

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 404/TT/2020**

**Coram:**

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

**Date of Order: 03.05.2022**

**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 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-I:** 1 X 500 MVA, 400/220 kV Transformer at Panchkula Sub-station, **Asset-II:** 1 X 500 MVA, 400/220 kV Transformer at Jalandhar Sub-station, **Asset-III:** 1 X 315 MVA, 400/220 kV Transformer at Samba Sub-station, **Asset-IV:** 400/220 kV, 3 X 105 MVA ICT along with associated bays at Hamirpur Sub-station, **Asset-V:** 220 kV, 2 numbers Line bays at Hamirpur Sub-station, **Asset-VI:** 220 kV, 2 numbers Line bays at Jalandhar Sub-station and **Asset-VII:** 1 X 500 MVA, 400/220 kV ICT-IV at GIS Gurgaon Sub-station under Augmentation of Transformers in Northern Region-Part B in Northern Region.

**And in the matter of:**

Power Grid Corporation of India Limited,  
'SAUDAMINI', Plot No-2, Sector 29,  
Gurgaon-122001, (Haryana).

**.....Petitioner**

**Versus**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur-302005.
2. Ajmer Vidyut Vitran Nigam Limited,  
132 kV, GSS RVPNL Sub-station Building,  
Caligiri Road, Malviya Nagar,  
Jaipur-302017 (Rajasthan).
3. Jaipur Vidyut Vitran Nigam Limited,  
132 kV, GSS RVPNL Sub-station Building,  
Caligiri Road, Malviya Nagar,



- Jaipur-302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,  
132 kV, GSS RVPNL Sub-station Building,  
Caligiri Road, Malviya Nagar,  
Jaipur-302017 (Rajasthan).
  5. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building-II,  
Shimla-171004.
  6. Punjab State Electricity Board,  
The Mall,  
Patiala-147001.
  7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula-134109 (Haryana).
  8. Power Development Department,  
Government of Jammu & Kashmir,  
Mini Secretariat,  
Jammu.
  9. Uttar Pradesh Power Corporation Limited,  
(Formerly Uttar Pradesh State Electricity Board),  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-226001.
  10. Delhi Transco Limited,  
Shakti Sadan, Kotla Road,  
New Delhi-110002.
  11. BSES Yamuna Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi.
  12. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi.
  13. TATA Power Delhi Distribution Limited,  
33 kV Sub-station, Building, Hudson Lane, Kingsway Camp  
North Delhi-110009.
  14. Chandigarh Administration,  
Sector -9,



Chandigarh.

15. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kanwali Road,  
Dehradun.
16. Northern Central Railway,  
Allahabad.
17. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi-110002.
18. Himachal Pradesh Power Transmission Corporation Limited  
Himfed Bhawan, Panjari,  
Shimla-171005.
19. Punjab State Transmission Corporation Limited,  
PSEB Head Office, The Mall,  
Patiala-147001.

.....Respondent(s)

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

**For Respondents** : Ms. Nikita Choukse, Advocate, HPPTCL

### **ORDER**

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for truing up of transmission tariff of 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 for 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”) for the following assets (hereinafter collectively referred to as “the transmission assets”) covered under Augmentation of Transformers in Northern Region-Part-B in Northern Region (hereinafter referred to as “the transmission project”):



**Asset-I:** 1 X 500 MVA, 400/220 kV Transformer at Panchkula Sub-station;  
**Asset-II:** 1 X 500 MVA, 400/220 kV Transformer at Jalandhar Sub-station;  
**Asset-III:** 1 X 315 MVA, 400/220 kV Transformer at Samba Sub-station;  
**Asset-IV:** 400/220 kV, 3 X 105 MVA ICT along with associated bays at Hamirpur Sub-station;  
**Asset-V:** 220 kV, 2 numbers Line bays at Hamirpur Sub-station;  
**Asset-VI:** 220 kV, 2 numbers Line bays at Jalandhar Sub-station; and  
**Asset-VII:** 1 X 500 MVA, 400/220 kV ICT-IV at GIS Gurgaon Sub-station.

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 8 and 9 above.
- 2) 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 8 and 9 above for respective block.
- 3) 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.
- 4) 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.
- 5) 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.
- 6) 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 9.10 above.
- 7) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 8) 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 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 Petitioner was entrusted with the implementation of the transmission project, that was discussed and agreed in 30<sup>th</sup> SCM and 25<sup>th</sup> NRPC meeting held on 19.12.2011 and 19.3.2012 respectively.
- b) Investment Approval (IA) for the transmission project was accorded by the Board of Directors of the Petitioner's company (in its 300<sup>th</sup> meeting held on 27.3.2014) vide Memorandum Ref. No. C/CP/Aug. of transformers in NR-Part B dated 16.5.2014 at an estimated cost of ₹15557.00 lakh, including IDC of ₹809.00 lakh (based on December, 2013 Price Level). Revised Cost Estimate of the transmission project was accorded approval by the Board of Directors of the Petitioner's company (in its 339<sup>th</sup> meeting held on 29.3.2017) vide Memorandum Ref. No. C/CP/Aug NR-B dated 31.3.2017 at an estimated cost of ₹20642.00 lakh, including IDC of ₹743.00 lakh (based on December, 2016 Price Level).
- c) The broad scope of work covered under the transmission project as per IA is as follows:

**Sub-stations Works:**

- i. Samba (1 X 315 MVA, 400/220 kV Transformer);
- ii. Gurgaon (1 X 500 MVA, 400/220 kV Transformer);
- iii. Hamirpur (3 X 105 MVA, 400/220 kV Transformer along with 2 numbers of 220 kV Line bays);
- iv. Jalandhar (1 X 500 MVA, 400/220 kV Transformer along with 2 numbers of 220 kV Line bays); and
- v. Panchkula (1 X 500 MVA, 400/220 kV Transformer).

- d) The instant petition covers the following assets:

<b>Asset</b>	<b>Particulars</b>
Asset-I	1 X 500 MVA, 400/220 kV Transformer at Panchkula Sub-station
Asset-II	1 X 500 MVA, 400/220 kV Transformer at Jalandhar Sub-station
Asset-III	1 X 315 MVA, 400/220 kV Transformer at Samba Sub-station
Asset-IV	400/220 kV, 3 X 105 MVA ICT along with associated bays at Hamirpur Sub-station
Asset-V	220 kV, 2 numbers Line bays at Hamirpur Sub-station
Asset-VI	220 kV, 2 numbers Line bays at Jalandhar Sub-station
Asset-VII	1 X 500 MVA, 400/220 kV ICT-IV at GIS Gurgaon Sub-station

- e) The transmission tariff of Asset-I, Asset-II and Asset-III from their respective COD to 31.3.2019 was approved by the Commission vide order dated 6.10.2017 in Petition No. 236/TT/2016 and the transmission tariff of Asset-IV, Asset-V, Asset-VI and Asset-VII from their respective COD to 31.3.2019 was approved



vide order dated 21.11.2019 in Petition No.158/TT/2018.

f) The details of scheduled COD, COD and time over-run are as follows:

Asset's nomenclature in the instant petition	Previous order	Asset nomenclature in previous order	SCOD	COD	Time over-run	Time over-run Condoned/ Not condoned in previous order
Asset-I	Order dated 6.10.2017 in Petition No. 236/TT/2016	Asset-1	15.05.2016	02.04.2016	-	-
Asset-II		Asset-2		02.07.2016	48 days	Not condoned
Asset-III		Asset-3		29.10.2016	167 days	Not condoned
Asset-IV	Order dated 21.11.2019 in Petition No. 158/TT/2018	Asset-1	27.03.2016	31.03.2019	1099 days	1095 days not condoned
Asset-V*		Asset-2		31.03.2019*	1099 days	1095 days not condoned
Asset-VI*		Asset-3		25.3.2019*	1093 days	Not condoned
Asset-VII		Asset-4		31.12.2017	644 days	Not condoned

\* COD approved under proviso (ii) of Regulation 4(3) in line with the 2014 Tariff Regulations.

g) It has been observed from the above table that, there is a difference in scheduled COD in case of Asset-I, Asset-II and Asset-III allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016 as compared to scheduled COD allowed in case of Asset-IV, Asset-V, Asset-VI and Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018.

h) As per Regulation 3(36) of the 2014 Tariff Regulations, the date of Investment Approval shall be the date of approval of the Board of Directors. Regulation 3(36) of the 2014 Tariff Regulations provides as under:

*“(36) ‘Investment Approval’ means approval by the Board of the generating company or the transmission licensee or Cabinet Committee on Economic Affairs (CCEA) or any other competent authority conveying administrative sanction for the project including funding of the project and the timeline for the implementation of the project.*

*Provided that the date of Investment Approval shall reckon from the date of the resolution/minutes of the Board/approval by competent authority.”*

i) The Investment Approval of the transmission system was approved the Petitioner's Board of Directors in its 300<sup>th</sup> meeting held on 27.3.2014 and the transmission system was scheduled to be put into commercial operation within 24 months from the date of Investment Approval. Thus, the scheduled COD of instant transmission system is 27.3.2016. We observe that vide order dated



6.10.17 in Petition No. 236/TT/2016, SCOD of Asset-I, Asset-II and Asset-III has been inadvertently considered incorrectly and it is expedient that SCOD of Asset-I, Asset-II and Asset-III be considered as 27.03.2016 in line with the remaining assets, namely, Asset-IV, Asset-V, Asset-VI and Asset-VII. Accordingly, we revise the scheduled COD of Asset-I, Asset-II and Asset-III in line with the remaining assets (Asset-IV, Asset-V, Asset-VI and Asset-VII) as 27.3.2016.

- j) Accordingly, scheduled COD, COD and time over-run of the transmission assets are as follows:

<b>Asset's nomenclature in the instant petition</b>	<b>SCOD</b>	<b>COD</b>	<b>Time over-run (delay)</b>	<b>Condoned/ Not condoned in previous order</b>
Asset-I	27.3.2016	02.04.2016	7 days	Not condoned
Asset-II		02.07.2016	98 days	Not condoned
Asset-III		29.10.2016	217 days	Not condoned
Asset-IV		31.03.2019	1100 days	1095 days not condoned
Asset-V		31.03.2019	1100 days	1095 days not condoned
Asset-VI		25.03.2019	1094 days	Not condoned
Asset-VII		31.12.2017	645 days	Not condoned

- k) In case of Asset-V, in order dated 21.11.2019 in Petition No. 158/TT/2018, the Commission approved COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations and directed that the transmission charges from 31.3.2019 till commissioning of the associated downstream network 220 kV Hamirpur-Dehan line under the scope of HPPTCL shall be borne by HPPTCL and, thereafter, shall be governed by the provisions of the 2010 Sharing Regulations.

- l) Similarly, in case of Asset-VI, in order dated 21.11.2019 in Petition No. 158/TT/2018, the Commission approved COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations and directed that the transmission charges from 25.3.2019 till commissioning of associated 220 kV downstream network of PSTCL shall be borne by PSTCL and thereafter, shall be shall be governed by the provisions of the 2010 Sharing Regulations.

4. The Respondents are distribution licensees, power departments and transmission licensees, which are procuring transmission services from the Petitioner,



mainly beneficiaries of Northern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. BSES Rajdhani Power Limited (BRPL), Respondent No.12 has filed its reply vide affidavit dated 6.4.2021 and has raised issues of exclusion of Asset-V and Asset-VI from the capital cost, Initial Spares, accrual IDC, tax on transmission business, Return on Equity (RoE), Indian Accounting Standard, deferred tax liability, annual truing up during 2019-24 period, security expenses, capital spares, GST, filing fees and expenses. Himachal Pradesh Power Transmission Corporation Limited (HPPTCL), Respondent No. 18 has filed its reply vide affidavit dated 7.8.2021 and has raised issues of COD of Asset-V, components of Annual Fixed Charges (AFC), effective tax rate and deferred tax for 2014-19 period, O&M Expenses and estimated security expenses for 2019-24 period, status of downstream system and bilateral billing of transmission charges related to Asset-V. The Petitioner has filed its rejoinder to the reply filed by BRPL and HPPTCL vide affidavits dated 2.8.2021 and 27.8.2021 respectively.

6. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 19.2.2020, the Petitioner's affidavits dated 2.12.2020 and 13.4.2021, replies filed by BRPL and HPPTCL vide affidavits dated 6.4.2021 and 7.8.2021 respectively and the Petitioner's rejoinders thereto filed vide affidavits dated 2.8.2021 and 27.8.2021. The issues raised by HPPTCL and clarifications given by the Petitioner thereto have been dealt in the relevant portions of this order.

7. It has been placed before us that BRPL has been raising the same issues in





several petitions despite clear findings of the Commission rejecting the contentions of BRPL. The aforesaid contentions of BRPL have been rejected by the Commission in several other petitions including Petition No. 136/TT/2020. As BRPL has not challenged the findings, the same have attained finality. In view of these, the above said pleas raised by BRPL are rejected. Therefore, in the instant petition we do not go into details of the contentions of BRPL, and the clarifications given by the Petitioner on issues where the Commission has already given its findings. The issues which are specific to the instant petition and not dealt by the Commission earlier are considered in the relevant portions of this order.

8. The hearings in this matter were held on 6.4.2021, 3.8.2021 and 26.10.2021 through video conference and the order was reserved. Having heard the learned counsel for HPPTCL and representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

#### **TRUING UP OF ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD**

9. 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)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Depreciation	93.23	99.52	113.46
Interest on Loan	104.95	92.32	95.32
Return on Equity	99.16	106.18	121.48
Interest on Working Capital	12.19	12.41	13.31
O&M Expenses	109.13	113.06	116.81
<b>Total</b>	<b>418.66</b>	<b>423.49</b>	<b>460.38</b>



(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Depreciation	47.05	77.80	90.14
Interest on Loan	50.94	76.24	81.61
Return on Equity	52.67	87.10	101.19
Interest on Working Capital	7.57	11.17	12.06
O&M Expenses	81.85	113.06	116.81
<b>Total</b>	<b>240.08</b>	<b>365.37</b>	<b>401.81</b>

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Depreciation	26.55	83.31	96.62
Interest on Loan	26.71	76.95	83.07
Return on Equity	29.05	89.23	103.56
Interest on Working Capital	4.21	11.35	12.29
O&M Expenses	46.17	113.06	116.81
<b>Total</b>	<b>132.69</b>	<b>373.90</b>	<b>412.35</b>

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Depreciation	0.74
Interest on Loan	0.74
Return on Equity	0.81
Interest on Working Capital	0.06
O&M Expenses	0.29
<b>Total</b>	<b>2.64</b>

(₹ in lakh)

Particulars	Asset-V
	2018-19 (Pro-rata for 1 day)
Depreciation	0.08
Interest on Loan	0.09
Return on Equity	0.09
Interest on Working Capital	0.02
O&M Expenses	0.26
<b>Total</b>	<b>0.54</b>

(₹ in lakh)

Particulars	Asset-VI
	2018-19 (Pro-rata for 7 days)
Depreciation	0.37
Interest on Loan	0.39
Return on Equity	0.41
Interest on working capital	0.12
O&M Expenses	1.84
<b>Total</b>	<b>3.13</b>



(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Depreciation	43.28	175.16
Interest on Loan	41.96	162.89
Return on Equity	46.61	189.05
Interest on working capital	4.16	16.81
O&M Expenses	25.78	106.83
<b>Total</b>	<b>161.79</b>	<b>650.74</b>

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

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
O&M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	69.97	70.58	76.73
<b>Total</b>	<b>95.50</b>	<b>96.96</b>	<b>103.98</b>
Rate of Interest (%)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>12.19</b>	<b>12.41</b>	<b>13.31</b>

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
O&M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	53.50	60.90	66.97
<b>Total</b>	<b>79.03</b>	<b>87.28</b>	<b>94.22</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>7.57</b>	<b>11.17</b>	<b>12.06</b>

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
O&M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	52.42	62.32	68.73
<b>Total</b>	<b>77.95</b>	<b>88.70</b>	<b>95.98</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>4.21</b>	<b>11.35</b>	<b>12.29</b>



(₹ in lakh)

Particulars	Asset-IV	
	2018-19 (Pro-rata for 1 day)	
O&M Expenses	8.90	
Maintenance Spares	16.02	
Receivables	160.89	
<b>Total</b>	<b>185.81</b>	
Rate of Interest (in %)	12.20	
<b>Interest on Working Capital</b>	<b>0.06</b>	

(₹ in lakh)

Particulars	Asset-V	
	2018-19 (Pro-rata for 1 day)	
O&M Expenses	8.02	
Maintenance Spares	14.43	
Receivables	32.98	
<b>Total</b>	<b>55.43</b>	
Rate of Interest (in %)	12.20	
<b>Interest on Working Capital</b>	<b>0.02</b>	

(₹ in lakh)

Particulars	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
O&M Expenses	8.02	
Maintenance Spares	14.43	
Receivables	27.21	
<b>Total</b>	<b>49.66</b>	
Rate of Interest (in %)	12.20	
<b>Interest on Working Capital</b>	<b>0.12</b>	

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
O&M Expenses	8.62	8.90
Maintenance Spares	15.51	16.02
Receivables	108.15	108.46
<b>Total</b>	<b>132.28</b>	<b>133.38</b>
Rate of Interest (in %)	12.60	12.60
<b>Interest on Working Capital</b>	<b>4.16</b>	<b>16.81</b>

### Date of Commercial Operation

11. HPPTCL has made the following submissions:

- a) An appeal has been preferred before the Appellate Tribunal for Electricity (APTEL) bearing DFR No. 72 of 2020 (HPPTCL vs. CERC & Others) along with application for stay of the order dated 21.11.2019 in Petition No. 158/TT/2018 to the extent of erroneous approval of COD for Asset-V.



b) In order to arrive at the conclusion on approval of COD, the Commission in order dated 21.11.2019 relied on 30<sup>th</sup> Standing Committee Meeting (SCM) held on 19.12.2011, 22<sup>nd</sup> meeting of TCC and 25<sup>th</sup> meeting of NRPC held on 23.2.2012 and 24.2.2012 and letter of HPPTCL dated 14.11.2017. However, the Commission had not considered the relevant facts and some of the crucial facts have been reiterated as follows:

**i. 30<sup>th</sup> SCM held on 19.12.2011**

Referring the Commission's order dated 21.11.2019, HPPTCL has submitted as follows:

- Even though HPPTCL had mentioned construction of 2 numbers additional bays for their proposed sub-station at Palampur (220 kV Sub-station Dehan) during the meeting, the Petitioner had not agreed to the request and had deferred the request stating that it would be considered later when required. From nowhere in the minutes of said SCM it can be concluded that an agreement or an understanding had been reached between HPPTCL and the Petitioner either to construct two numbers bays at Dehan Sub-station or HPPTCL to match the downstream works that of commissioning of bays by the Petitioner.
- It was categorically stated in the minutes of the said SCM that the 220 kV bays would be provided as per the requirement of STU and it was decided that respective STU would inform its requirement of 220 kV bays to the Petitioner at least 2 years in advance.
- HPPTCL has never requested or informed the Petitioner any such requirement of the above referred bays and the Commission also has not sought for such request during the tariff proceedings in Petition No. 158/TT/2018.

**ii. 22<sup>nd</sup> meeting of TCC and 25<sup>th</sup> meeting of NRPC held on 23.2.2012 and 24.2.2012**

- The Commission did not give cognizance to the fact that the 30<sup>th</sup>



SCM was held on 19.12.2011 and the 22<sup>nd</sup> meeting of TCC and 25<sup>th</sup> meeting of NRPC together were held on 23. 2.2012 and 24.2.2012 and that no correspondence on this matter took place between the Petitioner and HPPTCL between 19.12.2011 and 24.2.2012 and neither anything was on record, thereby indicating that the status as on 19.12.2011 remained the same on 24.2.2012 that the two bays for Palampur (Dehan) would be considered when required.

**iii. Letter of HPPTCL dated 14.11.2017**

- The letter of HPPTCL dated 14.11.2017 is misconceived in as much as the said letter was sent to the Petitioner in response to its letter dated 18.10.2017 wherein HPPTCL was requested by the Petitioner to make the corresponding 220 kV Transmission Line ready to match the commissioning of ICT along with Line Bays. By way of letter dated 14.11.2017, HPPTCL merely responded to the letter of the Petitioner dated 18.10.2017 informing them about its tentative plan/under construction assets. The said letter dated 14.11.2017, accordingly, cannot be construed as a request of additional 2 numbers of 220 kV bays on behalf of HPPTCL for their use of having committed to match the schedule of the Petitioner. Even if it is allegedly assumed that the Petitioner relied on HPPTCL's letter dated 14.11.2017 then the Petitioner should have commissioned the Bays in December 2019 and not in March 2019.
- c) The Commission had ignored the submissions of affidavit dated 20.5.2019 which were also recorded in order dated 21.11.2019 wherein it was submitted that HPPTCL in the 40<sup>th</sup> SCM held on 22.6.2018 had already informed the Petitioner that the Bays were scheduled for commissioning in April 2020. Therefore, the Petitioner ought to have planned commissioning of its assets to match the commissioning of the Bays as planned by HPPTCL rather than the other way round.
- d) With respect to communication between the Petitioner and HPPTCL having been made the basis of order by the Commission, relevant extracts of the APTEL



judgment in Appeal No. 370 of 2017 (PSPCL vs. Patran Transmission Company Limited & Ors.) [“the Patran Judgment”] have been submitted.

- e) The Commission has ignored the fact that there was no contractual/implementation agreement between HPPTCL and the Petitioner or HPSEBL. The contractual agreement has to be there between the parties for anyone of them to be held responsible for non-completion of the associated transmission system. In this regard, the Commission also overlooked the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Fourth Amendment) Regulations, which came in to force from 29.04.2016 vide which Clause 4(iii) was included with respect to the transmission.
- f) With regard to the above three documents, even if it is allegedly assumed that the Petitioner relied on communication with HPPTCL's letter dated 14.11.2017 then the Commission had not appreciated the fact that there was no correspondence on record on the matter between the Petitioner and HPPTCL from the date of 30<sup>th</sup> SCM i.e. 19.12.2011 to the Petitioner's letter dated 18.10.2017 (almost 6 years). The Petitioner never ever informed HPPTCL all these years either about their original schedule of construction, revised schedules of construction or the delays thereof or the reasons thereof or any communication asking HPPTCL to match their latest schedules of construction.
- g) Apart from the above stated three documentary evidence whose facts were ignored by the Commission, the Commission also ignored the following relevant facts which were also important:
- i. Minutes of 33<sup>rd</sup> SCM held on 23.12.2013**
- The Commission had ignored the submissions of affidavit dated 20.5.2019 which were also recorded in order dated 21.11.2019 wherein it was submitted that in 33<sup>rd</sup> SCM held on 23.12.2013, the Petitioner had stated that their ISTS sub-station was for drawl of power by HP and that for injection of power into this sub-station, HPPTCL has to apply for long term access declaring quantum of power and the time frame of injection along with certification that the generation is already connected to the grid. HPPTCL has not signed LTA or TSA or any other agreement with the Petitioner. Relevant extracts of the said meeting have been submitted.



h) The Commission also ignored to take note that before constructing two bays for Dehan Sub-station for injection of power, the Petitioner should have confirmed all the down-the-line details of not only the 220 kV connecting line but also the status of IPP's from whom HPPTCL had planned to inject power.

12. In view of the above submissions and considering that true up of Asset-V is yet to be decided in this petition, HPPTCL has requested to reconsider the above facts and take measures so that it is relieved of its undue financial burden.

13. In response, the Petitioner has made the submissions as follows:

- a) The Petitioner has been entrusted with implementation of the transmission project and the scope of work under the transmission project included work of Asset-V. As per the said scope for Asset-V, the work for construction of the associated downstream network i.e. the Hamirpur-Dehan Line, was within the scope of work awarded to HPPTCL and as per HPPTCL's own admission, the said Hamirpur-Dehan Line has still not been commissioned by it.
- b) HPPTCL has erroneously stated that there are no correspondences or agreements between it and the Petitioner regarding establishment of the Hamirpur-Dehan Line. The contention of HPPTCL is liable to be rejected as erroneous and misconceived and in this regard, the following has been submitted:
  - i. On 23.2.2012 and 24.2.2012, the transmission project was discussed in the 22<sup>nd</sup> meeting of TCC and the 25<sup>th</sup> meeting of NRPC, respectively. The relevant portion of the minutes of meeting dated 19.3.2012 for the meetings held on 23.2.2012 and 24.2.2012 have been submitted. It is evident from the said minutes that the requirement of 2 numbers 220 kV Line Bays at Hamirpur was, *inter-alia*, agreed in the TCC, and the NRPC. Further, the representatives of HPPTCL, who were present in the said meetings, agreed to the requirement of the said 2 numbers 220 kV Line Bays at the Hamirpur Sub-station.
- c) Asset-V was put into commercial operation only at the request of HPPTCL and HPPTCL was aware of the same. However, HPPTCL is now trying to cover its own shortcomings in commissioning the downstream system i.e. the Hamirpur-





- Dehan Line and in turn denying the Petitioner its legitimate transmission charges.
- d) On 18.10.2017, the Petitioner, vide its Letter, had informed HPPTCL that the construction work of Asset-V is in advance stages of completion. HPPTCL was also requested to make the corresponding downstream 220 kV transmission lines for evacuation of power from the 400/ 220 kV sub-station to match the COD of Asset-V. HPPTCL, at no stage has written to the Petitioner that it does not require or has never asked for Asset-V. Hence, clearly the principle contention of HPPTCL is merely a cover up as it was aware and conscious of the fact that Asset-V is being created by the Petitioner solely for HPPTCL. A copy of letter dated 18.10.2017 has been submitted.
- e) On 14.11.2017, HPPTCL vide its Letter, informed the Petitioner that Tenders for construction of the Hamirpur-Dehan Line of Asset-V had been invited and price evaluation was being carried out. HPPTCL further stated that the work was expected to be awarded by December 2017 and considering minimum construction period of 24 months, the Hamirpur-Dehan Line was scheduled to be completed in December 2019. A copy of letter dated 14.11.2017 has been submitted.
- f) In 45<sup>th</sup> meeting of NRPC held on 8.6.2019 and 42<sup>nd</sup> meeting of TCC held on 7.6.2019, HPPTCL had itself accepted that the Hamirpur-Dehan Line was expected to be commissioned by April, 2020. The relevant portion of the said minutes has been submitted.
- g) In this case, all the decisions were taken after due deliberation and agreement between the participants, including HPPTCL. There is nothing on record to demonstrate that the decision was taken without the consent or concurrence of HPPTCL. Accordingly, the contention of HPPTCL that at no point of time they have agreed for additional bays at Hamirpur Sub-station is liable to be rejected.
- h) HPPTCL has relied upon the Patran Judgment to contend that transmission charges cannot be levied in the absence of a contractual arrangement. In this regard, the said contention of HPPTCL is liable to be rejected for the following reasons:
- i. The decision in the Patran Judgment for saddling the liability of transmission charges on PSPCL was made on the basis of a TSA which clearly provided that PSPCL is responsible for arranging the downstream system. Further, the APTEL, while deciding the matter, relied upon the principle that



transmission charges have to be paid by the entity because of whom the asset could not be put to use.

ii. However, in the present case, a perusal of the various minutes of SCM, TCC and NRPC as well as HPPTCL's letter dated 14.11.2017, show that the responsibility for execution of the Hamirpur-Dehan Line was of HPPTCL. Therefore, reliance placed by HPPTCL on the Patran Judgment is misconceived.

i) The issue of liability of transmission charges in the absence of contractual arrangement was raised in the case of NPCIL v. CERC & Ors. (Appeal No. 332/2016) ["the NPCIL matter"]. While deciding the issue, the APTEL analyzed the Patran Judgment and other related orders passed by the Commission.

j) In the NPCIL matter, NPCIL contended that it was not liable to pay transmission charges as there was no agreement between the transmission licensee and NPCIL. Referring the relevant portion of the APTEL judgment in the NPCIL matter, the Petitioner in the instant petition has contended that irrespective of any contractual relationship, if the asset which was created at the behest of the Respondent cannot be put to use due to delay on its part, the Respondent has to bear the transmission charges from the date of commissioning of such asset.

14. We have considered the submissions of the Petitioner and HPPTCL. The Commission vide order dated 21.11.2019 in Petition No. 158/TT/2018 had considered in detail all the correspondences submitted for Asset-V and Asset-VI. The relevant portion of the said order is as follows:

*"23. We note that the requirement of the 220 kV line bays was discussed in the Standing Committee of NR held on 19.12.2011. The relevant extract of the meeting is as under:*

*"3. Augmentation of Transformation Capacity and provision of additional 220 kV bays in Northern Region*

*d) Requirement of 400/220 kV ICTs at other locations as per 2016-17 studies*

*In addition to above, studies have been carried out in the time frame of 2016- 17 to work out the requirement of ICTs at other locations also. From the studies requirement of augmentation of ICTs has been observed at various locations in Northern region. After detailed deliberations following transformer augmentation capacity, in addition to above was agreed:*



400kV S/s	Aug. proposed	220kV Line bays to be provided
Samba	3x105MVA	---
Gurgaon	1x500 MVA	---
Mandaula	1x500 MVA	---
Hamirpur	3x105 MVA	2 nos
Jalandhar	1x500 MVA	2 nos
Panchkula	1x500 MVA	---

It was also agreed that 220 kV bays would be provided as per the requirement of STU. It was decided that respective STU would inform its requirement of 220 kV bays to POWERGRID at least 2 years in advance.

Members agreed to the above proposal.

24. The requirement of the 220 kV line bays also discussed in the 22nd TCC meeting and 25th NRPC meeting held on 23.2.2012 & 24.2.2012. The relevant extract of the meeting is as under:

“xv) Augmentation of Transformation Capacity and provision of additional 220 kV bays in Northern Region

Sl. No	Substation	Transformation capacity	
		Existing	Proposed
<i>Transformation Augmentation in Northern Region : Part –B</i>			
9	Samba	7x105 (1ph)	3x105 (1ph)
10	Gurgaon	2x315	1x500
11	Hamirpur	7x105 (1ph)	3x105 (1ph)**
12	Jalandhar	2x315	1x500**
13	Panchkula	2x315	1x500

\*\*With 220 kV Bays

25. It is seen from the above that the requirement of 2 no 220 kV line bays at Hamirpur and Jalandhar was agreed in meetings of standing committee, TCC and NRPC. Further, it is observed that in the 22nd meeting of TCC and 25th meeting of NRPC held on 23rd and 24th February, 2012 the representative of PSTCL and HPPTCL were present and agreed for 220 kV line bays at Hamirpur and Jalandhar Sub-stations. Therefore, the contention of the HPPTCL and PSTCL is not justified that at no point of time they have agreed for additional bays at Hamirpur and Jalandhar Sub-stations, respectively. Based on the above, we approve COD of Asset-2 and Asset-3 as 31.3.2019 and 25.3.2019, respectively, under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, 2014.

26. In view of the above, the transmission charges for Asset-2 from 31.3.2019 till commissioning of the associated 220 kV transmission system under the scope of HPPTCL shall be borne by HPPTCL and thereafter, shall be recovered under provisions of Sharing Regulations. Similarly, the transmission charges for Asset-3 from 25.3.2019 till commissioning of the associated 220 kV transmission system under the scope of PSTCL shall be borne by PSTCL and thereafter, shall be recovered under provisions of Sharing Regulations.”

15. In view of the above, COD of Asset-V and VI was approved under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations as the downstream systems under the



scope of HPPTCL and PSTCL were not ready. It was held that the transmission charges in case of Asset-V from 31.3.2019 till commissioning of the associated 220 kV transmission system under the scope of HPPTCL shall be borne by HPPTCL and transmission charges in case of Asset-VI from 25.3.2019 till commissioning of the associated 220 kV transmission system under the scope of PSTCL shall be borne by PSTCL.

16. HPPTCL and PSTCL, the transmission licensees with respect to Asset-V and Asset-VI respectively, have preferred appeals before the APTEL vide DFR Nos. 72/2020 and 128/2020 against the Commission's order dated 21.11.2019 in Petition No. 158/TT/2018 directing them to bear and pay the transmission charges as their downstream lines were not ready. Accordingly, the transmission charges shall be shared as per the findings in this order, subject to the outcome of the said Appeals preferred by HPPTCL and PSTCL before the APTEL.

### **Capital Cost**

17. The Commission vide order dated 6.10.2017 in Petition No. 236/TT/2016 in respect of Asset-I, Asset-II and Asset-III and vide order dated 21.11.2019 in Petition No. 158/TT/2018 in respect of Asset-IV, Asset-V, Asset-VI and Asset-VII has approved the following capital cost and Additional Capital Expenditure (ACE) for the transmission assets covered in the instant petition which are as follows:

Asset	Apportioned Approved Cost (as per FR)	Revised Apportioned Approved Cost	Capital Cost allowed (as on COD)	ACE			Total Capital Cost (as on 31.3 2019)
				2016-17	2017-18	2018-19	
Asset-I	2463.52	2593.11	1669.59	274.99	342.19	114.06	2400.80
Asset-II	2271.59	2541.69	1085.65	640.05	255.42	85.14	2066.20
Asset-III	2205.76	2469.14	917.00	944.07	215.57	107.79	2184.40
Asset-IV	3425.67	6007.86	4776.23	0.00	0.00	0.00	4776.23
Asset-V	1071.63	1959.45	563.58	0.00	0.00	0.00	563.58
Asset-VI	536.77	502.07	346.59	0.00	0.00	33.15	379.74



Asset	Apportioned Approved Cost (as per FR)	Revised Apportioned Approved Cost	Capital Cost allowed (as on COD)	ACE			Total Capital Cost (as on 31.3.2019)
				2016-17	2017-18	2018-19	
Asset-VII	3581.82	4757.19	3139.55	0.00	275.14	600.00	4014.69
<b>Total</b>	<b>15556.76</b>	<b>20830.51</b>	<b>12498.19</b>	<b>1859.11</b>	<b>1088.32</b>	<b>940.14</b>	<b>16385.64</b>

18. Based on the separate Auditor's Certificates dated 9.1.2020 in respect of Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI and Auditor's Certificate dated 7.2.2020 in respect of Asset-VII, details of the respective capital cost as on COD and as on 31.3.2019 (including actual ACE during 2014-19 period) claimed by the Petitioner are as follows:

(₹ in lakh)

Asset	Revised Apportioned Approved Cost	Capital Cost (as on COD)	ACE			Total Cost (as on 31.3.2019)
			2016-17	2017-18	2018-19	
Asset-I	2593.11	1669.88	24.41	203.71	303.05	2201.05
Asset-II	2102.36	1118.72	205.35	353.56	108.49	1786.12
Asset-III	2349.14	955.44	493.13	180.12	279.72	1908.41
Asset-IV	7521.31	5953.37	0.00	0.00	0.00	5953.37
Asset-V	879.63	625.54	0.00	0.00	0.00	625.54
Asset-VI	439.33	393.25	0.00	0.00	33.15	426.40
Asset-VII	4757.19	3617.09	0.00	3.92	50.77	3671.78
<b>Total</b>	<b>20642.07</b>	<b>14333.29</b>	<b>722.89</b>	<b>741.31</b>	<b>775.18</b>	<b>16572.67</b>

19. For the purpose of tariff, the Petitioner has adjusted time over-run for Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI and Asset-VII in line with order dated 6.10.2017 in Petition No. 236/TT/2016 and order dated 21.11.2019 in Petition No. 158/TT/2018. The Petitioner has also adjusted excess initial spares for Asset-IV and Asset-VII. Accordingly, the capital cost claimed as on 31.3.2019 after the adjustments is as follows:

(₹ in lakh)

Asset	RCE	Capital Cost claimed (as on COD)	Actual ACE claimed			Total Cost (as on 31.3.2019)
			2016-17	2017-18	2018-19	
Asset-I	2593.11	1669.88	24.41	203.71	303.05	2201.05
Asset-II	2102.36	1088.54	205.41	358.92	108.49	1761.36
Asset-III	2349.14	918.14	493.36	195.80	279.72	1887.02
Asset-IV	7521.31	5013.67	0.00	0.00	0.00	5013.67



Asset	RCE	Capital Cost claimed (as on COD)	Actual ACE claimed			Total Cost (as on 31.3.2019)
			2016-17	2017-18	2018-19	
Asset-V	879.63	563.58	0.00	0.00	0.00	563.58
Asset-VI	439.33	346.60	0.00	0.00	33.15	379.75
Asset-VII	4757.19	3160.40	0.00	3.65	50.77	3214.82
<b>Total</b>	<b>20642.07</b>	<b>12760.81</b>	<b>723.18</b>	<b>762.08</b>	<b>775.18</b>	<b>15021.25</b>

20. BRPL has submitted that Asset-V and Asset-VI have not attained the actual COD and the same was approved under the second proviso to Regulation 4(3) of the 2014 Tariff Regulations as there was delay in the commissioning of downstream network of HPPTCL and PSTCL. Owing to delay in commissioning of downstream assets of HPPTCL and PSTCL, Asset-V and Asset-VI could not be put to use. BRPL has submitted that as per Regulation 9(6)(a) of the 2014 Tariff Regulations, assets not in use cannot be included in the capital cost. Accordingly, BRPL has requested to exclude Asset-V and Asset-VI. In response, the Petitioner has prayed to allow the tariff as claimed in the petition.

21. We have considered the submissions of the Petitioner and BRPL. As pointed out by BRPL, the assets which are 'not-in-use' should not be granted tariff as per Regulation 9(6)(a) of the 2014 Tariff Regulations. However, the COD of Asset-V and Asset-VI has been approved under the second proviso to Regulation 4(3) of the 2014 Tariff Regulations as the Petitioner was prevented from putting them into use for reasons not attributable to the Petitioner. Therefore, the transmission charges in the instant case shall be borne by the entity(ies) which is/are responsible for execution of the downstream assets. BRPL and other beneficiaries are not liable to pay any transmission charges for this period of mismatch and they shall be liable to pay the transmission charges only after the COD of the downstream assets and when Asset-V and Asset-VI are put to use. Therefore, apprehensions of BRPL in this regard are



unfounded.

### **Cost Over-run**

22. Based on the separate Auditor's Certificates dated 9.1.2020 in respect of Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI and Auditor's Certificate dated 7.2.2020 in respect of Asset-VII, the Petitioner has claimed capital cost as on COD of ₹1669.88 lakh, ₹1118.72 lakh, ₹955.44 lakh, ₹5953.37 lakh, ₹625.54 lakh, ₹393.25 lakh and ₹3617.09 lakh respectively.

23. The total completion cost as on 31.3.2019 including ACE during the 2014-19 period in respect of the transmission assets is ₹16572.67 lakh and RCE cost is ₹20642.07 lakh. Further, the individual capital cost of the transmission assets is within RCE apportioned approved cost. Hence, the completion cost in respect of the transmission assets is within the approved RCE cost.

24. We observe that as per the previous orders, the total RCE apportioned approved cost is ₹20830.51 lakh and the Petitioner in the instant true-up petition has revised the apportioned approved cost as per RCE to ₹20642.07 lakh. The Petitioner is directed to take due diligence at the time of preparing FR and RCE while apportioning costs between various elements of the transmission system/ project.

### **Time Over-run**

25. As per IA, the transmission assets were scheduled to be put under commercial operation within 24 months from the date of IA, which is 27.3.2014. Accordingly, the scheduled COD was 27.3.2016. Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI and Asset-VII were put into commercial operation on 2.4.2016, 2.7.2016, 29.10.2016, 31.3.2019, 31.3.2019, 25.3.2019 and 31.12.2017 respectively.



26. There is a time over-run of 7 days, 98 days and 217 days in case of Asset-I, Asset-II and Asset-III respectively. The Commission vide order dated 6.10.2017 in Petition No 236/TT/2016 has not condoned the said time over-run in case of Asset-II and Asset-III. Further, there is a time over-run of 1100 days, 1100 days, 1094 days and 645 days in case of Asset-IV, Asset-V, Asset-VI and Asset-VII respectively of which 1095 days, 1095 days, 1094 days and 645 days were not condoned in case of Asset-IV, Asset-V, Asset-VI and Asset-VII respectively vide order dated 21.11.2019 in Petition No.158/TT/2018.

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

27. The Petitioner has claimed IDC in respect of the transmission assets and in support of the same has submitted separate Auditor's Certificates dated 9.1.2020 in case of Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V and Asset-VI and Auditor's Certificate dated 7.2.2020 in case of Asset-VII. The Petitioner has submitted computation of IDC along with year-wise details of IDC discharged.

28. The allowable IDC has been worked out considering the information submitted by the Petitioner in respect of the transmission assets separately on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and IDC computation sheet have been considered for the purpose of IDC calculation on cash basis and accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged.

29. Accordingly, based on the information furnished by the Petitioner, IDC considered, is as follows:





Asset	IDC as per Auditor's Certificates	IDC admissible	IDC disallowed due to time over-run/ computational difference	IDC discharged as on COD	IDC un-discharged as on COD	(₹ in lakh)		
						IDC discharge during		
						2016-17	2017-18	2018-19
A	B	C=(A-B)	D	E=(B-D)	F	G	H	
Asset-I	28.06	26.23	1.83	26.23	-	-	-	-
Asset-II	19.63	5.34	14.29	5.34	-	-	-	-
Asset-III	19.30	0.70	18.60	0.70	-	-	-	-
Asset-IV	652.50	0.00	652.50	-	-	-	-	-
Asset-V	29.43	0.00	29.43	-	-	-	-	-
Asset-VI	30.37	0.00	30.37	-	-	-	-	-
Asset-VII	168.15	0.13	168.02	0.13	-	-	-	-

30. The Petitioner has claimed IEDC for the transmission assets for the 2014-19 tariff period as per Auditor's Certificates as follows:

(₹ in lakh)	
Asset	IEDC claimed as per Auditor's Certificates
Asset-I	91.51
Asset-II	63.62
Asset-III	47.82
Asset-IV	479.98
Asset-V	54.36
Asset-VI	27.17
Asset-VII	29.16

31. We have considered the submissions of the Petitioner. The Commission vide order dated 6.10.2017 in Petition No. 236/TT/2016 had dis-allowed IEDC of ₹21.88 lakh and ₹20.25 lakh in case of Asset-II and Asset-III respectively on account of time over-run. Similarly, vide order dated 21.11.2019 in Petition No. 158/TT/2018, the Commission had dis-allowed IEDC of ₹287.20 lakh, ₹32.53 lakh, ₹16.28 lakh and ₹13.66 lakh in case of Asset-IV, Asset-V, Asset-VI and Asset-VII respectively. Further, the Petitioner has submitted that entire IEDC has been discharged as on COD in respect of the transmission assets and IEDC claimed is within the percentage of the hard cost.

32. Accordingly, IEDC details considered for the purpose of tariff calculation are as follows:



(₹ in lakh)

Asset	IEDC claimed as per Auditor's Certificates	IEDC deducted on account of time over-run	IEDC allowed
Asset-I	91.51	0.87	90.64
Asset-II	63.62	7.53	56.09
Asset-III	47.82	10.96	36.86
Asset-IV	479.98	287.20	192.78
Asset-V	54.36	32.53	21.83
Asset-VI	27.17	16.30	10.87
Asset-VII	29.16	13.66	15.50

### Initial Spares

33. Regulation 13(d) of the 2014 Tariff Regulations provides as follows:

*“Initial Spares: Initial spares shall be capitalized as a percentage of the Plant and machinery cost up to cut-off date, subject to the following ceiling norms:*

*(d) Transmission system*

*(i) Transmission line - 1.00%*

*(ii) Transmission Sub-station (Green Field) - 4.00%*

*(iii) Transmission Sub-station (Brown Field) - 6.00%*

*(iv) Series Compensation devices and HVDC Station - 4.00%*

*(v) Gas Insulated Sub-station (GIS) - 5.00%*

*(vi) Communication system - 3.5%*

.....”

34. The Petitioner has claimed Initial Spares in respect of the transmission assets as follows:

(₹ in lakh)

Asset	Estimated Completion Cost (A)	Initial Spares Claimed (B)	Ceiling limit (in %) (C)	Sub-station	Excess Initial Spares	Excess Initial Spares deducted in Petitioner's claim	Initial Spares claimed after deduction of excess spares
				Initial Spares worked Out $D=[(A-B)*C/(100-C)]$			
Asset-I	2106.85	94.76	6.00	128.43	0.00	0.00	94.76
Asset-II	1727.68	86.50	6.00	104.76	0.00	0.00	86.50
Asset-III	1861.51	106.08	6.00	112.05	0.00	0.00	106.08
Asset-IV	6175.08	466.61	5.00	300.45	166.16	45.87	420.74
Asset-V	738.13	0.00	5.00	38.85	0.00	0.00	0.00
Asset-VI	368.85	0.00	6.00	23.54	0.00	0.00	0.00
Asset-VII	3824.76	452.76	5.00	177.47	275.29	275.29	177.47

35. The Petitioner has submitted that the Initial Spares has been re-calculated based



on completion cost as per the Auditor's Certificates and has prayed to view Initial Spares on overall cost of all the transmission assets covered in the instant petition.

36. The Petitioner has submitted the discharge of Initial Spares as follows:

Asset	Initial Spares claimed for sub-station before deduction of excess spares	Expenditure on Initial Spares up to COD as per Auditor's Certificates	Actual Expenditure on Initial Spares (ACE)*			
			2017-18	2018-19	2019-20	2020-21
Asset-I	94.76	0.00	59.99	34.77	0.00	0.00
Asset-II	86.50	0.00	58.04	28.46	0.00	0.00
Asset-III	106.08	0.00	73.79	32.29	0.00	0.00
Asset-IV	466.61	241.31	0.00	0.00	112.65	112.65
Asset V	0.00	0.00	0.00	0.00	0.00	0.00
Asset VI	0.00	0.00	0.00	0.00	0.00	0.00
Asset VII	452.76	437.5	0.27	0.00	14.29	0.00

*\*The Petitioner in the instant petition has submitted that Initial Spares discharged up to COD are included in the capital cost claimed as on COD and discharge of balance Initial Spares have been considered in ACE of the respective year*

37. BRPL has submitted that the Petitioner has claimed Initial Spares beyond the ceiling limits amounting to ₹45.87 lakh in case of Asset-IV and 275.29 lakh in case of Asset-VII as specified under Regulation 13 of the 2014 Tariff Regulations. Initial Spares beyond the ceiling limit may be dis-allowed and strictly in accordance with Regulation 13 of the 2014 Tariff Regulations. In response, the Petitioner has prayed to allow Initial Spares as claimed in the petition.

38. We have considered the submissions of the Petitioner and BRPL and observe that the Petitioner has deducted excess spares of ₹45.87 lakh in case of Asset-IV and ₹275.79 lakh in case of Asset-VII in its computations. Further, 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 on overall project cost. However, in the present case, even though the entire scope of the transmission project has been completed as on 31.3.2019, COD of Asset-V and Asset-VI was approved by the Commission under proviso (ii) to Regulation



4(3) of the 2014 Tariff Regulations as the downstream systems under the scope of HPPTCL and PSTCL were not ready. The status of the said downstream systems has been submitted vide affidavit dated 2.12.2020. The downstream systems have still not been put into commercial operation. Accordingly, transmission charges in case of Asset-V and Asset-VI would be borne by HPPTCL and PSTCL from COD approved under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations to COD of respective downstream systems. Further, Asset-V and Asset-VI are not combined for tariff determination purposes during the 2019-24 period.

39. The overall project cost of the transmission assets can be ascertained only when all the transmission assets are combined. Therefore, Initial Spares are allowed on the basis of cost of the individual asset during 2014-19 tariff period and excess Initial Spares are not allowed. However, the claim for excess Initial Spares, if any, will be considered when all the transmission assets are combined.

40. The excess Initial Spares towards Asset-IV and Asset-VI is restricted to 5% as per the ceiling specified under Regulation 13(d) of the 2014 Tariff Regulations. Further, we also observe that in case of Asset- I, Asset-II, Asset-III and Asset-VII, the Petitioner has considered the entire Plant and Machinery cost as capital cost instead of Plant and Machinery cost as on cut-off date. The Initial Spares of Asset-I, Asset-II, Asset-III and Asset-VII has been worked out considering the Plant and Machinery cost as on cut-off date.

41. Accordingly, the details of the Initial Spares allowed in respect of the transmission assets for the 2014-19 tariff period are as follows:



(₹ in lakh)

Sub-stations						
Asset	Plant and Machinery cost considered as on cut- off date (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable as per the 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Initial Spares discharged as on COD (₹ in lakh)
Asset-I	2081.48	94.76	6.00%	126.81	94.76	0.00
Asset-II	1702.86	86.50	6.00%	103.17	86.50	0.00
Asset-III	1861.51	106.08	6.00%	112.05	106.08	0.00
Asset-IV	6175.08	466.61	5.00%	300.45	300.45	241.31
Asset-V	738.13	0.00	5.00%	38.85	0.00	0.00
Asset-VI	368.85	0.00	5.00%	19.41	0.00	0.00
Asset-VII	3474.76	452.76	5.00%	159.05	159.05	159.05

42. The allowed year wise discharge of Initial Spares is as follows:

(₹ in lakh)

Asset	Initial Spares claimed	Allowed Expenditure on initial spares up to COD	Allowed Expenditure on Initial Spares in (ACE)			Total Initial Spares allowed
			2017-18	2018-19	2019-20	
Asset-I	94.76	0.00	59.99	34.77	0.00	94.76
Asset-II	86.50	0.00	58.04	28.46	0.00	86.50
Asset-III	106.08	0.00	73.79	32.29	0.00	106.08
Asset-IV	466.61	241.31	0.00	0.00	59.14*	300.45
Asset-V	0.00	0.00	0.00	0.00	0.00	0.00
Asset-VI	0.00	0.00	0.00	0.00	0.00	0.00
Asset-VII	452.76	159.05	0.00	0.00	0.00	159.05

\*Excess spares claimed in add cap of 2019-20 and 2020-21 is deducted in ACE

### Capital Cost allowed as on COD

43. Accordingly, the capital cost allowed as on COD is summarized as follows:

(₹ in lakh)

Asset	Capital Cost as on COD as per Auditor's Certificates*	Less: IDC as on COD due to		Less: IEDC dis-allowed on account of time over-run	Less: Excess Initial Spares dis-allowed	Capital Cost as on COD (on cash basis)
		IDC dis-allowed	Un-discharged IDC			
Asset-I	1669.88	1.83	0.00	0.87	0.00	1667.185
Asset-II	1118.72	14.29	0.00	7.53	0.00	1096.90
Asset-III	955.44	18.60	0.00	10.86	0.00	925.89
Asset-IV	5953.37	652.50	0.00	287.20	0.00	5013.67
Asset-V	625.54	29.43	0.00	32.53	0.00	563.58
Asset-VI	393.25	30.37	0.00	16.30	0.00	346.58
Asset-VII	3617.09	168.02	0.00	13.66	275.29	3160.12

\*The Petitioner has submitted that Initial Spares discharged up to COD are included in the capital cost as on COD as claimed in the Auditor's Certificates and has been considered accordingly



### **Additional Capital Expenditure**

44. The Commission vide order dated 6.10.2017 in Petition No. 236/TT/2016 in case of Asset- I, Asset-II and Asset-III and vide order dated 21.11.2019 in Petition No. 158/TT/2018 in case of Asset-IV, Asset-V, Asset-VI and Asset-VII had allowed ACE for the 2014-19 tariff period as follows:

(₹ in lakh)			
<b>Asset</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I	274.99	342.19	114.06
Asset-II	640.05	255.42	85.14
Asset-III	944.07	215.57	107.79
Asset-IV	0.00	0.00	0.00
Asset-V	0.00	0.00	0.00
Asset-VI	0.00	0.00	33.15
Asset-VII	0.00	275.14	600.00

45. The Petitioner has claimed ACE after adjustment of IDC/ IEDC, Initial Spares and liability in respect of the transmission assets covered in the instant petition as follows:

(₹ in lakh)			
<b>Asset</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-I	24.41	203.71	303.05
Asset-II	205.35	353.56	108.49
Asset-III	493.13	180.12	279.72
Asset-IV	0.00	0.00	0.00
Asset-V	0.00	0.00	0.00
Asset-VI	0.00	0.00	33.15
Asset-VII	0.00	3.92	50.77

46. The Petitioner has submitted that ACE during 2014-19 period has been claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and the same is within the cut-off date. The Petitioner has submitted Auditor's Certificates in support of the same. The Petitioner vide affidavit dated 2.12.2020 has submitted Liability Flow Statement.

47. BRPL has submitted that the Petitioner has claimed accrual IDC in ACE which may dis-allowed, as there is no provision for such ACE in the 2014 Tariff Regulations. In response, the Petitioner has submitted that the accrued IDC discharged during the



subsequent ACE has not been included in ACE for respective year for the transmission assets as per the Auditor's Certificates. Further, the transmission tariff has been calculated with the claim of IDC on cash basis and un-discharged IDC on COD has been reduced from the expenditure up to COD and has been claimed as ACE during the respective year.

48. In view of the above, the Petitioner has prayed to allow IDC on actual discharge on cash basis.

49. We have considered the submissions of the Petitioner and BRPL. The un-discharged IDC as on COD have been allowed as ACE during the year of discharge. ACE claimed by the Petitioner is allowed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations which pertains to balance and retention payments and un-discharged liability for works executed prior to cut-off date.

50. As per the directions of the Commission vide order dated 21.11.2019 in Petition No. 158/TT/2018, the cost due to time over-run shall be borne by the Petitioner and the Liquidated Damages (LD) on account of time over-run recovered shall be retained by the Petitioner. Accordingly vide Auditor's Certificate dated 9.1.2020, LD amounting to ₹33.07 lakh for 2018-19 in case of Asset-II and ₹38.44 lakh for 2018-19 in case of Asset-III has been retained by the Petitioner. Subsequently, IDC/ IEDC dis-allowed to the extent of LD recovered has been added back as ACE during 2018-19.

51. Accordingly, ACE allowed for 2014-19 tariff period is as follows:

		(₹ in lakh)		
Asset	Particulars	2016-17	2017-18	2018-19
Asset-I	Balance & Retention Payment	24.40	203.71	303.05
	Unexecuted Work	0.00	0.00	0.00
	IDC Discharged	0.31	0.00	0.00
Asset-II	Balance & Retention Payment	115.01	31.24	75.42
	Unexecuted Work	90.34	322.32	33.07
	IDC Discharged	0.00	2.34	0.00



Asset	Particulars	2016-17	2017-18	2018-19
Asset-III	Balance & Retention Payment	441.56	36.91	201.77
	Unexecuted Work	51.57	143.21	77.95
	IDC Discharged	0.00	0.00	0.00
Asset-IV	Balance & Retention Payment	0.00	0.00	0.00
	Unexecuted Work	0.00	0.00	0.00
Asset-V	Balance & Retention Payment	0.00	0.00	0.00
	Unexecuted Work	0.00	0.00	0.00
Asset-VI	Balance & Retention Payment	0.00	0.00	33.15
	Unexecuted Work	0.00	0.00	0.00
Asset-VII	Balance & Retention Payment	0.00	3.65	50.77
	Unexecuted Work	0.00	0.00	0.00

52. The capital cost approved as on 31.3.2019 after inclusion of ACE in respect of the transmission assets is as follows:

(₹ in lakh)						
Asset	Particulars	Capital cost as on COD on cash basis	2016-17	2017-18	2018-19	Total Capital cost including ACE as on 31.3.2019
Asset-I	Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	1669.59	274.99	342.19	114.06	2400.80
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	1669.88	24.41	203.71	303.05	2201.05
	Approved after truing up in this order	1667.18	24.40	203.71	303.05	2198.34
Asset-II	Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	1085.65	640.05	255.42	85.14	2066.20
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	1118.72	205.35	353.56	108.49	1786.12
	Approved after truing up in this order	1096.90	205.35	353.56	108.49	1764.30
Asset-III	Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	917.00	944.07	215.57	107.79	2184.40
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	955.44	493.13	180.12	279.72	1908.41
	Approved after truing up in this order	925.89	493.13	180.12	279.72	1878.86
Asset-IV	Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	4776.23	0.00	0.00	0.00	4776.23
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	5953.37	0.00	0.00	0.00	5953.37





	Approved after truing up in this order	5013.67	0.00	0.00	0.00	5013.67
Asset-V	Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	563.58	0.00	0.00	0.00	563.58
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	625.54	0.00	0.00	0.00	625.54
	Approved after truing up in this order	563.58	0.00	0.00	0.00	563.58
Asset-VI	Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	346.59	0.00	0.00	33.15	379.74
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	393.25	0.00	0.00	33.15	426.40
	Approved after truing up in this order	346.58	0.00	0.00	33.15	379.73
Asset-VII	Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	3139.55	0.00	275.14	600	4014.69
	Claimed by the Petitioner in the instant petition as per Auditor's Certificate	3617.09	0.00	3.92	50.77	3671.78
	Approved after truing up in this order	3160.12	0.00	3.65	50.77	3214.54

### **Debt-Equity Ratio**

53. The Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission assets as on COD and as on 31.3.2019 is as follows:

<b>Funding</b>	<b>Amount as on COD (₹ in lakh)</b>	<b>(in %)</b>	<b>Amount as on 31.3.2019 (₹ in lakh)</b>	<b>(in %)</b>
<b>Asset-I</b>				
Debt	1167.03	70.00	1538.85	70.00
Equity	500.15	30.00	659.48	30.00
<b>Total</b>	<b>1667.18</b>	<b>100.00</b>	<b>2198.34</b>	<b>100.00</b>
<b>Asset-II</b>				
Debt	767.83	70.00	1235.01	70.00
Equity	329.07	30.00	529.29	30.00
<b>Total</b>	<b>1096.90</b>	<b>100.00</b>	<b>1764.30</b>	<b>100.00</b>
<b>Asset-III</b>				
Debt	648.12	70.00	1315.21	70.00
Equity	277.76	30.00	563.65	30.00



<b>Total</b>	925.89	<b>100.00</b>	1878.86	<b>100.00</b>
<b>Asset-IV</b>				
Debt	3509.57	70.00	3509.57	70.00
Equity	1504.10	30.00	1504.10	30.00
<b>Total</b>	<b>5013.67</b>	<b>100.00</b>	<b>5013.67</b>	<b>100.00</b>
<b>Asset-V</b>				
Debt	394.51	70.00	394.51	70.00
Equity	169.07	30.00	169.07	30.00
<b>Total</b>	<b>563.58</b>	<b>100.00</b>	<b>563.58</b>	<b>100.00</b>
<b>Asset-VI</b>				
Debt	242.61	70.00	265.81	70.00
Equity	103.98	30.00	113.92	30.00
<b>Total</b>	<b>346.58</b>	<b>100.00</b>	<b>379.73</b>	<b>100.00</b>
<b>Asset-VII</b>				
Debt	2212.08	70.00	2250.18	70.00
Equity	948.04	30.00	964.36	30.00
<b>Total</b>	<b>3160.12</b>	<b>100.00</b>	<b>3214.54</b>	<b>100.00</b>

### Depreciation

54. The Petitioner's claim towards depreciation in this petition for Asset-I, Asset-III, Asset-IV, Asset-V and Asset-VII was found to be higher than the depreciation allowed vide order dated 6.10.2017 and 21.11.2019 in Petition No. 236/TT/2016 and Petition No.158/TT/2018. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. While claiming depreciation for these assets, the Petitioner has segregated IT equipment from that of sub-station and claimed higher depreciation for IT equipment. A similar issue had come up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 has dealt with the issue.

55. In terms of the order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT equipment @ 5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 2019-24 tariff period, IT equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during 2014-19 tariff



period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is at Annexure-I, Annexure-II, Annexure-III, Annexure-IV, Annexure-V, Annexure-VI and Annexure-VII in respect of Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI and Asset-VII respectively. WAROD has been worked out after considering the depreciation rates of transmission assets as specified in the 2014 Tariff Regulations and the trued-up depreciation allowed for 2014-19 period in respect of transmission assets is as follows:

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Opening Gross Block	1667.18	1691.58	1895.29
ACE	24.40	203.71	303.05
Closing Gross Block	1691.58	1895.29	2198.34
Average Gross Block	1679.38	1793.43	2046.81
Gross Block (90% depreciable assets)	1631.27	1745.32	1992.97
Gross Block (100% depreciable assets)	48.11	48.11	53.84
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
Balance useful life of the asset (Year)	24.00	24.00	23.00
Lapsed life at the beginning of the year (Year)	0.00	0.00	1.00
Depreciable value (excluding IT equipment and software)	1468.14	1570.79	1793.67
Depreciable value of IT equipment and software	43.30	43.30	48.46
Remaining Depreciable Value at the beginning of the year	1511.44	1525.66	1659.01
<b>Depreciation during the year</b>	88.43	94.69	108.07
Cumulative Aggregate Depreciation at the end of the year	88.43	183.12	291.19
Remaining Aggregated Depreciable Value at the end of the year	1423.01	1430.97	1550.94

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Opening Gross Block	1096.90	1302.25	1655.81
ACE	205.35	353.56	108.49
Closing Gross Block	1302.25	1655.81	1764.30
Average Gross Block	1199.57	1479.03	1710.05
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
Balance useful life of the asset (Year)	25.00	25.00	24.00



Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Lapsed life at the beginning of the year (Year)	0.00	0.00	1.00
Aggregated Depreciable Value	1079.61	1331.12	1539.05
Remaining Depreciable Value at the beginning of the year	1079.61	1283.75	1413.58
<b>Depreciation during the year</b>	47.37	78.09	90.29
Cumulative Aggregate Depreciation at the end of the year	47.37	125.47	215.76
Remaining Aggregated Depreciable Value at the end of the year	1032.24	1205.66	1323.29

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Opening Gross Block	925.89	1419.02	1599.14
ACE	493.13	180.12	279.72
Closing Gross Block	1419.02	1599.14	1878.86
Average Gross Block	1172.45	1509.08	1739.00
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
Balance useful life of the asset (Year)	25.00	25.00	24.00
Lapsed life at the beginning of the year (Year)	0.00	0.00	1.00
Aggregated Depreciable Value	1055.21	1358.17	1565.10
Remaining Depreciable Value at the beginning of the year	1055.21	1332.05	1459.30
<b>Depreciation during the year</b>	26.12	79.68	91.82
Cumulative Aggregate Depreciation at the end of the year	26.12	105.80	197.62
Remaining Aggregated Depreciable Value at the end of the year	1029.09	1252.37	1367.48

(₹ in lakh)

Particulars	Asset -IV
	2018-19 (Pro-rata for 1 day)
Opening Gross Block	5013.67
ACE	0.00
Closing Gross Block	5013.67
Average Gross Block	5013.67
Weighted average rate of Depreciation (WAROD) (in %)	5.28
Balance useful life of the asset (Year)	25.00
Lapsed life at the beginning of the year (Year)	0.00
Aggregated Depreciable Value	4512.30
Remaining Depreciable Value at the beginning of the year	4512.30
<b>Depreciation during the year</b>	0.73
Cumulative Aggregate Depreciation at the end of the year	0.73
Remaining Aggregated Depreciable Value at the end of the year	4511.58



Particulars	(₹ in lakh)	
	Asset-V	
	2018-19 (Pro-rata for 1 day)	
Opening Gross Block	563.58	
ACE	0.00	
Closing Gross Block	563.58	
Average Gross Block	563.58	
Weighted average rate of Depreciation (WAROD) (in %)	5.30	
Balance useful life of the asset (Year)	25.00	
Lapsed life at the beginning of the year (Year)	0.00	
Aggregated Depreciable Value	507.22	
Remaining Depreciable Value at the beginning of the year	507.22	
<b>Depreciation during the year</b>	0.08	
Cumulative Aggregate Depreciation at the end of the year	0.08	
Remaining Aggregated Depreciable Value at the end of the year	507.14	

Particulars	(₹ in lakh)	
	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Opening Gross Block	346.58	
ACE	33.15	
Closing Gross Block	379.73	
Average Gross Block	363.16	
Weighted average rate of Depreciation (WAROD) (in %)	5.32	
Balance useful life of the asset (Year)	25.00	
Lapsed life at the beginning of the year (Year)	0.00	
Aggregated Depreciable Value	326.84	
Remaining Depreciable Value at the beginning of the year	326.84	
<b>Depreciation during the year</b>	0.37	
Cumulative Aggregate Depreciation at the end of the year	0.37	
Remaining Aggregated Depreciable Value at the end of the year	326.47	

Particulars	(₹ in lakh)	
	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Opening Gross Block	3160.12	3163.77
ACE	3.65	50.77
Closing Gross Block	3163.77	3214.54
Average Gross Block	3161.95	3189.16
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28
Balance useful life of the asset (Year)	25.00	25.00
Lapsed life at the beginning of the year (Year)	0.00	0.00
Aggregated Depreciable Value	2845.75	2870.24
Remaining Depreciable Value at the beginning of the year	2845.75	2828.62
<b>Depreciation during the year</b>	<b>41.62</b>	<b>168.39</b>
Cumulative Aggregate Depreciation at the end of the year	41.62	210.01



Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Remaining Aggregated Depreciable Value at the end of the year	2804.13	2660.23

56. Depreciation allowed for Asset-I to Asset-III vide order dated 6.10.2017 in Petition No. 236/TT/2016 and Asset-IV to Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	95.15	111.71	123.75
Claimed by the Petitioner in the instant petition	93.23	99.52	113.46
Approved after true-up in this order	88.43	94.69	108.07

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	55.51	97.86	106.85
Claimed by the Petitioner in the instant petition	47.05	77.80	90.14
Approved after true-up in this order	47.37	78.09	90.29

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	30.94	103.96	112.49
Claimed by the Petitioner in the instant petition	26.55	83.31	96.62
Approved after true-up in this order	26.12	79.68	91.82

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.69
Claimed by the Petitioner in the instant petition	0.74



Particulars	Asset-IV
	2018-19 (Pro-rata for 1day)
Approved after true-up in this order	0.73

(₹ in lakh)

Particulars	Asset-V
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.08
Claimed by the Petitioner in the instant petition	0.08
Approved after true-up in this order	0.08

(₹ in lakh)

Particulars	Asset-VI
	2018-19 (Pro-rata for 7 days)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.37
Claimed by the Petitioner in the instant petition	0.37
Approved after true-up in this order	0.37

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 day)	2018-19
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	43.14	196.14
Claimed by the Petitioner in the instant petition	43.28	175.16
Approved after true-up in this order	41.62	168.39

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

57. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rates in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed for the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Gross Normative Loan	1167.03	1184.11	1326.71
Cumulative Repayments up to Previous Year	0.00	88.43	183.12
Net Loan-Opening	1167.03	1095.69	1143.59
Addition due to ACE	17.09	142.60	212.14



Repayment during the year	88.43	94.69	108.07
Net Loan-Closing	1095.69	1143.59	1247.66
Average Loan	1131.36	1119.64	1195.63
Weighted Average Rate of Interest on Loan (in %)	9.307	8.285	8.043
<b>Interest on Loan</b>	105.01	92.76	96.16

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Gross Normative Loan	767.83	911.57	1159.06
Cumulative Repayments up to Previous Year	0.00	47.37	125.47
Net Loan-Opening	767.83	864.20	1033.60
Addition due to ACE	143.75	247.49	75.94
Repayment during the year	47.37	78.09	90.29
Net Loan-Closing	864.20	1033.60	1019.25
Average Loan	816.01	948.90	1026.42
Weighted Average Rate of Interest on Loan (in %)	8.405	8.064	7.961
<b>Interest on Loan</b>	51.30	76.52	81.72

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Gross Normative Loan	648.12	993.32	1119.41
Cumulative Repayments up to Previous Year	0.00	26.12	105.80
Net Loan-Opening	648.12	967.20	1013.61
Addition due to ACE	345.19	126.09	195.80
Repayment during the year	26.12	79.68	91.82
Net Loan-Closing	967.20	1013.61	1117.59
Average Loan	807.66	990.40	1065.60
Weighted Average Rate of Interest on Loan (in %)	7.892	7.785	7.801
<b>Interest on Loan</b>	<b>26.89</b>	<b>77.11</b>	<b>83.13</b>

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Gross Normative Loan	3509.57
Cumulative Repayments up to Previous Year	0.00
Net Loan-Opening	3509.57
Addition due to ACE	0.00
Repayment during the year	0.73
Net Loan-Closing	3508.84
Average Loan	3509.21
Weighted Average Rate of Interest on Loan (in %)	7.726
<b>Interest on Loan</b>	<b>0.74</b>





(₹ in lakh)

Particulars	Asset-V	
	2018-19 (Pro-rata for 1 day)	
Gross Normative Loan	394.51	
Cumulative Repayments up to Previous Year	0.00	
Net Loan-Opening	394.51	
Addition due to ACE	0.00	
Repayment during the year	0.08	
Net Loan-Closing	394.43	
Average Loan	394.47	
Weighted Average Rate of Interest on Loan (in %)	7.966	
<b>Interest on Loan</b>	<b>0.09</b>	

(₹ in lakh)

Particulars	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Gross Normative Loan	242.61	
Cumulative Repayments up to Previous Year	0.00	
Net Loan-Opening	242.61	
Addition due to ACE	23.21	
Repayment during the year	0.37	
Net Loan-Closing	265.44	
Average Loan	254.03	
Weighted Average Rate of Interest on Loan (in %)	7.945	
<b>Interest on Loan</b>	<b>0.39</b>	

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Gross Normative Loan	2212.08	2214.64
Cumulative Repayments up to Previous Year	0.00	41.62
Net Loan-Opening	2212.08	2173.02
Addition due to ACE	2.56	35.54
Repayment during the year	41.62	168.39
Net Loan-Closing	2173.02	2040.17
Average Loan	2192.55	2106.60
Weighted Average Rate of Interest on Loan (in %)	7.687	7.750
<b>Interest on Loan</b>	<b>42.02</b>	<b>163.26</b>

58. IoL allowed for Asset-I to Asset-III vide order dated 6.10.2017 in Petition No. 236/TT/2016 and Asset-IV to Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018 , claimed by the Petitioner in the instant petition and trued-up in this order is as follows:



(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	115.94	127.01	131.02
Claimed by the Petitioner in the instant petition	104.95	92.32	95.32
Approved after true-up in this order	105.01	92.76	96.16

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	61.25	102.17	103.61
Claimed by the Petitioner in the instant petition	50.94	76.24	81.61
Approved after true-up in this order	51.30	76.52	81.72

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	32.56	104.45	104.84
Claimed by the Petitioner in the instant petition	26.71	76.95	83.07
Approved after true-up in this order	26.89	77.11	83.13

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.73
Claimed by the Petitioner in the instant petition	0.74
Approved after true-up in this order	0.74

(₹ in lakh)

Particulars	Asset-V
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.09
Claimed by the Petitioner in the instant petition	0.09
Approved after true-up in this order	0.09

(₹ in lakh)

Particulars	Asset-VI
	2018-19 (Pro-rata for 7 days)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.39
Claimed by the Petitioner in the instant petition	0.39



Particulars	Asset-VI
	2018-19 (Pro-rata for 7 days)
Approved after true-up in this order	0.39

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	45.17	195.82
Claimed by the Petitioner in the instant petition	41.96	162.89
Approved after true-up in this order	42.02	163.26

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

59. The Petitioner has claimed 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 Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

60. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rates based on the notified MAT rates for the Petitioner which are as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

61. MAT rates considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for trueing up of the tariff of the 2014-19 period, in terms of the provisions of the 2014 Tariff Regulations, have been considered in the instant case which are as



follows:

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

62. Accordingly, RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Opening Equity	500.15	507.46	568.57
Addition due to ACE	7.31	61.11	90.91
Closing Equity	507.46	568.57	659.48
Average Equity	503.81	538.02	614.03
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
Tax Rate applicable (in %)	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>99.00</b>	<b>106.02</b>	<b>121.32</b>

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Opening Equity	329.07	390.67	496.74
Addition due to ACE	61.61	106.07	32.55
Closing Equity	390.67	496.74	529.29
Average Equity	359.87	443.71	513.02
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
Tax Rate applicable (in %)	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>53.04</b>	<b>87.43</b>	<b>101.36</b>

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Opening Equity	277.76	425.70	479.73
Addition due to ACE	147.94	54.03	83.92
Closing Equity	425.70	479.73	563.65
Average Equity	351.73	452.72	521.69
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
Tax Rate applicable (in %)	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>29.24</b>	<b>89.21</b>	<b>103.08</b>



(₹ in lakh)

Particulars	Asset-IV	
	2018-19 (Pro-rata for 1 day)	
Opening Equity	1504.10	
Addition due to ACE	0.00	
Closing Equity	1504.10	
Average Equity	1504.10	
Return on Equity (Base Rate) (in %)	15.500	
Tax Rate applicable (in %)	21.549	
Rate of Return on Equity (Pre-tax)	19.758	
<b>Return on Equity (Pre-tax)</b>	<b>0.81</b>	

(₹ in lakh)

Particulars	Asset-V	
	2018-19 (Pro-rata for 1 day)	
Opening Equity	169.07	
Addition due to ACE	0.00	
Closing Equity	169.07	
Average Equity	169.07	
Return on Equity (Base Rate) (in %)	15.500	
Tax Rate applicable (in %)	21.549	
Rate of Return on Equity (Pre-tax)	19.758	
<b>Return on Equity (Pre-tax)</b>	<b>0.09</b>	

(₹ in lakh)

Particulars	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Opening Equity	103.98	
Addition due to ACE	9.95	
Closing Equity	113.93	
Average Equity	108.95	
Return on Equity (Base Rate) (in %)	15.500	
Tax Rate applicable (in %)	21.549	
Rate of Return on Equity (Pre-tax)	19.758	
<b>Return on Equity (Pre-tax)</b>	<b>0.41</b>	

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Opening Equity	948.04	949.13
Addition due to ACE	1.09	15.23
Closing Equity	949.13	964.36
Average Equity	948.58	956.74
Return on Equity (Base Rate) (in %)	15.500	15.500
Tax Rate applicable (in %)	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.705	19.758
<b>Return on Equity (Pre-tax)</b>	<b>46.60</b>	<b>189.03</b>

63. RoE allowed for Asset-I to Asset-III vide order dated 6.10.2017 in Petition No.



236/TT/2016 and Asset-IV to Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018, claimed by the Petitioner in the instant petition and true-up in the instant order is as follows:

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	106.02	124.47	137.89
Claimed by the Petitioner in the instant petition	99.16	106.18	121.48
Approved after true-up in this order	99.00	106.02	121.32

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	61.85	109.04	119.05
Claimed by the Petitioner in the instant petition	52.67	87.10	101.19
Approved after true-up in this order	53.04	87.43	101.36

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	34.48	115.83	125.34
Claimed by the Petitioner in the instant petition	29.05	89.23	103.56
Approved after true-up in this order	29.24	89.21	103.08

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.73
Claimed by the Petitioner in the instant petition	0.81
Approved after true-up in this order	0.81

(₹ in lakh)

Particulars	Asset-V
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.09
Claimed by the Petitioner in the instant petition	0.09
Approved after true-up in this order	0.09



Particulars	(₹ in lakh)	
	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.39	
Claimed by the Petitioner in the instant petition	0.41	
Approved after true-up in this order	0.41	

Particulars	(₹ in lakh)	
	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	46.39	211.79
Claimed by the Petitioner in the instant petition	46.61	189.05
Approved after true-up in this order	46.60	189.03

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

64. The details of the O&M Expenses claimed by the Petitioner for the transmission assets and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as follows:

Particulars	(₹ in lakh)		
	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
<b>Sub-station</b>			
Panchkula: ICT III Bay (400/220 kV) Panchkula	1	1	1
Panchkula: ICT III Bay (400/220kV) Panchkula	1	1	1
<b>Norm (₹ lakh/ bay)</b>			
400 kV	64.37	66.51	68.71
220 kV	45.06	46.55	48.10
<b>Total Sub-station O&amp;M Expenses</b>	<b>109.13</b>	<b>113.06</b>	<b>116.81</b>

Particulars	(₹ in lakh)		
	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
<b>Sub-station</b>			
Jalandhar: ICT III Bay (400/220 kV) Jalandhar	1	1	1
Jalandhar: ICT III Bay (400/220 kV) Jalandhar	1	1	1
<b>Norm (₹ lakh/ bay)</b>			
400 kV	64.37	66.51	68.71



220 kV	45.06	46.55	48.10
<b>Total Sub-station O&amp;M Expenses</b>	<b>81.85</b>	<b>113.06</b>	<b>116.81</b>

(₹ in lakh)

Asset-III			
Particulars	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
<b>Sub-station</b>			
Samba: ICT III Bay (400/220 kV) Samba	1	1	1
Samba: ICT III Bay (400/220 kV) Samba	1	1	1
<b>Norm (₹ lakh/ bay)</b>			
400 kV	64.37	66.51	68.71
220 kV	45.06	46.55	48.10
<b>Total Sub-station O&amp;M Expenses</b>	<b>46.17</b>	<b>113.06</b>	<b>116.81</b>

(₹ in lakh)

Asset-IV	
Particulars	2018-19 (Pro-rata for 1 day)
<b>Sub-station</b>	
Hamirpur: Hamirpur	1
Hamirpur: ICT III Bay (400/220 kV) Hamirpur	1
<b>Norm (₹ lakh/ bay)</b>	
400 kV GIS	58.73
220 kV GIS	48.10
<b>Total Sub-station O&amp;M Expenses</b>	<b>0.29</b>

(₹ in lakh)

Asset-V	
Particulars	2018-19 (Pro-rata for 1 day)
<b>Sub-station</b>	
Hamirpur: Future-III (Dehan)	1
Hamirpur: Future-IV (Dehan)	1
<b>Norm (₹ lakh/ bay)</b>	
220 kV GIS	48.10
<b>Total Sub-station O&amp;M Expenses</b>	<b>0.26</b>

(₹ in lakh)

Asset-VI	
Particulars	2018-19 (Pro-rata for 7 days)
<b>Sub-station</b>	
Jalandhar: PSEB-V	1
Jalandhar: PSEB-VI	1
<b>Norm (₹ lakh/ bay)</b>	
220 kV GIS	48.1
<b>Total Sub-station O&amp;M Expenses</b>	<b>1.84</b>





(₹ in lakh)

Asset-VII		
Particulars	2017-18 (Pro-rata for 91 days)	2018-19
<b>Sub-station</b>		
Gurgaon: ICT-IV Gurgaon (GIS)	1	1
Gurgaon: ICT-4 Gurgaon (GIS)	1	1
<b>Norm (₹ lakh/ bay)</b>		
400 kV GIS	56.84	58.73
220 kV GIS	46.55	48.10
<b>Total Sub-station O&amp;M Expenses</b>	<b>25.78</b>	<b>106.83</b>

65. O&M Expenses allowed for Asset-I to Asset-III vide order dated 6.10.2017 in Petition No. 236/TT/2016 and Asset-IV to Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	109.13	113.06	116.81
Claimed by the Petitioner in the instant petition	109.13	113.06	116.81
Approved after true-up in this order	109.13	113.06	116.81

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	81.85	113.06	116.81
Claimed by the Petitioner in the instant petition	81.85	113.06	116.81
Approved after true-up in this order	81.85	113.06	116.81

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	46.17	113.06	116.81
Claimed by the Petitioner in the instant petition	46.17	113.06	116.81
Approved after true-up in this order	46.17	113.06	116.81



Particulars	₹ in lakh	
	Asset-IV	
	2018-19 (Pro-rata for 1 day)	
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.29	
Claimed by the Petitioner in the instant petition	0.29	
Approved after true-up in this order	0.29	

Particulars	₹ in lakh	
	Asset-V	
	2018-19 (Pro-rata for 1 day)	
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.26	
Claimed by the Petitioner in the instant petition	0.26	
Approved after true-up in this order	0.26	

Particulars	₹ in lakh	
	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	1.81	
Claimed by the Petitioner in the instant petition	1.84	
Approved after true-up in this order	1.84	

Particulars	₹ in lakh		
	Asset-VII		
	2017-18 (Pro-rata for 91 days)	2018-19	
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	25.78	106.83	
Claimed by the Petitioner in the instant petition	25.78	106.83	
Approved after true-up in this order	25.78	106.83	

### Interest on Working Capital

66. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWL allowed for the transmission assets are as follows:

Particulars	₹ in lakh		
	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month)	9.12	9.42	9.73
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.41	16.96	17.52



Working Capital for Receivables (Equivalent to Two months of annual fixed cost/annual transmission charges)	69.13	69.81	75.93
<b>Total Working Capital</b>	<b>94.67</b>	<b>96.19</b>	<b>103.19</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>12.08</b>	<b>12.31</b>	<b>13.21</b>

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month)	9.12	9.42	9.73
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.41	16.96	17.52
Working Capital for Receivables (Equivalent to Two months of annual fixed cost/ annual transmission charges)	53.74	61.05	67.04
<b>Total Working Capital</b>	<b>79.27</b>	<b>87.43</b>	<b>94.30</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>7.59</b>	<b>11.19</b>	<b>12.07</b>

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month)	9.12	9.42	9.73
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.41	16.96	17.52
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	52.39	61.72	67.83
<b>Total Working Capital</b>	<b>77.93</b>	<b>88.10</b>	<b>95.09</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>4.21</b>	<b>11.28</b>	<b>12.17</b>

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Working Capital for O&M Expenses (O&M Expenses for one month)	8.90
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.02
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	160.41
<b>Total Working Capital</b>	<b>185.34</b>
Rate of Interest (in %)	12.20
<b>Interest on Working Capital</b>	<b>0.06</b>



Particulars	(₹ in lakh)	
	Asset-V	
	2018-19 (Pro-rata for 1 day)	
Working Capital for O&M Expenses (O&M Expenses for one month)	8.02	
Working Capital for Maintenance Spares (15% of O&M Expenses)	14.43	
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	32.95	
<b>Total Working Capital</b>	<b>55.39</b>	
Rate of Interest (in %)	12.20	
<b>Interest on Working Capital</b>	<b>0.02</b>	

Particulars	(₹ in lakh)	
	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Working Capital for O&M Expenses (O&M Expenses for one month)	8.02	
Working Capital for Maintenance Spares (15% of O&M Expenses)	14.43	
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	27.22	
<b>Total Working Capital</b>	<b>49.66</b>	
Rate of Interest (in %)	12.20	
<b>Interest on Working Capital</b>	<b>0.12</b>	

Particulars	(₹ in lakh)	
	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Working Capital for O&M Expenses (O&M Expenses for one month)	8.62	8.90
Working Capital for Maintenance Spares (15% of O&M Expenses)	15.51	16.02
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	107.06	107.36
<b>Total Working Capital</b>	<b>131.18</b>	<b>132.29</b>
Rate of Interest (in %)	12.60	12.60
<b>Interest on Working Capital</b>	<b>4.12</b>	<b>16.67</b>

67. IWC allowed for Asset-I to Asset-III vide order dated 6.10.2017 in Petition No. 236/TT/2016 and Asset-IV to Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018, claimed by the Petitioner and trued-up in the instant order is as follows:



(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	12.62	13.83	14.67
Claimed by the Petitioner in the instant petition	12.19	12.41	13.31
Approved after true-up in this order	12.08	12.31	13.21

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	8.18	12.65	13.29
Claimed by the Petitioner in the instant petition	7.57	11.17	12.06
Approved after true-up in this order	7.59	11.19	12.07

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	4.55	12.98	13.58
Claimed by the Petitioner in the instant petition	4.21	11.35	12.29
Approved after true-up in this order	4.21	11.28	12.17

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.06
Claimed by the Petitioner in the instant petition	0.06
Approved after true-up in this order	0.06

(₹ in lakh)

Particulars	Asset-V
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.02
Claimed by the Petitioner in the instant petition	0.02
Approved after true-up in this order	0.02

(₹ in lakh)

Particulars	Asset-VI
	2018-19 (Pro-rata for 7 days)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.11
Claimed by the Petitioner in the instant petition	0.12



Particulars	Asset-VI
	2018-19 (Pro-rata for 7 days)
Approved after true-up in this order	0.12

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	4.22	18.45
Claimed by the Petitioner in the instant petition	4.16	16.81
Approved after true-up in this order	4.12	16.67

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

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

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Depreciation	88.43	94.69	108.07
Interest on Loan	105.01	92.76	96.16
Return on Equity	99.00	106.02	121.32
O&M Expenses	109.13	113.06	116.81
Interest on Working Capital	12.08	12.31	13.21
<b>Total</b>	<b>413.66</b>	<b>418.84</b>	<b>455.57</b>

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Depreciation	47.37	78.09	90.29
Interest on Loan	51.30	76.52	81.72
Return on Equity	53.04	87.43	101.36
O&M Expenses	81.85	113.06	116.81
Interest on Working Capital	7.59	11.19	12.07
<b>Total</b>	<b>241.14</b>	<b>366.30</b>	<b>402.25</b>

(₹ in lakh)

Particulars	Asset-III		
	2016-17(Pro-rata for 154 days)	2017-18	2018-19
Depreciation	25.93	79.24	90.36
Interest on Loan	26.69	76.68	81.73
Return on Equity	29.03	88.71	101.44
O&M Expenses	46.17	113.06	116.81
Interest on Working Capital	4.21	11.28	12.17
<b>Total</b>	<b>132.63</b>	<b>370.33</b>	<b>407.01</b>



(₹ in lakh)

Particulars	Asset-IV	
	2018-19 (Pro-rata for 1 day)	
Depreciation		0.73
Interest on Loan		0.74
Return on Equity		0.81
O&M Expenses		0.29
Interest on Working Capital		0.06
<b>Total</b>		<b>2.64</b>

(₹ in lakh)

Particulars	Asset-V	
	2018-19 (Pro-rata for 1 day)	
Depreciation		0.08
Interest on Loan		0.09
Return on Equity		0.09
O&M Expenses		0.26
Interest on Working Capital		0.02
<b>Total</b>		<b>0.54</b>

(₹ in lakh)

Particulars	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Depreciation		0.37
Interest on Loan		0.39
Return on Equity		0.41
O&M Expenses		1.84
Interest on Working Capital		0.12
<b>Total</b>		<b>3.13</b>

(₹ in lakh)

Particulars	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Depreciation	41.62	168.39
Interest on Loan	42.02	163.26
Return on Equity	46.60	189.03
O&M Expenses	25.78	106.83
Interest on Working Capital	4.12	16.67
<b>Total</b>	<b>160.14</b>	<b>644.18</b>

69. Accordingly, the Annual Transmission Charges allowed for Asset-I to Asset-III vide order dated 6.10.2017 in Petition No. 236/TT/2016 and Asset-IV to Asset-VII vide order dated 21.11.2019 in Petition No. 158/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 364 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	438.87	490.07	524.14
Claimed by the Petitioner in the instant petition	418.66	423.49	460.38
Approved after true-up in this order	413.66	418.84	455.57

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 273 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	268.64	434.78	459.62
Claimed by the Petitioner in the instant petition	240.08	365.37	401.81
Approved after true-up in this order	241.14	366.30	402.25

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 154 days)	2017-18	2018-19
Allowed vide order dated 6.10.2017 in Petition No. 236/TT/2016	148.70	450.27	473.06
Claimed by the Petitioner in the instant petition	132.69	373.90	412.35
Approved after true-up in this order	132.63	370.33	407.01

(₹ in lakh)

Particulars	Asset-IV
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	2.51
Claimed by the Petitioner in the instant petition	2.64
Approved after true-up in this order	2.64

(₹ in lakh)

Particulars	Asset-V
	2018-19 (Pro-rata for 1 day)
Allowed vide order dated 21.11.2019 in Petition No. 158/TT/2018	0.54
Claimed by the Petitioner in the instant petition	0.54
Approved after true-up in this order	0.54





Particulars	(₹ in lakh)	
	Asset-VI	
	2018-19 (Pro-rata for 7 days)	
Allowed vide order dated 21.11.2019 in Petition No.158/TT/2018	3.09	
Claimed by the Petitioner in the instant petition	3.13	
Approved after true-up in this order	3.13	

Particulars	(₹ in lakh)	
	Asset-VII	
	2017-18 (Pro-rata for 91 days)	2018-19
Allowed vide order dated 21.11.2019 in Petition No.158/TT/2018	164.69	729.03
Claimed by the Petitioner in the instant petition	161.79	650.74
Approved after true-up in this order	160.14	644.18

### **DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD**

70. The Petitioner has submitted tariff forms for the 2019-24 tariff period combining Asset-I, Asset-II, Asset-III, Asset-IV and Asset-VII into a single asset and Asset-V and Asset-VI separately. The Petitioner has submitted that Asset-V and Asset-VI have not been clubbed as downstream are not yet ready and bilateral billing is being done as per order dated 21.11.2019 in Petition No. 158/TT/2018. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for Combined Asset and separate tariff for Asset-V and Asset-VI has been worked out for the 2019-24 tariff period.

71. The Petitioner has claimed the transmission charges for Combined Asset (Asset-I, Asset-II, Asset-III, Asset-IV and Asset-VII), Asset-V and Asset-VI for the 2019-24 tariff period as follows:

Particulars	(₹ in lakh)				
	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	786.78	833.15	857.72	857.72	857.72
Interest on Loan	692.91	675.73	638.79	576.34	506.78
Return on Equity	815.98	864.69	890.65	890.65	890.65
Interest on Working Capital	78.23	81.12	82.92	83.67	84.10
O&M Expenses	1003.06	1039.20	1075.63	1114.46	1151.55
<b>Total</b>	<b>3376.96</b>	<b>3493.89</b>	<b>3545.71</b>	<b>3522.84</b>	<b>3490.80</b>



(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	34.12	39.31	41.26	41.26	41.26
Interest on Loan	34.42	37.04	36.06	32.87	29.43
Return on Equity	35.21	40.74	42.82	42.82	42.82
Interest on Working Capital	2.95	3.20	3.30	3.30	3.30
O&M Expenses	31.78	32.88	34.02	35.20	36.44
<b>Total</b>	<b>138.48</b>	<b>153.17</b>	<b>157.46</b>	<b>155.45</b>	<b>153.25</b>

(₹ in lakh)

Asset-VI					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	20.20	20.20	20.20	20.20	20.20
Interest on Loan	20.33	18.72	17.33	15.99	14.33
Return on Equity	21.40	21.40	21.40	21.40	21.40
Interest on Working Capital	2.91	2.95	3.01	3.06	3.11
O&M Expenses	45.30	46.88	48.52	50.20	51.96
<b>Total</b>	<b>110.14</b>	<b>110.15</b>	<b>110.46</b>	<b>110.85</b>	<b>111.00</b>

72. The Petitioner has claimed the IWC for Combined Asset, Asset-V and Asset-VI for the 2019-24 tariff period as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	83.59	86.60	89.64	92.87	95.96
Working Capital for Maintenance Spares (15% of O&M Expenses)	150.46	155.88	161.34	167.17	172.73
Working Capital for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	415.20	430.75	437.14	434.32	429.20
<b>Total Working Capital</b>	<b>649.25</b>	<b>673.23</b>	<b>688.12</b>	<b>694.36</b>	<b>697.89</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>78.23</b>	<b>81.12</b>	<b>82.92</b>	<b>83.67</b>	<b>84.10</b>

(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	2.65	2.74	2.84	2.93	3.04
Working Capital for Maintenance Spares (15% of O&M Expenses)	4.77	4.93	5.10	5.28	5.47
Working Capital for Receivables (Equivalent to Two months of annual fixed cost/ annual transmission charges)	17.03	18.88	19.41	19.17	18.84
<b>Total Working Capital</b>	<b>24.45</b>	<b>26.55</b>	<b>27.35</b>	<b>27.38</b>	<b>27.35</b>



Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.95</b>	<b>3.20</b>	<b>3.30</b>	<b>3.30</b>	<b>3.30</b>

(₹ in lakh)

<b>Asset-VI</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)	3.78	3.91	4.04	4.18	4.33
Working Capital for Maintenance Spares (15% of O&M Expenses)	6.80	7.03	7.28	7.53	7.79
Working Capital for Receivables (Equivalent to Two months of annual fixed cost/ annual transmission charges)	13.54	13.58	13.62	13.67	13.65
<b>Total Working Capital</b>	<b>24.12</b>	<b>24.52</b>	<b>24.94</b>	<b>25.38</b>	<b>25.77</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.91</b>	<b>2.95</b>	<b>3.01</b>	<b>3.06</b>	<b>3.11</b>

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

73. The Petitioner has claimed E-COD of Combined Asset as 28.10.2017 based on the trued-up admitted capital cost and actual COD of Asset-I, Asset-II, Asset-III, Asset-IV and Asset-VII, E-COD has been worked out as follows:

<b>Computation of E-COD</b>					
<b>Asset</b>	<b>Actual COD</b>	<b>Admitted Capital Cost as on 31.3.2019 (₹ in lakh)</b>	<b>Weight of the cost (in %)</b>	<b>Number of days from last COD</b>	<b>Weighted Days</b>
Asset-I	2.4.2016	2198.34	15.62	1093.00	170.78
Asset-II	2.7.2016	1764.30	12.54	1002.00	125.65
Asset-III	29.10.2016	1878.86	13.35	883.00	117.92
Asset-IV	31.3.2019	5013.67	35.63	0.00	0.00
Asset-VII	31.12.2017	3214.54	22.85	455.00	103.96
<b>Total</b>	<b>31.3.2019</b>	<b>14069.70</b>	<b>100.00</b>		<b>518.29</b>
<b>E-COD (Latest COD - Total Weighted Days) 28.10.2017</b>					

74. E-COD is used to determine the lapsed life of the project as a whole, which works out as 1 year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

### **Weighted Average Life (WAL)**

75. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. 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 WAL has been used as the useful life of the transmission project as a whole.

76. 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 Combined Asset has been worked out as 25 years as follows:

<b>Admitted Capital Cost as on 31.3.2019</b>				
<b>Particulars</b>	<b>Capital Cost as on 31.3.2019 (₹ in lakh) (1)</b>	<b>Life (in Years) (2)</b>	<b>Weighted Cost (₹ in lakh) (3) = [(1)x(2)]</b>	<b>WAL (in years) (4) = [(3)/(1)]</b>
Sub-station Equipment	13862.27	25	346556.85	<b>24.73 years (rounded off to 25 years)</b>
IT Equipment and Software	207.43	7	1382.83	
<b>Total</b>	14069.70		347939.69	

77. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of Combined Asset is 28.10.2017 and the lapsed life of the transmission project as a whole works out as 1 year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 24 years.

### **Capital Cost**

78. Regulation 19 of the 2019 Tariff Regulations provides 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.*

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *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 capitalisation 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 utilisation including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to 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, for co-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 fulfillment 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.*

(3) *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 capitalisation and de-capitalisation for the respective year of tariff as determined in accordance with these regulations;*
- (c) *Capital expenditure on account of ash disposal and utilisation including handling and transportation facility;*
- (d) *Capital expenditure on account of ash disposal and utilisation 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.

(4) 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.

(5) 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-capitalisation 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.”

79. The Petitioner has claimed the capital cost of individual assets which has been added to arrive at the capital cost claimed during 2019-24 period in respect of the Combined Asset as per the following details:

Asset	Apportioned Approved Capital Cost	Capital Cost claimed as on 31.3.2019	ACE		Estimated Completion Cost as on 31.3.2024
			2019-20	2020-21	
Combined Asset	19323.11	14077.91	807.39	921.64	15806.94
Asset-V	879.63	563.58	122.57	73.81	759.96
Asset-VI	439.33	379.75	0.00	0.00	379.75
<b>Total</b>	<b>20642.07</b>	<b>15021.25</b>	<b>929.96</b>	<b>995.45</b>	<b>16946.66</b>

80. Against the overall apportioned approved capital cost (as per RCE) of ₹20642.07



lakh, the estimated completion cost is ₹16946.66 lakh. The individual capital cost of the transmission assets is also within the respective RCE. Therefore, there is no cost over-run in respect of Combined Asset, Asset-V and Asset-VI.

81. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, sub-station and PLCC) admitted by the Commission as on 31.3.2019 in respect of the transmission assets are clubbed together and has been considered as capital cost of Combined Asset and separately for Asset-V and Asset-VI as on 1.4.2019 as follows:

(₹ in lakh)

Particulars	Asset-I	Asset-II	Asset-III	Asset-IV	Asset-VII	Capital Cost for Combined Asset as on 1.4.2019
Sub-station Equipment	2138.76	1764.30	1849.36	4966.21	3143.64	13862.27
IT Equipment and Software	59.57	0.00	29.50	47.46	70.90	207.43
<b>Total</b>	<b>2198.34</b>	<b>1764.30</b>	<b>1878.86</b>	<b>5013.67</b>	<b>3214.54</b>	<b>14069.70</b>

(₹ in lakh)

Particulars	Capital Cost for Asset-V as on 1.4.2019
Sub-station Equipment	540.29
PLCC	13.12
IT Equipment and Software	10.17
<b>Total</b>	<b>563.58</b>

(₹ in lakh)

Particulars	Capital Cost for Asset-V as on 31.3.2019
Sub-station Equipment	365.54
PLCC	14.20
IT Equipment and Software	0.00
<b>Total</b>	<b>379.73</b>

82. The trued-up capital cost of ₹14069.79 lakh, ₹563.58 lakh and ₹379.73 lakh for Combined Asset, Assets-V and VI respectively is considered as admitted capital cost as on 31.3.2019 for working out tariff for 2019-24 tariff period.

### **Additional Capital Expenditure**



83. Regulation 24 of the 2019 Tariff Regulations provides as follows:

***“24. Additional Capitalisation within the original scope and up to the cut-off date:***

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

- (a) Undischarged liabilities recognized to be payable at a future date;*
- (b) Works deferred for execution;*
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) Change in law or compliance of any existing law; and*
- (f) Force Majeure events:*

*Provided that in case of any replacement of the assets, the additional capitalisation shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalisation.*

*(2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.”*

84. The Petitioner has claimed projected ACE of ₹807.39 lakh and ₹122.57 lakh in 2019-20 for Combined Asset and ₹921.64 lakh and ₹73.81 lakh in 2020-21 for Asset-V on account of Balance and Retention payments due to un-discharged liability for works executed after cut-off date/ work deferred for execution. No ACE has been claimed for Asset-VI in the 2019-24 tariff period.

85. We have considered the submissions of the Petitioner. ACE claimed on account of Balance and Retention payments due to un-discharged liability for works executed after cut-off date/ work deferred for execution is allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations.

86. Further, excess initial spares of ₹53.51 lakh in 2019-20 and ₹66.78 lakh in 2020-21 for Asset-IV is adjusted in ACE of Combined Asset for 2019-24 tariff period, as mentioned in the relevant portion of this order.





87. ACE allowed in respect of Combined Asset, Asset-V and Asset-VI is as follows:

Particulars	(₹ in lakh)			
	Claimed		Allowed	
	2019-20	2020-21	2019-20	2020-21
Combined Asset	807.39	921.64	753.88*	854.86*
Asset-V	122.57	73.81	122.57	73.81
Asset-VI	0.00	0.00	0.00	0.00
<b>Total ACE</b>	<b>929.96</b>	<b>995.45</b>	<b>876.45</b>	<b>928.67</b>

\*Excess initial spares of ₹53.51 lakh in 2019-20 and ₹66.78 lakh in 2020-21 for Asset-IV adjusted in ACE of Combined Asset for 2019-24 tariff period

### Capital Cost for the 2019-24 Tariff Period

88. Accordingly, capital cost of Combined Asset, Asset-V and Asset-VI considered for the 2019-24 tariff period is as follows:

Asset	Capital Cost as on 1.4.2019	(₹ in lakh)	
		Admitted ACE 2019-24	Capital Cost as on 31.3.2024
Combined Asset	14069.70	1608.74	15678.44
Asset-V	563.58	196.38	759.96
Asset-VI	379.73	0.00	379.73

### Debt-Equity Ratio

89. 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 utilisation 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.

(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

90. The debt-equity considered for the purpose of computation of tariff for the 2019-24 period for Combined Asset, Asset-V and Asset-VI is as follows:

<b>Combined Asset</b>				
<b>Funding</b>	<b>Capital Cost (as on 1.4.2019) (₹ in lakh)</b>	<b>(in %)</b>	<b>Total Capital Cost (as on 31.3.2024) (₹ in lakh)</b>	<b>(in %)</b>
Debt	9848.83	70.00	10974.95	70.00
Equity	4220.87	30.00	4703.49	30.00
<b>Total</b>	<b>14069.70</b>	<b>100.00</b>	<b>15678.44</b>	<b>100.00</b>
<b>Asset-V</b>				
Debt	394.51	70.00	531.98	70.00
Equity	169.07	30.00	227.98	30.00
<b>Total</b>	<b>563.58</b>	<b>100.00</b>	<b>759.96</b>	<b>100.00</b>
<b>Asset-VI</b>				
Debt	265.81	70.00	265.81	70.00
Equity	113.92	30.00	113.92	30.00
<b>Total</b>	<b>379.73</b>	<b>100.00</b>	<b>379.73</b>	<b>100.00</b>



## Depreciation

91. 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 Asset-of the generating station and transmission system:*

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



(6) *In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 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-capitalisation 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."*

92. WAROD has been worked out after taking into account the depreciation rates as specified in the 2019 Tariff Regulations at Annexure-VIII, Annexure-IX and Annexure-X in case of Combined Asset, Asset-V and Asset-VI respectively. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 an accumulated depreciation up to 31.3.2019. The depreciation allowed for Combined Asset, Asset-V and Asset-VI is as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	14069.70	14823.58	15678.44	15678.44	15678.44
Addition during the year 2019-24 due to projected ACE	753.88	854.86	0.00	0.00	0.00
Closing Gross Block	14823.58	15678.44	15678.44	15678.44	15678.44
Average Gross Block	14446.64	15251.01	15678.44	15678.44	15678.44
Average Gross Block (90% depreciable)	14234.26	15031.17	15456.10	15456.10	15456.10
Average Gross Block (100% depreciable)	212.38	219.84	222.34	222.34	222.34
Weighted average rate of Depreciation (WAROD) (in %)	5.42	5.42	5.42	5.42	5.42
Lapsed useful life at the beginning of the year (Year)	1.00	2.00	3.00	4.00	5.00
Balance useful life at the beginning of the year (Year)	24	23	22	21	20
Aggregated Depreciable Value (excluding IT equipment and software)	12810.83	13528.06	13910.49	13910.49	13910.49
Aggregated Depreciable Value (IT equipment and software)	212.38	219.84	222.34	222.34	222.34
Remaining Depreciable Value at the beginning of the year	12107.91	12049.16	11607.48	10758.05	9908.61
<b>Combined Depreciation during the year</b>	<b>783.43</b>	<b>826.62</b>	<b>849.43</b>	<b>849.43</b>	<b>849.43</b>
Aggregate Cumulative Depreciation at the end of the year	1698.73	2525.35	3374.78	4224.21	5073.65
Remaining Aggregate Depreciable value at the end of the year	11324.48	11222.54	10758.05	9908.61	9059.18

(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	563.58	686.15	759.96	759.96	759.96
Addition during the year 2019-24 due to projected ACE	122.57	73.81	0.00	0.00	0.00
Closing Gross Block	686.15	759.96	759.96	759.96	759.96
Average Gross Block	624.87	723.06	759.96	759.96	759.96
Weighted average rate of Depreciation (WAROD) (in %)	5.46	5.44	5.43	5.43	5.43
Lapsed useful life at the beginning of the year (Year)	0.00	1.00	2.00	3.00	4.00
Balance useful life at the beginning of the year (Year)	24	23	22	21	20
Aggregated Depreciable Value	563.40	651.77	684.98	684.98	684.98
Remaining depreciable value at the beginning of the year	563.31	617.57	611.48	570.22	528.97
<b>Combined Depreciation during the year</b>	<b>34.12</b>	<b>39.30</b>	<b>41.25</b>	<b>41.25</b>	<b>41.25</b>



Aggregate Cumulative Depreciation at the end of the year	34.20	73.50	114.76	156.01	197.26
Remaining Aggregate Depreciable Value at the end of the year	529.19	578.26	570.22	528.97	487.72

(₹ in lakh)

Asset-VI					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	379.73	379.73	379.73	379.73	379.73
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	379.73	379.73	379.73	379.73	379.73
Average Gross Block	379.73	379.73	379.73	379.73	379.73
Weighted average rate of Depreciation (WAROD) (%)	5.32	5.32	5.32	5.32	5.32
Lapsed useful life at the beginning of the year (Year)	0.00	1.00	2.00	3.00	4.00
Balance useful life at the beginning of the year (Year)	25	24	23	22	21
Aggregated Depreciable Value	341.76	341.76	341.76	341.76	341.76
<b>Combined Depreciation during the year</b>	<b>20.20</b>	<b>20.20</b>	<b>20.20</b>	<b>20.20</b>	<b>20.20</b>
Aggregate Cumulative Depreciation at the end of the year	20.57	40.77	60.97	81.17	101.37
Remaining Aggregate Depreciable Value at the end of the year	321.19	300.99	280.79	260.59	240.39

### Interest on Loan (IoL)

93. 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-capitalisation of asset, 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.”*

94. WAROI on loan has been considered on the basis of the rates 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, shall be considered at the time of true-up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL considered for Combined Asset, Asset-V and Asset-VI 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>
Gross Normative Loan	9848.83	10376.54	10974.95	10974.95	10974.95
Cumulative Repayments up to Previous Year	915.30	1698.73	2525.35	3374.78	4224.21
Net Loan-Opening	8933.52	8677.81	8449.60	7600.16	6750.73
Addition due to ACE	527.72	598.40	0.00	0.00	0.00
Repayment during the year	783.43	826.62	849.43	849.43	849.43
Net Loan-Closing	8677.81	8449.60	7600.16	6750.73	5901.30
Average Loan	8805.67	8563.70	8024.88	7175.45	6326.01
Weighted Average Rate of Interest on Loan (in %)	7.877	7.865	7.916	7.992	7.976
<b>Interest on Loan</b>	<b>693.60</b>	<b>673.49</b>	<b>635.27</b>	<b>573.45</b>	<b>504.56</b>



(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	394.51	480.31	531.98	531.98	531.98
Cumulative Repayments up to Previous Year	0.08	34.20	73.51	114.76	156.01
Net Loan-Opening	394.43	446.11	458.48	417.22	375.97
Addition due to ACE	85.80	51.67	0.00	0.00	0.00
Repayment during the year	34.12	39.30	41.25	41.25	41.25
Net Loan-Closing	446.11	458.48	417.22	375.97	334.72
Average Loan	420.27	452.29	437.85	396.60	355.35
Weighted Average Rate of Interest on Loan (in %)	8.189	8.189	8.237	8.288	8.283
<b>Interest on Loan</b>	<b>34.42</b>	<b>37.04</b>	<b>36.06</b>	<b>32.87</b>	<b>29.43</b>

(₹ in lakh)

Asset-VI					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	265.81	265.81	265.81	265.81	265.81
Cumulative Repayments up to Previous Year	0.37	20.57	40.77	60.97	81.17
Net Loan-Opening	265.44	245.24	225.05	204.85	184.65
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	20.20	20.20	20.20	20.20	20.20
Net Loan-Closing	245.24	225.05	204.85	184.65	164.45
Average Loan	255.34	235.14	214.95	194.75	174.55
Weighted Average Rate of Interest on Loan (in %)	7.963	7.963	8.062	8.212	8.210
<b>Interest on Loan</b>	<b>20.33</b>	<b>18.72</b>	<b>17.33</b>	<b>15.99</b>	<b>14.33</b>

### Return on Equity (RoE)

95. Regulations 30 and 31 of the 2019 Tariff Regulations provides 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 cut-off 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:





i. 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;

ii. 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:

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
- b) 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%;”

**“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:

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

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

**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.”

96. The Petitioner has submitted that it is liable to pay income tax at MAT rate applicable to the Petitioner Company. RoE has been calculated @18.782% after grossing up RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations for 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, grossed-up rate of RoE at the end of every financial year shall be trued-up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to 2019-24 tariff period on actual gross income. However, if any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Petitioner. Any under-recovery or over-recovery of grossed-up rate on RoE after truing up shall be recovered or refunded to beneficiaries or the long term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand



including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/ adjustable during 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

97. We have considered the submissions of the Petitioner. MAT rate applicable in 2019-20 has been considered for the purpose of RoE which will be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for Combined Asset, Asset-V and Asset-VI for the 2019-24 tariff period 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 Equity	4220.87	4447.04	4703.49	4703.49	4703.49
Addition due to ACE	226.16	256.46	0.00	0.00	0.00
Closing Equity	4447.04	4703.49	4703.49	4703.49	4703.49
Average Equity	4333.96	4575.27	4703.49	4703.49	4703.49
Return on Equity (Base Rate) (in %)	15.5	15.5	15.5	15.5	15.5
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>814.00</b>	<b>859.33</b>	<b>883.41</b>	<b>883.41</b>	<b>883.41</b>

(₹ in lakh)

<b>Asset-V</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 Equity	169.07	205.84	227.98	227.98	227.98
Addition due to ACE	36.77	22.14	0.00	0.00	0.00
Closing Equity	205.84	227.98	227.98	227.98	227.98
Average Equity	187.46	216.91	227.98	227.98	227.98
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	17.47	17.47	17.47	17.47	17.47
Rate of Return on Equity (Pre-tax)	18.78	18.78	18.78	18.78	18.78
<b>Return on Equity (Pre-tax)</b>	<b>35.21</b>	<b>40.74</b>	<b>42.82</b>	<b>42.82</b>	<b>42.82</b>

(₹ in lakh)

<b>Asset-VI</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 Equity	113.92	113.92	113.92	113.92	113.92
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	113.92	113.92	113.92	113.92	113.92
Average Equity	113.92	113.92	113.92	113.92	113.92
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	17.47	17.47	17.47	17.47	17.47
Rate of Return on Equity (Pre-tax)	18.78	18.78	18.78	18.78	18.78
<b>Return on Equity (Pre-tax)</b>	<b>21.40</b>	<b>21.40</b>	<b>21.40</b>	<b>21.40</b>	<b>21.40</b>



## Operation & Maintenance Expenses

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

**“35. Operation and Maintenance Expenses: (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the combined transmission system:**

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Norms for sub-station Bays (₹ 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 (₹ 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 (₹ 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 (₹ 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 ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
  - iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
  - v. the O&M expenses of ±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 ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
  - vi. 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.”

**“35(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.”

99. The O&M Expenses claimed by the Petitioner for the various elements covered under Combined Asset, Asset-V and Asset-VI are as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
400 kV (Numbers)	3	3	3	3	3
220 kV (Numbers)	3	3	3	3	3
<b>Norm (₹ lakh/bay)</b>					
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
<b>Sub-station GIS Bays</b>					
400 kV GIS (Numbers)	2	2	2	2	2
220 kV GIS (Numbers)	2	2	2	2	2
<b>Norm (₹ lakh/bay)</b>					
400 kV GIS	22.505	23.296	24.115	24.962	25.837
220 kV GIS	15.757	16.31	16.884	17.472	18.088
<b>Total Sub-station O&amp;M Expenses</b>	<b>240.50</b>	<b>248.95</b>	<b>257.71</b>	<b>266.73</b>	<b>276.10</b>
<b>Transformer (ICT)</b>					
MVA	2130	2130	2130	2130	2130
<b>Norm (₹ lakh/ MVA)</b>	0.358	0.371	0.384	0.398	0.411
<b>Total Transformer Expenses</b>	<b>762.54</b>	<b>790.23</b>	<b>817.92</b>	<b>847.74</b>	<b>875.43</b>
<b>Total O&amp;M Expenses</b>	<b>1003.04</b>	<b>1039.18</b>	<b>1075.63</b>	<b>1114.47</b>	<b>1151.53</b>

(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Substation</b>					
Hamirpur: Future-III (Dehan)	1	1	1	1	1
Hamirpur: Future-IV (Dehan)	1	1	1	1	1
<b>Norm (₹ lakh/ bay)</b>					
220 kV GIS	15.757	16.31	16.884	17.472	18.088
<b>Total Sub-station Expenses</b>	<b>31.52</b>	<b>32.62</b>	<b>33.76</b>	<b>34.94</b>	<b>36.18</b>
<b>PLCC</b>					
Norms (% of total project cost)	2	2	2	2	2
Original Project cost (₹ lakh)	13.12	13.12	13.12	13.12	13.12
<b>PLCC O&amp;M Expenses</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>	<b>0.26</b>
<b>Total O&amp;M Expenses</b>	<b>31.78</b>	<b>32.88</b>	<b>34.03</b>	<b>35.21</b>	<b>36.44</b>



(₹ in lakh)

Asset-VI					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station</b>					
Jalandhar: PSEB-V	1	1	1	1	1
Jalandhar: PSEB-VI	1	1	1	1	1
<b>Norm (₹ lakh/ bay)</b>					
220 kV	22.51	23.30	24.12	24.96	25.84
<b>Total Sub-station Expenses</b>	<b>45.02</b>	<b>46.60</b>	<b>48.24</b>	<b>49.92</b>	<b>51.68</b>
<b>PLCC</b>					
Norms (% of total project cost)	2	2	2	2	2
Original Project cost (₹ lakh)	14.2	14.2	14.2	14.2	14.2
<b>PLCC O&amp;M Expenses</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>	<b>0.28</b>
<b>Total O&amp;M Expenses</b>	<b>45.30</b>	<b>46.88</b>	<b>48.52</b>	<b>50.20</b>	<b>51.96</b>

100. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC in case of Asset-V and Asset-VI 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.

101. The O&M Expenses have been worked out for Combined Asset, Asset-V and Asset-VI in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
400 kV (Numbers)	3	3	3	3	3
220 kV (Numbers)	3	3	3	3	3
<b>Norm (₹ lakh/bay)</b>					
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
<b>Sub-station GIS Bays</b>					
400 kV GIS (Numbers)	2	2	2	2	2
220 kV GIS (Numbers)	2	2	2	2	2
<b>Norm (₹ lakh/bay)</b>					
400 kV GIS	22.505	23.296	24.115	24.962	25.837
220 kV GIS	15.757	16.31	16.884	17.472	18.088
<b>Total Sub-station O&amp;M Expenses</b>	<b>240.50</b>	<b>248.95</b>	<b>257.71</b>	<b>266.73</b>	<b>276.10</b>
<b>Transformer (ICT)</b>					
MVA	2130	2130	2130	2130	2130
<b>Norm (₹ lakh/ MVA)</b>	0.358	0.371	0.384	0.398	0.411
<b>Total Transformer Expenses</b>	<b>762.54</b>	<b>790.23</b>	<b>817.92</b>	<b>847.74</b>	<b>875.43</b>
<b>Total O&amp;M Expenses</b>	<b>1003.04</b>	<b>1039.18</b>	<b>1075.63</b>	<b>1114.47</b>	<b>1151.53</b>

(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station</b>					
Hamirpur: Future-III (Dehan)	1	1	1	1	1
Hamirpur: Future-IV (Dehan)	1	1	1	1	1
<b>Norm (₹ lakh/ bay)</b>					
220 kV GIS	15.757	16.31	16.884	17.472	18.088
<b>Total Sub-station Expenses</b>	<b>31.52</b>	<b>32.62</b>	<b>33.76</b>	<b>34.94</b>	<b>36.18</b>
<b>Total O&amp;M Expenses</b>	<b>31.52</b>	<b>32.62</b>	<b>33.76</b>	<b>34.94</b>	<b>36.18</b>

(₹ in lakh)

Asset-VI					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station</b>					
Jalandhar: PSEB-V	1	1	1	1	1
Jalandhar: PSEB-VI	1	1	1	1	1
<b>Norm (₹ lakh/ bay)</b>					
220 kV	22.51	23.30	24.12	24.96	25.84
<b>Total Sub-station Expenses</b>	<b>45.02</b>	<b>46.60</b>	<b>48.24</b>	<b>49.92</b>	<b>51.68</b>
<b>Total O&amp;M Expenses</b>	<b>45.02</b>	<b>46.60</b>	<b>48.24</b>	<b>49.92</b>	<b>51.68</b>

\*O&M expenses of GIS bays shall be allowed by multiplying 0.70 of normative O&M expenses for bays.

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

102. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide 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 1<sup>st</sup> 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 1<sup>st</sup> 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. Definitions ...*

(8) **‘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;”*

103. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of interest considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis point) from 2021-22 onwards. The components of the working capital and interest allowed thereon for Combined Asset, Asset-V and Asset-VI for the



2019-24 tariff period 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)	83.59	86.60	89.64	92.87	95.96
Working Capital for Maintenance Spares (15% of O&M expenses)	150.46	155.88	161.34	167.17	172.73
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	414.62	428.31	433.43	430.68	425.64
<b>Total Working Capital</b>	<b>648.66</b>	<b>670.79</b>	<b>684.41</b>	<b>690.72</b>	<b>694.33</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>78.16</b>	<b>75.46</b>	<b>71.86</b>	<b>72.53</b>	<b>72.90</b>

(₹ in lakh)

<b>Asset-V</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)	2.63	2.72	2.81	2.91	3.01
Working Capital for Maintenance Spares (15% of O&M expenses)	4.73	4.89	5.07	5.24	5.43
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	16.99	18.82	19.33	19.08	18.75
<b>Total Working Capital</b>	<b>24.34</b>	<b>26.43</b>	<b>27.21</b>	<b>27.23</b>	<b>27.20</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>2.93</b>	<b>2.97</b>	<b>2.86</b>	<b>2.86</b>	<b>2.86</b>

(₹ in lakh)

<b>Asset-VI</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)	3.75	3.88	4.02	4.16	4.31
Working Capital for Maintenance Spares (15% of O&M expenses)	6.75	6.99	7.24	7.49	7.75
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	13.50	13.52	13.53	13.58	13.56
<b>Total Working Capital</b>	<b>24.01</b>	<b>24.39</b>	<b>24.79</b>	<b>25.23</b>	<b>25.62</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
<b>Interest on Working Capital</b>	<b>2.89</b>	<b>2.74</b>	<b>2.60</b>	<b>2.65</b>	<b>2.69</b>

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

104. The transmission charges allowed for Combined Asset, Asset-V and Asset-VI for the 2019-24 tariff period are as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	783.43	826.62	849.43	849.43	849.43
Interest on Loan	693.60	673.49	635.27	573.45	504.56
Return on Equity	814.00	859.33	883.41	883.41	883.41
Interest on Working Capital	78.16	75.46	71.86	72.53	72.90
O&M Expenses	1003.04	1039.18	1075.63	1114.47	1151.53
<b>Total</b>	<b>3372.23</b>	<b>3474.09</b>	<b>3515.61</b>	<b>3493.29</b>	<b>3461.84</b>

(₹ in lakh)

Asset-V					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	34.12	39.30	41.25	41.25	41.25
Interest on Loan	34.42	37.04	36.06	32.87	29.43
Return on Equity	35.21	40.74	42.82	42.82	42.82
O&M Expenses	31.51	32.62	33.77	34.94	36.18
Interest on Working Capital	2.93	2.97	2.86	2.86	2.86
<b>Total</b>	<b>138.19</b>	<b>152.67</b>	<b>156.76</b>	<b>154.74</b>	<b>152.54</b>

(₹ in lakh)

Asset-VI					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	20.20	20.20	20.20	20.20	20.20
Interest on Loan	20.33	18.72	17.33	15.99	14.33
Return on Equity	21.40	21.40	21.40	21.40	21.40
O&M Expenses	45.02	46.60	48.24	49.92	51.68
Interest on Working Capital	2.89	2.74	2.60	2.65	2.69
<b>Total</b>	<b>109.84</b>	<b>109.66</b>	<b>109.77</b>	<b>110.16</b>	<b>110.30</b>

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

105. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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**

106. 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**

107. 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 Respondent(s) 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.

108. BRPL has submitted that the Petitioner's prayer for GST is not tenable.

109. We have considered the submissions of Petitioner and BRPL. Since, GST is not levied on transmission service at present, we are of the view that the Petitioner's prayer is pre-mature.

### **Security Expenses**

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

111. BRPL has submitted that security expenses should be allowed after prudence check and if a separate petition is being filed by the Petitioner for claiming security expenses, then there is no need for the same to be claimed in advance.

112. We have considered the above submissions of Petitioner and BRPL. 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 Commission



vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, 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**

113. 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**

114. The Petitioner vide affidavit dated 2.12.2020 has submitted the status of associated downstream transmission network of Asset-V and Asset-VI, which is as follows:

<b>Asset</b>	<b>Associated Downstream Network</b>	<b>DIC</b>	<b>Status</b>
Asset-V	2 number of 220 kV Bays at Hamirpur Sub-station	HPPTCL (HP)	Construction of transmission line for these bays is not yet started
Asset-VI	2 number of 220 kV line Bays at Jalandhar Sub-station	PSTCL (Punjab)	Construction of transmission line for these bays is not yet started

115. The COD of the Asset-V and Asset-VI were approved as 31.3.2019 and 25.3.2019 respectively under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the associated downstream transmission network under the scope of HPPTCL and PSSTCL were not ready. As submitted by the Petitioner in the table in paragraph 114 above, the associated downstream transmission network under the scope of HPPTCL and PSSTCL have not yet been put into commercial operation.

116. Therefore, the transmission charges of Asset-V from 31.3.2019 till the COD of



the associated downstream transmission network of 220 kV Hamirpur-Dehan Line under the scope of HPPTCL shall be borne by HPPTCL and thereafter, transmission charges shall be shared as per provisions of the 2020 Sharing Regulations. Similarly, in case of Asset-VI, transmission charges from 25.3.2019 till the COD of the associated downstream transmission network of 220 kV line Bays at Jalandhar Sub-station under the scope of PSTCL shall be borne by PSTCL and thereafter, transmission charges shall be shared as per provisions of the 2020 Sharing Regulations. The sharing of transmission charges of Asset-V and Asset-VI shall be subject to the outcome of the Appeals preferred by HPPTCL and PSTCL before the APTEL, as mentioned in paragraph 16 above.

117. The transmission charges of remaining Assets i.e. Asset-I, Asset-II, Asset-III and Asset-IV shall be included in the common PoC pool.

118. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by 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 Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2) (b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the 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.



119. To summarise:

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

(₹ in lakh)

Asset-I		
2016-17 (Pro-rata for 364 days)	2017-18	2018-19
413.66	418.84	455.57

(₹ in lakh)

Asset-II		
2016-17 (Pro-rata for 273 days)	2017-18	2018-19
241.14	366.30	402.25

(₹ in lakh)

Asset-III		
2016-17 (Pro-rata for 154 days)	2017-18	2018-19
132.63	370.33	407.01

(₹ in lakh)

Asset-IV	
2018-19 (Pro-rata for 1 day)	
	2.64

(₹ in lakh)

Asset-V	
2018-19 (Pro-rata for 1 day)	
	0.54

(₹ in lakh)

Asset-VI	
2018-19 (Pro-rata for 7 days)	
	3.13

(₹ in lakh)

Asset-VII	
2017-18(Pro-rata for 91 days)	2018-19
160.14	644.18

- b) AFC allowed for Combined Asset, Asset-V and Asset-VI for the 2019-24 tariff period in this order are as follows:



(₹ in lakh)					
<b>Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Combined Asset	3372.23	3474.09	3515.61	3493.29	3461.84
Asset-V	138.19	152.67	156.76	154.74	152.54
Asset-VI	109.84	109.67	109.77	110.16	110.30

120. Annexure-I to Annexure-X given hereinafter form part of the order.

121. This order disposes of Petition No. 404/TT/2020 in terms of the above discussions and findings.

sd/-	sd/-	sd/-	sd/-
<b>(P. K. Singh)</b> Member	<b>(Arun Goyal)</b> Member	<b>(I. S. Jha)</b> Member	<b>(P. K. Pujari)</b> Chairperson





## Annexure-I

## Asset-I

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh) 2018-19	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Regulations			
					2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Sub-station	1619.07	519.69	2138.77	5.28	86.13	92.15	105.23	
IT Equipment & Software	48.10	11.47	59.57	5.28	2.54	2.544	2.84	
<b>TOTAL</b>	<b>1667.18</b>	<b>531.16</b>	<b>2198.34</b>		<b>88.67</b>	<b>94.69</b>	<b>108.07</b>	
<b>Average Gross Block (₹ in lakh)</b>						1679.38	1793.43	2046.81
<b>Weighted Average Rate of Depreciation (in %)</b>						5.28	5.28	5.28

## Annexure-II

## Asset-II

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh) 2018-19	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations			
					2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Sub-station	1096.90	667.40	1764.30	5.28	63.33	78.09	90.29	
IT Equipment & Software	-	-	-	5.28				
<b>TOTAL</b>	<b>1096.90</b>	<b>667.40</b>	<b>1764.30</b>		<b>63.33</b>	<b>78.09</b>	<b>90.29</b>	
<b>Average Gross Block (₹ in lakh)</b>						1199.57	1479.03	1710.05
<b>Weighted Average Rate of Depreciation (in %)</b>						5.28	5.28	5.28



## Annexure-III

## Asset-III

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations		
					2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub-station	925.89	885.53		5.28	61.13	78.12	90.26
IT Equipment & Software	-	29.50		5.28	0.78	1.56	1.56
<b>TOTAL</b>	<b>925.89</b>	<b>1832.03</b>			61.91	79.68	91.82
<b>Average Gross Block (₹ in lakh)</b>					1172.45	1509.08	1739.00
<b>Weighted Average Rate of Depreciation (in %)</b>					5.28	5.28	5.28

## Annexure-IV

## Asset-IV

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 tariff Regulations
					2018-19 (₹ in lakh)
Sub-station	4966.21	-	4966.21	5.28	262.22
IT Equipment & Software	47.46	-	47.46	5.28	2.51
<b>TOTAL</b>	<b>5013.67</b>	<b>-</b>	<b>5013.67</b>		<b>264.72</b>
<b>Average Gross Block (₹ in lakh)</b>					<b>5013.67</b>
<b>Weighted Average Rate of Depreciation (in %)</b>					<b>5.28</b>



## Annexure-V

## Asset-V

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations 2018-19 (₹ in lakh)
Sub-station	540.29	-	540.29	5.28	28.53
PLCC	13.12	-	13.12	6.33	0.83
IT Equipment & Software	10.17	-	10.17	5.28	0.54
<b>TOTAL</b>	<b>563.58</b>	<b>-</b>	<b>563.58</b>		<b>29.89</b>
<b>Average Gross Block (₹ in lakh)</b>					<b>563.58</b>
<b>Weighted Average Rate of Depreciation (in %)</b>					<b>5.30</b>

## Annexure-VI

## Asset-VI

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations 2018-19 (₹ in lakh)
Sub-station	332.40	33.15	365.54	5.28	18.43
PLCC	14.20		14.20	6.33	0.90
IT Equipment & Software	-			5.28	0.00
<b>TOTAL</b>	<b>346.60</b>	<b>33.15</b>	<b>379.73</b>		<b>19.32</b>
<b>Average Gross Block (₹ in lakh)</b>					<b>363.18</b>
<b>Weighted Average Rate of Depreciation (%)</b>					<b>5.32</b>



## Asset-VII

2014-19 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations				
					2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub-station	3092.00	51.64	3143.64	5.28	-	-	-	163.35	164.72
IT Equipment & Software	68.12	2.78	70.90	5.28	-	-	-	3.60	3.67
<b>TOTAL</b>	<b>3160.12</b>	<b>54.42</b>	<b>3214.54</b>		-	-	-	166.95	168.39
<b>Average Gross Block (₹ in lakh)</b>					-	-	-	3161.95	3189.16
<b>Weighted Average Rate of Depreciation (in %)</b>					-	-	-	<b>5.28</b>	<b>5.28</b>



## Annexure-VIII

Combined Asset									
2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2019 Tariff Regulations				
					2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	13862.27	1593.83	15456.10	5.28	751.56	793.65	816.08	816.08	816.08
IT Equipment & Software	207.43	14.91	222.34	15.00	31.86	32.98	33.35	33.35	33.35
<b>TOTAL</b>	<b>14069.70</b>	<b>1608.74</b>	<b>15678.44</b>		<b>783.42</b>	<b>826.63</b>	<b>849.43</b>	<b>849.43</b>	<b>849.43</b>
<b>Average Gross Block (₹ in lakh)</b>					14446.64	15251.01	15678.44	15678.44	15678.544
<b>Weighted Average Rate of Depreciation (in %)</b>					5.42	5.42	5.42	5.42	5.42



## Asset-V

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2019 Tariff Regulations				
					2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	540.29	196.38	736.67	5.28	31.76	36.95	38.90	38.90	38.90
PLCC	13.12	-	13.12	6.33	0.83	0.83	0.83	0.83	0.83
IT Equipment & Software	10.17	-	10.17	15	1.53	1.53	1.53	1.53	1.53
<b>TOTAL</b>	<b>563.58</b>	<b>196.38</b>	<b>759.96</b>		<b>34.12</b>	<b>39.30</b>	<b>41.25</b>	<b>41.25</b>	<b>41.25</b>
<b>Average Gross Block (₹ in lakh)</b>					624.87	723.06	759.96	759.96	759.96
<b>Weighted Average Rate of Depreciation (in %)</b>					5.46	5.44	5.43	5.43	5.43

## Asset-VI

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2019 Tariff Regulations				
					2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	365.55	-	365.55	5.28	19.30	19.30	19.30	19.30	19.30
PLCC	14.20	-	14.20	6.33	0.90	0.90	0.90	0.90	0.90
IT Equipment & Software	-	-	-	15.00	-	-	-	-	-
<b>TOTAL</b>	<b>379.75</b>	<b>-</b>	<b>379.75</b>		<b>20.20</b>	<b>20.20</b>	<b>20.20</b>	<b>20.20</b>	<b>20.20</b>
<b>Average Gross Block (₹ in lakh)</b>					379.75	379.75	379.75	379.75	379.75
<b>Weighted Average Rate of Depreciation (in %)</b>					5.32	5.32	5.32	5.32	5.32

