etc. imposed by any statutory/Govt/municipal authorities shall be allowed to be recovered from the beneficiaries.

(I) Allow the Petitioner if GST is imposed on transmission charges under the proposed GST the same may be allowed to be recovered from the beneficiaries.”

5. The scope of work covered under the transmission system is broadly as follows:-

**Transmission Lines:**

- Rajarhat - Purnea 400 kV D/c line (with triple snowbird conductor with LILO of one circuit at Gokarna (WBSETCL) and other circuit at Farakka (NTPC)
- LILO of Subhashgram – Jeerat 400 kV S/C line at Rajarhat.

**Sub-stations:**

- Establishment of new 400/220 kV, 2x500 MVA Gas insulated sub-station at Rajarhat in West Bengal.
- Extension of 400/220 kV Purnea (POWERGRID) Sub-station
- Extension of 400 kV Gokarna (WBSETCL), Farakka (NTPC) and Chaibasa (POWERGRID) Sub-stations.

**Reactive Compensation**

Srl. No.	Transmission Line	From End	To End
1	Rajarhat Farakka S/C line	1x80 MVAR (Switchable)	1x80 MVAR
2	Rajarhat – Gokarna S/C	1x80 MVAR (Switchable)	0
3	Purnea – Gokarna S/C	1x80 MVAR (Switchable)	0
4	Purnea – Farakka S/C	1x80 MVAR (Switchable)	0

**Bus Reactor**

- 2x125 MVAR at Rajarhat;



- 1x80 MVAR at Gokarna

6. The petitioner, vide affidavit dated 8.5.2017, had revised the COD/(anticipated COD) of the assets covered in the instant petition as under:-

Name of Asset	Status of COD
<b>Asset-I(a):</b> Farraka-Gokarna Portion of 400 kV D/C Rajarhat-Purnea Line including LILO at Farakka and Gokarna and associated line bays	31.3.2017 (Actual)
<b>Asset-I(b):1X80 MVAR Switchable line reactor alongwith associated bays at Farakka Sub-station</b>	30.4.2017 (Actual)
<b>Asset-I(c):</b> Rajarath-Gokarna portion of 400 kV Rajarhat-Purnea portion alongwith associated bays at Rajarhat GIS, alongwith 02 nos of switchable line reactor at Rajarhat GIS	30.9.2017 (Anticipated)
<b>Asset-II:</b> Farakka-Purnea portion of 400 kV D/C Rajarhat-Purnea TL alongwith 02 Nos of 80 MVAR switchable line reactor at Purnea Sub-station	30.9.2017 (Anticipated)
<b>Asset-III:</b> 1X80 MVAR bus reactor alongwith associated bays at Gokarna Sub-Station (Remaining portion of Asset clubbed with Asset-I(a))	30.4.2017 (Actual)
<b>Asset-IV:</b> LILO of 400 kV S/C Subhasgram – Jeerat line at Rajarhat and associated bays; 01 no. 400/220 kV, 500 MVA ICT (1st) and associated bays alongwith 02 nos 220 kV line bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-V:</b> 01 no 400/220 kV, 500 MVA ICT (2nd) and associated bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-VI:</b> 01 nos 125 MVAR Bus Reactor (1 <sup>st</sup> ) and associated bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-VII:</b> 01 nos 125 MVAR Bus Reactor (2nd) and associated bay at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-VIII:</b> 04 nos 220 kV line bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-XI:</b> 02 Nos of 400 kV Line bays for termination of LILO of 02 <sup>nd</sup> Ckt of Jamshedpur Rourkela 400 kV Line at Chaibasa Sub-station	22.11.2016 (Actual)

7. Subsequently, vide affidavit dated 13.6.2017, the petitioner has submitted that the Asset I(b) and Asset-III were put into commercial operation on the same date i.e. 30.4.2017. Hence, they both are treated as a single asset and named herein as Asset-III. Accordingly, Asset-I(c) is renumbered as Asset-I(b). Therefore, the current status of assets, submitted by the petitioner is mentioned as below:-

Name of Asset (revised/ current status)	Current COD status
<b>Asset-I(a):</b> Farraka-Gokarna Portion of 400kV D/C Rajarhat-Purnea Line including LILO at Farakka and Gokarna and associated line bays	31.3.2017 (Actual)
<b>Asset-I(b):</b> Rajarath-Gokarna portion of 400 kV Rajarhar-Purnea	30.9.2017



portion alongwith associated bays at Rajarhat GIS, alongwith 02 Nos of switchable line reactor at Rajarhat GIS	(Anticipated)
<b>Asset-II:</b> Farakka-Purnea portion of 400kV D/C Rajarhat-Purnea TL alongwith 02 Nos of 80 MVAR switchable line reactor at Purnea S/s	30.9.2017 (Anticipated)
<b>Asset-III:</b> 1X80 MVAR bus reactor alongwith associated bays at Gokarna Sub-station and 1X80 MVAR Switchable line reactor alongwith associated bays at Farakka Sub-Station	<b>30.4.2017 (Actual)</b>
<b>Asset-IV:</b> LILO of 400kV S/C Subhasgram – Jeerat line at Rajarhat and associated bays; 01 no. 400/220kV, 500MVA ICT (1st) and associated bays alongwith 02 nos 220kV line bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-V:</b> 01 no 400/220 kV, 500 MVA ICT (2nd) and associated bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-VI:</b> 01 no 125 MVAR Bus Reactor (1st) and associated bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-VII:</b> 01 no 125 MVAR Bus Reactor (2nd) and associated bay at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-VIII:</b> 04 nos 220 kV line bays at Rajarhat Sub-station	30.9.2017 (Anticipated)
<b>Asset-IX:</b> 02 Nos of 400kV Line bays for termination of LILO of 02nd Ckt of Jamshedpur Rourkela 400 kV Line at Chaibasa S/S	22.11.2016 (Actual)

8. The tariff is computed in the instant petition only for Asset-I(a), Asset-III and Asset-IX out of nine assets and we direct the petitioner to file a separate petition for Asset-I(b), Asset-II, Asset-IV, Asset-V, Asset-VI, Asset-VII and Asset-VIII after these assets achieve their respective CODs.

9. Annual Fixed Charges was allowed for Asset-IX only in order dated 15.6.2017 under Regulation 7(7) of the 2014 Tariff Regulations for inclusion in the PoC computation.

10. The details of the transmission charges claimed by the petitioner are as under:-

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	3.60	1472.66	1694.99
Interest on Loan	4.16	1633.97	1747.79
Return on Equity	4.13	1688.10	1935.66
Interest on Working Capital	0.31	123.32	136.67
O&M Expenses	0.94	359.41	371.32
<b>Total</b>	<b>13.14</b>	<b>5277.46</b>	<b>5886.43</b>

(₹ in lakh)



(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	92.34	128.72	11.93	41.87	49.13
Interest on Loan	96.23	126.20	12.49	41.66	45.65
Return on Equity	102.88	143.42	13.05	45.78	53.79
Interest on Working Capital	12.75	15.87	3.23	9.78	10.43
O&M Expenses	122.30	137.42	46.13	133.02	137.42
<b>Total</b>	<b>426.50</b>	<b>551.63</b>	<b>86.83</b>	<b>272.11</b>	<b>296.42</b>

11. The details of the interest on working capital claimed by the Petitioner are as under:-

(₹ in lakh)

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	32.92	33.96	35.09
O&M expenses	18.29	18.87	19.49
Receivables	791.49	856.25	956.97
<b>Total</b>	<b>842.70</b>	<b>909.08</b>	<b>1011.55</b>
Interest	0.2955	116.36	129.48
Rate of Interest	12.80%	12.80%	12.80%

(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	19.95	20.61	19.31	19.95	20.61
O&M expenses	11.08	11.45	10.73	11.09	11.45
Receivables	77.31	71.94	40.38	45.35	49.40
<b>Total</b>	<b>108.34</b>	<b>104.00</b>	<b>70.42</b>	<b>76.39</b>	<b>81.46</b>
Interest	12.77	13.31	3.21	9.78	10.43
Rate of Interest	12.80%	12.80%	12.80%	12.80%	12.80%

12. 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. Bihar State Power (Holding) Company Limited (BSP(H)CL), Respondent No. 1 has filed reply vide affidavit dated 6.3.2018. BSP(H)CL has raised issue of time over-run, cost over-run, effective tax rate, reimbursement of expenditure towards filing fee, license fee etc. The petitioner has filed rejoinder dated 13.4.2018 to the reply of BSP(H)CL. The objections raised by the





respondents and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

13. BSP(H)CL has submitted that the petitioner has not furnished the Transmission Service Agreement (TSA) and as per Regulation 3(63) of the 2014 Tariff Regulations, the petitioner is required to submit the TSA. BSP(H)CL further submitted that the petitioner in Petition No. 125/TT/2016 has claimed the TSA signed in response to Regulation 13 (5) of the Central Electricity Regulatory Commission (Sharing of the inter-State Transmission Charges and Losses) Regulation, 2010 as the TSA under Regulation 3 (63) of 2014 Tariff Regulations is without any basis and is misconceived. In response, the petitioner has submitted that time and again this issue has been taken up with BSP(H)CL for signing of the TSA. It has not been signed by them so far. However, in absence of the same, the model TSA holds good as per the order of the Commission.

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

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

15. As per the Investment Approval dated 23.10.2013, the scheduled COD of the instant assets was 23.4.2016. The petitioner has submitted that Asset I(a), Asset-III and Asset-IX were put under commercial operation on 31.3.2017, 30.4.2017 and 22.11.2017 respectively. In support of COD of Asset-I(a), III and IX, the petitioner has submitted RLDC charging Certificates dated 15.5.2017, 8.5.2017 and 16.5.2017, CEA Certificates dated 27.3.2017, 6.12.2016 and 30.9.16 under Regulation 43 of CEA (Measures Related to Safety & Electricity Supply) Regulations, 2010 and CMD certificate dated 25.8.2017 and 1.3.2018 as

required under Grid Code. Accordingly, the COD of the Assets I(a), III and IX is approved as 31.3.2017, 30.4.2017 and 22.11.2016 respectively.

16. The petitioner has sought approval of COD of Assets-IV and VIII under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as they are prevented from being put to use because of the delay in COD of the downstream assets under the scope of WBSETCL. However, the petitioner has not submitted any documentary evidence like “No load” charging certificate and CEA Energisation certificate to show that the Assets-IV and VIII were ready for from 31.12.2016. Accordingly, the tariff is not determined for Assets-IV and VIII in this order.

17. Further, Assets-1(b), V, VI and VII have not been put into commercial operational. Accordingly, the petitioner was directed vide ROP dated 7.3.2018 to submit a fresh petition for determination of the other assets after their COD. The petitioner, vide affidavit dated 23.5.2018, has submitted that a fresh petition will be filed claiming tariff for Assets-1 (b), II, IV, V, VI, VII, VIII on their actual COD. Accordingly, the COD of the Assets I(a), III and IX is only determined in this order as stated in para 15.

### **Capital Cost**

18. 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; 39

(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.”

19. The petitioner vide affidavit dated 13.6.2017 has submitted the Auditor Certificate dated 16.5.2017 and 6.12.2016 along with revised tariff forms for Assets I (a), Asset-III and Asset-IX. The details of approved apportioned cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred during 2016-17, 2017-18 and 2018-19 along with estimated completion cost for the instant asset covered in the petition and considered for the purpose of computation of tariff are as under:-

(₹ in lakh)

Asset	Apportioned Approved Cost	Apportioned Approved Cost (As per RCE)	Cost as on COD	Estimated additional capital expenditure			Total Estimated Completion Cost
				2016-17	2017-18	2018-19	
Asset-I(a)	23151.81	36980.89	26548.25	-	4704.02	3300.00	34552.54
Asset-III	1457.08	2642.26	1545.12	-	718.37	350.00	2613.49
Asset-IX	1053.27	n/a	550.22	171.34	128.51	128.51	978.58



20. We have considered the submissions of the petitioner. It is observed that the petitioner has not submitted the apportioned approved cost (as per RCE) in respect of Asset-IX. However, estimated completion cost claimed for Asset-IX is within the FR apportioned approved cost. The completion cost of Asset-IX has been considered, subject to the submission of apportioned approved cost (as per RCE) at the time of true-up.

### **Cost Over-Run/Variation**

21. The petitioner has submitted that the price variation under the project is attributable to the inflationary trend prevailing during execution of project and also market forces prevailing at the time of bidding process of various packages. The petitioner further submitted that the contracts for various packages under this project were awarded to the lowest evaluated and responsive bidder, on the basis of global/domestic competitive bidding, after publication of NITs in leading newspapers. Thus, the award prices represent the lowest prices available at the time of bidding of various packages. During the period from October, 2013 (first OBD under the project) to August, 2016 (period of major supplies), there has been inflationary trend in the prices of various input items for the project.

22. The petitioner further submitted that there is a variation in quantities of approved items. The line length, number and type of towers have been considered as per detailed survey carried out during execution of the project as per available RoW. During implementation, total line length of transmission lines under the project has increased from 457 km to about 483 km. Further, OPGW was also used in all the transmission lines under the project in place of earth wire (Used one side only). On account of this, there has been variation in quantities of various items such as tower steel, conductor, concrete and reinforcement has

increased.

23. BSP(H)CL submitted that the petitioner has not specified the reasons for cost variation in Form-5. The petitioner has claimed inflationary trend for cost over-run, the same has not been justified with inflationary figures. The petitioner was expected to inform the indices of various items on the date of its manufacture and not during the entire scheduled period of completion which is of no consequence. The cost over-run should not be allowed without furnishing proper justification and reasons. In response, the petitioner submitted that the reasons for cost over-run have been submitted along with item-wise variation in respective Form 5 of the assets.

24. We have considered the submissions of the petitioner and respondent. As compared with apportioned approved cost as per (FR), the estimated completion cost has varied by about 49.2% and 79.36% for Asset-1(a) and Asset-III respectively.

25. As compared with apportioned approved cost, the estimated completion cost of Asset-1(a) is ₹34552.52 lakh. Hence, there is cost variation of about ₹11400.71 lakh as compared with apportioned approved cost. As per Form-5 submitted by the petitioner the following is observed with respect to cost variation and the same is as follows:-

**(₹ in lakh)**

<b>Particulars</b>	<b>Estimated amount</b>	<b>Actual amount</b>	<b>Variation</b>	<b>Reasons for variation</b>
Total preliminary works	584.43	4297.95	3713.52 (635%)	As per actual
Tower steel	5072.98	7971.41	2898.43(57.13%)	Due to price variation and as per actual.
Conductor	4929.55	7030.59	2101.04(42.62%)	
Earth Wire	105.73	261.94	156.22	
Insulators	819.17	1289.91	470.75	



26. From the above it is observed that the cost over - run was mainly due to the inflationary trend prevailing during execution of project and market forces prevailing at the time of bidding process, actual site conditions and on account of variation in quantities of various items such as tower steel, conductor, earth wire, insulators which were beyond control of petitioner. Hence, the cost variation of Asset-1(a) is considered for granting tariff.

27. As compared with apportioned approved cost, the estimated completion cost of Asset- III is ₹2613.49 lakh. Hence, there is cost variation of about ₹1156.41 lakh as compared with apportioned approved cost. As per Form-5 submitted by the petitioner, the following is observed with respect to cost variation:-

(₹ in lakh)			
Particulars	Estimated amount	Actual amount	Variation
Foundation for Structures	90.41	362.97	272.57
Compensating equipment	739.71	1404.16	664.45
Emergency D.G. Set	0.00	152.09	152.09

28. From the above, it is observed that cost over-run was mainly due to the inflationary trend prevailing during execution of project and market forces prevailing at the time of bidding process, actual site conditions and on account of variation in quantities of various items such as foundation structures, compensating equipment, inclusion of D.G set which were beyond control of petitioner. Therefore, the cost variation for Asset-III has been considered for the purpose of tariff.

### **Time over-run**

29. As per the investment approval dated 23.10.2013, the instant assets were scheduled to be commissioned within 30 months from the date of investment approval. Accordingly, the scheduled date of commercial operation was

23.4.2016 against which instant assets i.e. Assets I (a), Asset-III and Asset-IX were put under commercial operation on 31.3.2017, 30.4.2017 and 22.11.2016 respectively. Hence, there is time over-run of 7-12 months in COD of the instant assets.

30. The petitioner has submitted the details of factors leading to the time over-run which are as under:-

**a) Delay due to ROW constraints:**

The petitioner has submitted that during implementation of Rajarhat–Purnea line and LILO lines at Gokarna and Farakka, severe RoW problems were encountered in certain stretches of transmission line from local people/villagers since July 2015. In spite of payment of applicable compensation for tree/crop damages, villagers/land owners were continuously demanding higher compensation. Construction works were stopped frequently by villagers/land owners affecting completion of the project. To resolve this, petitioner sought help from local authorities and State administrations. A series of letters were written to State authorities to resolve the issues and to resume the construction activities at site. Further, in some cases land owners were demanding the diversion of transmission line from their land. In order to resolve this, petitioner conducted several meetings with village Pradhan/land owners and tried to convince them that diversion of transmission line is not possible on account of technical issues. The matter has been repeatedly raised to District administration and State Govt. authorities. After intervention of administration through Police and constant persuasion by POWERGRID officials, work could resume. In this way construction of main transmission line along with LILO lines was going on and the entire work was expected to complete progressively by



September, 2017. The chronology of above mentioned events is tabulated as below:-

<b>Date</b>	<b>Remarks</b>
6.7.2015	Letter from POWERGRID to DM, Nadia, requesting him to resolve the issue under Section 16 of Telegraph Act at Loc. No. AP 79/0 in the concerned area.
6.7.2015	Letter from POWERGRID to SDM, North Pgs., requesting him to take action against miscreants hampering the foundation works at Loc. 54/3, 54/4, & 54/5.
8.9.2015	Letter from POWERGRID to BDO, Bhuiagar, South Paragana, requesting action against locals obstructing construction work at Loc. AP-14/0.
14.9.2015	Letter from POWERGRID to DM, Nadia, requesting him to resolve the issue under Section 16 of Telegraph Act at Loc. No. 86/3, 85/0, 87/0 & 87/1 in the concerned area.
10.12.2015	Letter from POWERGRID to SDM, North Pgs., requesting him to take action against people obstructing the foundation works at various Loc.
22.12.2015	Letter from POWERGRID to SDM, North Pgs., requesting him to take action against people obstructing the foundation works at Loc. 7B/1.
14.1.2016	Letter from POWERGRID to SDM, North Pgs., requesting him to take action against people obstructing the foundation works at Loc. 54/5.
9.2.2016	Letter from POWERGRID to DM, Nadia, requesting him to resolve the issue under Section 16 of Telegraph Act at few locations in the concerned area as no outcome has been there pursuant to previous meetings of local administration.
10.2.2016	Letter from POWERGRID to DM, Nadia, requesting him to resolve the issue under Section 16 of Telegraph Act at few locations in the concerned area.
11.2.2016	Letter from POWERGRID to SDM, North Pgs., requesting him to take action against miscreants hampering the construction works at Loc. 54/3, 54/4, & 54/5.
10.6.2016	Letter from POWERGRID to Home Secretary, Govt. of West Bengal, intimating him of re-occurring ROW issue during construction of Rajarhat-Purnea TL and requesting him to take up the matter with the concerned authorities for aiding in expediting the construction work.
17.6.2016	Letter from DM, Nadia to SDO, Ranaghat, Nadia Distt. For extending help to POWERGRID in view of continuous ROW issue faced during line construction.
20.6.2016	Meeting was convened by SDO (Baruipur) with presence of local villagers and their leaders & representatives wherein the locals were persuaded to be in favour of the construction of this project.
14.6.2016	Letter from POWERGRID to DM, South Pgs., requesting his intervention to resolve ROW issue at Loc. 1/0, 4/0, 5/0, 5A/0 & 5/2, 5/3.
14.6.2016	Letter from POWERGRID to DM, Nadia, requesting his intervention to resolve ROW issue at Loc. 80/0, 81/0, 86/3, 86/4, 87/0, 84B/0 & 85/0.
24.6.2016	Letter from Deputy Secretary, Govt. of West Bengal to DG & IG, Police, West Bengal requesting on behalf of POWERGRID for taking necessary action in the related matter.
12.8.2016	Letter from POWERGRID to Additional Secretary (POWER), Govt. of West Bengal requesting his kind intervention to resolve Row issue in the concerned construction area.
17.8.2016	Meeting of POWERGRID officials with Principal Secretary, POWER, Govt.





	of West Bengal highlighting the concern regarding ROW and worsening Law & Order.
22.8.2016	Meeting with Additional Secretary (POWER), Govt. of West Bengal seeking his help in timely completion of project already plagued by ROW issues.
23.8.2016	Letter from POWERGRID to Additional Secretary (POWER), Govt. of West Bengal requesting his kind intervention for early completion of this transmission project.
1.9.2016	Letter from Joint Secretary, Govt. of West Bengal to DM, Nadia/Parganas/Murshidabad asking them to take necessary action for timely completion of the transmission project of POWERGRID.
7.9.2016	Letter from POWERGRID to DM, South Pgs., requesting his intervention for smooth completion of balance works of this transmission project.
07.09.2016	Letter from POWERGRID to Superintendent of Police, South Pgs., requesting his intervention for smooth completion of balance works of this transmission project.
07.09.2016	Letter from POWERGRID to Deputy Superintendent of Police (Crime), South Pgs., requesting his intervention for smooth completion of balance works of this transmission project.
10.09.2016	Letter from POWERGRID to Superintendent of Police, South Pgs., requesting his intervention for smooth completion of 10% balance works of this transmission project.
10.09.2016	Letter from POWERGRID to DM, South Pgs., requesting his intervention for smooth completion of 10% balance works of this transmission project.
02.11.2016	Letter from Joint Secretary, Govt. of West Bengal to DM, Nadia/Parganas/Murshidabad asking them to take necessary action for timely completion of the transmission project of POWERGRID.
08.11.2016	Meeting held between POWERGRID with Chief Secretary, Govt. of West Bengal.
19.12.2016	Letter from POWERGRID to SP, South Paragana, intimating about continuous disruption in TL construction by means of crude bomb blasts nearby construction site and misguiding by antisocial by way of leaflet distribution among locals and further requesting him to investigated the matter and take suitable action promptly.
30.12.2016	Letter from POWERGRID to OIC, Khargram Police station, Musrhidabad, West Bengal, requesting to resolve ROW at Loc. 16/0.
04.01.2017	Letter from POWERGRID to SDO, Kandi, Musrhidabad, West Bengal, requesting to resolve ROW at Locs. 17/0 to 18/0 & 16/0 to 17/0 while carrying out stringing works.
06.01.2017	Letter from POWERGRID to IIC, Farakka Police station, West Bengal, requesting to resolve ROW at Loc. 3/0.
24.01.2017	Letter from POWERGRID to OIC, Khargram Police station, Musrhidabad, West Bengal, requesting to resolve ROW at Loc. 16/0.
02.02.2017	Letter from POWERGRID to SDO, Kandi, Murshidabad, West Bengal, requesting to resolve ROW wherein land owners have forcibly stopped the works.
10.02.2017	
27.02.2017	Letter from POWERGRID to OIC, Khargram Police station, Musrhidabad, West Bengal, requesting to resolve ROW wherein land owners have forcibly stopped the works.
02.03.2017	Letter from POWERGRID to SDO, Kandi, Murshidabad, West Bengal, requesting to resolve ROW wherein land owners have forcibly stopped the works.
15.03.2017	Letter from POWERGRID to IIC, Farakka Police station, West Bengal, requesting to resolve ROW between Locs. 3/0 to 4/0 while carrying out



	stringing works.
26.03.2017	Letter from POWERGRID to OIC, Khargram Police station, Murshidabad, West Bengal, requesting to resolve ROW wherein land owners have forcibly stopped the works.
Due to incessant violent agitations by local villagers/land owners, the <b>balance works of the transmission line and Rajarhat sub-station</b> in the district of South Pargana & South Pargana had to be suspended from Jan'2017 onwards.	
The matter has already been taken up with higher authority of Govt. of West Bengal. Appreciating the complexity, Govt. of WB had assured that the matter is under consideration. State administration had taking several steps to mitigate agitation and took proactive action for resolving the statement such that the balance work could be completed at the earliest. However, aggrieved by the slow pace of progress, POWERGRID had to request Centre Govt. for intervention in the same.	
12.07.2017	Meeting of PMG (Project Monitoring Group <i>under aegis of Central Govt. Cabinet Secretariat</i> ), with the Chief Secretary, Govt. of West Bengal, wherein one of the critical agendas included the severe ROW issue plaguing the ERSS-V project.

**b) Delay due to Court Case at Loc. 121/9 and Loc. 123/0 of Farakka-Gokarna portion of Rajarhat –Purnea TL:**

The petitioner has submitted that there are some court cases pending in courts wherein the land owners have taken to court against transmission line being constructed by the petitioner on their fields. Land owner at location no. 121/9 and 123/0 filed a petition in the Court on 28.9.15 and 4.3.2016 respectively. The stay order was issued for both the locations which lead to stoppage of work. About 16 months has been lost due the above mentioned Court cases.

**c) Delay in Shutdown approval:**

The COD of Asset-1(a) was affected by inordinate delay in receiving approval for necessary shutdown from various agencies/enterprises such as NHAI, Railways, State PWD, WBSEDCL, etc. The time consumed in receiving shutdown approval from these agencies is tabulated below:-

SI No.	Loc.	Name of Agency	S/D Applied on Date	S/D Approved on Date	Delay
1	156/0-156/1	NH Wing	25.3.2015	18.12.2015	268 days
2	157/0-158/0	Eastern Railway	5.6.2015	22.11.2016	536 days



3	164/0-165/0	Eastern Railway	8.6.2015	19.12.2016	506 days
	Mast no. 159/3-4	Eastern Railway	7.10.2015	3.8.2016	301 days
4	3/0-4/0	WBSETCL (220 kV line crossing)	23.7.2015	16.11.2015	116 days
5	5/0-6/0	WBSETCL (220 kV line crossing)	23.7.2015	9.11.2015	109 days
6	162/0-163/0	WBSEDCL (33kV & 11 kV line crossing)	8.3.2016	24.5.2016	77 days
7	151/0-152/0	WBSEDCL (11 kV line crossing)	17.3.2017	15.5.2017	59 days
8	143/0-143/6	WBSEDCL (33 kV & 11 kV line crossing)	23.3.2016	9.6.2016	78 days
9	152/0-152A/	11 kV WBSEDCL (11kV line crossing)	25.3.2016	9.6.2016	76 days
10	156/1-157/0	11 kV WBSEDCL (11kV line crossing)	2.4.2016	12.5.2016	40 days
11	152A/0-153/0	11 kV WBSEDCL (11kV line crossing)	5.4.016	24.6.2016	80 days
12	156/0-156/1	11 kV WBSEDCL (11kV line crossing)	7.5.2016	17.11.2016	194 days
13	150/0-151/0	11 kV WBSEDCL (11kV line crossing)	25.5.2016	9.12.2016	198 days
14	153/0-154/0	WBSEDCL (11kV line crossing)	25.9.2016	5.11.2016	41 days
15	165/1-166/0	WBSEDCL (33kV & 11kV line crossing)	4.11.2016	11.12.2016	37 ays

31. The petitioner has submitted the PERT chart and task details as follows:-

Srl. No	Task Name	Start	Finish	Time period
1.	Common transmission system associated with east Coast Energy Pvt. Ltd. & NCC Power Project Ltd. LTOA generation projects in Srikakulam	31.7.13	22.4.16	33 months
2.	Investment clearance by BOD	23.10.13	23.10.13	-
3.	Construction of 400 KV D/C Rajarhat - Purnea Line	21.11.13	22.4.16	29 months
4.	LOA	21.11.13	21.11.13	-
5.	Supplies	20.2.14	23.12.15	22 months 3 days
6.	Forest Approval	10.2.14	15.10.14	8 months 6 days
7.	Foundation	26.3.14	30.11.15	20 months 5 days
8.	Tower Erection	27.5.14	29.1.16	20 months 3 days
9.	Stringing	22.10.14	22.3.16	17 months



10.	Testing & Commissioning	23.3.16	22.4.16	31 days
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32. With regard to delay in commissioning of Asset-III, the petitioner has submitted that though reactors have been installed at the existing sub-stations (i.e. Gokarna and Farakka), these could be operationalised only after commissioning of Asset-I (a) so as to serve the useful purpose. Hence, the delay in completion of the subject assets may be condoned on merit as the same being beyond the control of petitioner in line with an uncontrollable factor as stipulated under Regulation 12 (2) of 2014 Tariff Regulations.

33. BSP(H) CL has submitted that the time over-run is entirely attributable to the slackness of the petitioner in the project management for which petitioner is solely responsible. In response, the petitioner has submitted that the reasons for time over-run of the subject assets have been mentioned in the main petition along with supporting documents.

34. We have considered the submissions of the petitioner and perused documents on record regarding time over-run. As per the Investment Approval dated 23.10.2013, the scheduled COD was 23.4.2016. The COD of Asset-1(a), III and IX is 31.3.2017, 30.4.2017 and 22.11.2016 with corresponding delay of 11 months 8 days, 12 months 7 days and 7 months respectively. The petitioner was facing ROW problems from 6.7.2015 to 26.3.2017. The petitioner took almost 20 months 20 days to resolve the ROW issues. We are of the view that delay due to ROW issue was beyond the control of the petitioner and accordingly, the time over-run of 11 months 8 days in case of Asset-1(a) is condoned.

35. With regard to Asset-III, the petitioner has submitted that the reactors (bus reactors at Gorkhana and line reactor at Farakka) are installed at the existing sub-



station i.e. Gokarna and Farakka. The Asset-III could be put into commercial operation only after the COD of the Asset-1(a). The COD of Asset-I(a) was 31.3.2017 and hence Asset-III should have also been put into commercial operation simultaneously on 31.3.2017. However, it was put into commercial operation on 30.4.2017 and the petitioner has not explained the time over-run from 31.3.2017 to 30.4.2017. Accordingly, the time over-run from 31.3.2017 to 30.4.2017 is not condoned. Out of the total delay of 12 months 7 days in case of Asset-III, the delay of only 11 months has been condoned.

36. With regard to Asset-IX, the petitioner has not submitted any documentary evidence to substantiate the time over-run of 7 months. Hence, the time over-run of 7 months in case of Asset-IX has not been condoned.

#### **Interest During Construction (IDC)**

37. The petitioner has claimed IDC of ₹2596.65 lakh, ₹91.10 lakh and ₹22.12 lakh in respect for Asset-I(a), Asset-III and Asset-IX respectively. The IDC on cash basis up to allowable dates has been worked out on the basis of the loan details given in Form-9C. It is submitted that petitioner has not made any default in the payment of interest. IDC claimed by the petitioner, in case of Asset-I, is lower than that worked out. On the other hand, for remaining assets, IDC claimed is more than that worked out. Therefore, in view of the above, the IDC being considered for tariff computation is minimum of worked out IDC and IDC claimed by the petitioner. Further, the petitioner has submitted the statement showing discharged of IDC liability as on COD and thereafter. Accordingly, in addition to the IDC disallowed on account of time over-run, ₹411.81 lakh, in case of Asset-I(a), has been disallowed as on COD on account of un-discharged liability:

38. The IDC considered as on COD for the purpose of tariff determination is as



below:-

(₹ in lakh)

Asset	IDC claimed	IDC disallowed (on account of time overrun not condoned)	IDC disallowed (Un-discharged liability)	IDC allowed (As on COD)
Asset-I(a)	2596.65	0.00	411.81	2184.84
Asset-III	91.10	6.99	0.00	84.11
Asset-IX	22.12	20.74	0.00	1.38

### **Incidental Expenditure During Construction (IEDC)**

39. The petitioner has claimed ₹570.37 lakhs, ₹39.21 lakh and ₹8.14 lakh in respect of Asset-I(a), Asset-III and Asset-IX respectively. The petitioner has claimed IEDC as on COD, which is within the percentage on hard cost as indicated in the abstract cost estimate. In the instant petition, 5% of hard cost is indicated as IEDC in the abstract cost estimate.

40. The IEDC claimed and allowed are as follows:-

(₹ in lakh)

Asset	IEDC Claimed	IEDC disallowed (on account of time over-run not condoned)	IEDC Allowed (as on COD)
Asset-I(a)	570.37	0.00	570.37
Asset-III	39.21	0.95	38.26
Asset-IX	8.14	1.55	6.59

### **Initial spares**

41. Regulation 13(d) 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%
- (i) 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.”

42. The petitioner has claimed the Initial Spares for Asset-IX and the same is considered for the purpose of tariff in this order. The details of initial spares allowed are given below:-

Asset	P & M Cost		Spares	
	Sub-station	Transmission line	Sub-station	Transmission line
Asset- IX	948.32	0	48.47 (5.11%)	0

\*Plant & machinery cost excluding IDC, IEDC, Land Cost & Cost of Civil works

43. The petitioner has claimed the Initial Spares for Asset- I(a) and Asset-III and the same is considered for the purpose of tariff in this order. The details of initial spares allowed are given below:-



(₹ in lakh)

Name of the element	P & M Cost		Spares	
	Sub-station	Transmission line	Sub-station	Transmission line
Asset-I(a)	2034.39	27136.08	27.86 (1.37%)	270.00 (0.99%)
Asset-III	2483.19	0.00	52.16 (2.10%)	0.00

\*Plant & machinery cost excluding IDC, IEDC, Land Cost & Cost of Civil works

### **Capital Cost allowed as on COD**

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

Assets	Capital Cost as on COD (A)	IDC disallowed as on COD (B)	IEDC Disallowed as on COD (C)	Excess Initial Spares disallowed as on COD (D)	(₹ in lakh)
					Capital Cost as on COD considered for tariff calculation (E)=(A)-(B+C+D)
Asset-I(a)	26548.52	411.81	0.00	0.00	26136.71
Asset-III	1545.12	6.99	0.95	0.00	1537.18
Asset-IX	550.22	20.74	1.55	0.00	527.94

### **Additional Capital Expenditure (ACE)**

45. 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.”

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

“cut-off date” means 31<sup>st</sup> 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 31<sup>st</sup> March of the year closing after three years of the year of commercial operation”.

47. The cut-off date for the instant assets is 31.3.2020.

48. The petitioner has claimed ACE as per Auditor certificate dated 6.12.2016. In addition, the petitioner has also claimed the discharge of IDC liability for 2017-18 in respect of Asset 1 (a) as ACE. Further the petitioner has claimed the entire ACE under Regulation 14(1) without specifying the sub-clause of the regulation.

The ACE claimed by the petitioner is summarized in the table below:-

**(₹ in lakh)**

<b>Assets</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I(a)	0.00	4704.02	3300.00
Asset-III	0.00	718.37	350.00
Asset-IX	171.34	128.51	128.51

49. Based on the information submitted by the petitioner the allowable ACE has been summarized as under:-

**(₹ in lakh)**

<b>Assets</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I(a)	0.00	5115.83	3300.00
Asset-III	0.00	718.37	350.00
Asset-IX	171.34	128.51	128.51

50. The petitioner vide affidavit dated 25.8.2017 has submitted the details of balance and retention payment, the nature/works against the payment is withheld for the commissioned Asset I(a), III & IX and the same is as follows:-

(₹ in lakh)

Sl. No.	Asset	Balance payment	Retention	Remark
1	Asset I (a)	5401.59	2602.43	Balance works include barbed wiring, danger plates, etc
2	Asset III	780.69	287.68	Balance works include gravel spreading, cable trench covering, lighting etc.
3	Asset IX	108.06	320.30	

51. The capital cost considered for the purpose of computation of tariff is as follows:-

(₹ in lakh)

Asset	Expenditure up to COD	2016-17	2017-18	2018-19	Total Estimated Completion Cost up to 31.3.2019
Asset-I(a)	26136.71	-	5115.83	3300.00	34552.54
Asset-III	1537.18	-	718.37	350.00	2605.55
Asset-IX	527.94	171.34	128.51	128.51	956.30

### **Debt-Equity Ratio**

52. 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.”

53. The petitioner has claimed debt:equity ratio of 70:30 as on the date of commercial operation. Debt:equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of debt:equity ratio in respect of the instant assets as on the date of commercial operation and as on 31.3.2019 are as under:-

(₹ in lakh)

<b>Asset-I (a)</b>				
<b>Particular</b>	<b>Capital cost as on COD</b>		<b>Capital cost as on 31.3.2019</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	18,295.70	70.00	24186.78	70.00
Equity	7,841.01	30.00	10365.76	30.00
<b>Total</b>	<b>26136.71</b>	<b>100.00</b>	<b>34552.54</b>	<b>100.00</b>

(₹ in lakh)

<b>Asset-III</b>				
<b>Particular</b>	<b>Capital cost as on COD</b>		<b>Capital cost as on 31.3.2019</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	1,076.03	70.00	1823.89	70.00
Equity	461.15	30.00	781.67	30.00
<b>Total</b>	<b>1537.18</b>	<b>100.00</b>	<b>2605.55</b>	<b>100.00</b>

(₹ in lakh)

<b>Asset-IX</b>				
<b>Particular</b>	<b>Capital cost as on COD</b>		<b>Capital cost as on 31.3.2019</b>	
	<b>Amount</b>	<b>%</b>	<b>Amount</b>	<b>%</b>
Debt	369.56	70.00	669.41	70.00
Equity	158.38	30.00	286.89	30.00
<b>Total</b>	<b>527.94</b>	<b>100.00</b>	<b>956.30</b>	<b>100.00</b>

### Return on Equity



54. 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:

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



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

55. The petitioner has submitted that it is liable to pay income tax at MAT rate, the RoE has been calculated @ 19.610% after grossing up the RoE with MAT rate of 20.961% as provided under Regulation 25(2)(i) of the 2014 Tariff Regulations. As per Regulation 25(3) of the 2014 Tariff Regulations, the grossed up rate of RoE at the end of the financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the 2014-19 period on actual gross income of any financial year.

56. BSPHCL submitted that the petitioner has not mentioned the effective tax rate for each year of tariff period for all the assets. The petitioner may be directed to furnish details in the working of effective tax rate along with tax audit report for financial year 2014-15 and the reasons for opting MAT. The petitioner may also be directed to submit the details of deferred tax liability and its treatment in the books of account for the period 2014-19. Since, the petitioner is entitled for Tax Holiday for new transmission project, the petitioner may be directed to supply the information from the date the petitioner intends to claim the benefits of section 80 IA of the Income Tax Act, 1961.

57. We have considered the submissions made by the petitioner and respondent. 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. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be tried up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the RoE allowed is as follows:-

(₹ in lakh)

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	7841.01	7841.01	9375.76
Addition due to Additional Capitalization	0.00	1534.75	990.00
Closing Equity	7841.01	9375.76	10365.76
Average Equity	7841.01	8608.39	9870.76
Return on Equity (Base Rate )	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
<b>Return on Equity (Pre-tax)</b>	4.13	1688.10	1935.66

(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	461.15	676.67	158.38	209.78	248.34
Addition due to Additional Capitalization	215.51	105.00	51.40	38.55	38.55
Closing Equity	676.67	781.67	209.78	248.34	286.89
Average Equity	568.91	729.17	184.08	229.06	267.61
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%	19.610%	19.610%
<b>Return on Equity (Pre-tax)</b>	102.70	142.99	12.86	44.92	52.48

### **Interest on loan (IOL)**

58. Regulation 26 of the 2014 Tariff Regulations are 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 decapitalization 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.”

59. In these calculations, IOL has been worked out as under:-

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

(ii) The yearly repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that year; and

(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.

60. Detailed calculation of the weighted average rate of interest has been given in **Annexure-I to III** to this order.

61. Based on above, details of IOL calculated are as follows:-



(₹ in lakh)

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Gross Normative Loan	18295.70	18295.70	21876.78
Cumulative Repayment upto previous Year	0.00	3.60	1476.26
Net Loan-Opening	18295.70	18292.10	20400.52
Addition due to Additional Capitalization	0.00	3581.08	2310.00
Repayment during the year	3.60	1472.66	1694.99
Net Loan-Closing	18292.10	20400.52	21015.53
Average Loan	18293.90	19346.31	20708.03
Weighted Average Rate of Interest on Loan	8.4509%	8.4459%	8.4404%
<b>Interest on Loan</b>	4.16	1633.97	1747.83

(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Gross Normative Loan	1076.03	1578.89	369.56	489.49	579.45
Cumulative Repayment upto previous Year	0.00	92.17	0.00	11.76	52.86
Net Loan-Opening	1076.03	1486.71	369.56	477.74	526.60
Addition due to Additional Capitalization	502.86	245.00	119.94	89.96	89.96
Repayment during the year	92.17	128.33	11.76	41.10	47.96
Net Loan-Closing	1486.71	1603.38	477.74	526.60	568.59
Average Loan	1281.37	1545.05	423.65	502.17	547.59
Weighted Average Rate of Interest on Loan	8.1401%	8.1390%	8.1518%	8.1386%	8.1278%
<b>Interest on Loan</b>	96.02	125.75	12.30	40.87	44.51

## Depreciation

62. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as below:-

### "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.

4) 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.

(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.”

63. The petitioner has claimed actual depreciation as a component of annual fixed charges. In our calculations, depreciation has been calculated in accordance with Regulation 27 of the 2014 Tariff Regulations extracted above.

64. The instant transmission asset was put under commercial operation on 22.11.2016 to 30.4.2017. Accordingly, it will complete 12 years after 2018-19. As



such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

65. Details of the depreciation allowed are as under:-

(₹ in lakh)

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross Block	26136.71	26136.71	31252.54
Additional Capital expenditure	0.00	5115.83	3300.00
Closing Gross Block	26136.71	31252.54	34552.54
Average Gross Block	26136.71	28694.63	32902.54
Rate of Depreciation	5.1181%	5.1322%	5.1515%
Depreciable Value	23523.04	25825.16	29612.29
Remaining Depreciable Value	23523.04	25821.57	28136.03
<b>Depreciation</b>	3.60	1472.66	1694.99

(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Opening Gross Block	1537.18	2255.55	527.94	699.28	827.79
Additional Capital expenditure	718.37	350.00	171.34	128.51	128.51
Closing Gross Block	2255.55	2605.55	699.28	827.79	956.30
Average Gross Block	1896.37	2430.55	613.61	763.53	892.04
Rate of Depreciation	5.2800%	5.2800%	5.3788%	5.3830%	5.3763%
Depreciable Value	1706.73	2187.50	552.25	687.18	802.84
Remaining Depreciable Value	1706.73	2095.32	552.25	675.43	749.98
<b>Depreciation</b>	92.17	128.33	11.76	41.10	47.96

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

66. The petitioner vide affidavit dated 3.1.2017 has claimed the O&M Expenses for Asset-IX for 2014-19 period which are as follows:-

(₹ in lakh)

Asset	2016-17	2017-18	2018-19
Asset- IX	46.13	133.02	137.42

67. The petitioner vide affidavit dated 13.6.2017 has claimed the O&M Expenses for 2014-19 period which are as follows:-

(₹ in lakh)

Asset	2016-17	2017-18	2018-19
Asset-I(a)	0.94	359.41	371.32
Asset-III	-	122.30	137.42



68. BSP(H)CL in its reply has submitted that the increase in the wages should be taken care by improving the productivity levels of the petition and the beneficiaries should not be burdened. The petitioner in its rejoinder has submitted that the wage revision of the employees of the petitioner company is due with effect from 1.1.2017 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 rates prescribed for the tariff period 2014-19. The scheme of wage revision applicable to CPSUs is binding on the petitioner and hence the petitioner would approach the Commission for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike from 1.1.2017 onwards.

69. We have considered the submissions of the petitioner and respondent. The O&M Expenses have been calculated as given below:-

(₹ in lakh)				
Element	2016-17	2017-18	2018-19	
<b>Asset-I(a)-(COD-31.3.2017)</b>				
2 nos. 400 kV line bays at Farakka Sub-station	0.35	133.02	137.42	
2 nos. 400 kV line bays at Gokarna Sub-station	0.35	133.02	137.42	
400 kV, Triple Conductor, D/C Gokarna-Farakka transmission line	0.25	93.37	96.48	
<b>Total</b>	<b>0.95</b>	<b>359.41</b>	<b>371.32</b>	
<b>Asset-III-(COD-30.4.2017)</b>				
1 No. 400 KV SLR Bay at FARAKKA Substation	0	61.23	68.71	
1 No. 400 KV BR Bay at GOKARNA Substation	0	61.23	68.71	
<b>Total</b>	<b>0</b>	<b>122.45</b>	<b>137.42</b>	
<b>Asset-IX-(COD-22.11.2016)</b>				
2 Nos. 400 KV Bays at CHAIBASA Substation	45.85	133.02	137.42	
<b>Total</b>	<b>45.85</b>	<b>133.02</b>	<b>137.42</b>	

70. The O&M Expenses allowed is as under:-

(₹ in lakh)			
Element	2016-17	2017-18	2018-19
<b>Asset-I(a)</b>			
Total	0.94	359.41	371.32
<b>Asset-III</b>			
Total	0	122.30	137.42
<b>Asset-IX</b>			
Total	45.85	133.02	137.42

71. 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. The petitioner has further submitted that the wage revision of the employees is due during 2014-19 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 during 2014-19, if any.

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

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

73. 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**

(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;



(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) 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;”

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

### **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.

### **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.

### **O&M Expenses**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

### Rate of interest on working capital

As per proviso 3 of Regulation 28 of the 2014 Tariff Regulation, SBI Base Rate Plus 350 bps as on 1.04.2016 (i.e.12.80%) for Asset-I(a) and Asset-IX and SBI Base Rate Plus 350 bps as on 1.04.2017 (i.e.12.60%) for Asset-III has been considered for the instant assets, as the rate of interest on working capital.

75. Accordingly, the interest on working capital is summarized as under:-

(₹ in lakh)

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	52.45	53.91	55.70
O & M expenses	29.14	29.95	30.94
Receivables	814.28	879.58	981.08
Total	895.87	963.44	1,067.72
Interest	<b>0.31</b>	<b>123.32</b>	<b>136.67</b>

(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	19.93	20.61	19.31	19.95	20.61
O & M expenses	11.07	11.45	10.73	11.09	11.45
Receivables	77.08	91.68	40.23	44.94	48.79
Total	108.08	123.75	70.27	75.98	80.85
Interest	<b>12.54</b>	<b>15.59</b>	<b>3.20</b>	<b>9.73</b>	<b>10.35</b>

### Annual Transmission charges

76. In view of the above, the annual transmission charges being allowed for the instant assets are summarized hereunder:-

(₹ in lakh)

Particulars	Asset-I (a)		
	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	3.60	1472.66	1694.99
Interest on Loan	4.16	1633.97	1747.83
Return on Equity	4.13	1688.10	1935.66
Interest on Working Capital	0.31	123.32	136.67
O&M Expenses	0.94	359.41	371.32
<b>Total</b>	<b>13.13</b>	<b>5277.47</b>	<b>5886.47</b>



(₹ in lakh)

Particulars	Asset-III		Asset-IX		
	2017-18 (pro-rata)	2018-19	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	92.17	128.33	11.76	41.10	47.96
Interest on Loan	96.02	125.75	12.30	40.87	44.51
Return on Equity	102.70	142.99	12.86	44.92	52.48
Interest on Working Capital	12.54	15.59	3.20	9.73	10.35
O&M Expenses	122.30	137.42	45.85	133.02	137.42
<b>Total</b>	<b>425.73</b>	<b>550.09</b>	<b>85.97</b>	<b>269.63</b>	<b>292.71</b>

77. 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. BSP(H)CL has submitted that there are no provision in 2014 Tariff Regulations for such payments as these charges are generally included in O&M Expenses. In response the petitioner submitted that it is entitled for transmission tariff based upon the services provided by its transmission system. It was further submitted that taxes, duties, licensee fee etc are being claimed as per the order issued by the Commission. 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 Publication Expenses**

78. 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. BSPHCL has submitted that filing fee and other expenses may not be allowed. Further as per Commissions order dated 11.9.2008 in Petition No.



129/2005, the Central Power Sector undertakings are statutory required to approach the Commission for determination and approval of the tariff. 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**

79. 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**

80. The petitioner has sought to recover Service Tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.

### **Goods and Services Tax**

81. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. The petitioner has submitted that the Commission should allow to recover GST from the beneficiaries, if imposed on transmission charges under the proposed GST when implemented by Government of India. We are of the view that petitioner's prayer is premature.

### **Sharing of Transmission Charges**





82. The transmission charges shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

83. This order disposes of Petition No. 44/TT/2017.

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

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

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

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



**Annexure-I**

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN Of Asset-I (A)</b>				
(₹ in lakh)				
	<b>Details of Loan</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>Bond XL</b>			
	Gross loan opening	319.00	319.00	319.00
	Cumulative Repayment upto COD/previous year	26.58	26.58	53.17
	Net Loan-Opening	292.42	292.42	265.83
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	26.58	26.58
	Net Loan-Closing	292.42	265.83	239.25
	Average Loan	292.42	279.13	252.54
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	27.19	25.96	23.49
	Rep Schedule	Redeemable in 12 equal annual installments from 28.6.2016		
<b>2</b>	<b>Bond XLVI</b>			
	Gross loan opening	400.00	400.00	400.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	400.00	400.00	400.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	400.00	400.00	400.00
	Average Loan	400.00	400.00	400.00
	Rate of Interest	9.30%	9.30%	9.30%
	Interest	37.20	37.20	37.20
	Rep Schedule	Redeemable at par in 3 equal installments on 4.9.2019, 4.9.2024 and 4.9.2029		
<b>3</b>	<b>Bond XLVII</b>			
	Gross loan opening	179.00	179.00	179.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	179.00	179.00	179.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	179.00	179.00	179.00
	Average Loan	179.00	179.00	179.00
	Rate of Interest	8.93%	8.93%	8.93%
	Interest	15.98	15.98	15.98
	Rep Schedule	Redeemable in 12 equal annual installments from 20.10.2018		
<b>4</b>	<b>Bond XLVIII</b>			
	Gross loan opening	1500.00	1500.00	1500.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	1500.00	1500.00	1500.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1500.00	1500.00	1500.00
	Average Loan	1500.00	1500.00	1500.00
	Rate of Interest	8.20%	8.20%	8.20%
	Interest	123.00	123.00	123.00



	Rep Schedule	Redeemable in 4 equal installments on 23.1.2020, 23.1.2022, 23.1.2025 and 23.1.2030.		
<b>5</b>	<b>Bond XLIX</b>			
	Gross loan opening	193.50	193.50	193.50
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	193.50	193.50	193.50
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	193.50	193.50	193.50
	Average Loan	193.50	193.50	193.50
	Rate of Interest	8.15%	8.15%	8.15%
	Interest	15.77	15.77	15.77
	Rep Schedule	Redeemable in 3 equal installments on 9.3.2020, 9.3.2025 and 9.3.2030		
<b>6</b>	<b>Bond L</b>			
	Gross loan opening	1100.00	1100.00	1100.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	1100.00	1100.00	1100.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1100.00	1100.00	1100.00
	Average Loan	1100.00	1100.00	1100.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	92.40	92.40	92.40
	Rep Schedule	Redeemable in 12 equal annual installments from 27.5.2019		
<b>7</b>	<b>Bond LI</b>			
	Gross loan opening	406.53	406.53	406.53
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	406.53	406.53	406.53
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	406.53	406.53	406.53
	Average Loan	406.53	406.53	406.53
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	34.15	34.15	34.15
	Rep Schedule	Redeemable in 12 equal annual installments from 14.9.2019		
<b>8</b>	<b>Bond LII</b>			
	Gross loan opening	200.00	200.00	200.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	200.00	200.00	200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	200.00	200.00	200.00
	Average Loan	200.00	200.00	200.00
	Rate of Interest	8.32%	8.32%	8.32%
	Interest	16.64	16.64	16.64
	Rep Schedule	Redeemable at par in three equal annual installments on 23.12.2020, 23.12.2025 and		



		23.12.2025		
<b>9</b>	<b>Bond LIII</b>			
	Gross loan opening	100.00	100.00	100.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	100.00	100.00	100.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	100.00	100.00	100.00
	Average Loan	100.00	100.00	100.00
	Rate of Interest	8.13%	8.13%	8.13%
	Interest	8.13	8.13	8.13
	Rep Schedule	Redeemable in 12 equal annual installments from 25.4.2020		
<b>10</b>	<b>Bond LV</b>			
	Gross loan opening	3800.00	3800.00	3800.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	3800.00	3800.00	3800.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	3800.00	3800.00	3800.00
	Average Loan	3800.00	3800.00	3800.00
	Rate of Interest	7.55%	7.55%	7.55%
	Interest	286.90	286.90	286.90
	Rep Schedule	Redeemable at par on 21.9.2031		
<b>11</b>	<b>Bond LVII</b>			
	Gross loan opening	200.00	200.00	200.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	200.00	200.00	200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	200.00	200.00	200.00
	Average Loan	200.00	200.00	200.00
	Rate of Interest	7.20%	7.20%	7.20%
	Interest	14.40	14.40	14.40
	Rep Schedule	Redeemable at par on 21.12.2021		
<b>12</b>	<b>Bond LIV</b>			
	Gross loan opening	100.00	100.00	100.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	100.00	100.00	100.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	100.00	100.00	100.00
	Average Loan	100.00	100.00	100.00
	Rate of Interest	7.97%	7.97%	7.97%
	Interest	7.97	7.97	7.97
	Rep Schedule	Redeemable at par in three equal annual installments on 15.7.2021, 15.7.2026 and 15.7.2031		
<b>13</b>	<b>Bond LVIII</b>			



	Gross loan opening	774.66	774.66	774.66
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	774.66	774.66	774.66
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	774.66	774.66	774.66
	Average Loan	774.66	774.66	774.66
	Rate of Interest	7.89%	7.89%	7.89%
	Interest	61.12	61.12	61.12
	Rep Schedule	Redeemable at par on 9.3.2027		
<b>14</b>	<b>Bond LVIII</b>			
	Gross loan opening	0.00	0.00	288.27
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.00	0.00	288.27
	Additions during the year	0.00	288.27	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	0.00	288.27	288.27
	Average Loan	0.00	144.14	288.27
	Rate of Interest	7.89%	7.89%	7.89%
	Interest	0.00	11.37	22.74
	Rep Schedule	Redeemable at par on 9.3.2027		
<b>15</b>	<b>SBI (2014-15)</b>			
	Gross loan opening	8823.00	8823.00	8823.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	8823.00	8823.00	8823.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	8823.00	8823.00	8823.00
	Average Loan	8823.00	8823.00	8823.00
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	785.25	785.25	785.25
	Rep Schedule	20 half yearly equal installments from 15.6.2019		
<b>16</b>	<b>SBI (2016-17) (Q4)</b>			
	Gross loan opening	200.00	200.00	200.00
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	200.00	200.00	200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	200.00	200.00	200.00
	Average Loan	200.00	200.00	200.00
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	17.80	17.80	17.80
	Rep Schedule	20 half yearly equal installments from 15.6.2019		
	<b>Total Loan</b>			
	Gross loan opening	18295.69	18295.69	18583.96
	Cumulative Repayment upto COD/previous year	26.58	26.58	53.17
	Net Loan-Opening	18269.11	18269.11	18530.79



	Additions during the year	0.00	288.27	0.00
	Repayment during the year	0.00	26.58	26.58
	Net Loan-Closing	18269.11	18530.79	18504.21
	Average Loan	18269.11	18399.95	18517.50
	Rate of Interest	8.4509%	8.4459%	8.4404%
	<b>Interest</b>	1543.91	1554.04	1562.94



**Annexure-II**

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN OF ASSET-III</b>			
			<b>(₹ in lakh)</b>
	<b>Details of Loan</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>Bond LII</b>		
	Gross loan opening	79.84	79.84
	Cumulative Repayment upto COD/previous year	0.00	0.00
	Net Loan-Opening	79.84	79.84
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	79.84	79.84
	Average Loan	79.84	79.84
	Rate of Interest	8.32%	8.32%
	Interest	6.64	6.64
	Rep Schedule	Redeemable at par in three equal annual installments on 23.12.2020, 23.12.2025 and 23.12.2025	
<b>2</b>	<b>Bond LIII</b>		
	Gross loan opening	995.50	995.50
	Cumulative Repayment upto COD/previous year	0.00	0.00
	Net Loan-Opening	995.50	995.50
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	995.50	995.50
	Average Loan	995.50	995.50
	Rate of Interest	8.13%	8.13%
	Interest	80.93	80.93
	Rep Schedule	Redeemable in 12 equal annual installments from 25.4.2020	
<b>3</b>	<b>Bond LVII</b>		
	Gross loan opening	3.78	5.46
	Cumulative Repayment upto COD/previous year	0.00	0.00
	Net Loan-Opening	3.78	5.46
	Additions during the year	1.68	0.78
	Repayment during the year	0.00	0.00
	Net Loan-Closing	5.46	6.24
	Average Loan	4.62	5.85
	Rate of Interest	7.20%	7.20%
	Interest	0.33	0.42
	Rep Schedule	Redeemable at par on 21.12.2021	
	<b>Total Loan</b>		
	Gross loan opening	1079.12	1080.80
	Cumulative Repayment upto COD/previous year	0.00	0.00
	Net Loan-Opening	1079.12	1080.80
	Additions during the year	1.68	0.78
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1080.80	1081.58
	Average Loan	1079.96	1081.19
	Rate of Interest	8.1401%	8.1390%
	<b>Interest</b>	<b>87.91</b>	<b>88.00</b>



**Annexure-III**

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN OF ASSET-IX</b>				
(₹ in lakh)				
	<b>Details of Loan</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>1</b>	<b>Bond LII</b>			
	Gross loan opening	49.37	49.37	49.37
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	49.37	49.37	49.37
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	49.37	49.37	49.37
	Average Loan	49.37	49.37	49.37
	Rate of Interest	8.32%	8.32%	8.32%
	Interest	4.11	4.11	4.11
	Rep Schedule	Redeemable at par in three equal annual installments on 23.12.2020, 23.12.2025 and 23.12.2025		
<b>2</b>	<b>Bond LIII</b>			
	Gross loan opening	322.49	322.49	322.49
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	322.49	322.49	322.49
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	322.49	322.49	322.49
	Average Loan	322.49	322.49	322.49
	Rate of Interest	8.13%	8.13%	8.13%
	Interest	26.22	26.22	26.22
	Rep Schedule	Redeemable in 12 equal annual installments from 25.4.2020		
<b>3</b>	<b>Bond LVI</b>			
	Gross loan opening	0.63	2.62	13.30
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	0.63	2.62	13.30
	Additions during the year	1.99	10.68	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	2.62	13.30	13.30
	Average Loan	1.63	7.96	13.30
	Rate of Interest	7.36%	7.36%	7.36%
	Interest	0.12	0.59	0.98
	Rep Schedule	Redeemable at par on 18.10.2026		
	<b>Total Loan</b>			
	Gross loan opening	372.49	374.48	385.16
	Cumulative Repayment upto COD/previous year	0.00	0.00	0.00
	Net Loan-Opening	372.49	374.48	385.16
	Additions during the year	1.99	10.68	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	374.48	385.16	385.16
	Average Loan	373.49	379.82	385.16
	Rate of Interest	8.1518%	8.1386%	8.1278%
	<b>Interest</b>	<b>30.45</b>	<b>30.91</b>	<b>31.30</b>

