

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 703/TT/2020**

**Coram:**

**Shri I.S. Jha, Member  
Shri Arun Goyal, Member  
Shri P. K. Singh, Member**

**Date of Order: 08.04.2022**

**In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of **Combined Asset-I:** Asset-(i): LILO connectivity to DVC's Andal TPS (portion of 400 kV Durgapur-Jamshedpur Transmission Line), Asset (ii): 400 kV D/C Bripada-Mendhasal Transmission Line and associated bays at Baripada and Mendhasal Sub-station, Asset (iii): 400 kV D/C Andal (DVC)-Jamshedpur section of Durgapur Jamshedpur Transmission Line and associated bays at Jamshedpur and Asset (iv): 400 kV D/C Baripada-DVC (Jamshedpur) Transmission Line (part of 400 kV D/C Jamshedpur-Baripada Transmission Line) and associated bays at Baripada Sub-station, **Asset-II:** Balance portion of 400 kV D/C Baripada-Jamshedpur (DVC) Transmission Line along with bay at Jamshedpur, **Asset-III:** Re-Conductoring of Ckt-II of 400 kV D/C Siliguri-Purnea (HTLS Conductor.) Transmission Line, and **Asset-IV:** Re-Conductoring of Ckt-I of 400 kV D/C Siliguri-Purnea (HTLS Conductor) Transmission Line under "Eastern Region Strengthening Scheme-I" in Eastern Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
"Saudamini", Plot No. 2,  
Sector 29, Gurgaon-122001,  
Haryana.

**....Petitioner**

Vs

1. Bihar State Power (Holding) Company Limited,  
(Formerly Bihar State Electricity Board -BSEB)  
Vidyut Bhavan, Bailey Road, Patna – 800001.
2. West Bengal State Electricity Distribution Company Limited,  
Bidyut Bhawan, Bidhan Nagar,



Block DJ, Sector-II, Salt Lake City,  
Calcutta – 700091.

3. Grid Corporation of Orissa Limited,  
Shahid Nagar, Bhubaneswar – 751007.
4. Jharkhand State Electricity Board,  
In front of Main Secretariat,  
Doranda, Ranchi – 834002.
5. Damodar Valley Corporation,  
DVC Tower, Maniktala,  
Civic Centre, VIP Road, Calcutta – 700054.
6. Power Department,  
Government of Sikkim, Gangtok – 737101.

...Respondents

**For Petitioner** : Shri S.S. Raju, PGCIL  
Shri D.K. Biswal, PGCIL  
Shri Ved Prakash Rastogi, PGCIL  
Shri Amit Yadav, PGCIL

**For Respondents** : Ms. Shruti Singh, Advocate, JSEB  
Shri Manish Kumar Choudhary, Advocate, BSPHCL

### **ORDER**

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing-up of the transmission tariff of the 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”) and determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as “transmission assets”) under “Eastern



Region Strengthening Scheme-I” in Eastern Region (hereinafter referred to as the “transmission project):

<b>Asset No. as per current petition</b>	<b>Name of Asset</b>	<b>Actual COD</b>
<b>Asset-I</b>	<b>Asset-(i):</b> LILO connectivity to DVC’s Andal TPS (portion of 400 kV Durgapur-Jamshedpur Transmission Line)	1.2.2011
	<b>Asset (ii):</b> 400 kV D/C Bripada-Mendhasal Transmission Line and associated bays at Baripada and Mendhasal Sub-station.	1.9.2011
	<b>Asset (iii):</b> 400 kV D/C Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur Transmission Line and associated bays at Jamshedpur	1.5.2012
	<b>Asset (iv):</b> 400 kV D/C Baripada-DVC (Jamshedpur) Transmission Line (part of 400 kV D/C Jamshedpur-Baripada Transmission Line) and associated bays at Baripada Sub-station	1.6.2012
<b>Asset-II</b>	<b>Asset-(ii):</b> Balance portion of 400 kV D/C Baripada-Jamshedpur (DVC) Transmission Line along with bay at Jamshedpur	1.10.2013
<b>Asset-III</b>	<b>Asset-(i):</b> Re-Conductoring Ckt- II of 400 kV D/C Siliguri – Purnea (HTLS Cond.) Transmission Line	1.6.2013
<b>Asset-IV</b>	<b>Asset:</b> Re-Conductoring Ckt- I of 400 kV D/C Siliguri – Purnea (HTLS Cond.) Transmission Line	1.4.2014

2. The Petitioner has made the following prayers in this petition:

*“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.*

*2) Approve the Completion cost and additional capitalization incurred during 2014-19 & 2019-24.*

*3) 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 in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.*

*4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*



5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

6) 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 2019-24 period, if any, from the respondents.

7) Allow the petitioner to claimed initial spares project as whole.

8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.

9) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST 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 the Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice”.

### **Background**

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

- a) The Investment Approval (IA) for the implementation of the transmission project in Eastern Region was accorded by Ministry of Power, Government of India, vide Letter No. 12.4.2005-PG dated 4.10.2006 at an estimated cost of ₹ 97596 lakh. The Petitioner had built the transmission assets in the Eastern Region as a part of the transmission project. During the 116<sup>th</sup> EREB meeting held on 15.11.2005, it was discussed and agreed to make it a part of main Bulk Power Transmission Agreement (BPTA) of Eastern Region.
- b) The Revised Cost Estimate (RCE) for the transmission project was accorded by Board of Directors of the Petitioner's company vide letter dated 11.3.2016, at an estimated cost of ₹106159 lakh and IDC of ₹7558 lakh.
- c) The Scope of the work as per the I.A. is as follows:



**Transmission lines:**

- (i) Durgapur- Jamshedpur 400 kV D/C Line
- (ii) Jamshedpur- Baripada 400 kV D/C Line
- (iii) Baripada- Chandaka (Mendhasal) (GRIDCO) 400 kV D/C Line
- (iv) Re-conductoring of Siliguri-Purnea 400 kV D/C line with twin INVAR Moose Conductor

**Sub-stations:**

- (i) Jamshedpur 400/ 220 kV Sub-station extension
- (ii) Durgapur 400/ 220 kV Sub-station extension
- (iii) Baripada 400/ 220/ 132 kV Sub-station extension
- (iv) Siliguri 400/ 220 kV Sub-station Extension, Reconductoring of 400 kV bays
- (v) Purnea 400/ 220 kV Sub-station Extension including dismantling and replacement of equipment and associated works
- (vi) Chandaka (Mendhasal) 400/ 220 kV Sub-station extension (GRIDCO)

- d) Seven transmission assets are covered in the transmission project, of which 6 were put into commercial operation in 2009-14 tariff period and one asset in the 2014-19 tariff period. The tariff for the 2014-19 tariff period was granted in three different petitions. The details of the assets, the petitions in which tariff was granted earlier and the nomenclature of the assets in the instant petition are as follows:

Asset nomenclature in current petition	Asset nomenclature in previous order	Name of Asset	Previous order details
<b>Asset-I</b>	<b>Asset-I</b>	LILO connectivity to DVC's Andal TPS (portion of 400 kV Durgapur-Jamshedpur TL)	Order dated 25.4.2016 in Petition No. 145/TT/2015
	<b>Asset-II</b>	400 kV D/C Baripada-Mendhasal Transmission Line and associated bays at Baripada and Mendhasal Transmission Line.	
	<b>Asset-III</b>	400 kV D/C Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur Transmission Line and associated bays at Jamshedpur	
	<b>Asset-IV</b>	400 kV D/C Baripada-DVC (Jamshedpur) T/L (part of 400 kV D/C Jamshedpur-Baripada Transmission Line) and	



		associated bays at Baripada Sub-station	
<b>Asset-II</b>	<b>Asset-I</b>	Balance portion of 400 kV D/C Baripada - Jamshedpur (DVC) Transmission Line along with bay at Jamshedpur	Order dated 12.12.2019 in Petition No. 238/TT/2018
<b>Asset-III</b>	<b>Asset-II</b>	Re-Conductoring of Ckt- II of 400 KV D/C Siliguri – Purnea (HTLS Cond.) Transmission Line	
<b>Asset-IV</b>	-	<b>Asset:</b> Re-Conductoring of Ckt- I of 400 KV D/C Siliguri – Purnea (HTLS Cond.) Transmission Line	Order dated 29.4.2016 in Petition No. 164/TT/2015

- e) As per IA dated 4.10.2006, the transmission project was scheduled to be put into commercial operation within 36 months from the date of investment approval i.e. by October, 2009. The details of time over-run are as follows:

<b>Assets</b>	<b>COD</b>	<b>Delay in months</b>
Asset (i)	1.2.2011	16
Asset (ii)	1.9.2011	22
Asset (iii)	1.5.2012	30
Asset (iv)	1.6.2012	31
Asset-II	1.10.2013	47
Asset-III	1.6.2013	43
Asset- IV	1.4.2014	53

- f) The issues regarding time over-run have already been discussed and settled in previous tariff orders.
- g) Truing up of the 2009-14 tariff period and tariff of the 2014-19 tariff period for the Combined Asset-I was allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015. Truing up of the 2009-14 tariff period and tariff of the 2014-19 tariff period in respect of Asset-II and Asset-III was approved vide order dated 12.12.2019 in Petition No. 238/TT/2018 and tariff of the 2014-19 tariff period in Asset-IV was approved vide order dated 29.4.2016 in Petition No. 164/TT/2015.
- h) The AFC based on the Capital Cost as on 31.3.2014 allowed by the Commission vide orders dated 25.4.2016, 12.12.2019 and 29.4.2016 in Petition Nos.145/TT/2015, 238/TT/2018 and 164/TT/ 2015 in respect of the transmission assets is as follows:



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	9762.07	9851.95	9888.12	9835.24	9784.72
Asset-II	909.22	924.85	928.94	932.19	935.33
Asset-III	706.86	701.62	695.91	691.71	687.46
Asset-IV	772.20	819.72	832.40	825.73	819.03

4. The Respondents are distribution licensees, power departments and transmission licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Bihar State Power (Holding) Company Ltd. (BSPHCL) i.e. Respondent No. 1 has filed its reply vide affidavit 20.7.2021 and has raised issues regarding grossing up of RoE, GST, interest, filing fees and expenses and sharing of transmission charges. In response, the Petitioner has filed its rejoinder vide affidavit dated 30.7.2021. The issues raised by BSPHCL and the clarifications given by the Petitioner are dealt in the relevant paragraphs of this order.

6. The hearing in this matter was held on 6.7.2021 through video conference and the order was reserved.

7. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the petition.



8. This order is issued considering the submissions made by the Petitioner in the petition, additional affidavit dated 2.7.2021, BSPHCL's reply and the Petitioner's rejoinder thereto.

9. It has been placed before us that BSPHCL has been raising the issues of grossing up of RoE and MAT rates in several petitions in the past. The Commission has considered and rejected said submissions in various petitions including in Petition No. 25/TT/2021 and Petition No. 476/TT/2019 and as no appeal has been preferred against the said orders by BSPHCL, said orders have attained finality. Hence, the issues raised by BSPHCL regarding grossing up of RoE and MAT rates are not being dealt with in the instant order. However, issues specific to the present petition have been dealt with in relevant portions of this order.

**Truing-up of Annual Fixed Charges for the 2014-19 tariff period**

10. The details of the trued up transmission charges claimed by the Petitioner for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3822.17	3844.58	3856.49	3864.55	3866.74
Interest on Loan	863.22	875.57	1067.92	1099.47	1220.35
Return on Equity	3911.17	3954.19	3965.52	3974.54	3987.69
Interest on working capital	248.88	252.38	259.09	262.02	267.02
O & M Expenses	923.36	954.29	985.85	1018.57	1052.36
<b>Total</b>	<b>9768.80</b>	<b>9881.01</b>	<b>10134.87</b>	<b>10219.15</b>	<b>10394.16</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	321.99	326.78	328.22	329.12	330.41
Interest on Loan	68.81	76.69	100.04	105.24	120.63
Return on Equity	351.61	358.58	360.01	361.02	363.44
Interest on working capital	25.03	25.75	26.62	27.07	27.80
O & M Expenses	143.72	148.51	153.43	158.53	163.78
<b>Total</b>	<b>911.16</b>	<b>936.31</b>	<b>968.32</b>	<b>980.98</b>	<b>1006.06</b>



(₹ in lakh)

Asset-III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	321.43	321.57	321.57	321.92	322.27
Interest on Loan	71.15	73.32	95.75	103.42	122.54
Return on Equity	299.29	300.82	300.66	301.05	302.25
Interest on working capital	15.93	16.01	16.53	16.72	17.20
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>707.80</b>	<b>711.72</b>	<b>734.51</b>	<b>743.11</b>	<b>764.26</b>

(₹ in lakh)

Asset-IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	321.33	331.79	331.79	333.98	336.18
Interest on Loan	81.58	95.72	115.63	122.41	140.33
Return on Equity	358.15	371.41	371.22	373.68	377.14
Interest on working capital	17.52	18.39	18.84	19.11	19.65
O & M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>778.58</b>	<b>817.31</b>	<b>837.48</b>	<b>849.18</b>	<b>873.30</b>

11. The details of the trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	76.95	79.52	82.15	84.88	87.70
O&M Expenses	138.50	143.14	147.88	152.79	157.85
Receivables	1628.14	1646.84	1689.14	1703.19	1732.36
Total	1843.59	1869.50	1919.17	1940.86	1977.91
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>248.88</b>	<b>252.38</b>	<b>259.09</b>	<b>262.02</b>	<b>267.02</b>

(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	11.98	12.38	12.79	13.21	13.65
O&M Expenses	21.56	22.28	23.01	23.78	24.57
Receivables	151.86	156.05	161.39	163.50	167.68
Total	185.40	190.71	197.19	200.49	205.90
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>25.03</b>	<b>25.75</b>	<b>26.62</b>	<b>27.07</b>	<b>27.80</b>

(₹ in lakh)

Asset-III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables	117.97	118.62	122.42	123.85	127.38
Total	117.97	118.62	122.42	123.85	127.38



Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	15.93	16.01	16.53	16.72	17.20

(₹ in lakh)

Asset-IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Receivables	129.76	136.22	139.58	141.53	145.55
Total	129.76	136.22	139.58	141.53	145.55
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	17.52	18.39	18.84	19.11	19.65

### Capital Cost

12. The Commission vide order dated 25.4.2016, 12.12.2019 and 29.4.2016 in Petition No. 145/TT/2015, Petition No. 238/TT/2018 and Petition No. 164/TT/2015 has allowed the following capital cost as on 31.3.2014 and ACE for 2014-19 tariff period and the same is as follows:

(₹ in lakh)

Asset	Apportioned Approved Cost as per RCE	Capital Cost (as on 31.3.2014 /1.4.2014)	ACE (2014-19)					Capital Cost (as on 31.3.2019)
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	79875.70	72020.47	835.14	1408.7	0.00	0.00	0.00	74264.31
Asset-II	6283.73	6026.03	126.4	54.67	0.00	59.67	0.00	6266.77
Asset-III	8992.55	6072.34	5.21	0.00	0.00	20.10	0.00	6097.65
Asset-IV	9927.72	5860.99	418.72	298.32	0.00	0.00	0.00	6578.03

13. The Petitioner vide Auditors' Certificate dated 21.11.2014, 26.2.2020, 31.7.2019 and 11.2.2020 has submitted the details of capital cost upto 31.3.2014 along with ACE during 2014-19 of the transmission assets the same is as follows:

(₹ in lakh)

Asset	Apportioned Approved Cost (as per RCE)	Capital Cost (as on 31.3.2014)	ACE (2014-19)					Capital Cost (as on 31.3.2019)
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	79875.70	72054.44	618.90	229.29	222.11	82.99	0.00	73207.73
Asset-II	6283.73	6032.9	126.4	54.67	0.00	34.11	14.9	6262.98
Asset-III	8992.55	6079.35	5.21	0.00	0.00	13.2	0.00	6097.76
Asset-IV	9927.72	5860.98	418.72	0.00	0.00	83.02	0.00	6362.72

14. The completion cost of transmission assets claimed by the Petitioner is within the RCE apportioned approved cost ₹105079.70 lakh.



## Decapitalization

15. The Asset-III and Asset-IV of the instant petition were covered under Petition No. 238/TT/2018 and Petition No. 164/TT/2015 respectively, as stated in Para. 8(c) above. Asset-III and Asset-IV pertains to re-conducting of Ckt-II and Ckt-I of the Siliguri – Purnea Transmission Line for which the Commission had directed the Petitioner to furnish the details of the de-capitalised conductors at the time of truing up. Relevant portion of the order dated 29.4.2016 in Petition No. 164/TT/2015 is as follows:

### “ De-capitalisation

#### Xxxx

*13. The petitioner has not submitted any information regarding the replaced conductor. In this regard, the petitioner was directed vide RoP dated 16.3.2015 to submit the details of the de-capitalised conductor. The Petitioner has still not submitted the details...*

Xxxx“

16. The Petitioner has submitted actual gross block and cumulative depreciation of de-capitalised asset in Form-10B of the current petition. The details of decapitalisation submitted by the Petitioner in Form-10B with respect to Asset-III and Asset-IV are as follows:

Asset-III						
S. No.	Date of decapitalisation	Asset	Original book value of Asset (₹ in lakh)	Debt-Equity	Cumulative depreciation as on 31.3.2014 (₹ in lakh)	Cumulative repayment (₹ in lakh)
1	1.4.2014	Conductor and Hardware	2194.80	70:30	1443.78	1443.78
2	1.4.2014	Sub-station bay at Siliguri	91.59	70:30	60.25	60.25
3	1.4.2014	Sub-station bay at Purnea	91.59	70:30	60.25	60.25
	<b>Total</b>		<b>2377.98</b>		<b>1564.28</b>	<b>1564.28</b>



<b>Asset-IV</b>						
<b>S. No.</b>	<b>Date of decapitalisation</b>	<b>Asset</b>	<b>Original book value of Asset (₹ in lakh)</b>	<b>Debt-Equity</b>	<b>Cumulative depreciation as on 31.3.2014 (₹ in lakh)</b>	<b>Cumulative repayment (₹ in lakh)</b>
1	1.4.2014	Conductor and Hardware	2194.80	70:30	1443.78	1443.78
2	1.4.2014	Sub-station bay at Siliguri	91.59	70:30	60.25	60.25
3	1.4.2014	Sub-station bay at Purnea	91.59	70:30	60.25	60.25
<b>Total</b>			<b>2377.98</b>		<b>1564.28</b>	<b>1564.28</b>

17. The Petitioner has submitted that it has claimed the capital cost in respect of Asset-III and Asset-IV after deducting the gross block of de-capitalised conductors and terminal end equipment amounting ₹2377.98 and ₹2377.98 in respect of Asset-III and Asset-IV respectively.

18. With regard to the direction of the Commission in order dated 29.4.2016 in Petition No. 164/TT/2015 to submit the scrap value of hardware accessories of these replaced conductor, the Petitioner in the instant petition has submitted that the replaced conductor and hardware accessories are placed in Petitioner's store and there is no scrap value as on date. Out of total replaced conductor, 792 km conductor of ₹1102.71 lakh is used in 400 kV D/C Punatsangchu-Alipurduar Transmission Line under development of pooling station in Northern part of West Bengal and transfer of power from Bhutan to NR/ WR w.e.f. DOCO 29. 3.18 under Petition No. 193/TT/2019.

19. We have considered the submission of the Petitioner. The Commission vide order dated 29.4.2016 in Petition No. 164/TT/2015 and vide order dated 12.12.2019 in Petition No. 238/TT/2018 has allowed the capital cost in respect of Asset-III and Asset-IV after carrying out decapitalisation on account of removed conductor. Relevant portion of the order dated 29.4.2016 is as follows:



**“IDC and IEDC:**

17. As discussed above, the time over-run in the commissioning of the assets has been condoned completely. Accordingly, the amount of IDC and IEDC claimed corresponding to the period not being condoned has been disallowed. The amount of capital cost considered as on COD for the purpose of tariff computation is shown in table below:-

(₹ in lakh)	
Particulars	Asset
Capital cost as on COD as per Auditor's Certificate	8442.38
Disallowed IDC and IEDC for 28.5 months	177.68
Accrual IDC discharged during 2014-15	25.74
Capital Cost as on COD excluding Disallowed IDC and IEDC	8238.96
De-cap	2377.97
<b>Capital Cost as on COD to be considered for tariff computation</b>	<b>5860.99</b>

20. Relevant portion of the order dated 12.12.2019 in Petition No. 238/TT/2018

is as follows

“30. Asset-wise capital cost for tariff purpose and total completion cost allowed as on 31.3.2014 is as under:-

(₹ in lakh)									
Asset	Capital Cost as on COD claimed by the Petitioner	IDC Disallowed	Undischarged IDC as on COD	IEDC Disallowed on COD	Excess Initial Spares	Gross block of decapitalised assets as on COD	Capital Cost on COD allowed	Add-cap for 2013-14 allowed	Capital cost allowed as on 31.3.2014
1	2	3	4	5	6	7	8=(2-3-4-5-6-7)	9	10=8+9
Asset-I	5909.05	-	3.50	-	6.87	-	5898.68	127.35	6026.06
Asset-II	8479.63	296.78	-	32.22	7.02	2377.98	5765.64	306.70	6072.34

21. Accordingly, the gross block of de-capitalised conductors and terminal end equipment amounting ₹2377.98 lakh has been deducted from the capital cost claimed for Asset-III and Asset-IV in the instant petition. Further, for adjustment of cumulative depreciation on account of de-capitalised conductor in Asset-III and Asset-IV, the Commission has already observed in order dated 12.4.2016 in Petition No. 104/TT/2013 that the Petitioner had claimed tariff for the decapitalized asset in Petition No. 380/TT/2014, Petition No. 200/TT/2014 and



Petition No. 508/TT/2014 without any mention of the replacement of the conductor. It is also observed that the above said petitions were filed for true-up for the tariff block 2009-14 along with 2014-19 tariff petitions and the Commission has already issued orders in these petitions. Subsequently, the 2014-19 true up has been done for the above-mentioned asset vide order dated 12.9.2021, 27.4.2020 and 21.9.2021 in Petition No. 472/TT/2019, Petition No. 274/TT/2019 and Petition No.207/TT/2020, respectively, where no mention regarding replacement of conductor is made. In the instant petition too, the Petitioner has not submitted the required information as directed in earlier orders starting from order dated 12.4.2016 in Petition No.104/TT/2013. The Petitioner should have disclosed the correct information with regard to the replacement of conductor in these petitions.

22. The Petitioner is directed to submit the details of the Petitions in which recapitalisation of the replaced conductor is carried out as well as the details of cumulative depreciation and cumulative repayment corresponding to de-capitalization while filing for true up of 2019-24 Tariff period.

23. The Petitioner has further claimed unrecovered depreciation of ₹599.91 lakh for Asset-III and ₹308.77 lakh for Asset-IV.

24. We have considered the submissions of the Petitioner. It is observed that there is no specific provision for recovering unrecovered depreciation in the 2014 Tariff Regulations. Accordingly, we are not inclined to allow the unrecovered depreciation claimed by the Petitioner.

### **Initial Spares**

25. The Petitioner has claimed the following Initial Spares for the transmission assets and prayed to revise the Initial Spares allowed earlier in terms of the



judgement of the Appellate Tribunal for Electricity (the APTEL) dated 14.9.2019 in Appeal No.74 of 2017.

Assets	Estimated Completion Cost (A)	Initial Spares Claimed (B)	Ceiling Limit (in %) (C)	(₹ in lakh)
				Initial Spares Worked out D = [(A-B)*C / (100-C)]
<b>For Transmission Line</b>				
Asset-I	67056.77	250.73	0.75	504.83
Asset-II	4473.60	40.00	0.75	33.50
Asset-III	7866.15	68.21	0.75	58.93
Asset-IV	7634.35	68.21	1	76.43
<b>Total</b>	<b>87030.87</b>	<b>427.15</b>		<b>673.69</b>
<b>For Substation</b>				
Asset-I	6150.96	37.65	2.5	156.75
Asset-II	1789.38	28.8	2.5	45.14
Asset-III	609.59	14.87	2.5	15.25
Asset-IV	727.7	14.87	6	45.50
<b>Total</b>	<b>9277.63</b>	<b>96.19</b>		<b>262.64</b>

26. We have considered the submissions of the Petitioner. In terms of the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as per the ceiling limit on overall project cost. The APTEL in judgement dated 14.9.2019 in Appeal No. 74 of 2017 held as follows:

*"8.13.....We do not agree with this methodology of restricting initial spares asset/element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true-up"*

27. Accordingly, Initial Spares are to be allowed as percentage of the project cost as a whole. The transmission project was completed during 2014-19 and the overall project cost of the transmission assets is arrived at only when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual transmission assets in the 2014-19 tariff period and the Initial Spares are allowed on the basis of the overall project cost in the 2019- 24 period.



28. The Initial Spares allowed for Asset-I, Asset-II, and Asset-III are as per Regulation 8 of the 2009 Tariff Regulations vide orders dated 25.4.2016 and 12.12.2019 in Petition No. 145/TT/2015 and Petition No 238/TT/2018 respectively as follows:

Asset		Initial Spares Claimed (₹ in lakh)	Initial Spares Allowed (₹ in lakh)	Previous Order
Asset-I	Transmission Line	133.63	103.11	Order dated 25.4.2016 in Petition No. 145/TT/2015
	Substation	19.57	16.12	
Asset-II	Transmission Line	40.00	33.13	Order dated 12.12.2019 in Petition No. 238/TT/2018
	Substation	28.80	28.80	
Asset-III	Transmission Line	68.21	61.19	
	Substation	14.87	14.87	

29. The Initial Spares allowed for Asset-IV in terms of Regulation 13 of 2014 Tariff Regulations are as follows:

**Sub-station**

Capital Cost/ P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)
727.20	14.87	6.00	45.47	14.87

**Transmission Line**

Capital Cost/ P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)
7634.35	68.21	1.00	76.43	68.21

**Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)**

30. The Petitioner has claimed Interest During Construction (IDC) of ₹358.66 lakh and IEDC of ₹198.17 lakh in case of Asset-IV. The Petitioner has submitted the Auditor's Certificate in support of the same. The Commission had disallowed



₹177.68 lakh of IDC and IEDC on account of time over-run not condoned vide order dated 29.4.2016 in Petition No. 164/TT/2015. In the instant Petition the Petitioner has not submitted the computation of IDC calculation in support of its claim. The Petitioner is directed to provide computations of IDC along with year-wise details of IDC discharged in future petitions, failing which its claims corresponding to IDC would be disallowed.

### **Capital Cost**

31. The trued-up capital cost of Asset-I, Asset-II, Asset-III and IV as on 1.4.2014 allowed by the Commission vide orders dated 25.4.2016, 12.12.2019 and 29.4.2016 in Petition No. 145/TT/2015, Petition No. 238/TT/2018 and Petition No.164/TT/2015 respectively has been considered.

### **Additional Capital Expenditure (ACE) during 2014-19 period**

32. The Commission has allowed ACE vide order dated 25.4.2016 in Petition No. 145/TT/2015 for Asset-I, vide order dated 12.12.2019 in Petition No. 238/TT/2018 for Assets-II and III and vide order dated 29.4.2016 in Petition No. 164/TT/2015 for Asset-IV as follows:

(₹ in lakh)

Asset	Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	835.14	1408.7	0.00	0.00	0.00
Asset-II	126.4	54.67	0.00	59.67	0.00
Asset-III	5.21	0.00	0.00	20.10	0.00
Asset-IV	418.72	298.32	0.00	0.00	0.00

33. The Petitioner in the instant true up Petition has claimed the following ACE in respect of the transmission assets and submitted Auditors' Certificate dated 21.11.2014, 26.2.2020, 31.7.2019 and 11.2.2020 in support of its claim:



(₹ in lakh)

Asset	Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	618.90	229.29	222.11	82.99	0.00
Asset-II	126.40	54.67	0.00	34.11	14.90
Asset-III	5.21	0.00	0.00	13.2	0.00
Asset-IV	418.72	0.00	0.00	83.02	0.00

34. The Petitioner has submitted that the ACE claimed during 2014-19 period is on account of balance and retention payment for work executed prior to the cut-off date and is covered under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and under Regulation 14(3)(v) of the 2014 Tariff Regulations for ACE beyond cut-off. Further, the Petitioner has submitted details of ACE claimed beyond cut-off date which are as follows:

(₹ in lakh)

Name of Asset	Party Name	Name of Package	Year	Balance & Retention Payment
Asset-I	Siemens Ltd.	Sub-station	2015-16	98.88
	Tata Projects	Transmission line	2015-16	50.23
	KEC Ltd.	Transmission line	2015-16	80.18
	Tata Project Ltd.	Transmission line	2016-17	222.11
	Tata Project Ltd.	Transmission line	2017-18	68.21
	KEC Ltd.	Transmission line	2017-18	14.78
Asset-II	VSN Infratech Pvt Ltd.	Transmission line	2017-18	33.19
	Parikshit Singh	Transmission line	2017-18	0.92
	Engineers World	Transmission line	2018-19	14.90
Asset-III	JV of JP Power & KEC Ltd	Transmission line	2017-18	13.20
Asset-IV	JV of JP Power & KEC Ltd	Transmission line	2017-18	83.02

35. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i), Regulation 14(1)(ii)



and Regulation 14(3)(v) of the 2014 Tariff Regulations. The details of ACE approved are as follows:

(₹ in lakh)

	Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	618.90	229.29	222.11	82.99	0.00
Asset-II	126.40	54.67	0.00	34.11	14.90
Asset-III	5.21	0.00	0.00	13.20	0.00
Asset-IV	418.72*	0.00	0.00	83.02	0.00

\*Accrual IDC of ₹25.74 lakh has been allowed in ACE during 2014-15

### Capital Cost for the 2014-19 tariff period

36. Accordingly, the capital cost considered as on 31.3.2019 in respect of the transmission assets for the 2014-19 period is as follows:

(₹ in lakh)

Assets	Capital Cost (as on 1.4.2014)	2014-15	2015-16	2016-17	2017-18	2018-19	Total Capital Cost (as on 31.3.2019)
Asset-I	72020.47	618.90	229.29	222.11	82.99	0.00	73173.76
Asset-II	6032.90	126.40	54.67	0.00	34.11	14.90	6262.98
Asset-III	6072.34	5.21	0.00	0.00	13.20	0.00	6090.75
Asset-IV	5860.99	418.72	0.00	0.00	83.02	0.00	6362.73

### Debt-Equity Ratio

37. The details of Debt-Equity ratio in respect of the transmission assets as on 1.4.2014 and as on 31.3.2019 are as follows:

Asset-1	As on 1.4.2014		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	52193.14	72.47	53000.45	72.43
Equity	19827.33	27.53	20173.31	27.57
Total	<b>72020.47</b>	<b>100.00</b>	<b>73173.76</b>	<b>100.00</b>
Asset-2	As on 1.4.2014		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	4255.41	70.62	4416.47	70.59
Equity	1770.62	29.38	1839.64	29.41
Total	<b>6026.03</b>	<b>100.00</b>	<b>6256.11</b>	<b>100.00</b>
Asset-3	As on 1.4.2014		As on 31.3.2019	



	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	4549.94	74.93	4562.83	74.91
Equity	1522.40	25.07	1527.92	25.09
<b>Total</b>	<b>6072.34</b>	<b>100.00</b>	<b>6090.75</b>	<b>100.00</b>
<b>Asset-4</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	4102.69	70.00	4453.91	70.00
Equity	1758.29	30.00	1908.81	30.00
<b>Total</b>	<b>5860.99</b>	<b>100.00</b>	<b>6362.73</b>	<b>100.00</b>

### Depreciation

38. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is given at Annexure-1. The depreciation for the 2014-19 tariff period is trued-up for the transmission assets as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)					
<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Gross Block	72020.47	72639.37	72868.66	73090.77	73173.76
Additional Capitalisation	618.90	229.29	222.11	82.99	0.00
Closing Gross Block	72639.37	72868.66	73090.77	73173.76	73173.76
Average Gross Block	72329.92	72754.02	72979.72	73132.27	73173.76
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year	32.00	31.00	30.00	29.00	28.00
Aggregated Depreciable Value	65096.93	65478.61	65681.74	65819.04	65856.38
Cumulative depreciation at the end of the year	12239.25	16082.03	19936.73	23799.48	27664.42
Remaining Aggregated Depreciable Value at the end of the year	52857.68	49396.59	45745.02	42019.56	38191.96
<b>Depreciation during the year</b>	<b>3820.38</b>	<b>3842.78</b>	<b>3854.70</b>	<b>3862.75</b>	<b>3864.94</b>



(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	6026.03	6152.43	6207.10	6207.10	6241.21
Additional Capitalisation	126.40	54.67	0.00	34.11	14.90
Closing Gross Block	6152.43	6207.10	6207.10	6241.21	6256.11
Average Gross Block	6089.23	6179.77	6207.10	6224.16	6248.66
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year	0.00	1.00	2.00	3.00	4.00
Aggregated Depreciable Value	32.00	31.00	30.00	29.00	28.00
Cumulative depreciation at the end of the year	478.66	805.08	1132.94	1461.70	1791.76
Remaining Aggregated Depreciable Value at the end of the year	5001.65	4756.71	4453.45	4140.04	3832.04
<b>Depreciation during the year</b>	<b>321.63</b>	<b>326.42</b>	<b>327.86</b>	<b>328.76</b>	<b>330.06</b>

(₹ in lakh)

Asset-III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	6072.34	6077.55	6077.55	6077.55	6090.75
Additional Capitalisation	5.21	0.00	0.00	13.20	0.00
Closing Gross Block	6077.55	6077.55	6077.55	6090.75	6090.75
Average Gross Block	6074.95	6077.55	6077.55	6084.15	6090.75
Weighted Average Rate of Depreciation (WAROD) (in %)	5.29	5.29	5.29	5.29	5.29
Balance useful life at the beginning of the year	34.00	33.00	32.00	31.00	30.00
Aggregated Depreciable Value	5467.45	5469.80	5469.80	5475.74	5481.68
Cumulative depreciation at the end of the year	581.61	902.81	1224.01	1545.56	1867.46
Remaining Aggregated Depreciable Value at the end of the year	4885.84	4566.98	4245.78	3930.17	3614.21
<b>Depreciation during the year</b>	<b>321.06</b>	<b>321.20</b>	<b>321.20</b>	<b>321.55</b>	<b>321.90</b>

(₹ in lakh)

Asset-IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	5860.99	6279.71	6279.71	6279.71	6362.73
Additional Capitalisation	418.72	0.00	0.00	83.02	0.00
Closing Gross Block	6279.71	6279.71	6279.71	6362.73	6362.73
Average Gross Block	6070.35	6279.71	6279.71	6321.22	6362.73
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28



Balance useful life at the beginning of the year	0.00	1.00	2.00	3.00	4.00
Aggregated Depreciable Value	5463.32	5651.74	5651.74	5689.10	5726.46
Cumulative depreciation at the end of the year	320.65	652.45	984.24	1318.23	1654.41
Remaining Aggregated Depreciable Value at the end of the year	5142.66	4999.29	4667.49	4370.87	4072.05
<b>Depreciation during the year</b>	<b>320.65</b>	<b>331.80</b>	<b>331.80</b>	<b>333.99</b>	<b>336.18</b>

39. The details of depreciation allowed for Asset-I vide order dated 25.4.2016 in Petition No. 145/TT/2015, for Assets-II and III vide order dated 12.12.2019 in Petition No. 238/TT/2018 and for Asset-IV vide order dated 29.4.2016 in Petition No. 164/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015	3826.07	3885.31	3922.50	3922.50	3922.50
	As claimed by the Petitioner	3822.17	3844.58	3856.49	3864.55	3866.74
	Approved after Truing Up	3820.38	3842.78	3854.70	3862.75	3864.94
Asset-II	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	321.62	326.40	327.85	329.44	331.01
	As claimed by the Petitioner	321.99	326.78	328.22	329.12	330.41
	Approved after Truing Up	321.63	326.42	327.86	328.76	330.06
Asset-III	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	321.05	321.19	321.19	321.72	322.25
	As claimed by the Petitioner	321.43	321.57	321.57	321.92	322.27
	Approved after Truing Up	321.06	321.20	321.20	321.55	321.90



Asset-IV	Allowed vide order dated 29.4.2016 in Petition No. 164/TT/2015	320.64	339.66	347.53	347.53	347.53
	As claimed by the Petitioner	321.33	331.79	331.79	333.98	336.18
	Approved after Truing Up	320.65	331.80	331.80	333.99	336.18

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

40. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2019 for respective loans. The change in interest rate is due to floating rate of interest applicable for the project to be claimed/ adjusted over a period of 5 years directly from the beneficiaries. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The IoL has been worked out as detailed below: -

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

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

41. The details of IoL allowed in respect of transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)					
<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	52193.14	52626.37	52786.87	52942.35	53000.45
Cumulative Repayments upto Previous Year	8418.87	12239.25	16082.03	19936.73	23799.48
Net Loan-Opening	43774.27	40387.13	36704.85	33005.63	29200.97
Addition due to Additional Capitalization	433.23	160.50	155.48	58.10	0.00
Repayment during the year	3820.38	3842.78	3854.70	3862.75	3864.94
Net Loan-Closing	40387.13	36704.85	33005.63	29200.97	25336.03
Average Loan	42080.70	38545.99	34855.24	31103.30	27268.50



Weighted Average Rate of Interest on Loan (in %)	2.050	2.270	3.062	3.533	4.473
<b>Interest on Loan</b>	<b>862.74</b>	<b>875.07</b>	<b>1067.29</b>	<b>1098.82</b>	<b>1219.61</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	4255.41	4343.89	4382.16	4382.16	4406.04
Cumulative Repayments upto Previous Year	157.03	478.66	805.08	1132.94	1461.70
Net Loan-Opening	4098.38	3865.23	3577.08	3249.22	2944.34
Addition due to Additional Capitalization	88.48	38.27	0.00	23.88	10.43
Repayment during the year	321.63	326.42	327.86	328.76	330.06
Net Loan-Closing	3865.23	3577.08	3249.22	2944.34	2624.71
Average Loan	3981.81	3721.16	3413.15	3096.78	2784.53
Weighted Average Rate of Interest on Loan (in %)	1.726	2.059	2.928	3.394	4.327
<b>Interest on Loan</b>	<b>68.73</b>	<b>76.60</b>	<b>99.93</b>	<b>105.12</b>	<b>120.49</b>

(₹ in lakh)

<b>Asset-III</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	4549.94	4553.59	4553.59	4553.59	4562.83
Cumulative Repayments upto Previous Year	260.55	581.61	902.81	1224.01	1545.56
Net Loan-Opening	4289.39	3971.98	3650.78	3329.58	3017.27
Addition due to Additional Capitalization	3.65	0.00	0.00	9.24	0.00
Repayment during the year	321.06	321.20	321.20	321.55	321.90
Net Loan-Closing	3971.98	3650.78	3329.58	3017.27	2695.37
Average Loan	4130.68	3811.38	3490.18	3173.42	2856.32
Weighted Average Rate of Interest on Loan (in %)	1.720	1.921	2.740	3.255	4.285
<b>Interest on Loan</b>	<b>71.06</b>	<b>73.23</b>	<b>95.63</b>	<b>103.30</b>	<b>122.39</b>

(₹ in lakh)

<b>Asset-IV</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Gross Normative Loan	4102.69	4395.79	4395.79	4395.79	4453.91
Cumulative Repayments upto Previous Year	0.00	320.65	652.45	984.24	1318.23
Net Loan-Opening	4102.69	4075.14	3743.35	3411.55	3135.68
Addition due to Additional Capitalization	293.10	0.00	0.00	58.11	0.00
Repayment during the year	320.65	331.80	331.80	333.99	336.18
Net Loan-Closing	4075.14	3743.35	3411.55	3135.68	2799.50
Average Loan	4088.92	3909.24	3577.45	3273.61	2967.59
Weighted Average Rate of Interest on Loan (in %)	1.991	2.449	3.233	3.740	4.730
<b>Interest on Loan</b>	<b>81.41</b>	<b>95.73</b>	<b>115.65</b>	<b>122.44</b>	<b>140.36</b>



42. BSPHCL has contended that the 2014 Tariff Regulations do not permit change in interest of loan on account of floating rate of interest. In response, the Petitioner has submitted that the IoL has been calculated on the basis of actual interest of various loans deployed for each year. The change in Interest rate due to floating rate of interest applicable, if any, for the project needs to be claimed/ adjusted over the tariff period of 5 years directly from/ with the beneficiaries.

43. We have considered the submissions of the Petitioner and BSPHCL. The details of IoL allowed for Asset-I vide order dated 25.4.2016 in Petition No. 145/TT/2015, for Assets-II and III vide order dated 12.12.2019 in Petition No. 238/TT/2018 and for Asset-IV vide order dated 29.4.2016 in Petition No. 164/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015	851.19	781.92	706.09	620.66	536.40
	As claimed by the Petitioner	863.22	875.57	1067.92	1099.47	1220.35
	Approved after Truing Up	862.74	875.07	1067.29	1098.82	1219.61
Asset-II	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	67.96	68.18	64.05	58.63	52.96
	As claimed by the Petitioner	68.81	76.69	100.04	105.24	120.63
	Approved after Truing Up	68.73	76.60	99.93	105.12	120.49
Asset-III	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	71.21	65.80	60.21	54.98	49.71
	As claimed by the Petitioner	71.15	73.32	95.75	103.42	122.54



	Approved after Truing Up	71.06	73.23	95.63	103.30	122.39
Asset-IV	Allowed vide order dated 29.4.2016 in Petition No. 164/TT/2015	77.07	83.41	79.16	72.63	66.08
	As claimed by the Petitioner	81.58	95.72	115.63	122.41	140.33
	Approved after Truing Up	81.41	95.73	115.65	122.44	140.36

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

44. The Petitioner is entitled for RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax (%)	Grossed-up RoE [Base Rate]/(1-t) (%)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

45. The Commission, vide order dated 27.4.2020 in Petition No. 274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table below. The same MAT rates are considered for the purpose of grossing up of the rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758



46. The Petitioner has also requested to allow it to claim the differential tariff on account of the trued-up RoE based on effective rate calculated on completion of Income tax assessment/ reassessment for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of the respective assessment orders, directly from the beneficiaries, on year to year basis as provided under the 2014 Tariff Regulations.

47. We have considered the submissions made by the Petitioner. The trued up RoE allowed for the 2014-19 tariff period for the transmission assets is as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	19827.33	20013.00	20081.79	20148.42	20173.31
Addition due to ACE	185.67	68.79	66.63	24.89	0.00
Closing Equity	20013.00	20081.79	20148.42	20173.31	20173.31
Average Equity	19920.16	20047.39	20115.10	20160.86	20173.31
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>3906.34</b>	<b>3950.34</b>	<b>3963.68</b>	<b>3972.70</b>	<b>3985.84</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	1770.62	1808.54	1824.94	1824.94	1835.17
Addition due to ACE	37.92	16.40	0.00	10.23	4.47
Closing Equity	1808.54	1824.94	1824.94	1835.17	1839.64
Average Equity	1789.58	1816.74	1824.94	1830.06	1837.41
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>350.94</b>	<b>357.99</b>	<b>359.60</b>	<b>360.61</b>	<b>363.03</b>

(₹ in lakh)

<b>Asset-III</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Opening Equity	1522.40	1523.96	1523.96	1523.96	1527.92
Addition due to ACE	1.56	0.00	0.00	3.96	0.00
Closing Equity	1523.96	1523.96	1523.96	1527.92	1527.92
Average Equity	1523.18	1523.96	1523.96	1525.94	1527.92



Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>298.70</b>	<b>300.30</b>	<b>300.30</b>	<b>300.69</b>	<b>301.89</b>

(₹ in lakh)

Asset-IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1758.30	1883.91	1883.91	1883.91	1908.81
Addition due to ACE	125.61	0.00	0.00	24.91	0.00
Closing Equity	1883.91	1883.91	1883.91	1908.81	1908.81
Average Equity	1821.10	1883.91	1883.91	1896.36	1908.81
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>357.12</b>	<b>371.22</b>	<b>371.22</b>	<b>373.68</b>	<b>377.14</b>

48. The details of RoE allowed for Asset-I vide order dated 25.4.2016 in Petition No. 145/TT/2015, for Assets-II and III vide order dated 12.12.2019 in Petition No. 238/TT/2018 and for Asset-IV vide order dated 29.4.2016 in Petition No. 164/TT/2015, claimed by the Petitioner in the instant petition and as trued-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015	248.73	251.73	253.54	253.38	253.31
	As claimed by the Petitioner	248.88	252.38	259.09	262.02	267.02
	Approved after Truing Up	248.72	252.24	258.99	261.92	266.92
Asset-II	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	350.94	356.26	357.87	359.63	361.38
	As claimed by the Petitioner	351.61	358.58	360.01	361.02	363.44



	Approved after Truing Up	350.94	357.99	359.60	360.61	363.03
Asset-III	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	298.70	298.85	298.85	299.44	300.03
	As claimed by the Petitioner	299.29	300.82	300.66	301.05	302.25
	Approved after Truing Up	298.70	300.30	300.30	300.69	301.89
Asset-IV	Allowed vide order dated 29.4.2016 in Petition No. 164/TT/2015	357.12	378.21	386.99	386.99	386.99
	As claimed by the Petitioner	358.15	371.41	371.22	373.68	377.14
	Approved after Truing Up	357.12	371.22	371.22	373.68	377.14

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

49. The O&M expenses claimed by the Petitioner are within norms specified under the 2014 Tariff Regulations. Accordingly, the O&M Expenses allowed are as follows:

(₹ in lakh)					
Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station bays</b>					
400 kV Baripada -I Bay	1	1	1	1	1
400 kV Baripada -II Bay	1	1	1	1	1
400 kV Jamsedpur -I Bay	1	1	1	1	1
400 kV Jamsedpur -II Bay	1	1	1	1	1
400 kV Andal -I Bay	1	1	1	1	1
400 kV Andal -II Bay	1	1	1	1	1
400 kV Mendhasal -I Bay	1	1	1	1	1
400 kV Mendhasal -II Bay	1	1	1	1	1
400 kV Mendhasal -II Switchable Line Reactor Bay	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400 kV (AIS)	60.30	62.30	64.37	66.51	68.71
<b>Total Sub-station</b>	<b>542.70</b>	<b>560.70</b>	<b>579.33</b>	<b>598.59</b>	<b>618.39</b>



<b>O&amp;M Expenses</b>					
<b>AC Lines</b>					
400 kV D/C Baripada-Chandaka line (km)	273.200	273.200	273.200	273.200	273.200
400 kV D/C Baripada-Jamshedpur line (km)	108.294	108.294	108.294	108.294	108.294
400 kV Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur line (km)	2.443	2.443	2.443	2.443	2.443
400 kV Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur line (km)	150.750	150.750	150.750	150.750	150.750
400 kV Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur line	4.784	4.784	4.784	4.784	4.784
<b>Norm (₹ lakh/ km)</b>					
S/C (Twin/Triple Conductor)	0.404	0.418	0.432	0.446	0.461
D/C (Twin/Triple Conductor)	0.707	0.731	0.755	0.780	0.806
<b>Total AC Lines O&amp;M Expenses</b>					
	380.67	393.59	406.51	419.97	433.97
<b>Total O&amp;M Expenses</b>					
	<b>923.37</b>	<b>954.29</b>	<b>985.84</b>	<b>1018.56</b>	<b>1052.36</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station bays</b>					
Jamshedpur:400 kV Line bays at Jamshedpur	2	2	2	2	2
<b>Norm (₹ lakh/bay)</b>					
400 kV (AIS)	60.30	62.30	64.37	66.51	68.71
<b>Total Sub-station O&amp;M Expenses</b>					
	120.60	124.60	128.74	133.02	137.42
<b>AC Lines</b>					
Double Circuit Balance Portion Jamshedpur-Baripada TL	32.706	32.706	32.706	32.706	32.706
<b>Norm (₹ lakh/ km)</b>					
D/C (Twin/Triple Conductor)	0.707	0.731	0.755	0.780	0.806
<b>Total AC Lines O&amp;M Expenses</b>					
	23.12	23.91	24.69	25.51	26.36
<b>Total O&amp;M Expenses</b>					
	<b>143.72</b>	<b>148.51</b>	<b>153.43</b>	<b>158.53</b>	<b>163.78</b>



50. The Petitioner has not claimed any O&M Expenses for Assets-III and IV.

51. The details of O&M Expenses allowed for Asset-I vide order dated 25.4.2016 in Petition No. 145/TT/2015, for Assets-II and III vide order dated 12.12.2019 in Petition No. 238/TT/2018 and for Asset-IV vide order dated 29.4.2016 in Petition No. 164/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015	923.37	954.29	985.84	1018.56	1052.36
	As claimed by the Petitioner	923.36	954.29	985.85	1018.57	1052.36
	Approved after Truing Up	923.37	954.29	985.84	1018.56	1052.36
Asset-II	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	143.72	148.51	153.43	158.53	163.78
	As claimed by the Petitioner	143.72	148.51	153.43	158.53	163.78
	Approved after Truing Up	143.72	148.51	153.43	158.53	163.78

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

52. The Petitioner has claimed IWC in respect of the transmission assets as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The IWC is worked out as follows:

#### **Maintenance spares:**

Maintenance spares have been worked out based on 15% of O&M Expenses specified in Regulation 28.



**O & M Expenses:**

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

**Receivables:**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

**Rate of IWC:**

Rate of IWC is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

53. We have considered the submissions made by the Petitioner. The IWC allowed for the 2014-19 tariff period in respect of the transmission assets is as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M Expenses (O&M Expenses for One month)	76.95	79.52	82.15	84.88	87.70
Working Capital for Maintenance Spares (15% of O&M Expenses)	138.50	143.14	147.88	152.78	157.85
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	1626.92	1645.79	1688.42	1702.46	1731.61
<b>Total</b>	<b>1842.38</b>	<b>1868.45</b>	<b>1918.45</b>	<b>1940.12</b>	<b>1977.16</b>
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest of Working Capital</b>	<b>248.72</b>	<b>252.24</b>	<b>258.99</b>	<b>261.92</b>	<b>266.92</b>

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M Expenses (O&M Expenses for One month)	11.98	12.38	12.79	13.21	13.65
Working Capital for Maintenance Spares (15% of O&M Expenses)	21.56	22.28	23.01	23.78	24.57
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	151.67	155.87	161.24	163.34	167.52
<b>Total</b>	<b>185.21</b>	<b>190.52</b>	<b>197.04</b>	<b>200.33</b>	<b>205.74</b>



Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest of Working Capital</b>	<b>25.00</b>	<b>25.72</b>	<b>26.60</b>	<b>27.05</b>	<b>27.77</b>

(₹ in lakh)

<b>Asset-III</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M Expenses (O&M Expenses for One month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	117.79	118.45	122.27	123.71	127.22
<b>Total</b>	<b>117.79</b>	<b>118.45</b>	<b>122.27</b>	<b>123.71</b>	<b>127.22</b>
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
<b>Interest of Working Capital</b>	<b>15.90</b>	<b>15.99</b>	<b>16.51</b>	<b>16.70</b>	<b>17.18</b>

(₹ in lakh)

<b>Asset-IV</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Working Capital for O&M Expenses (O&M Expenses for One month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	129.44	136.19	139.59	141.53	145.56
<b>Total</b>	<b>129.44</b>	<b>136.19</b>	<b>139.59</b>	<b>141.53</b>	<b>145.56</b>
Rate of Interest on Working Capital (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest of Working Capital</b>	<b>17.47</b>	<b>18.39</b>	<b>18.84</b>	<b>19.11</b>	<b>19.65</b>

54. The details of IWC allowed for the 2014-19 tariff period for Asset-I vide order dated 25.4.2016 in Petition No. 145/TT/2015, for Assets-II and III vide order dated 12.12.2019 in Petition No. 238/TT/2018 and for Asset-IV vide order dated 29.4.2016 in Petition No. 164/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

<b>Asset</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I	Allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015	248.73	251.73	253.54	253.38	253.31



	As claimed by the Petitioner	248.88	252.38	259.09	262.02	267.02
	Approved after Truing Up	248.72	252.24	258.99	261.92	266.92
Asset-II	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	24.98	25.49	25.73	25.97	26.20
	As claimed by the Petitioner	25.03	25.75	26.62	27.07	27.80
	Approved after Truing Up	25.00	25.72	26.60	27.05	27.77
Asset-III	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	15.90	15.79	15.66	15.56	15.47
	As claimed by the Petitioner	15.93	16.01	16.53	16.72	17.20
	Approved after Truing Up	15.90	15.99	16.51	16.70	17.18
Asset-IV	Allowed vide order dated 29.4.2016 in Petition No. 164/TT/2015	17.37	18.44	18.73	18.58	18.43
	As claimed by the Petitioner	17.52	18.39	18.84	19.11	19.65
	Approved after Truing Up	17.47	18.39	18.84	19.11	19.65

### **Approved Annual Fixed Charges for the 2014-19 Tariff Period**

55. Accordingly, the annual fixed charges approved in respect of the transmission assets after truing-up for the 2014-19 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3820.38	3842.78	3854.70	3862.75	3864.94
Interest on Loan	862.74	875.07	1067.29	1098.82	1219.61
Return on Equity	3906.34	3950.34	3963.68	3972.70	3985.84
O & M Expenses	923.37	954.29	985.84	1018.56	1052.36
Interest on Working Capital	248.72	252.24	258.99	261.92	266.92
<b>Total</b>	<b>9761.54</b>	<b>9874.72</b>	<b>10130.50</b>	<b>10214.75</b>	<b>10389.68</b>



(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	321.63	326.42	327.86	328.76	330.06
Interest on Loan	68.73	76.60	99.93	105.12	120.49
Return on Equity	350.94	357.99	359.60	360.61	363.03
O & M Expenses	143.72	148.51	153.43	158.53	163.78
Interest on Working Capital	25.00	25.72	26.60	27.05	27.77
<b>Total</b>	<b>910.02</b>	<b>935.24</b>	<b>967.43</b>	<b>980.07</b>	<b>1005.13</b>

(₹ in lakh)

Asset-III					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	321.06	321.20	321.20	321.55	321.90
Interest on Loan	71.06	73.23	95.63	103.30	122.39
Return on Equity	298.70	300.30	300.30	300.69	301.89
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	15.90	15.99	16.51	16.70	17.18
<b>Total</b>	<b>706.72</b>	<b>710.72</b>	<b>733.64</b>	<b>742.23</b>	<b>763.35</b>

(₹ in lakh)

Asset-IV					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	320.65	331.80	331.80	333.99	336.18
Interest on Loan	81.41	95.73	115.65	122.44	140.36
Return on Equity	357.12	371.22	371.22	373.68	377.14
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	17.47	18.39	18.84	19.11	19.65
<b>Total</b>	<b>776.66</b>	<b>817.14</b>	<b>837.51</b>	<b>849.21</b>	<b>873.34</b>

56. The details of AFC allowed for the 2014-19 tariff period for Asset-I vide order dated 25.4.2016 in Petition No. 145/TT/2015, for Assets-II and III vide order dated 12.12.2019 in Petition No. 238/TT/2018 and for Asset-IV vide order dated 29.4.2016 in Petition No. 164/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015	9762.07	9851.96	9888.12	9835.25	9784.72



	As claimed by the Petitioner	9768.80	9881.01	10134.87	10219.15	10394.16
	Approved after Truing Up	9761.54	9874.72	10130.50	10214.75	10389.68
Asset-II	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	909.22	924.84	928.93	932.20	935.33
	As claimed by the Petitioner	911.16	936.31	968.32	980.98	1006.06
	Approved after Truing Up	910.02	935.24	967.43	980.07	1005.13
Asset-III	Allowed vide order dated 12.12.2019 in Petition No. 238/TT/2018	706.86	701.63	695.91	691.70	687.46
	As claimed by the Petitioner	707.80	711.72	734.51	743.11	764.26
	Approved after Truing Up	706.72	710.72	733.64	742.23	763.35
Asset-IV	Allowed vide order dated 29.4.2016 in Petition No. 164/TT/2015	772.20	819.72	832.41	825.73	819.03
	As claimed by the Petitioner	778.58	817.31	837.48	849.18	873.30
	Approved after Truing Up	776.66	817.14	837.51	849.21	873.34

### **Determination of Annual Fixed Charges for the 2019-24 tariff period**

57. The Petitioner has combined the instant seven transmission assets into one Combined Asset and has submitted the tariff forms for the Combined Asset. Accordingly, as per proviso (i) of Regulation 8(1) of 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for the 2019-24 tariff period.

58. The Petitioner has claimed the following transmission charges for the Combined Asset for the 2019-24 tariff period:



(₹ in lakh)					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	4855.99	4855.99	4855.99	4855.99	4855.99
Interest on Loan	1426.45	1197.20	971.19	746.37	523.07
Return on Equity	4782.45	4782.45	4782.45	4782.45	4782.45
Interest on Working Capital	203.90	202.26	200.21	198.22	195.84
Operation and Maintenance	860.65	890.78	921.94	954.08	987.28
<b>Total</b>	<b>12129.44</b>	<b>11928.68</b>	<b>11731.78</b>	<b>11537.11</b>	<b>11344.63</b>

59. The Petitioner has claimed IWC for the Combined Asset for the 2019-24 tariff period as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	71.72	74.23	76.83	79.51	82.27
Maintenance Spares	129.10	133.62	138.29	143.11	148.09
Receivables	1491.32	1470.66	1446.38	1422.38	1394.83
Total	1692.14	1678.51	1661.50	1645.00	1625.19
Rate of Interest on working capital (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>203.90</b>	<b>202.26</b>	<b>200.21</b>	<b>198.22</b>	<b>195.84</b>

#### **Effective Date of Commercial Operation (E-COD)**

60. The Petitioner has claimed E-COD of 15.6.2012 of the Combined Asset based on the trued-up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as follows:

Computation of Effective COD						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)
Asset-I	1.6.2012	73173.76	79.64	821.00	653.83	14.5.2012
Asset-II	1.10.2013	6256.11	6.81	182.00	12.39	
Asset-III	1.6.2013	6090.75	6.63	304.00	20.15	
Asset-IV	1.4.2014	6362.72	6.92	0.00	0.00	

61. The E-COD is used to determine the lapsed life of the project as a whole, which works out as (6) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).



### Weighted Average Life (WAL)

62. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life.

63. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

64. The WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 29 years and is demonstrated as follows:

<b>Admitted Capital Cost as on 31.03.2019</b>				
<b>Particulars</b>	<b>Combined Asset Cost (₹ in lakh) (1)</b>	<b>Life as per 2019 Regulation (Years) (2)</b>	<b>Weighted Cost (3)=(1)x(2)</b>	<b>Weighted Average Life of Asset (in years) (4)=(3)/(1)</b>
Building	0.00	25	0.00	
Transmission Line	82955.36	35	2903437.59	
Sub-station	8734.75	25	218368.65	
PLCC	193.23	15	2898.51	
Leasehold Land	0.00	25	0.00	
IT Equipment and software	0.00	7	0.00	
<b>Total</b>	<b>91883.34</b>		<b>3124704.75</b>	<b>(34.01 years rounded off to 34 years)</b>

65. The WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for the 2019-24 tariff period onwards) and no retrospective adjustment of



depreciation in previous tariff period is required to be done. As discussed in the preceding paragraphs, the Effective COD of the assets is 14.5.2012 and the lapsed life of the project as a whole, works out as six (6) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 34 years.

### **Initial Spares**

66. As stated earlier, Initial Spares are allowed for the 2009-14 and 2014-19 period on the basis of the cost of individual assets. The transmission assets covered in the transmission project are combined during the 2019-24 tariff period and hence, the Initial Spares are allowed on the basis of the overall project cost in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

67. Accordingly, Initial Spares allowed for the 2019-24 tariff period in respect of the transmission assets are as follows:-

### **Sub-station**

Asset	Capital Cost/ P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2009/ 2014 Tariff Regulations	Initial Spares allowable as per 2009/ 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2009-14 period (₹ in lakh)	Initial Spares allowed on Combined Asset
Asset-I (i)	2364.99	0.00	2.50%	60.64	0.00	3.45
Asset-I (ii)	3481.12	0.00	2.50%	89.26	0.00	
Asset-I (iii)	23071.87	0.00	2.50%	591.09	0.00	
Asset-I (iv)	648.18	19.57	2.50%	16.12	16.12	
Asset-II	1849.06	28.80	2.50%	46.67	28.80	
Asset-III	645.61	14.87	2.50%	16.17	14.87	
Asset-IV	727.20	14.87	6.00%	45.47	14.87	
	26941.92	78.11		865.42	74.66	

\* Additional Initial Spares of ₹3.45 lakh (₹78.11 - ₹74.66) lakh are further allowable and added back to the Capital Cost of sub-station portion of the Combined Asset



## Transmission Line

(₹ in lakh)

Asset	Capital Cost/ P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2009/ 2014 Tariff Regulations	Initial Spares allowable as per 2009/ 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)	Initial Spares allowed on Combined Asset (₹ in lakh)
Asset-I (ii)	25511.32	0.00	0.75%	192.78	0.00	44.41
Asset-I (iii)	235.24	0.00	0.75%	1.78	0.00	
Asset-I (iv)	13779.13	133.63	0.75%	103.11	103.11	
Asset-II	4424.59	40.00	0.75%	33.13	33.13	
Asset-III	8166.03	68.21	0.75%	61.19	61.19	
Asset-IV	7634.35	68.21	1.00%	76.43	68.21	
	34239.34	310.05		468.42	265.64	

\* Additional Initial Spares of ₹ 44.41 lakh (₹310.05-₹265.64) lakh are further allowable and added back to the Capital Cost of the transmission system portion of the Combined Asset

68. Thus, in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹47.86 lakh which was deducted from the Capital Cost are now admissible and added back to the Capital Cost as on 1.4.2019. Therefore, the capital cost considered for Combined Asset as on 1.4.2019 are as follows:-

(₹ in lakh)

Combined Asset	Total Capital Cost (as on 31.3.2019)	Additional Initial Spares allowed (as on 1.4.2014 in terms of the APTEL's judgement dated 14.9.2019)	Total Capital Cost (as on 1.4.2019)
Combined Asset	91883.34	47.86	91931.20

## Capital Cost

69. Regulations 19 of the 2019 Tariff Regulations provide as follows:

**“19 Capital Cost:** (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations



shall form the basis for determination of tariff for existing and new projects.

(1) *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) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;*
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) Capital expenditure on account of biomass handling equipment and facilities, forco-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

(2) *The Capital cost of an existing project shall include the following:*

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the*



respective year of tariff as determined in accordance with these regulations;

(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;

(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;

(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and

(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

(3) The capital cost in case of existing or new hydro generating station shall also include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(4) The following shall be excluded from the capital cost of the existing and new projects:

(a) The Asset-forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

*Provided that in case replacement of transmission Asset-is recommended by Regional Power Committee, such Asset-shall be decapitalised only after its redeployment;*

*Provided further that unless shifting of an Asset-from one project to another is of permanent nature, there shall be no de-capitalization of the concerned asset.*

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;

(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and

(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project



*which does not carry any liability of repayment.”*

70. The capital cost of ₹91931.20 lakh for the Combined Asset as on 1.4.2019 has been considered for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

71. The Petitioner has not claimed any ACE during the 2019-24 period.

### **Capital Cost for the 2019-24 tariff period**

72. Accordingly, the capital cost of the Combined Asset considered for the 2019-24 tariff period, subject to truing-up, is as follows:

(₹ in lakh)		
Capital Cost allowed (as on 1.4.2019)	ACE allowed for the year 2019-24	Total Estimated Completion Cost (as on 31.3.2024)
91931.20	0.00	91931.20

73. Against the overall RCE approved capital cost of ₹105079.70 lakh, the estimated project cost of the Combined Asset as on 31.3.2024 is ₹91931.20 lakh which is within the apportioned approved cost.

### **Debt-Equity Ratio**

74. Regulations 18 of the 2019 Tariff Regulations provides as follows:

**“18. Debt-Equity Ratio:** (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. 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.*

*(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*

*(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:*

*Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*

*Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.*

*(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.*

*(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 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.”*

75. The details of the debt-equity considered for the purpose of tariff computation for the 2019-24 tariff period are as follows:

(₹ in lakh)

<b>Funding Combined Asset</b>	<b>Capital Cost (as on 1.4.2019) (₹ in lakh)</b>	<b>(in %)</b>	<b>Capital Cost (as on 31.3.2024) (₹ in lakh)</b>	<b>(in %)</b>
Debt	66468.38	72.30	66468.38	72.30
Equity	25462.82	27.70	25462.82	27.70
<b>Total</b>	<b>91931.20</b>	<b>100.00</b>	<b>91931.20</b>	<b>100.00</b>



## Depreciation

76. Regulation 33 of the 2019 Tariff Regulations provides as follows:

**“33. Depreciation:** (1) *Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. 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:*

*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 a 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 the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*

*Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*

*Provided also 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 unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or 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-I** to these regulations for the assets of the generating station and transmission system:*



*Provided that the remaining depreciable value as on 31<sup>st</sup> 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 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.*

*(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.*

*(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.*

*(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.*

*(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-*

*a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or*

*b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or*

*c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.*

77. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The Gross Block during the tariff period 2019-24 has been depreciated at weighted average rate of depreciation (WAROD). WAROD has been worked out and placed as Annexure-II after taking into account the depreciation rates of assets as



prescribed in the 2019 Tariff Regulations. Depreciation allowed in respect of the transmission asset is as follows:

(₹ in lakh)					
<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Opening Gross Block	91931.20	91931.20	91931.20	91931.20	91931.20
Addition during 2019-24 due to Projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	91931.20	91931.20	91931.20	91931.20	91931.20
Average Gross Block	91931.20	91931.20	91931.20	91931.20	91931.20
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance Useful life at the beginning of the year	28.00	27.00	26.00	25.00	24.00
Aggregated Depreciable Value	82738.08	82738.08	82738.08	82738.08	82738.08
<b>Depreciation during the year</b>	<b>4856.00</b>	<b>4856.00</b>	<b>4856.00</b>	<b>4856.00</b>	<b>4856.00</b>
Cumulative Depreciation	37834.05	42690.04	47546.04	52402.03	57258.03
Remaining Aggregated Depreciable Value Total	44904.03	40048.04	35192.04	30336.05	25480.05

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

78. Regulation 32 of the 2019 Tariff Regulations provides as follows:

**“32. Interest on loan capital:** (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization 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 de-capitalisation 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.*

*(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.*

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

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

79. BSPHCL has contended that the 2019 Tariff Regulations do not permit change in interest of loan on account of floating rate of interest. In response, the Petitioner has submitted that the IoL has been calculated on the basis of interest rates prevailing as on 1.4.2019 for respective loans. The change in interest rate due to floating rate of interest applicable, if any, for the project needs to be claimed/ adjusted over the tariff period of 5 years directly from/ with the beneficiaries.

80. We have considered the submissions of the Petitioner and BSPHCL. The weighted average rate of IoL has been considered on the basis of the rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, will be considered at the time of true-up. In view of the above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is as follows:



(₹ in lakh)

Combined Asset					
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	66468.38	66468.38	66468.38	66468.38	66468.38
Cumulative Repayments upto Previous Year	32978.05	37834.05	42690.04	47546.04	52402.03
Net Loan-Opening	33490.33	28634.33	23778.34	18922.34	14066.34
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	4856.00	4856.00	4856.00	4856.00	4856.00
Net Loan-Closing	28634.33	23778.34	18922.34	14066.34	9210.35
Average Loan	31062.33	26206.33	21350.34	16494.34	11638.34
Weighted Average Rate of Interest on Loan (%)	4.594	4.571	4.552	4.529	4.500
<b>Interest on Loan</b>	<b>1427.08</b>	<b>1197.82</b>	<b>971.80</b>	<b>746.98</b>	<b>523.67</b>

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

81. Regulations 30 and 31 of the 2019 Tariff Regulations provide as follows:

**“30. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-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 return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

- In case of a new project, the rate of return on equity shall be reduced by 1.00% 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) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;
- in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;



- iii. in case of a thermal generating station, with effect from 1.4.2020:
- rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
  - an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.”

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%.”

**Regulation 31 of the 2019 Tariff Regulations provides as under:-**

**“31. Tax on Return on Equity.** (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 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 paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

**Illustration-**

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:



- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
- (d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year 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 income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

82. The RoE allowed for the Combined Asset for the 2019-24 tariff period under Regulation 30 of the 2019 Tariff Regulation is as follows:

(₹ in lakh)					
<b>Combined Asset</b>					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	25462.82	25462.82	25462.82	25462.82	25462.82
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	25462.82	25462.82	25462.82	25462.82	25462.82
Average Equity	25462.82	25462.82	25462.82	25462.82	25462.82
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>4782.43</b>	<b>4782.43</b>	<b>4782.43</b>	<b>4782.43</b>	<b>4782.43</b>

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

83. Regulations 35(3)(a) and 35(4) of the 2019 Tariff Regulations provide as follows:

(3) **Transmission system:** (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84



132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (Rs Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	2,563	2,653	2,746	2,842	2,942

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

Provided further that:



- (i) the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- (ii) the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- (iii) the O&M expenses of  $\pm 500$  kV Mundra-Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for  $\pm 500$  kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- (iv) the O&M expenses of  $\pm 800$  kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme;
- (v) the O&M expenses of  $\pm 800$  kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme; and
- (v) the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

(4) **Communication system:** The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.”

84. The Petitioner has claimed the following O&M Expenses for the 2019-24 tariff period for the Combined Assets:

(₹ in lakh)

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station bays</b>					
Jamshedpur:400 kV Line bays at Jamshedpur	2	2	2	2	2
Baripada - Bay I	1	1	1	1	1



Baripada - Bay II	1	1	1	1	1
Jamsedpur - Bay I	1	1	1	1	1
Jamsedpur - Bay II	1	1	1	1	1
Andal - Bay I	1	1	1	1	1
Jamsedpur-Andal - Bay II	1	1	1	1	1
Mendhasal-Mendhasal - Bay I	1	1	1	1	1
Mendhasal-Mendhasal - Bay II	1	1	1	1	1
Mendhasal-Mendhasal -II Switcable Line Reactor	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400 kV (AIS)	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station O&amp;M Expenses</b>	<b>353.65</b>	<b>366.08</b>	<b>378.95</b>	<b>392.26</b>	<b>406.01</b>
<b>AC Lines</b>					
Balance Portion Jamshedpur- Baripada TL	32.706	32.706	32.706	32.706	32.706
Baripada- Chandaka TL	273.200	273.200	273.200	273.200	273.200
400 kV Baripada-Jamsedpur line	108.294	108.294	108.294	108.294	108.294
400 kV Andal(DVC)-Jamsedpur section of Durgapur - Jamsedpur line	2.443	2.443	2.443	2.443	2.443
400 kV Andal(DVC)-Jamsedpur section of Durgapur - Jamsedpur line	150.750	150.750	150.750	150.750	150.750
400 kV Andal(DVC)-Jamsedpur section of Durgapur - Jamsedpur line	4.784	4.784	4.784	4.784	4.784
<b>Norm (₹ lakh/ km)</b>					
S/C (Twin/Triple Conductor)	0.503	0.521	0.539	0.558	0.578
D/C (Twin/Triple Conductor)	0.881	0.912	0.944	0.977	1.011
<b>Total AC lines O&amp;M Expenses</b>	<b>503.16</b>	<b>520.87</b>	<b>539.15</b>	<b>557.99</b>	<b>577.41</b>
<b>Communication System (PLCC)</b>					
Project Cost (₹ in lakh)	192.21	192.21	192.21	192.21	192.21
Norm (in %)	2.00	2.00	2.00	2.00	2.00
O&M Expenses PLCC	3.84	3.84	3.84	3.84	3.84
<b>Total O&amp;M Expenses</b>	<b>860.65</b>	<b>890.78</b>	<b>921.94</b>	<b>954.08</b>	<b>987.28</b>

85. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the Sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for Sub-



station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

86. The O&M Expenses allowed for the 2019-24 tariff period in respect of the Combined Asset are as follows:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station bays</b>					
Jamshedpur:400 kV Line bays at Jamshedpur	2	2	2	2	2
Baripada - Bay I	1	1	1	1	1
Baripada - Bay II	1	1	1	1	1
Jamsedpur - Bay I	1	1	1	1	1
Jamsedpur - Bay II	1	1	1	1	1
Andal - Bay I	1	1	1	1	1
Jamsedpur-Andal - Bay II	1	1	1	1	1
Mendhasal-Mendhasal - Bay I	1	1	1	1	1
Mendhasal-Mendhasal - Bay II	1	1	1	1	1
Mendhasal-Mendhasal -II Switcable Line Reactor	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400 kV (AIS)	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station O&amp;M</b>	<b>353.65</b>	<b>366.08</b>	<b>378.95</b>	<b>392.26</b>	<b>406.01</b>
<b>AC Lines</b>					
Balance Portion Jamshedpur-Baripada TL	32.706	32.706	32.706	32.706	32.706
Baripada- Chandaka TL	273.200	273.200	273.200	273.200	273.200
400 kV Baripada-Jamsedpur line	108.294	108.294	108.294	108.294	108.294
400 kV Andal(DVC)-Jamsedpur section of Durgapur - Jamsedpur line	2.443	2.443	2.443	2.443	2.443
400 kV Andal(DVC)-Jamsedpur section of Durgapur - Jamsedpur line	150.750	150.750	150.750	150.750	150.750
400 kV Andal(DVC)-Jamsedpur section of Durgapur - Jamsedpur line	4.784	4.784	4.784	4.784	4.784
<b>Norm (₹ lakh/ KM)</b>					



S/C (Twin/Triple Conductor)	0.503	0.521	0.539	0.558	0.578
D/C (Twin/Triple Conductor)	0.881	0.912	0.944	0.977	1.011
<b>Total AC transmission lines O&amp;M</b>	<b>503.16</b>	<b>520.87</b>	<b>539.15</b>	<b>557.99</b>	<b>577.41</b>
<b>Total O&amp;M Expenses allowed</b>	<b>856.81</b>	<b>886.95</b>	<b>918.10</b>	<b>950.25</b>	<b>983.42</b>

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

87. Regulations 34(1)(c), (3) and (4) and 3(7) of the 2019 Tariff Regulations specify as follows:

“34. *Interest on Working Capital: (1) The working capital shall cover:*

*(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:*

*(i) Receivables equivalent to 45 days of annual fixed cost;*

*(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*

*(iii) Operation and maintenance expenses, including security 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 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 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:*

*Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.*

*(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”*

“3. *Definition - In these regulations, unless the context otherwise requires:-*

*(7) ‘Bank Rate’ means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;”*

88. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the bank rate as on 1.4.2019.

89. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of IWC considered is 12.05% (SBI 1 year MCLR



applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, RoI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points), whereas, RoI for 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest thereon allowed for the Combined Asset are as follows:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Working Capital for O&M Expenses (O&M expenses for One month)	71.40	73.91	76.51	79.19	81.95
Working Capital for Maintenance Spares (15% of O&M expenses)	128.52	133.04	137.71	142.54	147.51
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	1490.91	1468.56	1442.75	1418.78	1391.27
<b>Total</b>	<b>1690.83</b>	<b>1675.52</b>	<b>1656.97</b>	<b>1640.51</b>	<b>1620.74</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on working capital</b>	<b>203.75</b>	<b>188.50</b>	<b>173.98</b>	<b>172.25</b>	<b>170.18</b>

#### Annual Fixed Charges for the 2019-24 Tariff Period

90. The various components of the annual fixed charges for the Combined Asset for the 2019-24 tariff period are summarized as follows:

(₹ in lakh)

<b>Combined Asset</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	4856.00	4856.00	4856.00	4856.00	4856.00
Interest on Loan	1427.08	1197.82	971.80	746.98	523.67
Return on Equity	4782.43	4782.43	4782.43	4782.43	4782.43
Operation and Maintenance	856.81	886.95	918.10	950.25	983.42
Interest on Working Capital	203.75	188.50	173.98	172.25	170.18
<b>Total</b>	<b>12126.06</b>	<b>11911.69</b>	<b>11702.31</b>	<b>11507.91</b>	<b>11315.70</b>



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

91. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. BSPHCL has submitted that grant of filing fee is strictly at the discretion of the Commission and the said discretion must be exercised looking at the peculiar facts and circumstances of each case. In response, the Petitioner, has submitted that the Commission has allowed filing fee in Petition No. 137/TT/2015 and hence it may be allowed in the instant case as well.

92. We have considered the submissions of the Petitioner and BSPHCL. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

### **Licence Fee and RLDC Fees and Charges**

93. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

### **Goods and Services Tax**

94. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondents to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government /



Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

95. BSPHCL has submitted that the prayer for GST and statutory charges is premature and hence must be rejected. In response, the Petitioner has reiterated its submissions made in the petition.

96. We have considered the submissions of the Petitioner and BSPHCL. GST is not levied on transmission service at present. Therefore, we are of the view that Petitioner's prayer is premature.

### **Security Expenses**

97. The Petitioner has submitted that security expenses in respect of transmission assets/ Combined Asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.

98. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Capital Spares**

99. The Petitioner has sought reimbursement of capital spares at the end of tariff period. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.



## Sharing of Transmission Charges

100. BSPHCL has contended that present consumers should not be burdened with past charges. In response, the Petitioner has submitted that the transmission charges are being recovered as per the applicable Regulations.

101. With effect from 1.11.2020, the 2010 Sharing Regulations have been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

102. To summarise:

- a) The trued-up Annual Fixed Charges approved for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

<b>Asset-I</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>AFC</b>	9761.54	9874.72	10130.50	10214.75	10389.68

(₹ in lakh)

<b>Asset-II</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>AFC</b>	910.02	935.24	967.43	980.07	1005.13

(₹ in lakh)

<b>Asset-III</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>AFC</b>	706.72	710.72	733.64	742.23	763.35



(₹ in lakh)

<b>Asset-IV</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>AFC</b>	776.66	817.14	837.51	849.21	873.34

b) The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Combined Asset</b>	12126.06	11911.69	11702.31	11507.91	11315.70

103. The Annexure-I and Annexure-II given hereinafter shall form part of the order.

104. This order disposes of Petition No. 703/TT/2020 in terms of the above discussions and findings.

sd/-  
**(P. K. Singh)**  
Member

sd/-  
**(Arun Goyal)**  
Member

sd/-  
**(I. S. Jha)**  
Member



2014-19

Annexure-I

Asset-I- True-  
Up

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	66264.87	325.87	130.41	222.11	82.99	0.00	67026.25	5.28	3507.39	3519.43	3528.74	3536.80	3538.99
Sub Station	5627.59	290.60	98.88	0.00	0.00	0.00	6017.07	5.28	304.81	315.09	317.70	317.70	317.70
PLCC	128.01	2.43	0.00	0.00	0.00	0.00	130.44	6.33	8.18	8.26	8.26	8.26	8.26
<b>Total</b>	<b>72020.47</b>	<b>618.90</b>	<b>229.29</b>	<b>222.11</b>	<b>82.99</b>	<b>0.00</b>	<b>73173.76</b>		<b>3820.38</b>	<b>3842.78</b>	<b>3854.70</b>	<b>3862.75</b>	<b>3864.94</b>
Weighted Average Rate of Depreciation (%)									5.28	5.28	5.28	5.28	5.28
Average Gross Block (₹ in lakh)									<b>72329.92</b>	<b>72754.02</b>	<b>72979.72</b>	<b>73132.27</b>	<b>73173.76</b>



2014-19

Annexure-I

Asset-II-  
True-Up

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
<b>Transmission Line</b>	4304.21	94.56	18.95	0.00	34.11	14.90	4466.73	5.28	229.76	232.76	233.26	234.16	235.45
<b>Sub Station</b>	1711.30	30.34	35.72	0.00	0.00	0.00	1777.36	5.28	91.16	92.90	93.84	93.84	93.84
<b>PLCC</b>	10.52	1.50	0.00	0.00	0.00	0.00	12.02	6.33	0.71	0.76	0.76	0.76	0.76
<b>Total</b>	<b>6026.03</b>	<b>126.40</b>	<b>54.67</b>	<b>0.00</b>	<b>34.11</b>	<b>14.90</b>	<b>6256.11</b>		<b>321.63</b>	<b>326.42</b>	<b>327.86</b>	<b>328.76</b>	<b>330.06</b>
Weighted Average Rate of Depreciation (%)									5.28	5.28	5.28	5.28	5.28
Average Gross Block (₹ in lakh)									<b>6089.23</b>	<b>6179.77</b>	<b>6207.10</b>	<b>6224.16</b>	<b>6248.66</b>



2014-19

Annexure-I

Asset-III-  
True-Up

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	5645.93	5.21	0.00	0.00	13.20	0.00	5664.34	5.28	298.24	298.38	298.38	298.73	299.08
Sub Station	397.28	0.00	0.00	0.00	0.00	0.00	397.28	5.28	20.98	20.98	20.98	20.98	20.98
PLCC	29.13	0.00	0.00	0.00	0.00	0.00	29.13	6.33	1.84	1.84	1.84	1.84	1.84
<b>Total</b>	<b>6072.34</b>	<b>5.21</b>	<b>0.00</b>	<b>0.00</b>	<b>13.20</b>	<b>0.00</b>	<b>6090.75</b>		<b>321.06</b>	<b>321.20</b>	<b>321.20</b>	<b>321.55</b>	<b>321.90</b>
Weighted Average Rate of Depreciation (%)									5.29	5.29	5.29	5.29	5.29
Average Gross Block (₹ in lakh)									<b>6074.95</b>	<b>6077.55</b>	<b>6077.55</b>	<b>6084.15</b>	<b>6090.75</b>

2014-19

Annexure-I



Asset-IV-  
True-Up

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	5347.92	367.10	0.00	0.00	83.02	0.00	5798.04	5.28	292.06	301.75	301.75	303.94	306.14
Sub Station	508.41	34.63	0.00	0.00	0.00	0.00	543.04	5.28	27.76	28.67	28.67	28.67	28.67
PLCC	4.65	16.99	0.00	0.00	0.00	0.00	21.64	6.33	0.83	1.37	1.37	1.37	1.37
<b>Total</b>	<b>5860.98</b>	<b>418.72</b>	<b>0.00</b>	<b>0.00</b>	<b>83.02</b>	<b>0.00</b>	<b>6362.72</b>		<b>320.65</b>	<b>331.80</b>	<b>331.80</b>	<b>333.99</b>	<b>336.18</b>
Weighted Average Rate of Depreciation (%)									5.28	5.28	5.28	5.28	5.28
Average Gross Block (₹ in lakh)									<b>6070.34</b>	<b>6279.70</b>	<b>6279.70</b>	<b>6321.21</b>	<b>6362.72</b>



Combined  
Asset

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	82999.77	0.00	0.00	0.00	0.00	0.00	82999.77	5.28	4382.39	4382.39	4382.39	4382.39	4382.39
Sub Station	8738.20	0.00	0.00	0.00	0.00	0.00	8738.20	5.28	461.38	461.38	461.38	461.38	461.38
PLCC	193.23	0.00	0.00	0.00	0.00	0.00	193.23	6.33	12.23	12.23	12.23	12.23	12.23
<b>Total</b>	<b>91931.20</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>91931.20</b>		<b>4856.00</b>	<b>4856.00</b>	<b>4856.00</b>	<b>4856.00</b>	<b>4856.00</b>
Weighted Average Rate of Depreciation (%)									5.28	5.28	5.28	5.28	5.28
Average Gross Block (₹ in lakh)									<b>91931.20</b>	<b>91931.20</b>	<b>91931.20</b>	<b>91931.20</b>	<b>91931.20</b>

