

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 359/TT/2020**

**Coram:**

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

**Date of Order: 28.09.2022**

**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 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Combined Assets consisting of **Asset-1:** 80 MVAR Bus Reactor at Kaithal Sub-station, **Asset-2:** LILO of both circuits of 400 kV D/C (QUAD) Meerut -Kaithal 400 kV D/C transmission line and associated bays at Bagpat GIS Sub-station, 125 MVAR Bus Reactor at Bagpat GIS Sub-station and 500 MVA, 400/220 kV ICT-I at Bagpat GIS Sub-station along with 1 number 220 kV line bays, **Asset-3:**500 MVA 400/220 kV ICT-II at Bagpat GIS Sub-station along with associated bays, **Asset-4:** 2 Numbers 220 kV Line bays associated with Bagpat GIS, **Asset-5:** One Number 220 kV line Bay (Bay no. 205 ) associated with Bagpat GIS Sub-station, **Asset-6:** One Number 220 kV line Bay ( Bay No.210) associated with Bagpat GIS Sub-station, **Asset-7:** One Number 220 kV line Bay ( Bay No.206 ) associated with Bagpat GIS Sub-station, **Asset-8:** One Number 220 kV line Bay (Bay No.207) associated with Bagpat GIS Sub-station, **Asset-9:** One Number 220 kV line Bay (Bay No. 212) associated with Bagpat GIS Sub-station under "**Northern Region System Strengthening Scheme-XIX**" in Northern Region.

**And in the matter of:**

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

**....Petitioner**

**Vs.**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur – 302005 (Rajasthan).
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 (Himachal Pradesh).
  6. Punjab State Electricity Board,  
Thermal Shed Tia,  
Near 22 Phatak,  
Patiala-147001 (Punjab).
  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 (Uttar Pradesh).
  10. Delhi Transco Limited,  
Shakti Sadan, Kotla Road,  
New Delhi-110002.
  11. BSES Yamuna Power Limited,  
B-Block, Shakti Kiran, Building (Near Karkadooma Court),  
Karkadooma 2<sup>nd</sup> Floor,  
New Delhi-110092.
  12. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi-110019.
  13. Tata Power Delhi Distribution Limited,  
NDPL House, Hudson Lines Kingsway Camp,  
Delhi-110009.
  14. Chandigarh Administration,  
Sector-9, Chandigarh.
  15. Uttarakhand Power Corporation Limited,  
Urja Bhawan, Kanwali Road, Dehradun (Uttarakhand).
  16. North Central Railway,  
Allahabad (Uttar Pradesh).



17. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi-110002.
18. Uttar Pradesh Power Transmission Corporation Limited.  
11<sup>th</sup> Floor, Shakti Bhawan, 14 Ashok Marg,  
Lucknow-226001.

...Respondents

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

**For Respondents** : Shri R.B. Sharma, Advocate, UPPTCL  
Shri Mohit Mudgal, Advocate, UPPTCL  
Shri Sachin Dubey, Advocate, UPPTCL

### **ORDER**

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing-up of the transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (herein referred to as the “the 2014 Tariff Regulations”) and determination of 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 (herein after referred to as “the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as “transmission assets/ Combined Asset”) under “Northern Region System Strengthening Scheme-XIX” (hereinafter referred to as “the transmission project”) in Northern Region:

- i. **Asset-1:** 80 MVAR Bus Reactor at Kaithal Sub-Station;
- ii. **Asset-2:** LILO of both circuits of 400 kV D/C (QUAD) Meerut - Kaithal 400 kV D/C Transmission line and associated bays at Bagpat GIS Sub-station, 125 MVAR Bus Reactor at Bagpat GIS Sub-station and 500 MVA, 400/220 kV ICT-I at Bagpat GIS Sub-station along with 1 number 220 kV line bays;



- iii. **Asset-3:**500 MVA 400/220 kV ICT-II at Bagpat GIS Sub-station along with associated bays;
  - iv. **Asset-4:**2 Number 220 kV Line bays associated with Bagpat GIS;
  - v. **Asset 5:** One Number 220 kV line Bays (Bay No. 205) associated with Bagpat GIS Sub-station;
  - vi. **Asset-6:** One Number 220 kV line Bays (Bay No.210) associated with Bagpat GIS Sub-station;
  - vii. **Asset-7:** One Number 220 kV line Bays (Bay No.206) associated with Bagpat GIS Sub-station;
  - viii. **Asset 8:** One Number 220 kV line Bays (Bay No.207) associated with Bagpat GIS Sub-station;
  - ix. **Asset-9:** One Number 220 kV line Bays (Bay No.212) associated with Bagpat GIS Sub-station.
2. The Petitioner has made the following prayers in the instant petition:
- “1) Approve the actual Additional Capitalisation expenditure incurred during 2014-19 tariff block & projected add cap during tariff period 2019-24.*
  - 2) 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 9.9 and 10.5 respectively.*
  - 3) Approve the initial spares based on total project cost as detailed at para 9.2.*
  - 4) Allow the total IEDC claimed as per para 9.5.*
  - 5) 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 Hon’ble Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019.*
  - 6) 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.*
  - 7) Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*



8) 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 beneficiaries.

9) 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.

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

11) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is withdrawn from negative list at any time 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”

### **Backdrop of the case**

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

a) The Investment Approval (IA) for implementation of the transmission project was accorded by the Board of Directors (BoD) of the Petitioner in 216<sup>th</sup> meeting held on 21.1.2009 at an estimated cost of ₹41029 lakh including IDC of ₹3155 lakh based on 4<sup>th</sup> Quarter, 2008 price level (communicated vide Memorandum No. C/CP/NRSS-XIX dated 16.2.2009). Further, Revised Cost Estimate (RCE) with respect to the transmission project was accorded by the BoD of Petitioner in 326<sup>th</sup> meeting held on 9.3.2016 and communicated vide Ref. No. C/CP/NRSS-19 dated 11.3.2016 at an estimated cost of ₹47741 lakh including IDC of ₹9056 lakh based on August, 2015 price level.

b) The scope of work covered under the transmission project is as follows:

#### **Transmission Line:**

i. LILO of Meerut-Kaithal 400 kV D/C (Quad HSIL) line at Bagpat-72 km.

#### **Sub-stations:**

i. 2\*500 MVA, 400/220 kV Bagpat (Power Grid) GIS Sub-station (New)



### **Reactive Compensation:**

- i. LILO of both circuits of the Meerut-Kaithal 400 kV D/C line at Bagpat
    - a. Meerut-Bagpat-80 km.
    - b. Bagpat-Kaithal-140 km, 50 MVAR switchable reactor may be retained
  - ii. 80 MVAR Bus reactor at Kaithal
  - iii. 125 MVAR Bus reactor at Bagpat
- c) The complete scope of the work as per IA is covered in the instant Petition. As per IA dated 21.1.2009, the transmission assets were scheduled to be put into commercial operation within 36 months from the date of IA. Thus, SCOD comes to 20.1.2012. However, we observed that SCOD in orders dated 30.6.2016 in Petition No. 253/TT/2015 (pertaining to Asset-2, herein) and order dated 13.10.2017 in Petition No. 221/TT/2016 (pertaining to Asset-3 and Asset-4, herein) was considered as 15.2.2012 (reckoned from Memorandum date of IA, i.e., 16.2.2019). This anomaly is removed now by considering SCOD for all the transmission assets covered in the transmission project as 20.1.2012. The time over-run in case of remaining assets was analysed with respect to SCOD as 20.1.2012 in respective orders. Accordingly, the details of scheduled date of commercial operation (SCOD), date of commercial operation (COD) and time over-run in respect of the transmission assets covered in the instant petition are as follows:

<b>Asset nomenclature in previous orders</b>	<b>Asset Nomenclature in current Petition</b>	<b>COD</b>	<b>SCOD</b>	<b>Time over-run</b>	<b>Time over-run condoned</b>
<b>Order dated 14.3.2016 in Petition No.: 478/TT/2014</b>					
Asset	Asset-1	1.7.2011	20.1.2012	-	-
<b>Order dated 30.6.2016 in petition No.: 253/TT/2015</b>					
Combined Asset-I, II & III	Asset-2	8.5.2016	20.1.2012	1570 days	Condoned up to COD (8.5.2016)
<b>Order dated 13.10.2017 in Petition No.: 221/TT/2016</b>					
Asset-I	Asset -3	3.7.2016	20.1.2012	1626 days	1. Condoned up to 22.7.2015. 2. Beyond 22.7.2015 to be
Asset-II	Asset-4	11.9.2016	20.1.2012	1696 days	



					considered at the true-up stage.
<b>Order dated 1.10.2019 in petition No.: 268/TT/2018</b>					
Asset-I*	Asset-5	3.7.2016	20.1.2012	1626 days	1626 days
Asset-II*	Asset-6	3.7.2016	20.1.2012	1626 days	1626 days
Asset-III*	Asset-7	20.8.2016	20.1.2012	1674 days	1674 days
Asset-IV*	Asset-8	26.1.2017	20.1.2012	1833 days	1833 days
Asset-V*	Asset-9	26.1.2017	20.1.2012	1833 days	1833 days

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

- d) Further, with respect to Asset-1, there was no time over-run. The Commission had condoned the entire time over-run with respect to Asset-2 and Asset 5 to Asset-9 *vide* orders dated 30.6.2016 in Petition No. 253/TT/2015 and *vide* order dated 1.10.2019 in Petition No. 268/TT/2018, respectively.
- e) The Commission *vide* order dated 13.10.2017 in Petition No. 221/TT/2016 condoned the time over-run up to 22.7.2015 and held that the time over-run beyond 22.7.2015 shall be considered at the time of true-up in case of Asset-3 and Asset-4 (nomenclature as per the instant petition). The relevant extract of the said order is as follows:
- “29. On 22.7.2015, a case (128/2015) was filed, which stayed work at Gurana Village affecting the stringing work of 1.1 km of transmission line. The petitioner has not submitted the outcome of this court case. Thus, in absence of the required information regarding the outcome of the court case we are not able to quantify the period of time over-run attributable to the petitioner and time over-run beyond the Petitioner’s control. Further, in view of the Appellate Tribunal’s judgment dated 27.4.2012, we are not inclined to condone the time over-run attributed to the theft of material. Hence, we consider it prudent to capitalise the IDC and IEDC in case of instant assets only up to 22.7.2015, i.e. the date of filing of the case. The time over-run from 22.7.2015 to the actual COD of the instant assets would be reviewed after the submission of complete and clear chronology of events of time over-run by the petitioner at the time of truing-up.”*
- f) The transmission tariff for 2014-19 period with respect to Asset-1 was determined *vide* order dated 14.3.2016 in Petition No. 478/TT/2014, with respect to Asset-2 was determined *vide* order dated 30.6.2016 in Petition No. 253/TT/2015, with respect to Asset-3 and Asset-4 was determined *vide* order dated 13.10.2017 in Petition No. 221/TT/2016 and with respect to Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 was determined *vide* order dated 1.10.2019 in Petition No. 268/TT/2018.



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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this application has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Uttar Pradesh Power Transmission Corporation Limited (UPPTCL), Respondent No. 18 has filed its reply in the matter vide affidavit dated 21.10.2021 and written submissions dated 15.1.2022 has raised issues regarding grant of statutory COD, certificate of trial run, mismatch of COD, bilateral billing, grossing up of RoE, ACE during 2014-19, 2019-20 and disallowance of excess claimed Initial Spares, time over-run in case of Asset-2, Asset-3 and Asset-4, cost over-run, details of OPGW, Tax on Transmission Business, Indian Accounting Standards, deferred tax liability and over payment of income tax, Security Expenses and Capital Spares, filing fee and publication expenses, participation of association/ forum in the proceedings etc. The Petitioner has filed rejoinders to the reply and written submissions of UPPTCL vide affidavits dated 1.11.2021 and 31.1.2022.

6. The hearing in this matter was held on 6.1.2022 through video conference and the order was reserved.

7. Having heard the representatives of the parties and after perusal of the materials on record, we proceed to dispose of the petition.





8. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 22.1.2020 and affidavits dated 3.12.2020 and 22.9.2021, UPPTCL's reply vide affidavit dated 20.10.2021 and written submission dated 15.1.2022 and the Petitioner's rejoinders vide affidavits dated 1.11.2021 and 31.1.2022 thereto.

9. It has been placed before us that the issues of grossing up of RoE, Indian Accounting Standards, deferred tax liability and annual truing up by transmission licensees have been raised by UPPCL and BRPL in various petitions and identical issues have been raised by UPPTCL in the instant petition. These contentions have been rejected by the Commission in other petitions including Petition No. 2/TT/2020 vide order dated 27.4.2021. As the parties have not challenged the findings, the same have attained finality. In view of these, the plea(s) raised by UPPTCL as enumerated above are rejected. The issues which are specific to the instant petition and not dealt by the Commission earlier are considered in the relevant paragraphs of this order.

10. The Petitioner vide affidavit dated 22.6.2021 has published notice of the tariff petition in newspapers on 2.3.2021 as per Regulation 3(6) and Regulation 3(8) of the Central Electricity Regulatory Commission (Procedure for Making of Application for Determination of Tariff, Publication of Application and Other Related Matters) Regulations, 2004. The Petitioner has also uploaded the petition on its website. No suggestions/ objections with regard to present tariff petition was received by the Commission before listing of the present petition for hearing. Therefore, we are of the view that there is no need in the present



case to engage any agency to represent the consumer's interest. Even otherwise, the Commission while determining tariff applies prudence check in all tariff petitions and keeps in mind the interests of consumers.

11. UPPTCL has submitted that the Petitioner may also inform whether it is using Optical Ground Wire (OPGW) as earth wire on the assets mentioned in the petition as it is noted that OPGW is being used by the Petitioner in the newly constructed transmission lines besides replacing the earth wire with the OPGW in the existing lines. Nothing has been submitted on this issue in the petition.

12. In response, the Petitioner has submitted that it has installed the OPGW on the transmission lines constructed under the present petition during the construction phase and no earth wire has been replaced. The Petitioner has submitted that installation of OPGW on LILO of Meerut-Kaithal at Bagpat Transmission Line is covered under "Establishment of Fibre Optic Communication System" in Northern Region and tariff for the same was approved in Petition No. 267/TT/2018.

13. We have considered the submission of the Petitioner and UPPTCL. Since, the issue regarding OPGW has been already been resolved in Petition No. 267/TT/2018, the contention raised by UPPTCL is devoid of merit and hence, rejected.

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

14. The details of the transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)					
<b>Asset-1</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	57.74	57.74	57.74	57.74	57.74
Interest on Loan	52.01	46.92	41.79	36.66	31.53



(₹ in lakh)

<b>Asset-1</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Return on Equity	64.39	64.68	64.65	64.65	64.82
O&M Expenses	60.30	62.30	64.37	66.51	68.71
Interest on working capital	7.34	7.34	7.34	7.34	7.34
<b>Total</b>	<b>241.78</b>	<b>238.98</b>	<b>235.89</b>	<b>232.90</b>	<b>230.14</b>

(₹ in lakh)

<b>Asset-2</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 328 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	1311.94	1539.26	1560.51
Interest on Loan	1596.17	1697.99	1556.06
Return on Equity	1558.32	1829.50	1860.50
Interest on working capital	120.36	136.89	135.82
O&M Expenses	439.68	505.51	522.33
<b>Total</b>	<b>5026.47</b>	<b>5709.15</b>	<b>5635.22</b>

(₹ in lakh)

<b>Asset-3</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	161.94	252.03	261.60
Interest on Loan	175.59	260.10	241.72
Return on Equity	184.47	291.05	304.22
Interest on working capital	15.28	22.92	23.19
O&M Expenses	74.58	103.39	106.83
<b>Total</b>	<b>611.86</b>	<b>929.49</b>	<b>937.56</b>

(₹ in lakh)

<b>Asset-4</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 202 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	34.15	72.60	73.60
Interest on Loan	38.93	76.34	69.80
Return on Equity	38.73	83.77	85.27
Interest on working capital	5.05	9.94	10.02
O&M Expenses	49.88	93.10	96.20
<b>Total</b>	<b>166.74</b>	<b>335.75</b>	<b>334.89</b>



(₹ in lakh)

<b>Asset-5</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	28.72	41.81	42.33
Interest on Loan	31.66	41.85	38.12
Return on Equity	31.81	46.34	47.03
Interest on working capital	3.76	5.27	5.30
O&M Expenses	33.58	46.55	48.10
<b>Total</b>	<b>129.53</b>	<b>181.82</b>	<b>180.88</b>

(₹ in lakh)

<b>Asset-6</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	28.72	41.81	42.33
Interest on Loan	31.66	41.85	38.12
Return on Equity	31.81	46.34	47.03
Interest on working capital	3.76	5.27	5.30
O&M Expenses	33.58	46.55	48.10
<b>Total</b>	<b>129.53</b>	<b>181.82</b>	<b>180.88</b>

(₹ in lakh)

<b>Asset-7</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 224 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	22.87	41.75	42.27
Interest on Loan	24.96	40.14	36.68
Return on Equity	25.33	46.25	46.95
Interest on working capital	3.04	5.23	5.26
O & M Expenses	27.65	46.55	48.10
<b>Total</b>	<b>103.85</b>	<b>179.92</b>	<b>179.26</b>

(₹ in lakh)

<b>Asset-8</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	7.20	43.42	44.05
Interest on Loan	8.36	46.07	41.84
Return on Equity	7.98	48.14	48.96
Interest on working capital	0.93	5.43	5.46



<b>Asset-8</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
O&M Expenses	8.02	46.55	48.10
<b>Total</b>	<b>32.49</b>	<b>189.61</b>	<b>188.41</b>

(₹ in lakh)

<b>Asset-9</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	7.20	43.42	44.05
Interest on Loan	8.36	46.07	41.84
Return on Equity	7.98	48.14	48.96
Interest on working capital	0.93	5.43	5.46
O&M Expenses	8.02	46.55	48.10
<b>Total</b>	<b>32.49</b>	<b>189.61</b>	<b>188.41</b>

15. The details of the Interest on Working Capital (IWC) claimed by the Petitioner in respect of the instant transmission assets are as follows:

(₹ in lakh)

<b>Asset-1</b>					
<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	5.03	5.19	5.36	5.54	5.73
O&M Expenses	9.05	9.35	9.66	9.98	10.31
Receivables	40.30	39.83	39.32	38.82	38.36
<b>Total</b>	<b>54.38</b>	<b>54.37</b>	<b>54.34</b>	<b>54.34</b>	<b>54.40</b>
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
<b>Total</b>	<b>7.34</b>	<b>7.34</b>	<b>7.34</b>	<b>7.34</b>	<b>7.34</b>

(₹ in lakh)

<b>Asset- 2</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 328 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	40.78	42.13	43.53
O&M Expenses	73.40	75.83	78.35
Receivables	932.25	951.53	939.20
<b>Total</b>	<b>1046.43</b>	<b>1069.49</b>	<b>1061.08</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>120.36</b>	<b>136.89</b>	<b>135.82</b>



(₹ in lakh)

<b>Asset- 3</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	8.34	8.62	8.90
O&M Expenses	15.01	15.51	16.02
Receivables	136.85	154.92	156.26
Total	160.20	179.05	181.18
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>15.28</b>	<b>22.92</b>	<b>23.19</b>

(₹ in lakh)

<b>Asset- 4</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 202 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	7.51	7.76	8.02
O&M Expenses	13.52	13.97	14.43
Receivables	50.21	55.96	55.81
Total	71.24	77.69	78.26
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>5.05</b>	<b>9.94</b>	<b>10.02</b>

(₹ in lakh)

<b>Asset- 5</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	3.76	3.88	4.01
O&M Expenses	6.76	6.98	7.22
Receivables	28.97	30.30	30.15
Total	39.49	41.16	41.38
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>3.76</b>	<b>5.27</b>	<b>5.30</b>

(₹ in lakh)

<b>Asset- 6</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	3.76	3.88	4.01
O&M Expenses	6.76	6.98	7.22
Receivables	28.97	30.30	30.15
Total	39.49	41.16	41.38
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>3.76</b>	<b>5.27</b>	<b>5.30</b>



(₹ in lakh)

<b>Asset- 7</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 224 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	3.76	3.88	4.01
O&M Expenses	6.76	6.98	7.22
Receivables	28.21	29.99	29.88
Total	38.73	40.85	41.11
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>3.04</b>	<b>5.23</b>	<b>5.26</b>

(₹ in lakh)

<b>Asset- 8</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	3.76	3.88	4.01
O&M Expenses	6.76	6.98	7.22
Receivables	30.41	31.60	31.40
Total	40.93	42.46	42.63
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>0.93</b>	<b>5.43</b>	<b>5.46</b>

(₹ in lakh)

<b>Asset- 9</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Maintenance Spares	3.76	3.88	4.01
O&M Expenses	6.76	6.98	7.22
Receivables	30.41	31.60	31.40
Total	40.93	42.46	42.63
Rate of Interest (in %)	12.80	12.80	12.80
<b>Total</b>	<b>0.93</b>	<b>5.43</b>	<b>5.46</b>

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

16. UPPTCL has submitted that it can be noted from order dated 13.10.2017 in Petition No. 221/TT/2015 that the tariff of Asset-3 and Asset-4 had been determined on the strength of Petitioner’s averment that UPPTCL has confirmed in the 38<sup>th</sup> meeting of SCM that their downstream network pertaining to Bagpat will be ready in July, 2016. This clearly shows that the CTU is required to co-ordinate with STU in



accordance with Section 38(2) of the Electricity Act, 2003 in respect of the construction activities. UPPTCL has further submitted that the non-performance of statutory functions of planning and coordination of the construction of the transmission system vested in the Petitioner, if not performed efficiently, can create mess resulting into mismatch of various components of the transmission system resulting in passing of the increased cost of the electricity to the consumers. Hence, depending on the SCM meetings for co-ordination means that the statutory role is not performed effectively. UPPTCL has submitted that the fact remains that 5 numbers of 220 kV line bays out of the 7 in total remained unutilized as the Petitioner claimed the statutory COD of these five assets which was granted vide order dated 1.10.2019 in Petition No. 268/TT/2018. It may be noted that the Petitioner while claiming COD of Asset-3 claimed that the power flow has started through the 500 MVA 400/220 kV ICT-II as the 220 kV line Bagpat (PG)-Bagpat (UPPCL) was already put into commercial operation on 8.5.2016. If all the four petitions which are under true up in the instant petition are considered, then the 220 kV line Bagpat (PG)-Bagpat (UPPCL) executed on 8.5.2016 was for power flow of 500 MVA 400/220 kV ICT-I mentioned in Asset-2 for which the COD was also 8.5.2016 and no fresh transmission line was put into commercial operation. UPPTCL has submitted that the capacity of 220 kV transmission line is much lower and accordingly even the 500 MVA 400/220 kV ICT-I was hugely underutilized and suggesting that this solitary 220 kV line is adequate to evacuate the entire transformation capacity of 1000 MVA is impossible. The Petitioner has drawn advantage by filing different petitions for the same project which was not coordinated. UPPTCL has submitted that from these facts, it is evident that COD of Asset-3 and Asset-4 is not permissible except the statutory COD under proviso (ii)





of Regulation 4(3) of the 2014 Tariff Regulations which is not done. Accordingly, the grant of tariff in respect of Asset-3 and Asset-4 is in complete violation of Regulations 4 and 5 of the 2014 Tariff Regulations. Hence, the Commission may revisit the order dated 17.10.2017 in Petition No. 221/TT/2015 in respect of Assets-3 and Asset-4 in accordance with the APTEL's judgment dated 12.5.2015 in Appeal Nos. 129 of 2012 and batch matters.

17. In response, the Petitioner has denied the contentions of UPPTCL and has submitted that UPPTCL cannot mix the role of the Petitioner as a transmission licensee and as CTU. The functions to be performed under Section 38(2) of the Electricity Act, 2003 are with regard to the role of the Petitioner as the CTU. The said role does not get covered in the facts of the present case at all. In the present case, the Petitioner had approached the Commission in capacity of transmission licensee after completing its scope of work. The Petitioner has further submitted that it had also submitted various communications/ correspondence with UPPTCL providing its progress reports and requesting to match the UPPTCL's downstream network in the proceedings before the Commission. In addition, progress reports were also discussed in various Standing Committee Meetings (SCM) whose minutes were also submitted and same were taken into cognizance by Commission while adjudicating the instant tariff petition. The Petitioner has further submitted that the instant petition has been filed for true up of the tariff and issue such as COD approval had already been settled by Commission in original tariff orders.

18. We have considered the submissions of the Petitioner and UPPTCL. UPPTCL has raised issues regarding COD in respect of Asset-3 and Asset-4 which was approved by the Commission vide order 13.10.2017 in Petition No. 221/TT/2016,



where it was one of the Respondents. The contentions raised in the instant true up petition regarding COD have already been considered while passing order in Petition No. 221/TT/2016. In view of the said order, the similar contentions now raised by UPPTCL are devoid of merit and hence rejected.

19. UPPTCL has submitted that the Commission vide order dated 1.10.2019 in Petition No. 268/TT/2018 approved the COD of Asset-5, Asset-6, Asset-7, Asset-8, Asset-9 (Nomenclature as per instant petition) as 3.7.2016, 3.7.2016, 20.8.2016, 26.1.2017 and 26.1.2017 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations due to non-readiness of the associated 220 kV downstream system of UPPTCL.

20. UPPTCL has further submitted that the Commission vide order dated 1.10.2019 in Petition No. 268/TT/2018 determined the tariff of Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 (nomenclature as per instant petition) along with approval of COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations and the same is in contravention to the 2014 Tariff Regulations. UPPTCL has submitted that the Commission can grant COD even when the transmission system or an element thereof is not in regular service for reasons not attributable to the transmission licensee or in the execution of the upstream or downstream transmission system, but for this, the Petitioner has to move with an appropriate application for approval of COD of such transmission assets or an element thereof. UPPTCL has further submitted that no such separate application has been moved by the Petitioner to invoke the provisions of proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. Hence, order dated 1.10.2019 in Petition No. 268/TT/2018 needs to be revised as COD was approved without completing the procedure prescribed



as well as ignoring the statutory role of the Petitioner under Section 38(2) of the Electricity Act, 2003. UPPTCL has further submitted that even COD of the transmission assets have been approved under Regulation 4(3) of the 2014 Tariff Regulations on the basis that the transmission assets have been put to use as per Regulation 9(6)(a) of the 2014 Tariff Regulations after their trial run and trial operation in terms of Regulation 5(2) of the 2014 Tariff Regulations, it is apparent that the approval of COD is by virtue of the legal power vested in the Commission and the same cannot be said to be actual COD. This can at best be described as 'Statutory COD' merely indicating that the work is completed by the Petitioner. UPPTCL has further submitted that since, statutory COD as envisaged under proviso (ii) of Regulation 4(3) the 2014 Tariff Regulations entitles the Petitioner for other consequential benefits accrued to it, but seeking determination of tariff for the assets not in use (as it is in the present case) is expressly barred under provisions of Regulation 9(6)(a) the 2014 Tariff Regulations. Hence, approval of statutory COD vide order dated 1.10.2019 in Petition No. 268/TT/2018 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, in respect of Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 (nomenclature as per instant petition), which have not attained the actual COD and which are not in use is in contravention of Regulation 9(6) (a) the 2014 Tariff Regulations needs to be excluded from the capital cost. Hence, the Commission may revisit the order dated 1.10.2019 in Petition No. 268/TT/2018 and true the capital cost of these assets by its exclusion.

21. In response, the Petitioner has submitted that the issue of COD has already been decided by the Commission vide order dated 1.10.2019 in Petition No. 268/TT/2018 and issue has attained the finality. In Petition No. 268/TT/2018, the



Petitioner had claimed the COD under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations along with all the required documents to justify assets readiness. Further, UPPTCL has already raised the present issues during the proceedings under Petition No.268/TT/2018 which were duly deliberated by the Commission while issuing the order and the Commission granted deemed COD of the transmission assets covered under Petition No. 268/TT/2018 in order to ensure that the cost/tariff for the same gets recovered by the Petitioner which has done all activities necessary for declaration of COD. UPPTCL is contending that the Commission has determined the tariff in respect of the transmission assets which are not in use. The entire purpose of enacting proviso (ii) of the Regulation 4(3) of the 2014 Tariff Regulations is that even if the transmission assets are not in regular service due to the non-availability of the upstream or downstream network, they are qualified to be declared under commercial operation. The Petitioner has further submitted that UPPTCL is relying upon Regulation 9 of the 2014 Tariff Regulations which deals with the capital cost and Regulation 9(6) there of deals with certain exclusions to be made from capital cost in case of existing or new projects. Proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations is a deeming provision and recognizes that the transmission assets are not in regular use or service. However, an exception is made (like methodology adopted in various mismatch cases) since, the Petitioner is being prevented from providing regular service due to the action of the third party. If the submission of UPPTCL is accepted that Regulation 9(6)(a) is applicable, there would be no purpose in approval of COD under proviso (ii) of Regulation 4(3) since the entire capital cost would have to be deducted as none of the line bays were in regular use till the execution of the downstream system by UPPTCL. This has not been the intent of the said regulatory provision for approval



of COD of assets under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. The purpose of the Regulation 9(6)(a) of the 2014 Tariff Regulations is applicable only in cases where the assets were put into commercial use earlier but are not in use later on due to various reasons on account of the licensee. Whereas, the purpose of proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations is approval of COD of the assets which could not be put into use due to non-readiness of inter-connecting facility. The Commission has approved COD of the transmission assets after considering all the aspects and imposed liability on UPPTCL for the mismatch period.

22. We have considered the submissions of the Petitioner and UPPTCL. UPPTCL has contended that as per Regulation 9(6)(a) of the 2014 Tariff Regulations, the transmission assets which are not in use should not be granted tariff. The Commission vide order dated 1.10.2019 in Petition No. 268/TT/2019 had considered in detail all the correspondences submitted with respect to Asset-I, to Asset-V (Asset-5 to Asset-9 in the instant petition) and approved COD of the Asset-I to Asset-V (Asset-5 to Asset-9 in the instant petition) under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the associated 220 kV downstream transmission system under the scope of UPPTCL is not ready. If COD approved under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, the defaulting party is liable to pay transmission charges till COD of the downstream transmission system.

23. In view of the above, we do not find merit in the contentions of UPPTCL hence, rejected.



## Capital Cost

24. The capital cost of the transmission assets has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulations.

25. The Commission vide order dated 14.3.2016 in Petition No.478/TT/2014 in respect of Asset-1, vide order dated 30.6.2016 in Petition No.253/TT/2015 in respect of Asset-2, vide order dated 13.10.2017 in Petition No.221/TT/2016 in respect of Asset-3 and Asset-4 and vide order dated 1.10.2019 in Petition No.268/TT/2018 in respect of Asset-5 to Asset-9 allowed the capital cost as on COD and admitted Additional Capital Expenditure (ACE) for determination of tariff for 2014-19 tariff period in respect of the transmission assets covered in the instant petition. The details of the same are as follows:

Assets	Apportioned Approved Cost as per RCE	Admitted Cost up to COD	ACE allowed					Total cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	1094.00	1080.00	0	0	0	0	0	1080.00
Asset-2	34931.89	28046.58	0	0	2883.56	1065.73	0	31995.87
Asset-3	5314.64	3427.33	0	0	998.06	499.03	0	4924.42
Asset-4	1500.26	904.35	0	0	452.19	39.61	0	1396.15
Asset-5	920.54	619.69	0	0	117.06	22.10	10.86	769.71
Asset-6	920.54	619.69	0	0	117.06	22.10	10.86	769.71
Asset-7	1008.13	575.88	0	0	160.08	22.13	12.10	770.19
Asset-8	1025.50	663.56	0	0	97.02	35.86	41.14	837.58
Asset-9	1025.50	663.56	0	0	97.02	35.86	41.14	837.58
<b>Total</b>	<b>47741.00</b>	<b>36600.64</b>	<b>0</b>	<b>0</b>	<b>4922.05</b>	<b>1742.42</b>	<b>116.10</b>	<b>43354.21</b>

26. The Petitioner vide Auditor's Certificate dated 11.8.2014 and 17.12.2019 has submitted the capital cost up to COD along with ACE up to 31.3.2019. The details of the approved apportioned capital cost, capital cost as on COD and ACE incurred up to 31.3.2019 as claimed by the Petitioner in the instant true up petition in respect of the transmission assets covered in the instant petition are as follows:



(₹ in lakh)

Assets	Apportioned approved Capital Cost (RCE)	Cost up to 1.4.2014/COD	ACE claimed					Total cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	1094.00	1093.57	0	0	0	0	0	<b>1093.57</b>
Asset-2	34931.89	28798.69	0	0	1823.65	651.66	228.29	<b>31502.29</b>
Asset-3	5314.64	3662.70	0	0	1157.10	209.65	205.89	<b>5235.34</b>
Asset-4	1500.26	1008.47	0	0	424.79	21.25	19.91	<b>1474.42</b>
Asset-5	920.54	707.31	0	0	70.09	13.01	6.12	<b>796.54</b>
Asset-6	920.54	707.31	0	0	70.09	13.01	6.12	<b>796.54</b>
Asset-7	1008.13	706.51	0	0	70.09	12.57	5.91	<b>795.08</b>
Asset-8	1025.50	784.52	0	0	26.05	12.57	5.91	<b>829.05</b>
Asset-9	1025.50	784.52	0	0	26.05	12.57	5.91	<b>829.05</b>
<b>Total</b>	<b>47741.00</b>	<b>38253.60</b>	<b>0</b>	<b>0</b>	<b>3667.91</b>	<b>946.29</b>	<b>484.06</b>	<b>43351.88</b>

27. UPPTCL has submitted that the Petitioner has filed Revised Cost Estimates (RCE) as the capital cost has increased and no justification has been given for the cost over-run in respect of the transmission assets and also no reasons have been provided for obtaining RCE approval. On scrutiny of RCE it was found that it is merely an indication of revision of cost of various assets without furnishing any justification for increase in cost approved. UPPTCL has further submitted that the BoD of the Petitioner have been delegated the financial powers to approve the investment made by the Department of Public Enterprise (DPE), Ministry of Heavy Industries and Public Enterprises, Government of India through its OM No. 26(3)/2005-GM-GL-92 dated 1.5.2008 and OM No. DPE/11(2)/97-Fin dated 22.7.1997. The revision of cost estimate without mentioning the reasons and justification of the cost escalation would be arbitrary in nature and the Petitioner cannot claim tariff based on such arbitrary exercise of delegated power. UPPTCL has requested that cost over-run may not be allowed.

28. In response, the Petitioner has submitted that RCE along with proper justification of cost over-run was submitted during proceeding in earlier petitions and



cost over-run had been decided by the Commission after due prudence check. The Petitioner has filed RCE in the instant petition just to provide that overall cost of the transmission assets which are within the RCE apportioned cost and there is no cost over-run. The Petitioner has further submitted that the BoD of the Petitioner's company are the competent authority to approve RCE, as per the power delegated to them by the Department of Public Enterprise (DPE), Ministry of Heavy Industries and Public Enterprises, Government of India through its OM No. 26(3)/2005-GM-GL-92 dated 1.5.2008 and OM No. DPE/11(2)/97-Fin dated 22.7.1997. Accordingly, issue of cost over-run is already settled and all the contentions made by UPPTCL are wrong and denied.

29. The Petitioner has further submitted that RCE based on August, 2015 price level RCE works out to ₹47741 lakh along with the reasons for variation in cost which are as follows:

(₹ in lakh)			
	Approved Cost (4Q, 2008 PL) (A)	Revised Cost (Aug, 2015 PL) (B)	Variation (B) - (A)
<b>Cost (excl. IEDC &amp; IDC)</b>	33843	36593	2749
<b>IEDC incl. contingencies</b>	4031	2092	(-) 1939
<b>IDC</b>	3155	9056	5901
<b>Total</b>	<b>41029</b>	<b>47741</b>	<b>6711 (16.36%)</b>





The basis of RCE is as follows:

- (a) RCE of the transmission project has been prepared on the basis of expenditure already incurred and also taking into account balance payments of already awarded contracts. The comparison of RCE cost of ₹47741 lakh is carried out against the approved cost of ₹41029 lakh. The details of the comparison are as follows:

Sr. No.	Variation on account of:	Variation	
		(₹ in crore)	(in %)
(i)	<b>Price Variation</b>	<b>5.72</b>	<b>1.39 %</b>
(ii)	<b>Variation in quantities of approved Items</b>	<b>(-) 9.56</b>	<b>(-) 2.33 %</b>
(iii)	<b>Land and Compensation</b>	<b>14.82</b>	<b>3.61 %</b>
(iv)	<b>FERV (due to LoA awarded in foreign currency)</b>	<b>16.52</b>	<b>4.03 %</b>
(v)	<b>Other Reasons (IEDC and IDC)</b>		
a	IEDC (incl. Contingencies)	(-) 19.39	(-) 4.73 %
b	IDC	59.01	14.38 %
	<b>Sub- Total (IEDC &amp; IDC)</b>	<b>39.62</b>	<b>9.66 %</b>
	<b>GRAND TOTAL</b>	<b>67.11</b>	<b>16.36 %</b>

The reasons for cost variation in cost estimate are as follows:

- (b) It may be seen from the above table that there is a variation of ₹6711 lakh (i.e., 16.36 %) from the approved cost of ₹41029 lakh. The major variation in cost is attributable to the following:

- |  |             |
|--|-------------|
| a. Price variation                           | 1.39 %;     |
| b. Variation in quantities of approved items | (-) 2.33 %; |
| c. Increase in Land & compensation           | 3.61 %;     |
| d. FERV                                      | 4.03 %;     |
| e. Increase in IDC & IEDC                    | 9.66 %.     |



The head-wise variation in cost is as follows:

**(I) Price Variation (PV) (Net Increase of ₹572 lakh: 1.39 %)**

There has been an increase in the cost of the transmission project by ₹572 lakh on this account, which works out to 1.39 % of the approved cost as per details as follows:

(i) Out of a total price variation, a negative variation of ₹2809 lakh has been incurred from the time of approval of project till award of various contracts (DPR to LOA) based on prices received as per competitive bidding and a variation of ₹3381 lakh has been incurred/ likely to be incurred on the basis of PV based on indices as per provision of respective contracts.

(ii) In regard to PV from DPR to LOA, it is submitted that the contracts for various packages under this project were awarded to the lowest evaluated and responsive bidder, on the basis of competitive bidding by the Petitioner, after publication of NITs in leading newspapers. Thus, the award prices represent the lowest prices available at the time of bidding of various packages. The price variation ₹3381 lakh has been incurred/ likely to be incurred under contract on the basis of provision of respective contracts.

**(II) Variation in Quantities of Approved Items (Net decrease of ₹956 lakh: (-) 2.33 %)**

The line length, type of various towers and foundations in the DPR were estimated on the basis of walk-over/preliminary survey. However, during the execution of the transmission project, there has been decrease under the head due to decrease in the overall line length from 72 km to about 62 km as per site conditions. Accordingly, there has been a decrease in the cost of the project by ₹956 lakh, which works out to (-)2.33 % of the approved cost.

**(III) Land and Compensation (net increase of ₹1482 lakh: 3.61%)**

Based on approved cost, there was a provision of ₹1427 lakh under this head. However, based on actual expenditure incurred and balance anticipated expenditure an amount of ₹2909 lakh is incurred/likely to be incurred under the head, resulting in an increase of ₹1482 lakh in cost of the project.



The details of decrease in cost under the head are as follows:

(₹ in lakh)			
Description	As per DPR	As per RCE	Remarks
i) Land for Sub-station and R&R Compensation	1309	1472	Based on actual/ anticipated payment.  About 7.84 Ha of land was acquired for Bagpat Sub-station against 7.69 Ha (19 acres) as envisaged during DPR.
ii) Compensation towards Crop and Forest	118	1436	Based on actual/ anticipated payment.
<b>TOTAL</b>	1427	2909	

As per above table, there is huge increase in crop and forest compensation from ₹118 lakh as per DPR to ₹1436 lakh in respect of the transmission project. The compensation amount in RCE is based on order issued by District Magistrate, Bagpat.

**(IV) Foreign Exchange rate variation (FERV) (Net increase of ₹1652lakh: 4.03 %):**

The project involves payment in foreign currency in the contracts awarded under the transmission project. Increase in liability on account of FERV due to above is ₹1652 lakh (4.03 %).

The details of exchange rates considered are as follows:

Foreign currency (in INR)		
	Approved DPR (4Q, 2008 PL)	Remarks
1 Euro	64.84	Varied from 57.30 to 86.31
1 USD	48.16	Varied from 44.50 to 65.73



**(V) Variation in IDC and IEDC (Net increase of ₹ 3962 lakh: 9.66 %)**

Total IDC and IEDC under the transmission project have increased by ₹3962 lakh in comparison to approved cost, which works out to 9.69 % as per the following break-up:

**A. Decrease in IEDC**

As per IA, IEDC including contingencies was estimated at ₹4031 lakh on normative basis, whereas RCE on the basis of actual/ anticipated expenditure incurred, works out to ₹2092 lakh. This has resulted in decrease of ₹1939 lakh in the cost of project.

**B. Increase in IDC**

Interest during Construction (IDC) in respect of the transmission project as per approved DPR cost was estimated at ₹3155 lakh, whereas based on the actual and anticipated funds flow, IDC in respect of the transmission project works out to ₹9056 lakh. Thus, there is an increase in the IDC which works out to ₹5901 lakh.

The reasons for increase in the IDC are (i) increase in the project cost from ₹37874 lakh to ₹38684 lakh and (ii) increase in implementation period from 36 months to 86 months.

30. We have considered the submissions of the Petitioner and UPPTCL. It is observed from the submissions of the Petitioner that the major reasons for cost variation of the transmission project is towards variation of an amount of ₹572 lakh towards price variation, net decrease of ₹956 lakh due to decrease in the overall line length from 72 km to about 62 km as per site conditions, net increase of ₹1482 lakh towards land and compensation, net increase of about ₹1652 lakh towards FERV and net increase of ₹3962 lakh towards IDC and IEDC. It is further observed that the Petitioner has submitted RCE duly approved by the Board of Directors in its 326<sup>th</sup>



meeting held on 9.3.2016. The Commission has already taken cognisance of RCE in earlier petitions and the completion cost of Asset-1 to Asset-9 is within the RCE cost. The total capital cost of the transmission project is ₹43326.01 lakh as on 31.3.2019, is within the RCE apportioned cost of ₹47741 lakh. Further, asset-wise capital cost is within the RCE apportioned cost.

### **Time Over-run**

31. As per the IA dated 21.1.2009, SCOD of the transmission project was 36 months from the date of IA. The details of the COD of the transmission assets, the time over-run, the time over-run condoned/ not condoned is as follows:

Asset nomenclature in previous orders	Asset Nomenclature in current Petition	COD	SCOD	Time over-run	Time over-run condoned
<b>Order dated 14.3.2016 in Petition No.: 478/TT/2014</b>					
Asset	Asset-1	1.7.2011	20.1.2012	-	-
<b>Order dated 30.6.2016 in Petition No.: 253/TT/2015</b>					
Combined Asset-I, II & III	Asset-2	8.5.2016	20.1.2012	1570 days	Condoned upto COD (8.5.2016)
<b>Order dated 13.10.2017 in Petition No.: 221/TT/2016</b>					
Asset-I	Asset -3	3.7.2016	20.1.2012	1626 days	1. Condoned up to 22.7.2015. 2. Beyond 22.7.2015 to be considered at the true-up stage.
Asset-II	Asset-4	11.9.2016	20.1.2012	1696 days	
<b>Order dated 1.10.2019 in Petition No.: 268/TT/2018</b>					
Asset-I	Asset-5	3.7.2016	20.1.2012	1626 days	1626 days
Asset-II	Asset-6	3.7.2016	20.1.2012	1626 days	1626 days
Asset-III	Asset-7	20.8.2016	20.1.2012	1674 days	1674 days
Asset-IV	Asset-8	26.1.2017	20.1.2012	1833 days	1833 days
Asset-V	Asset-9	26.1.2017	20.1.2012	1833 days	1833 days

32. There is no time over-run in case of Asset-1. The Commission had condoned the entire time over-run with respect to Asset-2 and Asset-5 to Asset-9 *vide* orders dated 30.6.2016 in Petition No. 253/TT/2015 and order dated 1.10.2019 in Petition No. 268/TT/2018, respectively.



33. Further, in case of Asset-3 and Asset-4, the Commission *vide* order dated 13.10.2017 in Petition No. 221/TT/2016 condoned the time over-run up to 22.7.2015 and held that the time over-run beyond 22.7.2015 shall be considered at the time of true-up.

34. UPPTCL has submitted that the Commission determined the tariff and condoned the time over-run with respect to Asset-2 *vide* order dated 30.6.2016 Petition No. 253/TT/2015 and directed to file a separate petition under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations with respect to Asset-3 and Asset-4 (nomenclature in the instant petition) in the same petition. The Petitioner filed Petition No. 221/TT/2016 in respect of Asset-3 and Asset-4 (nomenclature in the instant petition) praying for condonation of time over-run as these assets have been delayed due to same problems of land acquisition and RoW issues. UPPTCL has submitted that the Petitioner also brought some new issue related to court case which was settled with mutual consent quickly and the theft of conductor. The Commission *vide* order dated 12.10.2017 in Petition No. 221/TT/2016 determined the transmission tariff of the assets with direction that the time over-run from 22.7.2015 to the actual COD of Asset-3 and Asset-4 (nomenclature in the instant petition) would be reviewed after the submission of complete and clear chronology of events of time over-run by the Petitioner at the time of truing up. UPPTCL has further submitted that the grounds for delay furnished by the Petitioner do not fall within the 'Uncontrollable factors' of the transmission licensee in accordance with Regulation 12 of the 2014 Tariff Regulations. Accordingly, UPPTCL has requested to revisit order dated 30.6.2016 in Petition No. 253/TT/2015 in respect of Asset-2 in accordance with the APTEL's judgement dated 12.5.2015 in Appeal No. 129 of 2012 and batch matters



in respect of Asset-3 and Asset-4 on the basis of Regulation 12 of the 2014 Tariff Regulations.

35. UPPTCL has further submitted that the Petitioner had failed to discharge its statutory function as contained in Section 38(2) of the Electricity Act, 2003 in relation to coordinating the construction activities resulting mismatch with downstream transmission system and the delay in commissioning of the transmission line was on account of Petitioner. Therefore, owing to the huge delay on part of the Petitioner in execution of the transmission assets, UPPTCL was constrained to construct and commission Muradnagar-II Sub-station to meet the existing load demand. Hence, the direction to bear the transmission charges of PGCIL's assets by UPPTCL till the commissioning of UPPTCL's downstream assets is not justified. UPPTCL has further submitted that the Commission may also appreciate the fact that in terms of the Standing Committee Meetings, UPPTCL ought to have been permitted time to construct its downstream assets and instead of bearing the transmission charges till the commissioning of their downstream assets.

36. In response, the Petitioner has submitted that the Commission has condoned the time over-run pertaining to Asset-2 up to 8.5.2016 due to severe RoW problem and delay in land acquisition for Bagpat Sub-station in Petition No. 253/TT/2015. Further, time over-run from 9.5.2016 to 3.7.2016 has been condoned by the Commission *vide* order dated 1.10.2019 in Petition No. 268/TT/2018 in case of Asset-5 to Asset-9. The time over-run in case of Asset-3 and Asset-4 was beyond the control of the Petitioner and requested to condone the delay of 52 month 17 days and 54 month 25 days respectively.



37. The Petitioner has submitted detailed reasons and justification in support of its claim for condonation of delay in execution of Asset-3 and Asset-4 and in response to the contentions of UPPTCL as brought out above:

**Delay on account of Case no. 128/2015 in transmission line**

(a) The Commission vide order dated 13.10.2017 in Petition No. 221/TT/2016 directed the Petitioner to file information regarding the outcome of the court case No. 128/2015 due to which the work at Gurana village was put on hold affecting the stringing work of 1.1 km of transmission line.

(b) There was out of court settlement and intimation to this effect was submitted at Civil court, Bagpat on 31.7.2015, based on which the case was dismissed *vide* order dated 28.10.2015 (copy of order attached). Stringing work of affected 1.1 km of transmission line commenced only after the case was disposed of on 28.10.2015.

**Delay on account of downstream system**

(c) of the time over-run in case of Asset-3 and Asset-4 was due to time over-run in case of associated downstream system of 220 kV lines in the scope of UPPTCL. Accordingly, the Petitioner intimated UPPTCL about readiness of the transmission assets and made numerous correspondence with UPPTCL regarding COD of downstream network.

(d) In the 38<sup>th</sup> SCM meeting held on 30.5.2016, UPPCL confirmed that their downstream networks pertaining to Bagpat will be ready in July, 2016. Matching with the timeline provided by UPPCL i.e., July, 2016, the COD of Asset-3, namely 500 MVA 400/220 kV ICT-II at Bagpat GIS Sub-station along with associated bays, was done on 3.7.2016.

(e) The Asset-3 was essentially required to fulfil the essential criteria of N-1 contingency and the Petitioner could not wait further for downstream network. Regarding Asset-4, i.e., 2 Numbers 220 kV line bays associated with Bagpat GIS, the Petitioner charged 4 Numbers 220 kV line bays at Bagpat GIS on 1.7.2016 and obtained RLDC certificate on no-load, on the basis of timeline





provided by UPPCL in 38<sup>th</sup> SCM meeting. However, UPPCL failed to commission its 220 kV downstream transmission line in given time.

(f) Eventually, two downstream lines i.e., 220 kV Bagpat-Muradnagar and 220 kV Bagpat-Shamli transmission lines were charged by UPPCL on 9.9.2016. The Petitioner put Asset-4 into commercial operation along with above mentioned 220 kV line and declared its commercial operation on 11.9.2016. The Petitioner has submitted that the transmission assets were completed but COD was deferred to match the commissioning with downstream network

### **Statutory functions under Section 38(2) of the Electricity Act, 2003**

(g) The functions to be performed under Section 38(2) of the Electricity Act, 2003 are with regard to the role of the Petitioner as CTU. In the present case, the Petitioner had approached the Commission in capacity of transmission licensee after completing its scope of work. Further, the Petitioner has submitted various communications/ correspondence with UPPTCL inter-alia providing its progress reports and requesting to match the UPPTCL assets during the proceedings before the Commission. In addition, Progress reports were also discussed in various Standing Committee Meetings (SCM) whose minutes were also submitted and the same was taken into cognizance by the Commission while adjudicating the instant tariff petition.

### **UPPTCL's contention regarding Petitioner's accountability in delay**

(h) The timeline envisaged in the IA are based on the various intermittent milestones such as land acquisition, foundation etc. However, during the implementation of assets covered in tariff Petition No. 268/TT/2018, some of the intermittent activities got delayed due to force majeure events such as land acquisition and RoW events which prevented the Petitioner to complete the project within the scheduled time and were beyond the control of the Petitioner.

(i) The Commission concluded that the reasons cited by the Petitioner for the time over-run were beyond its control. The Commission has also correctly appreciated the evidence placed on record by the Petitioner in the present case. Further, UPPTCL was unable to complete its downstream system even



after COD of Petitioner's transmission system due to which load demand in its area was not fulfilled.

**Payment of the transmission charges of PGCIL's assets by UPPTCL**

(j) The Petitioner's asset got delayed due to force majeure events such as land acquisition and RoW events which prevented the Petitioner to complete the project within the time specified in the IA and were beyond the control. Accordingly, the time over-run has been condoned by the Commission. However, UPPTCL's downstream assets were not ready even on date of readiness of the Petitioner's asset leading to non-fulfilment of immediate need and rising power demand to be met by UPPTCL. If UPPTCL's transmission assets had come in time, then it would have been able to meet the rising power demand. Accordingly, UPPTCL is trying to blame the Petitioner for its own delay and trying to misguide the Commission.

38. We have considered the submissions of the Petitioner and UPPTCL. As per IA dated 21.1.2009, the transmission assets are scheduled to be put into commercial operation within 36 months from the date of IA, against which Asset-1, Asset-2, Asset-3, Asset-4, Asset- 5, Asset-6, Asset-7, Asset-8 and Asset-9 has been put into commercial operation on 1.7.2011, 8.5.2016, 3.7.2016, 11.9.2016, 3.7.2016, 3.7.2016, 20.8.2016, 26.1.2017 respectively. There is no time over-run in case of Asset-1 and the time over-run has already been condoned by the Commission in case of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015 and in case of Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 vide order dated 1.10.2019 in Petition No.268/TT/2018.

39. As regards Asset-3 and Asset-4, the Commission in order dated 13.10.2017 in Petition No. 221/TT/2016 condoned the time over-run up to 22.7.2015 and held that the time over-run beyond 22.7.2015 will be considered at the time of true-up.



40. The Commission vide order dated 30.6.2016 in Petition No.253/TT/2015 approved the COD of 500 MVA, 400/220 kV ICT-I at Bagpat GIS Sub-station along with 1 number 220 kV line bay as 8.5.2016 and condoned the time overrun of 1570 days. The relevant portion of the order dated 30.6.2016 is extracted hereunder:

*“29. From the above submissions of the petitioner, it is observed that it has faced continuous ROW Problem at various locations on the route of the instant transmission line. Petitioner faced severe agitation from the local villagers and faced continuous obstruction caused by the land owners and local villagers. The petitioner has submitted chronology of events from which it can be seen that it took almost 53 months to resolve ROW issue. Further there was delay of 3 months due to theft. The petitioner has submitted multiple paper cutting of all the ROW problems faced by the petitioner at various locations. We have gone through the submissions of the petitioner and are of the view that the time overrun 50 months and 23 days in commissioning of the Asset-I is beyond the control of the petitioner and it cannot be attributed to the petitioner. Further, as delay in commissioning of Asset-II & III is mainly due to delay in commissioning of Asset- I, time over-run 50 months and 23 days in commissioning of the Asset-II & III is also condoned.”*

41. It is observed tha Asset-3 i.e. 500 MVA 400/220 kV ICT-II at Bagpat GIS Sub-station along with associated bays and Asset-4 i.e. 2 no.of 220 kV line bays are part of Bagpat Substation. The delay in commissioning of Bagpat Substation due to RoW problems faced in LILO of both circuits of 400 kV D/C (QUAD) Meerut –Kaithal 400 kV D/C transmission line and associated bays at Bagpat GIS Sub-station has been already condoned by the Commission vide order dated 30.6.2016 in Petition No.253/TT/2015. Therefore, the time over-run of 1570 days in case Asset-3 and 4 is also condoned.

42. As regards Asset-3, the Petitioner has claimed the COD of 500 MVA ICT-II as 3.7.2016 and the Petitioner has not submitted any reason for delay from COD of ICT-I at Bagpat Sub-station i.e. 8.5.2016 to COD of ICT-II at Bagpat Sub-station i.e., 3.7.2016. Therefore, the time period from 8.5.2016 to 3.7.2016 in case of Asset-3 is not condoned. Thus, out of total time over-run of 1626 days, time over-run of 1570 days in case of Asset-3 has been condoned.



43. In case of Asset-4, the Petitioner has submitted that 2 Numbers 220 kV line bays associated with Bagpat GIS charged on 'no-load' basis on 1.7.2016 but it could not be put to use due to non-commissioning of 220 kV downstream transmission line under the scope of UPPTCL. The two downstream lines i.e. 220 kV Bagpat-Muradnagar and Bagpat-Shamli Transmission Lines were charged by UPPTCL on 9.9.2016, thereafter the Petitioner had put Asset-4 into commercial operation along with 220 kV downstream lines on 11.9.2016. It is observed that though the asset was charged on 'no-load' basis on 1.7.2016, the Petitioner has matched the asset with downstream assets of UPPTCL and has claimed the COD as 11.9.2016. It was a decision of the Petitioner to match Asset-4 with the downstream assets of UPPTCL. Therefore the time overrun from from COD of ICT-I at Bagpat Sub-station i.e., 8.5.2016 to COD of 2 No.of 220 kV line bays at Bagpat Sub-station i.e., 11.9.2016 is not condoned. Therefore, out of total time over-run of 1696 days, time over-run of 1570 days in cae of Asset-4 has been condoned.

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

44. The Petitioner has claimed IDC in respect of the transmission assets except Asset-1 and has submitted Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

45. We have considered the submissions of the Petitioner. The Petitioner has not claimed any IDC for Asset-1. The allowable IDC for remaining assets has been worked out considering the information submitted by the Petitioner for individual assets separately on cash basis. The loan details submitted in Form-9C for 2014-19 tariff period and IDC computation sheet have been considered for the purpose of



IDC calculation on cash and accrued basis. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

46. Accordingly, based on the information filed by the Petitioner, IDC considered is as follows:

(₹ in lakh)

Particulars	IDC claimed by Petitioner (as per Auditor's Certificate)	IDC admissible	IDC disallowed due to computation difference/ time over-run	IDC Discharged as on COD	IDC Undischarged as on COD	IDC Discharge during	
						2016-17	2017-18
	A	B	C=A-B	D	E=B-D	F	G
Asset- 2	6838.53	6838.53	0.00	6086.43	752.10	752.10	0.00
Asset-3	927.27	892.81	34.46	816.51	76.30	75.77	0.53
Asset-4	263.72	242.72	21.00	236.05	6.67	6.67	0.00
Asset- 5	123.08	123.08	0.00	82.39	40.69	40.69	0.00
Asset-6	123.08	123.08	0.00	82.39	40.69	40.69	0.00
Asset-7	127.58	127.58	0.00	42.43	85.15	83.89	1.26
Asset-8	161.56	147.67	13.89	141.07	6.60	0.22	6.38
Asset-9	161.56	147.67	13.89	141.07	6.60	0.22	6.38

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

47. The Petitioner has claimed IEDC in respect of the transmission assets and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission assets. Accordingly, IEDC is allowed as claimed, subject to adjustment as per condonation of time over-run. The details of IEDC claimed and allowed are as follows:

Particulars	IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run	IEDC allowed as on COD
	1	2	3=(1-2)
Asset-1	16.62	0.00	16.62
Asset- 2	1070.56	0.00	1070.56
Asset-3	142.73	2.94	139.79
Asset-4	69.43	3.14	66.29
Asset- 5	83.40	0.00	83.40
Asset-6	83.40	0.00	83.40



Particulars	IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run	IEDC allowed as on COD
	1	2	3=(1-2)
Asset-7	83.40	0.00	83.40
Asset-8	83.40	0.00	83.40
Asset-9	83.40	0.00	83.40

### Initial Spares

48. Initial Spares are provided in Regulation 13(d) of the 2014 Tariff Regulations 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%*

.....”

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

Assets	Capital cost (SS/ TL)	Head (SS/ TL)	Spares claimed (SS/ TL)	limit	Allowable initial spares (SS/ TL)
<b>2009-14 Block</b>					
Asset-1	1093.57	SS	40.57	2.50%	27.00
<b>2014-19 Block</b>					
Asset-2	10258.61	SS	346.05	5.00%	521.71
	11742.36	TL	107.31	1.00%	117.53
Asset-3	3681.57	SS	100.02	5.00%	188.50
Asset-4	988.15	SS	2.24	5.00%	51.89
Asset-5	602.37	SS	38.89	5.00%	29.66
Asset-6	602.37	SS	38.89	5.00%	29.66
Asset-7	595.58	SS	37.07	5.00%	29.40
Asset-8	597.60	SS	42.58	5.00%	29.21
Asset-9	597.60	SS	42.58	5.00%	29.21
<b>Total</b>	<b>19017.42</b>	<b>SS</b>	<b>796.20</b>		<b>1053.77</b>

50. UPPTCL has submitted that Petitioner has sought re-calculation of 'Initial Spares' based on the capital cost of all the transmission assets in accordance with



the judgment dated 14.9.2019 in Appeal No. 74 of 2017 pertaining to tariff period 2009-14. On this issue, it may be stated that the instant petition is for true up of tariff for 2014-19 period and Regulation 8(1) of the 2014 Tariff Regulations, does not allow re-calculation of 'Initial Spares' based on the capital cost for 2009-14 tariff period. The decision on question of law on which the judgment of the court is based on and if that decision of the court is reversed or modified by the subsequent decision of a superior court in any other case, shall not be a ground for review of such judgment. The legal proposition on such issue is very clearly defined. The mere fact that the judgment of the APTEL dated 14.9.2019 in Appeal No. 74 of 2017 was in Petition No. 53/TT/2015 in the matter truing of transmission tariff for 2009-14 tariff period and determination of transmission tariff for 2014-19 tariff period for the Transmission System associated with Kudankulam Atomic Power Project in Southern Region. It may, thus, be noted that the judgment of the APTEL is for truing up of the tariff for 2009-14 tariff period and thus the said judgment is clearly distinguishable from the present case in hand as the APTEL had not rendered any finding on the issue of true up for 2014-19. Besides the distinguishable features, the judgment also cannot be applied in this case of Northern Regions owing to the explanation above and the claim therefore is liable to be rejected by the Commission.

51. In response, the Petitioner has submitted that the APTEL vide its judgement dated 14.9.2019 in Appeal No. 74 of 2017, recognized the fact that the 2009/ 2014 Tariff Regulations allowed the computation of Initial Spares based on overall project cost and not on individual asset cost. In pursuance of the above the APTEL judgement, the Petitioner is claiming Initial Spares based on total project cost in applicable petitions and same are being allowed by the Commission subsequent to



the execution of the entire transmission project in respective petitions. Therefore, this issue has been settled and attained finality.

52. We have considered the submissions of the Petitioner and UPPTCL. Initial Spares are to be allowed as percentage of the project cost as a whole. However, in the present case, the entire scope of the transmission project has not been completed and the assets claimed in the instant petition are not combined yet. The overall project cost of the transmission assets can only be ascertained when all the assets are combined. Accordingly, individual asset-wise excess Initial Spares are disallowed in the instant order.

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

**Transmission lines**

Asset	Plant & Machinery cost considered as on cut-off date	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations	Initial Spares allowed	Discharge of Initial Spares
				$D = [(A-B) * C / (100-C)]$		
<b>Asset-2</b>	11742.36	107.31	1.00	117.53	107.31	107.31

**Sub-station**

(₹ in lakh)

Assets	Plant & Machinery cost considered as on cut-off date	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations	Initial Spares allowed	Excess Initial Spares disallowed
<b>Asset-1</b>	1093.57	40.57	2.50	27.00	27.00	13.57
<b>Asset-2</b>	10258.61	346.05	5.00	521.71	346.05	0.00
<b>Asset-3</b>	3681.57	100.02	5.00	188.50	100.02	0.00
<b>Asset-4</b>	988.15	2.24	5.00	51.89	2.24	0.00
<b>Asset-5</b>	602.37	38.89	5.00	29.66	29.66	9.23





Assets	Plant & Machinery cost considered as on cut-off date	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations	Initial Spares allowed	Excess Initial Spares disallowed
Asset-6	602.37	38.89	5.00	29.66	29.66	9.23
Asset-7	595.58	37.07	5.00	29.40	29.40	7.67
Asset-8	597.60	42.58	5.00	29.21	29.21	13.37
Asset-9	597.60	42.58	5.00	29.21	29.21	13.37

### Capital Cost as on COD

54. Accordingly, capital cost allowed as on COD is as follows:

Particulars	Capital cost claimed as on 1.4.2014 or COD whichever is later	Less: IDC as on COD due to		Less: IEDC disallowed as on COD	Excess Initial Spares Disallowed	Capital cost considered as on 1.4.2014 or COD whichever is later
		Time over-run/ Computation difference	Un-discharged			
Asset-1	1093.57	0.00	0.00	0.00	13.57	1080.00
Asset-2	28798.69	0.01	752.10	0.00	0.00	28046.58
Asset-3	3662.70	34.46	76.30	2.94	0.00	3549.00
Asset-4	1008.47	21.00	6.67	3.14	0.00	977.67
Asset-5	707.32	0.00	40.69	0.00	9.23	657.40
Asset-6	707.32	0.00	40.69	0.00	9.23	657.40
Asset-7	706.51	0.00	85.15	0.00	7.67	613.69
Asset-8	784.52	13.88	6.60	0.00	13.37	750.65
Asset-9	784.52	13.88	6.60	0.00	13.37	750.65

### Additional Capital Expenditure ("ACE")

55. The Commission vide order dated 14.3.2016 in Petition No. 478/TT/2014 in respect of Asset-1, vide order dated 30.6.2016 in Petition No. 253/TT/2015 in respect of Asset-2, vide order dated 13.10.2017 in Petition No. 221/TT/2016 in respect of Asset-3 and Asset-4 and vide order dated 1.10.2019 in Petition No. 268/TT/2018 in respect of Asset-5 to Asset-9 had allowed ACE in respect of the transmission assets covered in the instant petition and the same is as follows:



(₹ in lakh)

Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	0.00	0.00	0.00	0.00	0.00
Asset-2	0.00	0.00	2883.56	1065.73	0.00
Asset-3	0.00	0.00	998.06	499.03	0.00
Asset-4	0.00	0.00	452.19	39.61	0.00
Asset-5	0.00	0.00	117.06	22.10	10.86
Asset-6	0.00	0.00	117.06	22.10	10.86
Asset-7	0.00	0.00	160.08	22.13	12.10
Asset-8	0.00	0.00	97.02	35.86	41.14
Asset-9	0.00	0.00	97.02	35.86	41.14
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>4922.05</b>	<b>1742.42</b>	<b>116.10</b>

56. The Petitioner has claimed the following ACE in respect of the transmission assets and submitted Auditor's Certificate in support of its claim:

(₹ in lakh)

Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	0.00	0.00	0.00	0.00	0.00
Asset-2	0.00	0.00	1823.65	651.66	228.29
Asset-3	0.00	0.00	1157.10	209.65	205.89
Asset-4	0.00	0.00	424.79	21.25	19.91
Asset-5	0.00	0.00	70.09	13.01	6.12
Asset-6	0.00	0.00	70.09	13.01	6.12
Asset-7	0.00	0.00	70.09	12.57	5.91
Asset-8	0.00	0.00	26.05	12.57	5.91
Asset-9	0.00	0.00	26.05	12.57	5.91
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>3667.91</b>	<b>946.29</b>	<b>484.06</b>

57. UPPTCL has submitted that the Petitioner has claimed ACE amounting to ₹3667.91 lakh during 2016-17, ₹946.29 lakh during 2017-18 and ₹484.06 lakh during 2018-19 which should be subject to the submissions of UPPTCL. This ACE also includes accrual IDC. As accrual IDC is not permissible under the 2014 Tariff Regulations the same may be disallowed by the Commission along with other ACE.

58. In response, the Petitioner has submitted that detailed justification with respect to ACE has already been submitted in the instant petition and subsequent submissions. Therefore, the Commission is requested to allow the claim of ACE in



2016-17, 2017-18 and 2018-19. The Petitioner has submitted that the submissions of UPPTCL regarding accrual IDC, is baseless and has no standing as it is basic principle that the capital cost shall be claimed only when it is incurred. In the instant case, IDC discharged during the particular financial year subsequent to COD has been claimed along with ACE of the respective financial year.

59. We have considered the submissions of the Petitioner and UPPTCL. The Petitioner has not claimed ACE for Asset-1. ACE in respect of Asset-2, Asset-3, Asset-4, Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 claimed by the Petitioner is being allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations as it is towards balance and retention payments and works deferred for execution. The undischarged IDC as on COD has been allowed as ACE. The details of ACE allowed are as follows:

(₹ in lakh)

Asset- 2	ACE		
	2016-17 (Pro-rata for 328 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	228.89	320.93	185.20
ACE to the extent of unexecuted work	1594.76	330.73	43.09
Add: IDC Discharged	752.09	0.00	0.00
<b>Total ACE allowed</b>	<b>2575.74</b>	<b>651.66</b>	<b>228.29</b>

(₹ in lakh)

Asset- 3	ACE		
	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	420.91	44.63	22.87
ACE to the extent of unexecuted work	736.19	165.02	183.02
Add: IDC Discharged	75.77	0.53	0.00
<b>Total ACE allowed</b>	<b>1232.87</b>	<b>210.18</b>	<b>205.89</b>



(₹ in lakh)

Asset- 4	ACE		
	2016-17 (Pro-rata for 202 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	87.65	15.03	8.06
ACE to the extent of unexecuted work	337.14	6.22	11.85
Add: IDC Discharged	6.67	0.00	0.00
<b>Total ACE allowed</b>	<b>431.46</b>	<b>21.25</b>	<b>19.91</b>

(₹ in lakh)

Asset- 5	ACE		
	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	2.97	8.09	4.55
ACE to the extent of unexecuted work	67.12	4.92	1.57
Add: IDC Discharged	40.69	0.00	0.00
<b>Total ACE allowed</b>	<b>110.78</b>	<b>13.01</b>	<b>6.12</b>

(₹ in lakh)

Asset- 6	ACE		
	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	2.97	8.09	4.55
ACE to the extent of unexecuted work	67.12	4.92	1.57
Add: IDC Discharged	40.69	0.00	0.00
<b>Total ACE allowed</b>	<b>110.78</b>	<b>13.01</b>	<b>6.12</b>

(₹ in lakh)

Asset- 7	ACE		
	2016-17 (Pro-rata for 224 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	24.91	8.09	4.55
ACE to the extent of unexecuted work	45.18	4.48	1.36
Add: IDC Discharged	83.89	1.26	0.00
<b>Total ACE allowed</b>	<b>153.99</b>	<b>13.83</b>	<b>5.91</b>

(₹ in lakh)

Asset- 8	ACE		
	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	6.97	8.48	4.75



Asset- 8	ACE		
	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
ACE to the extent of unexecuted work	19.08	4.09	1.16
Add: IDC Discharged	0.22	6.38	0.00
<b>Total ACE allowed</b>	<b>26.27</b>	<b>18.95</b>	<b>5.91</b>

(₹ in lakh)

Asset- 9	ACE		
	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
ACE to the extent of Balance & Retention Payments and work deferred for execution/	6.97	8.48	4.75
ACE to the extent of unexecuted work	19.08	4.09	1.16
Add: IDC Discharged	0.22	6.38	0.00
<b>Total ACE allowed</b>	<b>26.27</b>	<b>18.95</b>	<b>5.91</b>

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

60. Accordingly, capital cost in respect of the transmission assets considered for 2014-19 tariff period are as follows:

(₹ in lakh)

Assets	Apportioned Approved Capital Cost as per RCE	Capital Cost as on COD on cash basis	ACE					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	1094.00	1080.00	0.00	0.00	0.00	0.00	0.00	1080.00
Asset-2	34931.89	28046.58	0.00	0.00	2575.74	651.66	228.29	31502.27
Asset-3	5314.64	3549.00	0.00	0.00	1232.87	210.18	205.89	5197.94
Asset-4	1500.26	977.67	0.00	0.00	431.46	21.25	19.91	1450.28
Asset-5	920.54	657.40	0.00	0.00	110.78	13.01	6.12	787.31
Asset-6	920.54	657.40	0.00	0.00	110.78	13.01	6.12	787.31
Asset-7	1008.13	613.69	0.00	0.00	153.99	13.83	5.91	787.42
Asset-8	1025.50	750.65	0.00	0.00	26.27	18.95	5.91	801.78
Asset-9	1025.50	750.65	0.00	0.00	26.27	18.95	5.91	801.78
<b>Total</b>	<b>47741.00</b>	<b>37083.04</b>	<b>0.00</b>	<b>0.00</b>	<b>4668.16</b>	<b>960.84</b>	<b>484.06</b>	<b>43196.09</b>

### **Debt-Equity Ratio**

61. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for ACE post COD. Debt-equity ratio of 70:30 has been considered for capital cost as



on COD and ACE during 2014-19 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:

Asset-1	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	756.00	70.00	756.00	70.00
Equity	324.00	30.00	324.00	30.00
<b>Total</b>	<b>1080.00</b>	<b>100.00</b>	<b>1080.00</b>	<b>100.00</b>
Asset- 2	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	19632.61	70.00	22051.61	70.00
Equity	8413.97	30.00	9450.67	30.00
<b>Total</b>	<b>28046.58</b>	<b>100.00</b>	<b>31502.27</b>	<b>100.00</b>
Asset- 3	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	2484.31	70.00	3638.58	70.00
Equity	1064.69	30.00	1559.36	30.00
<b>Total</b>	<b>3549.00</b>	<b>100.00</b>	<b>5197.94</b>	<b>100.00</b>
Asset- 4	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	684.37	70.00	1015.20	70.00
Equity	293.30	30.00	435.08	30.00
<b>Total</b>	<b>977.67</b>	<b>100.00</b>	<b>1450.28</b>	<b>100.00</b>
Asset- 5	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	460.18	70.00	551.12	70.00
Equity	197.22	30.00	236.19	30.00
<b>Total</b>	<b>657.40</b>	<b>100.00</b>	<b>787.31</b>	<b>100.00</b>
Asset- 6	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)
Debt	460.18	70.00	551.12	70.00
Equity	197.22	30.00	236.19	30.00
<b>Total</b>	<b>657.40</b>	<b>100.00</b>	<b>787.31</b>	<b>100.00</b>
Asset- 7	As on COD		As on 31.3.2019	
	Amount (₹ in lakh)	(in %)	Amount (₹ in lakh)	(in %)



Debt	429.58	70.00	551.19	70.00
Equity	184.10	30.00	236.22	30.00
<b>Total</b>	<b>613.69</b>	<b>100.00</b>	<b>787.42</b>	<b>100.00</b>
<b>Asset- 8</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	525.47	70.00	561.27	70.00
Equity	225.18	30.00	240.51	30.00
<b>Total</b>	<b>750.65</b>	<b>100.00</b>	<b>801.78</b>	<b>100.00</b>
<b>Asset- 9</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	525.47	70.00	561.27	70.00
Equity	225.18	30.00	240.51	30.00
<b>Total</b>	<b>750.65</b>	<b>100.00</b>	<b>801.78</b>	<b>100.00</b>

### Depreciation

62. Depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. The Gross Block during 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD). WAROD at Annexure-I to Annexure-IX has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and trued-up depreciation allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

<b>Asset-1</b>						
	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	1080.00	1080.00	1080.00	1080.00	1080.00
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	1080.00	1080.00	1080.00	1080.00	1080.00
D	Average Gross Block (A+C)/2	1080.00	1080.00	1080.00	1080.00	1080.00
E	Average Gross Block (90% depreciable assets)	1080.00	1080.00	1080.00	1080.00	1080.00
F	Depreciable value (E*90%)	972.00	972.00	972.00	972.00	972.00
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
H	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00
I	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00



<b>Asset-1</b>						
	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
J	<b>Depreciation during the year (D*G)</b>	<b>57.02</b>	<b>57.02</b>	<b>57.02</b>	<b>57.02</b>	<b>57.02</b>
K	Aggregate Cumulative Depreciation at the end of the year	208.51	265.54	322.56	379.59	436.61
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	763.49	706.46	649.44	592.41	535.39

(₹ in lakh)

<b>Asset-2</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 328 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	28046.58	30622.32	31273.98
B	ACE	2575.74	651.66	228.29
C	Closing Gross Block (A+B)	30622.32	31273.98	31502.27
D	Average Gross Block (A+C)/2	29334.45	30948.15	31388.13
E	Freehold Land	1443.33	1443.33	1443.33
F	Average Gross Block (90% depreciable assets) (D-E)	27891.12	29504.82	29944.80
G	Depreciable value (F*90%)	25102.01	26554.34	26950.32
H	Weighted Average Rate of Depreciation (WAROD) (in %)	4.97	4.97	4.97
I	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
J	Balance useful life at the beginning of the year (Year)	29.00	29.00	28.00
K	<b>Depreciation during the year (D*H)</b>	<b>1310.15</b>	<b>1537.24</b>	<b>1558.49</b>
L	Aggregate Cumulative Depreciation at the end of the year	1310.15	2847.39	4405.88
M	Remaining Aggregate Depreciable Value at the end of the year(G-L)	23791.85	23706.95	22544.43

(₹ in lakh)

<b>Asset-3</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	3549.00	4781.87	4992.05
B	ACE	1232.87	210.18	205.89
C	Closing Gross Block (A+B)	4781.87	4992.05	5197.94
D	Average Gross Block (A+C)/2	4165.43	4886.96	5095.00
E	Average Gross Block (90% depreciable assets)	4165.43	4886.96	5095.00
F	Depreciable value (E*90%)	3748.89	4398.26	4585.50
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.13	5.06	5.04





<b>Asset-3</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	Depreciation during the year (D*G)	159.23	247.45	256.96
K	Aggregate Cumulative Depreciation at the end of the year	159.23	406.68	663.64
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	3589.66	3991.59	3921.86

(₹ in lakh)

<b>Asset-4</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 202 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	977.67	1409.12	1430.37
B	ACE	431.46	21.25	19.91
C	Closing Gross Block (A+B)	1409.12	1430.37	1450.28
D	Average Gross Block (A+C)/2	1193.39	1419.75	1440.33
E	Average Gross Block (90% depreciable assets)	1193.39	1419.75	1440.33
F	Depreciable value (E*90%)	1074.06	1277.77	1296.29
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.16	5.08	5.07
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	Depreciation during the year (D*G)	34.06	72.06	73.00
K	Aggregate Cumulative Depreciation at the end of the year	34.06	106.12	179.12
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	1039.99	1171.65	1117.18

(₹ in lakh)

<b>Asset-5</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	657.40	768.18	781.19
B	ACE	110.78	13.01	6.12



<b>Asset-5</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
C	Closing Gross Block (A+B)	768.18	781.19	787.31
D	Average Gross Block (A+C)/2	712.79	774.68	784.25
E	Average Gross Block (90% depreciable assets)	712.79	774.68	784.25
F	Depreciable value (E*90%)	641.51	697.21	705.82
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	<b>Depreciation during the year (D*G)</b>	<b>28.05</b>	<b>40.92</b>	<b>41.43</b>
K	Aggregate Cumulative Depreciation at the end of the year	28.05	68.98	110.41
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	613.45	628.24	595.42

(₹ in lakh)

<b>Asset-6</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	657.40	768.18	781.19
B	ACE	110.78	13.01	6.12
C	Closing Gross Block (A+B)	768.18	781.19	787.31
D	Average Gross Block (A+C)/2	712.79	774.68	784.25
E	Average Gross Block (90% depreciable assets)	712.79	774.68	784.25
F	Depreciable value (E*90%)	641.51	697.21	705.82
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	<b>Depreciation during the year (D*G)</b>	<b>28.05</b>	<b>40.92</b>	<b>41.43</b>
K	Aggregate Cumulative Depreciation at the end of the year	28.05	68.98	110.41
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	613.45	628.24	595.42



(₹ in lakh)

Asset-7				
	Particulars	2016-17 (Pro-rata for 224 days)	2017-18	2018-19
A	Opening Gross Block	613.69	767.68	781.51
B	ACE	153.99	13.83	5.91
C	Closing Gross Block (A+B)	767.68	781.51	787.42
D	Average Gross Block (A+C)/2	690.68	774.59	784.46
E	Average Gross Block (90% depreciable assets)	690.68	774.59	784.46
F	Depreciable value (E*90%)	621.61	697.13	621.61
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	<b>Depreciation during the year (D*G)</b>	<b>22.40</b>	<b>40.94</b>	<b>41.46</b>
K	Aggregate Cumulative Depreciation at the end of the year	22.40	63.33	104.79
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	599.22	633.80	601.22

(₹ in lakh)

Asset-8				
	Particulars	2016-17 (Pro-rata for 65days)	2017-18	2018-19
A	Opening Gross Block	750.65	776.92	795.87
B	ACE	26.27	18.95	5.91
C	Closing Gross Block (A+B)	776.92	795.87	801.78
D	Average Gross Block (A+C)/2	763.78	786.39	798.82
E	Average Gross Block (90% depreciable assets)	763.78	786.39	798.82
F	Depreciable value (E*90%)	687.41	707.75	718.94
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	<b>Depreciation during the year (D*G)</b>	<b>7.19</b>	<b>41.55</b>	<b>42.21</b>
K	Aggregate Cumulative Depreciation at the end of the year	7.19	48.73	90.94
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	680.22	659.02	628.00

(₹ in lakh)

Asset-9				
	Particulars	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
A	Opening Gross Block	750.65	776.92	795.87
B	ACE	26.27	18.95	5.91
C	Closing Gross Block (A+B)	776.92	795.87	801.78



<b>Asset-9</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
D	Average Gross Block (A+C)/2	763.78	786.39	798.82
E	Average Gross Block (90% depreciable assets)	763.78	786.39	798.82
F	Depreciable value (E*90%)	687.41	707.75	718.94
G	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
H	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
I	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
J	<b>Depreciation during the year (D*G)</b>	<b>7.19</b>	<b>41.55</b>	<b>42.21</b>
K	Aggregate Cumulative Depreciation at the end of the year	7.19	48.73	90.94
L	Remaining Aggregate Depreciable Value at the end of the year(F-K)	680.22	659.02	628.00

63. The details of depreciation allowed in respect of the Asset-1 vide order dated 14.3.2016 in Petition No. 478/TT/2014, in respect of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015, in respect of Asset-3 and Asset-4 vide order dated 13.10.2017 in Petition No. 221/TT/2016 and in respect of Asset-5 to Asset-9 vide order dated 1.10.2019 in Petition No. 268/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

<b>(₹ in lakh)</b>						
<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	Allowed vide order dated 14.3.2016 in Petition No. 478/TT/2014	57.02	57.02	57.02	57.02	57.02
	Claimed by the Petitioner in the instant Petition	57.74	57.74	57.74	57.74	57.74
	Approved after Truing Up in this order	57.02	57.02	57.02	57.02	57.02
Asset-2	Allowed vide order dated 30.6.2016 in Petition No. 253/TT/2015	-	-	1318.03	1566.18	1592.77



<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	Claimed by the Petitioner in the instant Petition	-	-	1311.94	1539.26	1560.51
	Approved after Truing Up in this order	-	-	1310.15	1537.24	1558.49
Asset-3	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	150.37	237.89	249.87
	Claimed by the Petitioner in the instant Petition	-	-	161.94	252.03	261.60
	Approved after Truing Up in this order	-	-	159.23	247.45	256.96
Asset-4	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	32.36	70.30	71.25
	Claimed by the Petitioner in the instant Petition	-	-	34.15	72.60	73.60
	Approved after Truing Up in this order	-	-	34.06	72.06	73.00
Asset-5	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	26.69	39.50	40.38
	Claimed by the Petitioner in the instant Petition	-	-	28.72	41.81	42.33
	Approved after Truing Up in this order	-	-	28.05	40.92	41.43
Asset-6	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	26.69	39.50	40.38
	Claimed by the Petitioner in the instant Petition	-	-	28.72	41.81	42.33
	Approved after Truing Up in this order	-	-	28.05	40.92	41.43
Asset-7	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	21.27	39.48	40.39



<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	Claimed by the Petitioner in the instant Petition	-	-	22.87	41.75	42.27
	Approved after Truing Up in this order	-	-	22.40	40.94	41.46
Asset- 8	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	6.70	41.13	43.17
	Claimed by the Petitioner in the instant Petition	-	-	7.20	43.42	44.05
	Approved after Truing Up in this order	-	-	7.19	41.55	42.21
Asset- 9	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	6.70	41.13	43.17
	Claimed by the Petitioner in the instant Petition	-	-	7.20	43.42	44.05
	Approved after Truing Up in this order	-	-	7.19	41.55	42.21

### **Interest on Loan (“IoL”)**

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

65. The details of IoL calculated in respect of the transmission assets are as follows:



(₹ in lakh)

<b>Asset-1</b>						
	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	756.00	756.00	756.00	756.00	756.00
B	Cumulative Repayments up to Previous Year	151.49	208.51	265.54	322.56	379.59
C	Net Loan-Opening (A-B)	604.51	547.49	490.46	433.44	376.41
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	57.02	57.02	57.02	57.02	57.02
F	Net Loan-Closing (C+D-E)	547.49	490.46	433.44	376.41	319.39
G	Average Loan (A+F)/2	576.00	518.97	461.95	404.93	347.90
H	Weighted Average Rate of Interest on Loan (in %)	8.889	8.896	8.898	8.900	8.902
I	<b>Interest on Loan (GxH)</b>	<b>51.20</b>	<b>46.17</b>	<b>41.10</b>	<b>36.04</b>	<b>30.97</b>

(₹ in lakh)

<b>Asset-2</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 328days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	19632.61	21435.64	21891.80
B	Cumulative Repayments up to Previous Year	0.00	1310.15	2847.39
C	Net Loan-Opening (A-B)	19632.61	20125.49	19044.41
D	Addition due to ACE	1803.03	456.16	159.80
E	Repayment during the year	1310.15	1537.24	1558.49
F	Net Loan-Closing (C+D-E)	20125.49	19044.41	17645.72
G	Average Loan (A+F)/2	19879.05	19584.95	18345.07
H	Weighted Average Rate of Interest on Loan (in %)	8.936	8.671	8.484
I	<b>Interest on Loan (GxH)</b>	<b>1596.25</b>	<b>1698.23</b>	<b>1556.47</b>

(₹ in lakh)

<b>Asset-3</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	2484.31	3347.32	3494.46
B	Cumulative Repayments upto Previous Year	0.00	159.23	406.68
C	Net Loan-Opening (A-B)	2484.31	3188.09	3087.78
D	Addition due to ACE	863.01	147.13	144.12
E	Repayment during the year	159.23	247.45	256.96
F	Net Loan-Closing (C+D-E)	3188.09	3087.78	2974.94
G	Average Loan (A+F)/2	2836.20	3137.93	3031.36
H	Weighted Average Rate of Interest on Loan (in %)	8.267	8.235	7.931
I	<b>Interest on Loan (GxH)</b>	<b>174.73</b>	<b>258.41</b>	<b>240.41</b>



(₹ in lakh)

Asset-4				
	Particulars	2016-17 (Pro-rata for 202 days)	2017- 18	2018- 19
A	Gross Normative Loan	684.37	986.39	1001.26
B	Cumulative Repayments upto Previous Year	0.00	34.06	106.12
C	Net Loan-Opening (A-B)	684.37	952.32	895.14
D	Addition due to ACE	302.02	14.88	13.94
E	Repayment during the year	34.06	72.06	73.00
F	Net Loan-Closing (C+D-E)	952.32	895.14	836.09
G	Average Loan (A+F)/2	818.34	923.73	865.61
H	Weighted Average Rate of Interest on Loan (in %)	8.668	8.284	8.083
I	<b>Interest on Loan (GxH)</b>	<b>39.26</b>	<b>76.52</b>	<b>69.97</b>

(₹ in lakh)

Asset-5				
	Particulars	2016-17 (Pro-rata for 272 days)	2017- 18	2018- 19
A	Gross Normative Loan	460.18	537.73	546.84
B	Cumulative Repayments upto Previous Year	0.00	28.05	68.98
C	Net Loan-Opening (A-B)	460.18	509.67	477.86
D	Addition due to ACE	77.55	9.11	4.28
E	Repayment during the year	28.05	40.92	41.43
F	Net Loan-Closing (C+D-E)	509.67	477.86	440.72
G	Average Loan (A+F)/2	484.93	493.77	459.29
H	Weighted Average Rate of Interest on Loan (in %)	8.650	8.38	8.22
I	<b>Interest on Loan (GxH)</b>	<b>31.26</b>	<b>41.40</b>	<b>37.75</b>

(₹ in lakh)

Asset-6				
	Particulars	2016-17 (Pro-rata for 272 days)	2017- 18	2018- 19
A	Gross Normative Loan	460.18	537.73	546.84
B	Cumulative Repayments upto Previous Year	0.00	28.05	68.98
C	Net Loan-Opening (A-B)	460.18	509.67	477.86
D	Addition due to ACE	77.55	9.11	4.28
E	Repayment during the year	28.05	40.92	41.43
F	Net Loan-Closing (C+D-E)	509.67	477.86	440.72
G	Average Loan (A+F)/2	484.93	493.77	459.29
H	Weighted Average Rate of Interest on	8.650	8.38	8.22





<b>Asset-6</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017- 18</b>	<b>2018- 19</b>
	Loan (in %)			
I	<b>Interest on Loan (GxH)</b>	<b>31.26</b>	<b>41.40</b>	<b>37.75</b>

(₹ in lakh)

<b>Asset-7</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 224 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	429.58	537.37	547.05
B	Cumulative Repayments up to Previous Year	0.00	22.40	63.33
C	Net Loan-Opening (A-B)	429.58	514.98	483.72
D	Addition due to ACE	107.79	9.68	4.14
E	Repayment during the year	22.40	40.94	41.46
F	Net Loan-Closing (C+D-E)	514.98	483.72	446.40
G	Average Loan (A+F)/2	472.28	499.35	465.06
H	Weighted Average Rate of Interest on Loan (in %)	8.519	7.97	7.83
I	<b>Interest on Loan (GxH)</b>	<b>24.69</b>	<b>39.78</b>	<b>36.40</b>

(₹ in lakh)

<b>Asset-8</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	525.47	543.86	557.13
B	Cumulative Repayments up to Previous Year	0.00	7.19	48.73
C	Net Loan-Opening (A-B)	525.47	536.68	508.39
D	Addition due to ACE	18.39	13.27	4.14
E	Repayment during the year	7.19	41.55	42.21
F	Net Loan-Closing (C+D-E)	536.68	508.39	470.33
G	Average Loan (A+F)/2	531.07	522.53	489.36
H	Weighted Average Rate of Interest on Loan (in %)	8.902	8.51	8.27
I	<b>Interest on Loan (GxH)</b>	<b>8.42</b>	<b>44.48</b>	<b>40.49</b>

(₹ in lakh)

<b>Asset-9</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Gross Normative Loan	525.47	543.86	557.13
B	Cumulative Repayments upto Previous Year	0.00	7.19	48.73



<b>Asset-9</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65days)</b>	<b>2017-18</b>	<b>2018-19</b>
C	Net Loan-Opening (A-B)	525.47	536.68	508.39
D	Addition due to ACE	18.39	13.27	4.14
E	Repayment during the year	7.19	41.55	42.21
F	Net Loan-Closing (C+D-E)	536.68	508.39	470.33
G	Average Loan (A+F)/2	531.07	522.53	489.36
H	Weighted Average Rate of Interest on Loan (in %)	8.902	8.51	8.27
I	<b>Interest on Loan (GxH)</b>	<b>8.42</b>	<b>44.48</b>	<b>40.49</b>

66. The details of IoL allowed in respect of the transmission Asset-1 vide order dated 14.3.2016 in Petition No. 478/TT/2014, in respect of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015, in respect of Asset-3 and Asset-4 vide order dated 13.10.2017 in Petition No. 221/TT/2016 and in respect of Asset-5 to Asset-9 vide order dated 1.10.2019 in Petition No. 268/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	Allowed vide order dated 14.3.2016 in Petition No. 478/TT/2014	51.20	46.17	41.10	36.04	30.97
	Claimed by the Petitioner in the instant Petition	52.01	46.92	41.79	36.66	31.53
	Approved after Truing Up in this order	51.20	46.17	41.10	36.04	30.97
Asset-2	Allowed vide order dated 30.6.2016 in Petition No. 253/TT/2015	-	-	1622.59	1800.18	1690.94
	Claimed by the Petitioner in the instant Petition	-	-	1596.17	1697.99	1556.06
	Approved after Truing Up in this order	-	-	1596.25	1698.23	1556.47
Asset-3	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	179.39	270.13	263.94
	Claimed by the Petitioner in the instant Petition	-	-	175.59	260.10	241.72
	Approved after Truing Up in this order	-	-	174.73	258.41	240.41
Asset- 4	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	38.59	80.53	75.47



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Claimed by the Petitioner in the instant Petition	-	-	38.93	76.34	69.80
	Approved after Truing Up in this order	-	-	<b>39.26</b>	<b>76.52</b>	<b>69.97</b>
Asset-5	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	29.91	41.18	38.69
	Claimed by the Petitioner in the instant Petition	-	-	31.66	41.85	38.12
	Approved after Truing Up in this order	-	-	31.26	41.40	37.75
Asset-6	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	29.91	41.18	38.69
	Claimed by the Petitioner in the instant Petition	-	-	31.66	41.85	38.12
	Approved after Truing Up in this order	-	-	31.26	41.40	37.75
Asset-7	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	24.57	42.51	40.02
	Claimed by the Petitioner in the instant Petition	-	-	24.96	40.14	36.68
	Approved after Truing Up in this order	-	-	24.69	39.78	36.40
Asset- 8	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	7.89	46.32	44.99
	Claimed by the Petitioner in the instant Petition	-	-	8.36	46.07	41.84
	Approved after Truing Up in this order	-	-	8.42	44.48	40.49
Asset- 9	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	7.89	46.32	44.99
	Claimed by the Petitioner in the instant Petition	-	-	8.36	46.07	41.84
	Approved after Truing Up in this order	-	-	8.42	44.48	40.49

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

67. The Petitioner has claimed RoE in respect of the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that the income tax assessment has been completed and assessment order has been issued by the Income Tax Department in case of 2014-15 and 2015-16 and that the income tax return have been filed with Income Tax Department for the years 2016-17 and 2017-18 and income tax return for 2018-19 will be filed in due course of time and has claimed the following effective tax rates for 2014-19 tariff period:



<b>Year</b>	<b>Claimed effective tax (in %)</b>	<b>Grossed-up RoE [(Base Rate)/(1-t)] (in %)</b>
2014-15	21.0177	19.625
2015-16	21.3819	19.716
2016-17	21.3384	19.705
2017-18	21.3371	19.704
2018-19	21.5488	19.758

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

69. It has been noted from the table mentioned at para 7 of the Petition that the Petitioner while claiming annual effective tax rate for the 2014-19 tariff period has included the interest amount while as per Regulation 25(3), penalty if any arising on account of delay in deposit or short deposit of tax amount should not be claimed by the generating company or the transmission licensee as the case may be. Section 234 of IT Act, 1961 broadly covers the interest levied for defaults and delay in submission of IT returns, delay in payment of advance tax, deferment of advance tax etc.

70. Further, it has already been discussed at length vide order dated 27.4.2020 in Petition No.274/TT/2019 that MAT rate is applicable on the Petitioner. We are of the view that grossing up rate of return on equity beyond MAT rate cannot be allowed as higher tax has been paid because of Interest and not higher tax rate. Accordingly, the Commission is not inclined to accede to Petitioner's prayer to claim differential tariff on account of RoE based on effective rate calculated on completion of Income tax assessment/re-assessment for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19



on receipt of respective assessment, directly from the beneficiaries, on year-to-year basis.

71. The Commission, *vide* order dated 27.4.2020 in Petition No. 274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table 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

72. MAT rates are considered for the purpose of grossing up of the rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

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

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

(₹ in lakh)

Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	324.00	324.00	324.00	324.00	324.00
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	324.00	324.00	324.00	324.00	324.00
D	Average Equity (A+B)/2	324.00	324.00	324.00	324.00	324.00
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>63.54</b>	<b>63.84</b>	<b>63.84</b>	<b>63.84</b>	<b>64.02</b>



(₹ in lakh)

Asset-2				
	Particulars	2016-17 (Pro-rata for 328 days)	2017-18	2018-19
A	Opening Equity	8413.97	9186.68	9382.18
B	Additions	772.71	195.50	68.49
C	Closing Equity (A-B)	9186.68	9382.18	9450.67
D	Average Equity (A+B)/2	8800.33	9284.43	9416.42
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>1558.32</b>	<b>1829.50</b>	<b>1860.50</b>

(₹ in lakh)

Asset-3				
	Particulars	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
A	Opening Equity	1064.69	1434.55	1497.60
B	Additions	369.86	63.05	61.77
C	Closing Equity (A-B)	1434.55	1497.60	1559.36
D	Average Equity (A+B)/2	1249.62	1466.07	1528.48
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>183.50</b>	<b>288.89</b>	<b>302.00</b>

(₹ in lakh)

Asset-4				
	Particulars	2016-17 (Pro-rata for 202 days)	2017-18	2018-19
A	Opening Equity	293.30	422.74	429.11
B	Additions	129.44	6.37	5.97
C	Closing Equity (A-B)	422.74	429.11	435.08
D	Average Equity (A+B)/2	358.02	425.92	432.09
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year in (%)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>39.04</b>	<b>83.93</b>	<b>85.37</b>

(₹ in lakh)

Asset-5				
	Particulars	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
A	Opening Equity	197.22	230.45	234.35
B	Additions	33.23	3.90	1.84
C	Closing Equity (A-B)	230.45	234.35	236.19
D	Average Equity (A+B)/2	213.83	232.40	235.27
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>31.40</b>	<b>45.79</b>	<b>46.48</b>



(₹ in lakh)

<b>Asset-6</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	197.22	230.45	234.35
B	Additions	33.23	3.90	1.84
C	Closing Equity (A-B)	230.45	234.35	236.19
D	Average Equity (A+B)/2	213.83	232.40	235.27
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>31.40</b>	<b>45.79</b>	<b>46.48</b>

(₹ in lakh)

<b>Asset-7</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 224 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	184.10	230.30	234.45
B	Additions	46.20	4.15	1.77
C	Closing Equity (A-B)	230.30	234.45	236.22
D	Average Equity (A+B)/2	207.20	232.38	235.34
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>25.06</b>	<b>45.79</b>	<b>46.50</b>

(₹ in lakh)

<b>Asset-8</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	225.18	233.06	238.74
B	Additions	7.88	5.69	1.77
C	Closing Equity (A-B)	233.06	238.74	240.51
D	Average Equity (A+B)/2	229.12	235.90	239.63
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>8.04</b>	<b>46.48</b>	<b>47.35</b>

(₹ in lakh)

<b>Asset-9</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	225.18	233.06	238.74
B	Additions	7.88	5.69	1.77
C	Closing Equity (A-B)	233.06	238.74	240.51
D	Average Equity (A+B)/2	229.12	235.90	239.63
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>8.04</b>	<b>46.48</b>	<b>47.35</b>



74. The details of RoE allowed in respect of the transmission assets i.e., Asset-1 vide order dated 14.3.2016 in Petition No. 478/TT/2014, in respect of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015, in respect of Asset-3 and Asset-4 vide order dated 13.10.2017 in Petition No. 221/TT/2016 and in respect of Asset-5 to Asset-9 vide order dated 1.10.2019 in Petition No. 268/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 14.3.2016 in Petition No. 478/TT/2014	63.54	63.54	63.54	63.54	63.54
	Claimed by the Petitioner in the instant petition	64.39	64.68	64.65	64.65	64.82
	Approved after Truing Up in this order	63.54	63.84	63.84	63.84	64.02
Asset-2	Allowed vide order dated 30.6.2016 in Petition No. 253/TT/2015	-	-	1558.94	1850.97	1882.32
	Claimed by the Petitioner in the instant petition	-	-	1558.32	1829.50	1860.50
	Approved after Truing Up in this order	-	-	1558.32	1829.50	1860.50
Asset-3	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	172.13	275.02	289.70
	Claimed by the Petitioner in the instant petition	-	-	184.47	291.05	304.22
	Approved after Truing Up in this order	-	-	183.50	288.89	302.00
Asset-4	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	36.81	80.97	82.14
	Claimed by the Petitioner in the instant petition	-	-	38.73	83.77	85.27
	Approved after Truing Up in this order	-	-	39.04	83.93	85.37
Asset-5	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	29.73	43.99	44.96
	Claimed by the Petitioner in the instant petition	-	-	31.81	46.34	47.03
	Approved after Truing Up in this order	-	-	31.40	45.79	46.48
Asset-6	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	29.73	43.99	44.96
	Claimed by the Petitioner in the instant petition	-	-	31.81	46.34	47.03
	Approved after Truing Up in	-	-	31.40	45.79	46.48





Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	this order					
Asset-7	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	23.68	43.95	44.96
	Claimed by the Petitioner in the instant petition	-	-	25.33	46.25	46.95
	Approved after Truing Up in this order	-	-	25.06	45.79	46.50
Asset- 8	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	7.46	45.79	48.06
	Claimed by the Petitioner in the instant petition	-	-	7.98	48.14	48.96
	Approved after Truing Up in this order	-	-	8.04	46.48	47.35
Asset- 9	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	7.46	45.79	48.06
	Claimed by the Petitioner in the instant petition	-	-	7.98	48.14	48.96
	Approved after Truing Up in this order	-	-	8.04	46.48	47.35

### Operation & Maintenance Expenses (“O&M Expenses”)

75. O&M Expenses claimed by the Petitioner are as follows:

(₹ in lakh)

Asset-1					
Sub station					
Sl. No.	400 kV Sub-station				
1	Kaithal: Bus reactor bays				
O&M Expenses					
	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station					
400 kV					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>60.30</b>	<b>62.30</b>	<b>64.37</b>	<b>66.51</b>	<b>68.71</b>

(₹ in lakh)

Asset-2				
Transmission lines				
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length km
1	Meerut-Bagpat Transmission Line (Loop In Portion)	Double Circuit	4	30.157
2	Kaithal-Bagpat	Double Circuit	4	30.791



<b>Asset-2</b>				
<b>Transmission lines</b>				
<b>Sl. No.</b>	<b>Name of Line</b>	<b>Single Circuit / Double Circuit</b>	<b>No of Sub-Conductors</b>	<b>Line Length km</b>
	Transmission Line (Loop Out Portion)			
<b>Sub-station</b>				
<b>Sl. No.</b>	<b>400 kV GIS Sub-station bay</b>			
1	Bagpat:LILO of 400 kV D/C(QUAD) Meerut-Kaithal, Bagpat line bay			
2	Bagpat:Bagpat bus reactor bay			
3	Bagpat: Bagpat ICT-1 bay			
<b>Sl. No.</b>	<b>220 kV GIS Sub-station bay</b>			
1	Bagpat: Bagpat ICT-1 bay			
2	Bagpat: Bagpat LINE-1 bay			
<b>O&amp;M Expenses</b>				
		<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>				
220 kV GIS				
Number of bays		2	2	2
400 kV GIS				
Number of bays		6	6	6
<b>Transmission lines</b>				
D/C with four Conductors (km)		60.948	60.948	60.948
<b>Total O&amp;M Expense (₹ in lakh)</b>		<b>439.68</b>	<b>505.51</b>	<b>522.33</b>

(₹ in lakh)

<b>Asset-3</b>				
<b>Sub-station</b>				
<b>Sl. No.</b>	<b>400 kV GIS Sub-station bay</b>			
1	Bagpat:ICT-2- Bagpat - Bagpat (GIS)			
<b>Sl. No.</b>	<b>220 kV GIS Sub-station bay</b>			
1	Bagpat:ICT-2- Bagpat -Bagpat (GIS)			
<b>O&amp;M Expenses</b>				
		<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>				
220 kV GIS				
Number of bays		1	1	1
400 kV GIS				
Number of bays		1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>		<b>74.58</b>	<b>103.39</b>	<b>106.83</b>



(₹ in lakh)

Asset-4			
Sub-station			
Sl. No.	220 kV GIS Sub-station bay		
1	Bagpat: Baraut-1 Bagpat - _Bagpat (GIS)		
2	Bagpat: Baraut-2 - Bagpat - Bagpat (GIS)		
O&M Expenses			
	2016-17	2017-18	2018-19
Sub-station			
220 kV GIS			
Number of bays	2	2	2
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>49.88</b>	<b>93.10</b>	<b>96.20</b>

(₹ in lakh)

Asset-5			
Sub-station			
Sl. No.	220 kV GIS Sub-station bay		
1	Bagpat: 205 number Bagpat(UP)- Bagpat - Bagpat(GIS)		
O&M Expenses			
	2016-17	2017-18	2018-19
Sub-station			
220 kV GIS			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>33.58</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

Asset-6			
Sub-station			
Sl. No.	220 kV GIS Sub-station bay		
1	Bagpat: 210 No Bagpat (GIS)		
O&M Expenses			
	2016-17	2017-18	2018-19
Sub-station			
220 kV GIS			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>33.58</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

Asset-7			
Sub-station			
Sl. No.	220 kV GIS Sub-station bay		
1	Bagpat: 1 Number 220 kV line bays Number 206 at 400/220 kV Bagpat		



	Sub-station		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
220 kV GIS			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>27.65</b>	<b>103.39</b>	<b>106.83</b>

(₹ in lakh)

<b>Asset-8</b>			
<b>Sub-station</b>			
<b>Sl. No.</b>	<b>220 kV GIS Sub-station bay</b>		
1	Bagpat: 1 Number 220 kV line bays Number 207 at 400/220 kV Bagpat Sub-station		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
220 kV GIS			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>8.02</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

<b>Asset-9</b>			
<b>Sub-station</b>			
<b>Sl. No.</b>	<b>220 kV GIS Substation Bay</b>		
1	Bagpat: 1 Number 220 kV line bays Number 207 at 400/220 kV Bagpat Sub-station		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
220 kV GIS			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>8.02</b>	<b>46.55</b>	<b>48.10</b>

76. Regulation 29(4)(a) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission assets are as follows:



<b>Asset-1</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71

<b>Asset-2</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV GIS Sub-station	₹ lakh/bay	55.02	56.84	58.73
200 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10
D/C Bundled with 4 or more sub-conductor)	₹ lakh/km	1.13	1.17	1.21

<b>Asset-3</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV GIS Sub-station	₹ lakh/bay	55.02	56.84	58.73
200 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10

<b>Asset-4</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
220 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10

<b>Asset-5</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
220 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10

<b>Asset-6</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
220 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10

<b>Asset-7</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
220 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10



<b>Asset-8</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
220 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10

<b>Asset-9</b>				
<b>Element</b>	<b>UoM</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
220 kV GIS Sub-station	₹ lakh/bay	45.06	46.55	48.10

77. We have considered the submissions of the Petitioner. O&M Expenses approved under Regulation 29(3) of the 2014 Tariff Regulations in respect of the transmission assets are as follows:

(₹ in lakh)					
<b>Asset – 1</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
1 Number of 400 kV Sub-station bays	60.30	62.30	64.37	66.51	68.71
<b>Total</b>	<b>60.30</b>	<b>62.30</b>	<b>64.37</b>	<b>66.51</b>	<b>68.71</b>

(₹ in lakh)			
<b>Asset – 2</b>	<b>2016-17 (Pro-rata for 328 days)</b>	<b>2017-18</b>	<b>2018-19</b>
1 Number of 400 kV Sub-station bay	330.12	341.04	352.38
1 Number of 220 kV Sub-station bay	90.12	93.10	96.20
60.948 km D/C Bundled with 4 or more sub-conductor) transmission line	69.05	71.37	73.75
<b>Total O&amp;M Expenses</b>	<b>489.29</b>	<b>505.51</b>	<b>522.33</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>439.69</b>	<b>505.51</b>	<b>522.33</b>

(₹ in lakh)			
<b>Asset – 3</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
1 Number of 400 kV GIS Sub-station bays	55.02	56.84	58.73
1 Number of 220 kV GIS Sub-station bays	45.06	46.55	48.10
<b>Total O&amp;M Expenses</b>	<b>100.08</b>	<b>103.39</b>	<b>106.83</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>74.58</b>	<b>103.39</b>	<b>106.83</b>



(₹ in lakh)

Asset – 4	2016-17 (Pro-rata for 202 days)	2017-18	2018-19
1 Number of 200 kV GIS Sub-station bays	90.12	93.10	96.20
<b>Total O&amp;M Expenses</b>	<b>90.12</b>	<b>93.10</b>	<b>96.20</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>49.87</b>	<b>93.10</b>	<b>96.20</b>

(₹ in lakh)

Asset – 5	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
1 Number of 200 kV GIS Sub-station bays	45.06	46.55	48.10
<b>Total O&amp;M Expenses</b>	<b>45.06</b>	<b>46.55</b>	<b>48.10</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>33.58</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

Asset – 6	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
1 Number of 200 kV GIS Sub-station bays	45.06	46.55	48.10
<b>Total O&amp;M Expenses</b>	<b>45.06</b>	<b>46.55</b>	<b>48.10</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>33.58</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

Asset – 7	2016-17 (Pro-rata for 224 days)	2017-18	2018-19
1 Number of 200 kV GIS Sub-station bays	45.06	46.55	48.10
<b>Total O&amp;M Expenses</b>	<b>45.06</b>	<b>46.55</b>	<b>48.10</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>27.65</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

Asset – 8	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
1 Number of 200 kV GIS Sub-station bays	45.06	46.55	48.10
<b>Total O&amp;M Expenses</b>	<b>45.06</b>	<b>46.55</b>	<b>48.10</b>



Asset – 8	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
<b>Pro-rata O&amp;M Expenses</b>	<b>8.02</b>	<b>46.55</b>	<b>48.10</b>

(₹ in lakh)

Asset – 9	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
1 Number of 200 kV GIS Sub-station bays	45.06	46.55	48.10
<b>Total O&amp;M Expenses</b>	<b>45.06</b>	<b>46.55</b>	<b>48.10</b>
<b>Pro-rata O&amp;M Expenses</b>	<b>8.02</b>	<b>46.55</b>	<b>48.10</b>

78. The details of O&M Expenses allowed in respect of the transmission assets i.e. Asset-1 vide order dated 14.3.2016 in Petition No. 478/TT/2014, in respect of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015, in respect of Asset-3 and Asset-4 vide order dated 13.10.2017 in Petition No. 221/TT/2016 and in respect of Asset-5 to Asset-9 vide order dated 1.10.2019 in Petition No. 268/TT/2018, as claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 14.3.2016 in Petition No. 478/TT/2014	60.30	62.30	64.37	66.51	68.71
	Claimed by the Petitioner in the instant Petition	60.30	62.30	64.37	66.51	68.71
	Approved after Truing Up in this order	60.30	62.30	64.37	66.51	68.71
Asset-2	Allowed vide order dated 30.6.2016 in Petition No. 253/TT/2015	-	-	490.11	563.53	582.21
	Claimed by the Petitioner in the	-	-	439.68	505.51	522.33





<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	instant Petition					
	Approved after Truing Up in this order	-	-	439.69	505.51	522.33
Asset-3	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	74.58	103.39	106.83
	Claimed by the Petitioner in the instant Petition	-	-	74.58	103.39	106.83
	Approved after Truing Up in this order	-	-	74.58	103.39	106.83
Asset- 4	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	49.87	93.10	96.20
	Claimed by the Petitioner in the instant Petition	-	-	49.88	93.10	96.20
	Approved after Truing Up in this order	-	-	49.87	93.10	96.20
Asset-5	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	33.55	46.55	48.10
	Claimed by the Petitioner in the instant Petition	-	-	33.58	46.55	48.10
	Approved after Truing Up in this order	-	-	33.58	46.55	48.10
Asset-6	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	33.55	46.55	48.10
	Claimed by the Petitioner in the instant Petition	-	-	33.58	46.55	48.10
	Approved after Truing Up in this order	-	-	33.58	46.55	48.10
Asset-7	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	27.65	46.55	48.10
	Claimed by the Petitioner in the instant Petition	-	-	27.65	46.55	48.10



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Approved after Truing Up in this order	-	-	27.65	46.55	48.10
Asset- 8	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	8.02	46.55	48.10
	Claimed by the Petitioner in the instant Petition	-	-	8.02	46.55	48.10
	Approved after Truing Up in this order	-	-	8.02	46.55	48.10
Asset- 9	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	8.02	46.55	48.10
	Claimed by the Petitioner in the instant Petition	-	-	8.02	46.55	48.10
	Approved after Truing Up in this order	-	-	8.02	46.55	48.10

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

79. The Petitioner is entitled to claim interest on working capital as per Regulation 28(1)(c) of the 2014 Tariff Regulations.

80. IWC allowed in respect of the transmission assets are as follows:

(₹ in lakh)						
Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	5.03	5.19	5.36	5.54	5.73
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	9.05	9.35	9.66	9.98	10.31
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	39.89	39.44	38.94	38.45	38.00
D	<b>Total Working Capital (A+B+C)</b>	<b>53.96</b>	<b>53.97</b>	<b>53.96</b>	<b>53.97</b>	<b>54.03</b>



E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	<b>Interest on Working Capital (DxE)</b>	<b>7.28</b>	<b>7.29</b>	<b>7.28</b>	<b>7.29</b>	<b>7.29</b>

(₹ in lakh)

<b>Asset-2</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 328 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (one month of O&M Expenses)	40.77	42.13	43.53
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	73.39	75.83	78.35
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	931.93	951.22	938.93
D	<b>Total Working Capital (A+B+C)</b>	<b>1046.09</b>	<b>1069.17</b>	<b>1060.80</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>120.33</b>	<b>136.85</b>	<b>135.78</b>

(₹ in lakh)

<b>Asset-3</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (one month of O&M Expenses)	8.34	8.62	8.90
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	15.01	15.51	16.02
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	135.80	153.48	154.87
D	<b>Total Working Capital (A+B+C)</b>	<b>159.16</b>	<b>177.60</b>	<b>179.80</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>15.18</b>	<b>22.73</b>	<b>23.01</b>

(₹ in lakh)

<b>Asset-4</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 202 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (one month of O&M Expenses)	7.51	7.76	8.02
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	13.52	13.97	14.43
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	50.38	55.92	55.76
D	<b>Total Working Capital (A+B+C)</b>	<b>71.41</b>	<b>77.65</b>	<b>78.20</b>
E	Rate of Interest (in %)	12.80	12.80	12.80



F	<b>Interest on Working Capital (DxE)</b>	<b>5.06</b>	<b>9.94</b>	<b>10.01</b>
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(₹ in lakh)

<b>Asset-5</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (One month of O&M Expenses)	3.76	3.88	4.01
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	6.76	6.98	7.22
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	28.63	29.98	29.84
D	<b>Total Working Capital (A+B+C)</b>	<b>39.15</b>	<b>40.84</b>	<b>41.06</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>3.73</b>	<b>5.23</b>	<b>5.26</b>

(₹ in lakh)

<b>Asset-6</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (One month of O&M Expenses)	3.76	3.88	4.01
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	6.76	6.98	7.22
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	28.63	29.98	29.84
D	<b>Total Working Capital (A+B+C)</b>	<b>39.15</b>	<b>40.84</b>	<b>41.06</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>3.73</b>	<b>5.23</b>	<b>5.26</b>

(₹ in lakh)

<b>Asset-7</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 224 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (One month of O&M Expenses)	3.76	3.88	4.01
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	6.76	6.98	7.22
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	27.92	29.71	29.61
D	<b>Total Working Capital (A+B+C)</b>	<b>38.44</b>	<b>40.57</b>	<b>40.84</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>3.02</b>	<b>5.19</b>	<b>5.23</b>



(₹ in lakh)

<b>Asset-8</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (one month of O&M Expenses)	3.76	3.88	4.01
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	6.76	6.98	7.22
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	30.51	30.73	30.58
D	<b>Total Working Capital (A+B+C)</b>	<b>41.03</b>	<b>41.59</b>	<b>41.81</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>0.94</b>	<b>5.32</b>	<b>5.35</b>

(₹ in lakh)

<b>Asset-9</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Working Capital for O&M Expenses (One month of O&M Expenses)	3.76	3.88	4.01
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	6.76	6.98	7.22
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	30.51	30.73	30.58
D	<b>Total Working Capital (A+B+C)</b>	<b>41.03</b>	<b>41.59</b>	<b>41.81</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>0.94</b>	<b>5.32</b>	<b>5.35</b>

81. The details of IWC Expenses allowed in respect of the transmission assets i.e. Asset-1 vide order dated 14.3.2016 in Petition No. 478/TT/2014, in respect of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015, in respect of Asset-3 and Asset-4 vide order dated 13.10.2017 in Petition No. 221/TT/2016 and in respect of Asset-5 to Asset-9 vide order dated 1.10.2019 in Petition No. 268/TT/2018, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	Allowed vide order dated	7.28	7.28	7.28	7.28	7.28



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	14.3.2016 in Petition No. 478/TT/2014					
	Claimed by the Petitioner in the instant petition	7.34	7.34	7.34	7.34	7.34
	Approved after Truing Up in this order	7.28	7.29	7.28	7.29	7.29
Asset-2	Allowed vide order dated 30.6.2016 in Petition No. 253/TT/2015	-	-	123.72	143.21	143.07
	Claimed by the Petitioner in the instant petition	-	-	120.36	136.89	135.82
	Approved after Truing Up in this order	-	-	120.33	136.85	135.78
Asset-3	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	14.84	22.48	23.10
	Claimed by the Petitioner in the instant petition	-	-	15.28	22.92	23.19
	Approved after Truing Up in this order	-	-	<b>15.18</b>	<b>22.73</b>	<b>23.01</b>
Asset- 4	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	4.96	9.92	10.02
	Claimed by the Petitioner in the instant petition	-	-	5.05	9.94	10.02
	Approved after Truing Up in this order	-	-	5.06	9.94	10.01
Asset-5	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	3.64	5.15	5.22
	Claimed by the Petitioner in the instant petition	-	-	3.76	5.27	5.30
	Approved after Truing Up in this order	-	-	3.73	5.23	5.26
Asset-6	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	3.64	5.15	5.22
	Claimed by the Petitioner in the instant petition	-	-	3.76	5.27	5.30
	Approved after Truing Up in this petition	-	-	3.73	5.23	5.26
Asset-7	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	2.96	5.18	5.25
	Claimed by the Petitioner in the instant petition	-	-	3.04	5.23	5.26
	Approved after Truing Up in this order	-	-	3.02	5.19	5.23
Asset- 8	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	0.90	5.34	5.49
	Claimed by the Petitioner in the instant petition	-	-	0.93	5.43	5.46
	Approved after Truing Up in this order	-	-	0.94	5.32	5.35
Asset- 9	Allowed vide order dated	-	-	0.90	5.34	5.49



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	1.10.2019 in Petition No. 268/TT/2018					
	Claimed by the Petitioner in the instant petition	-	-	0.93	5.43	5.46
	Approved after Truing Up in this order	-	-	0.94	5.32	5.35

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

82. Accordingly, Annual Fixed Charges (AFC) in respect of the transmission assets after truing-up for 2014-19 tariff period are as follows:

(₹ in lakh)

<b>Asset-1</b>					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	57.02	57.02	57.02	57.02	57.02
Interest on Loan	51.20	46.17	41.10	36.04	30.97
Return on Equity	63.54	63.84	63.84	63.84	64.02
O&M Expenses	60.30	62.30	64.37	66.51	68.71
Interest on Working Capital	7.28	7.29	7.28	7.29	7.29
<b>Total</b>	<b>239.34</b>	<b>236.62</b>	<b>233.61</b>	<b>230.70</b>	<b>228.01</b>

(₹ in lakh)

<b>Asset- 2</b>			
Particulars	2016-17 (Pro-rata for 328 days)	2017-18	2018-19
Depreciation	1310.15	1537.24	1558.49
Interest on Loan	1596.25	1698.23	1556.47
Return on Equity	1558.32	1829.50	1860.50
O&M Expenses	439.69	505.51	522.33
Interest on Working Capital	120.33	136.85	135.78
<b>Total</b>	<b>5024.74</b>	<b>5707.33</b>	<b>5633.57</b>

(₹ in lakh)

<b>Asset- 3</b>			
Particulars	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
Depreciation	159.23	247.45	256.96
Interest on Loan	174.73	258.41	240.41
Return on Equity	183.50	288.89	302.00
O&M Expenses	74.58	103.39	106.83
Interest on Working Capital	15.18	22.73	23.01
<b>Total</b>	<b>607.22</b>	<b>920.87</b>	<b>929.21</b>



(₹ in lakh)

<b>Asset- 4</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 202 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	34.06	72.06	73.00
Interest on Loan	39.26	76.52	69.97
Return on Equity	39.04	83.93	85.37
O&M Expenses	49.87	93.10	96.20
Interest on Working Capital	5.06	9.94	10.01
<b>Total</b>	<b>167.29</b>	<b>335.55</b>	<b>334.55</b>

(₹ in lakh)

<b>Asset- 5</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	28.05	40.92	41.43
Interest on Loan	31.26	41.40	37.75
Return on Equity	31.40	45.79	46.48
O&M Expenses	33.58	46.55	48.10
Interest on Working Capital	3.73	5.23	5.26
<b>Total</b>	<b>128.02</b>	<b>179.89</b>	<b>179.02</b>

(₹ in lakh)

<b>Asset- 6</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 272 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	28.05	40.92	41.43
Interest on Loan	31.26	41.40	37.75
Return on Equity	31.40	45.79	46.48
O&M Expenses	33.58	46.55	48.10
Interest on Working Capital	3.73	5.23	5.26
<b>Total</b>	<b>128.02</b>	<b>179.89</b>	<b>179.02</b>

(₹ in lakh)

<b>Asset- 7</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 224 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	22.40	40.94	41.46
Interest on Loan	24.69	39.78	36.40
Return on Equity	25.06	45.79	46.50
O&M Expenses	27.65	46.55	48.10
Interest on Working Capital	3.02	5.19	5.23
<b>Total</b>	<b>102.82</b>	<b>178.25</b>	<b>177.69</b>





(₹ in lakh)

<b>Asset- 8</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	7.19	41.55	42.21
Interest on Loan	8.42	44.48	40.49
Return on Equity	8.04	46.48	47.35
O&M Expenses	8.02	46.55	48.10
Interest on Working Capital	0.94	5.32	5.35
<b>Total</b>	<b>32.61</b>	<b>184.38</b>	<b>183.50</b>

(₹ in lakh)

<b>Asset- 9</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 65 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	7.19	41.55	42.21
Interest on Loan	8.42	44.48	40.49
Return on Equity	8.04	46.48	47.35
O&M Expenses	8.02	46.55	48.10
Interest on Working Capital	0.94	5.32	5.35
<b>Total</b>	<b>32.61</b>	<b>184.38</b>	<b>183.50</b>

83. The details of AFC allowed in respect of the transmission assets i.e. Asset-1 vide order dated 14.3.2016 in Petition No. 478/TT/2014, in respect of Asset-2 vide order dated 30.6.2016 in Petition No. 253/TT/2015, in respect of Asset-3 and Asset-4 vide order dated 13.10.2017 in Petition No. 221/TT/2016 and in respect of Asset-5 to Asset-9 vide order dated 1.10.2019 in Petition No. 268/TT/2018, as claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)

<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-1	Allowed vide order dated 14.3.2016 in Petition No. 478/TT/2014	239.34	236.31	233.31	230.39	227.52
	Claimed by the Petitioner in the instant petition	241.78	238.98	235.89	232.90	230.14
	Approved after Truing Up in this order	239.34	236.62	233.61	230.70	228.01
Asset-2	Allowed vide order dated 30.6.2016 in Petition No. 253/TT/2015	-	-	5113.40	5924.07	5891.31



<b>Assets</b>	<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	Claimed by the Petitioner in the instant petition	-	-	5026.47	5709.15	5635.22
	Approved after Truing Up in this order	-	-	5024.74	5707.33	5633.57
Asset-3	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	591.32	908.91	933.45
	Claimed by the Petitioner in the instant petition	-	-	611.86	929.49	937.56
	Approved after Truing Up in this order	-	-	607.22	920.87	929.21
Asset- 4	Allowed vide order dated 13.10.2017 in Petition No. 221/TT/2016	-	-	162.58	334.82	335.08
	Claimed by the Petitioner in the instant petition	-	-	166.74	335.75	334.89
	Approved after Truing Up in this order	-	-	167.29	335.55	334.55
Asset-5	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	123.52	176.37	177.35
	Claimed by the Petitioner in the instant petition	-	-	129.53	181.82	180.88
	Approved after Truing Up in this order	-	-	128.02	179.89	179.02
Asset-6	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	123.52	176.37	177.35
	Claimed by the Petitioner in the instant petition	-	-	129.53	181.82	180.88
	Approved after Truing Up in this order	-	-	128.02	179.89	179.02
Asset-7	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	100.13	177.67	178.72
	Claimed by the Petitioner in the instant petition	-	-	103.85	179.92	179.26
	Approved after Truing Up in this order	-	-	102.82	178.25	177.69
Asset- 8	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	30.97	185.13	189.81
	Claimed by the Petitioner in the instant petition	-	-	32.49	189.61	188.41
	Approved after Truing Up in this order	-	-	32.61	184.38	183.50
Asset- 9	Allowed vide order dated 1.10.2019 in Petition No. 268/TT/2018	-	-	30.97	185.13	189.81
	Claimed by the Petitioner in the instant petition	-	-	32.49	189.61	188.41
	Approved after Truing Up in this order	-	-	32.61	184.38	183.50



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

84. The Petitioner has combined all the transmission assets into one single asset and has claimed combined tariff with respect to the transmission assets and has also submitted the tariff forms with respect to the Combined Asset. The Petitioner has also submitted the status of downstream lines vide affidavit dated 22.9.2021 and the same are as follows:

<b>Sl. No.</b>	<b>220 kV downstream lines of UPPTCL</b>	<b>Status of 220 kV downstream lines of UPPTCL</b>
1.	Bagpat (PG)-Baraut (UP) 220 kV S/C Transmission Line associated with One Number 220 kV line Bay (212 number Bay Asset-9) at Bagpat GIS(PG) Sub-station.	Charged on 26.9.2017
2.	220 kV II <sup>nd</sup> ckt of Bagpat (PG) to Baraut (UP) Transmission Line associated with One Number 220 kV line Bay (210 number Bay, Asset-6) at Bagpat GIS(PG) Sub-station.	Charged on 23.10.2017
3.	220 kV II <sup>nd</sup> ckt of Bagpat (PG) to Bagpat (UP) Transmission Line associated with One Number 220 kV line Bay (205 number Bay, Asset-5) at Bagpat GIS(PG) Sub-station.	Charged on 10.9.2020
4.	220 kV Bagpat (PG) to Modipuram (UP) D/C Transmission Line associated with two Numbers 220 kV line Bay (206 & 207 number Bays Asset-7&8) at Bagpat GIS(PG) Sub-station.	Yet to be put into commercial operation

85. In view of the status of downstream transmission lines, Asset-1, Asset-2, Asset-3 and Asset-4 are combined into one asset (herein referred to as the “Combined Asset (1, 2, 3, 4)”) and tariff has been determined for the same and tariff for Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 are approved separately as it is stated vide order dated 1.10.2019 in Petition No. 268/TT/2018 that the tariff for Asset-5 to Asset-9 has to be recovered from UPPTCL, due to non-commissioning of the downstream transmission assets under UPPTCL scope. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, combined tariff has been worked out



for 2019-24 tariff period for Asset-1, Asset-2, Asset-3 and Asset-4 and separate tariff for Asset-5 to Asset-9 has been worked out for 2019-24 tariff period.

86. The Petitioner has claimed the following transmission charges in respect of the Combined Asset (1, 2, 3, 4) and Asset-5 to Asset-9 for 2019-24 tariff period and the same are as follows:

(₹ in lakh)

Particulars	Combined Asset (1,2,3,4)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1982.08	2020.05	2041.42	2041.42	2041.42
Interest on Loan	1829.67	1692.85	1537.69	1358.44	1177.81
Return on Equity	2230.20	2268.00	2288.85	2288.85	2288.85
O&M Expenses	528.08	546.78	565.97	586.09	606.19
Interest on Working Capital	113.87	114.04	113.18	111.35	109.25
<b>Total</b>	<b>6683.90</b>	<b>6641.72</b>	<b>6547.11</b>	<b>6386.15</b>	<b>6223.52</b>

(₹ in lakh)

Particulars	Asset - 5				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	42.77	43.29	43.55	43.55	43.11
Interest on Loan	35.86	32.74	29.43	25.85	22.17
Return on Equity	45.20	45.76	46.00	46.00	46.00
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.55	2.55	2.53	2.50	2.46
<b>Total</b>	<b>142.14</b>	<b>140.65</b>	<b>138.39</b>	<b>135.37</b>	<b>131.83</b>

(₹ in lakh)

Particulars	Asset - 6				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	42.77	43.29	43.55	43.55	43.11
Interest on Loan	35.86	32.74	29.43	25.85	22.17
Return on Equity	45.20	45.76	46.00	46.00	46.00
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.55	2.55	2.53	2.50	2.46
<b>Total</b>	<b>142.14</b>	<b>140.65</b>	<b>138.39</b>	<b>135.37</b>	<b>131.83</b>

(₹ in lakh)

Particulars	Asset - 7				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	42.68	43.17	43.39	43.49	42.86
Interest on Loan	37.02	33.87	30.52	26.89	23.19
Return on Equity	45.10	45.64	45.87	45.87	45.87
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.56	2.56	2.54	2.51	2.47



Particulars	Asset – 7				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Total</b>	<b>143.12</b>	<b>141.55</b>	<b>139.20</b>	<b>136.23</b>	<b>132.48</b>

(₹ in lakh)

Particulars	Asset - 8				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	44.49	45.03	45.28	45.28	45.02
Interest on Loan	40.05	36.92	33.40	29.59	25.78
Return on Equity	47.04	47.63	47.89	47.89	47.89
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.66	2.67	2.64	2.61	2.57
<b>Total</b>	<b>150.00</b>	<b>148.56</b>	<b>146.09</b>	<b>142.84</b>	<b>139.35</b>

(₹ in lakh)

Particulars	Asset – 9				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	44.49	45.03	45.28	45.28	45.02
Interest on Loan	40.05	36.92	33.40	29.59	25.78
Return on Equity	47.04	47.63	47.89	47.89	47.89
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.66	2.67	2.64	2.61	2.57
<b>Total</b>	<b>150.00</b>	<b>148.56</b>	<b>146.09</b>	<b>142.84</b>	<b>139.35</b>

87. The details of IWC claimed by the Petitioner are as follows:

(₹ in lakh)

Particulars	Combined Asset (1, 2, 3, 4)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	44.01	45.57	47.16	48.84	50.52
Maintenance Spares	79.21	82.02	84.90	87.91	90.93
Receivables	821.79	818.84	807.18	787.33	785.19
<b>Total</b>	<b>945.01</b>	<b>946.43</b>	<b>939.24</b>	<b>924.08</b>	<b>906.64</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>113.87</b>	<b>114.04</b>	<b>113.18</b>	<b>111.35</b>	<b>109.25</b>

(₹ in lakh)

Particulars	Asset - 5				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	1.31	1.36	1.41	1.46	1.51
Maintenance Spares	2.36	2.45	2.53	2.62	2.71
Receivables	17.48	17.34	17.06	16.69	16.21
<b>Total</b>	<b>21.15</b>	<b>21.15</b>	<b>21.00</b>	<b>20.77</b>	<b>20.43</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.55</b>	<b>2.55</b>	<b>2.53</b>	<b>2.50</b>	<b>2.46</b>



(₹ in lakh)

Particulars	Asset - 6				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	1.31	1.36	1.41	1.46	1.51
Maintenance Spares	2.36	2.45	2.53	2.62	2.71
Receivables	17.48	17.34	17.06	16.69	16.21
<b>Total</b>	<b>21.15</b>	<b>21.15</b>	<b>21.00</b>	<b>20.77</b>	<b>20.43</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.55</b>	<b>2.55</b>	<b>2.53</b>	<b>2.50</b>	<b>2.46</b>

(₹ in lakh)

Particulars	Asset - 7				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	1.31	1.36	1.41	1.46	1.51
Maintenance Spares	2.36	2.45	2.53	2.62	2.71
Receivables	17.60	17.45	17.16	16.78	16.29
<b>Total</b>	<b>21.27</b>	<b>21.26</b>	<b>21.10</b>	<b>20.86</b>	<b>20.51</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.56</b>	<b>2.56</b>	<b>2.54</b>	<b>2.51</b>	<b>2.47</b>

(₹ in lakh)

Particulars	Asset - 8				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	1.31	1.36	1.41	1.46	1.51
Maintenance Spares	2.36	2.45	2.53	2.62	2.71
Receivables	18.44	18.32	18.01	17.61	17.13
<b>Total</b>	<b>22.11</b>	<b>22.13</b>	<b>21.95</b>	<b>21.69</b>	<b>21.35</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.66</b>	<b>2.67</b>	<b>2.64</b>	<b>2.61</b>	<b>2.57</b>

(₹ in lakh)

Particulars	Asset - 9				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	1.31	1.36	1.41	1.46	1.51
Maintenance Spares	2.36	2.45	2.53	2.62	2.71
Receivables	18.44	18.32	18.01	17.61	17.13
<b>Total</b>	<b>22.11</b>	<b>22.13</b>	<b>21.95</b>	<b>21.69</b>	<b>21.35</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>2.66</b>	<b>2.67</b>	<b>2.64</b>	<b>2.61</b>	<b>2.57</b>

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

88. The Petitioner has claimed E-COD of the Combined Asset-(1 to 4) as 1.4.2016. Accordingly, based on the trued-up admitted capital cost and actual COD of all the assets, E-COD for Asset-1 to 4 has been worked out as follows:



Computation of E-COD						
Assets	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (in %)	No. of Days from last COD	Weighted Days	E-COD (Latest COD – Total weighted Days)
Asset-1	1.7.2011	1080.00	2.75	1899.00	52.28	2.4.2016
Asset-2	8.5.2016	31502.27	80.30	126.00	101.18	
Asset-3	3.7.2016	5197.94	13.25	70.00	9.27	
Asset-4	11.9.2016	1450.28	3.70	0.00	0.00	
<b>Total</b>		<b>39230.50</b>	<b>100.00</b>		<b>162.00</b>	

89. E-COD is used to determine the lapsed life of the project as a whole, which works out as (2) 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”)**

90. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL.

91. The Combined Asset (1,2,3,4) 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 project as a whole.

92. 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 in respect of the Combined Asset-(1,2,3,4) has been worked out as 29 years and the same is as follows:



<b>Admitted Capital Cost as on 31.3.2019</b>				
<b>Particulars</b>	<b>Combined Asset- (1 to 4) Cost (₹ in lakh) (1)</b>	<b>Life as per 2019 Regulation (Years) (2)</b>	<b>Weighted Cost (3)=(1)x(2)</b>	<b>WAL of Asset (in years) (4)=(3)/(1)</b>
Building	2071.12	25	51777.93	
Transmission Line	16046.56	35	561629.53	
Sub-station Equipment	19378.03	25	484450.74	
PLCC	240.07	15	3601.04	
Leasehold land	0.00	25	0.00	
IT equipment and software	51.39	7	342.61	
<b>Total</b>	<b>37787.17</b>		<b>1101801.84</b>	<b>29 years</b>

93. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e., for the 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed in the preceding paragraphs, E-COD of the Combined Asset-(1, 2, 3, 4) is 2.4.2016 and the lapsed life of the project as a whole, works out as two (2) years 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 27 years.

### **Capital Cost**

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

- “19 Capital Cost:** (1) *The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*
- (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 capitalization and de-capitalisation determined in accordance with these regulations;
  - (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
  - (h) Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;
  - (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
  - (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
  - (k) Capital expenditure on account of biomass handling equipment and facilities, 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 fulfilment of any conditions for obtaining environment clearance for the project;
  - (n) Expenditure on account of change in law and force majeure events; and
  - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(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 capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

(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-capitalization of the concerned asset.*

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."

95. 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 transmission assets as follows:

Assets	Apportioned Approved Capital Cost as per RCE	Capital Cost claimed as on 31.3.2019	ACE		Estimated Completion Cost as on 31.3.2024
			2019-20	2020-21	
Asset-1	1094.00	1093.57	0.00	0.00	1093.57
Asset-2	34931.89	31502.28	543	407	32452.28
Asset-3	5314.64	5235.34	49.50	26.91	5311.75



Asset-4	1500.26	1448.58	8.90	6.31	1463.79
Asset-5	920.54	796.54	11.23	8.64	816.41
Asset-6	920.54	796.54	11.23	8.64	816.41
Asset-7	1008.13	795.08	10.80	8.21	814.09
Asset-8	1025.5	829.04	11.82	9.23	850.09
Asset-9	1025.5	829.04	11.82	9.23	850.09
<b>Total</b>	<b>47741.00</b>	<b>43326.01</b>	<b>658.30</b>	<b>484.17</b>	<b>44468.48</b>

96. The trued-up capital cost as on 31.3.2019 for transmission Assets- (1, 2, 3, 4) has been considered as capital cost as on 31.3.2019 in respect of the Combined Asset-(1, 2, 3, 4). 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) as 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- (1, 2, 3, 4) and separately for Asset- 5 to Asset-9 as on 1.4.2019 is as follows:

(₹ in lakh)					
Elements	Asset-1	Asset-2	Asset-3	Asset- 4	Capital Cost for Combined Asset (1, 2, 3, 4) as on 31.3.2019
Free hold land	0.00	1443.33	0.00	0.00	1443.33
Building	0.00	1275.68	622.31	173.13	2071.12
Transmission Line	0.00	16046.56	0.00	0.00	16046.56
Sub-station Equipment	1080.00	12505.50	4551.1	1241.34	19378.03
PLCC	0.00	210.51	0.38	29.18	240.07
Leasehold land	0.00	0.00	0.00	0.00	0.00
IT equipment and software	0.00	20.70	24.06	6.63	51.39
<b>Total</b>	<b>1080.00</b>	<b>31502.27</b>	<b>5197.94</b>	<b>1450.28</b>	<b>39230.5</b>



(₹ in lakh)

Elements	Capital cost as on 1.4.2019				
	Asset-5	Asset-6	Asset-7	Asset-8	Asset-9
Building	6.47	6.47	6.47	6.36	6.36
Sub-station Equipment	762.63	762.63	761.12	776.90	776.90
PLCC	14.06	14.06	15.73	14.49	14.49
IT equipment and software	4.14	4.14	4.10	4.03	4.03
<b>Total</b>	<b>787.31</b>	<b>787.31</b>	<b>787.42</b>	<b>801.78</b>	<b>801.78</b>

97. The trued-up capital cost of ₹39230.50 lakh, ₹787.31 lakh, ₹787.31 lakh, ₹787.42 lakh, ₹801.78 lakh and ₹801.78 lakh in respect of the Combined Assets-(1, 2, 3, 4), Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 respectively as on 31.3.2019 is considered as opening capital cost as on 1.4.2019 for the purpose of determination of tariff for 2019-24 tariff period.

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

98. Regulations 24 and 25 of the 2019 Tariff Regulations provide as follows:

**“24. Additional Capitalisation within the original scope and upto 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 capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.*

*(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.”*

**“25. Additional Capitalisation within the original scope and after the cut-off date:**



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

a) 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;

b) Change in law or compliance of any existing law;

c) Deferred works relating to ash pond or ash handling system in the original scope of work;

d) Liability for works executed prior to the cut-off date;

e) Force Majeure events;

f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations.

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

99. The Petitioner has claimed ACE in respect of the Combined Asset (1,2,3,4) and Asset-5 to Asset-9 during 2019-24 in accordance with Regulation 25(1)(d) of the 2019 Tariff Regulations and the same is as follows:

Assets	ACE (As per Auditor's Certificate)	
	2019-20	2020-21
Combined Asset- (1, 2, 3, 4)	601.40	740.22
Asset-5	11.23	8.64
Asset-6	11.23	8.64
Asset-7	10.80	8.21



<b>Asset-8</b>	11.82	9.23
<b>Asset-9</b>	11.82	9.23

100. We have considered the submissions of the Petitioner. ACE claimed for 2019-20 towards balance and retention and unexecuted work is allowed under Regulation 24(1)(a) and Regulation 25(1)(d) of the 2019 Tariff Regulations which is subject to true-up. ACE allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Assets	Admitted ACE	
	2019-20	2020-21
<b>Combined Asset-(1,2,3,4)</b>	601.40	740.22
<b>Asset-5</b>	11.23	8.64
<b>Asset-6</b>	11.23	8.64
<b>Asset-7</b>	10.80	8.21
<b>Asset-8</b>	11.82	9.23
<b>Asset-9</b>	11.82	9.23

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

101. Accordingly, capital cost in respect of the instant transmission assets considered for 2019-24 tariff period are as follows:

(₹ in lakh)

Assets	Capital Cost (As on 1.4.2019)	ACE					Total Estimated Completion Cost (Up to 31.3.2024)
		2019-20	2020-21	2021-22	2022-23	2023-24	
<b>Combined Asset (1, 2, 3, 4)</b>	<b>39230.50</b>	601.40	740.22	0.00	0.00	0.00	<b>40572.12</b>
<b>Asset-5</b>	<b>787.31</b>	11.23	8.64	0.00	0.00	0.00	<b>807.18</b>
<b>Asset-6</b>	<b>787.31</b>	11.23	8.64	0.00	0.00	0.00	<b>807.18</b>
<b>Asset-7</b>	<b>787.42</b>	10.80	8.21	0.00	0.00	0.00	<b>806.43</b>
<b>Asset-8</b>	<b>801.78</b>	11.82	9.23	0.00	0.00	0.00	<b>822.83</b>
<b>Asset-9</b>	<b>801.78</b>	11.82	9.23	0.00	0.00	0.00	<b>822.83</b>
<b>Total</b>	<b>43145.55</b>	<b>658.3</b>	<b>784.17</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>44588.02</b>



102. Against the overall RCE apportioned approved capital cost of ₹47741 lakh, the estimated project cost of the Combined Asset as on 31.3.2024 is ₹44588.02 lakh which is within the RCE apportioned approved cost.

### **Debt-Equity Ratio**

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

**“18. Debt-Equity Ratio:** (1) *For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that:*

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

**Explanation.** *-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*

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

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

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

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



72 of these regulations.

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

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.

(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.”

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

(₹ in lakh)

Combined Asset (1,2,3,4)	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	27461.39	70.00	28400.52	70.00
Equity	11769.11	30.00	12171.59	30.00
<b>Total</b>	<b>39230.50</b>	<b>100.00</b>	<b>40572.12</b>	<b>100.00</b>

(₹ in lakh)

Asset - 5	Capital Cost (As on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (As on 31.3.2024) (₹ in lakh)	(in %)
Debt	551.12	70.00	565.03	70.00
Equity	236.19	30.00	242.14	30.00
<b>Total</b>	<b>787.31</b>	<b>100.00</b>	<b>807.18</b>	<b>100.00</b>

(₹ in lakh)

Asset - 6	Capital Cost (As on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (As on 31.3.2024) (₹ in lakh)	(in %)
Debt	551.12	70.00	565.03	70.00
Equity	236.19	30.00	242.14	30.00
<b>Total</b>	<b>787.31</b>	<b>100.00</b>	<b>807.18</b>	<b>100.00</b>

(₹ in lakh)

Asset - 7	Capital Cost (As on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (As on 31.3.2024) (₹ in lakh)	(in %)
Debt	551.19	70.00	564.50	70.00





Equity	236.22	30.00	241.92	30.00
<b>Total</b>	<b>787.42</b>	<b>100.00</b>	<b>806.43</b>	<b>100.00</b>

(₹ in lakh)

Asset - 8	Capital Cost (As on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (As on 31.3.2024) (₹ in lakh)	(in %)
Debt	561.27	70.00	576.00	70.00
Equity	240.51	30.00	246.83	30.00
<b>Total</b>	<b>801.78</b>	<b>100.00</b>	<b>822.83</b>	<b>100.00</b>

(₹ in lakh)

Asset - 9	Capital Cost (As on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (As on 31.3.2024) (₹ in lakh)	(in %)
Debt	561.27	70.00	576.00	70.00
Equity	240.51	30.00	246.83	30.00
<b>Total</b>	<b>801.78</b>	<b>100.00</b>	<b>822.83</b>	<b>100.00</b>

### Depreciation

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

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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



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

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

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

*(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

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

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

*(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.*

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

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

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

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

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



- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.

106. We have considered the submissions of the Petitioner. IT equipment has been considered as part of the Gross Block and depreciated using WAROD. WAROD at Annexure-X to Annexure-XV has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e., IT asset has been considered as 100% depreciable. Depreciation has been worked out considering the ACE as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Combined Asset (1, 2, 3, 4)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	39230.50	39831.90	40572.12	40572.12	40572.12
B	ACE	601.40	740.22	0.00	0.00	0.00
C	Closing Gross Block (A+B)	39831.90	40572.12	40572.12	40572.12	40572.12
D	Average Gross Block (A+C)/2	39531.20	40202.01	40572.12	40572.12	40572.12
E	Freehold Land	1443.33	1443.33	1443.33	1443.33	1443.33
F	Average Gross Block (90% depreciable assets)	38028.56	38673.54	39025.73	39025.73	39025.73
G	Average Gross Block (100% depreciable assets)	59.31	85.14	103.05	103.05	103.05
H	Depreciable value (excluding IT equipment and software) (F*90%)	34225.70	34806.19	35123.16	35123.16	35123.16
I	Depreciable value of IT equipment and software	59.31	85.14	103.05	103.05	103.05
J	Total Depreciable Value (H+I)	34285.01	34891.32	35226.21	35226.21	35226.21
K	Weighted Average Rate of Depreciation (WAROD) (in %)	5.01	5.02	5.02	5.02	5.02
L	Lapsed useful life at the beginning of the year (Year)	2	3	4	5	6
M	Balance useful life at the beginning of the year (Year)	27	26	25	24	23
N	Depreciation during the year (D*K)	1979.11	2017.08	2038.44	2038.44	2038.44
O	Aggregate Cumulative Depreciation at the end of the	7664.36	9681.44	11719.88	13758.32	15796.77



	year					
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	26620.65	25209.88	23506.33	21467.89	19429.44

(₹ in lakh)

Asset-5						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	787.31	798.54	807.18	807.18	807.18
B	ACE	11.23	8.64	0.00	0.00	0.00
C	Closing Gross Block (A+B)	798.54	807.18	807.18	807.18	807.18
D	Average Gross Block (A+C)/2	792.92	802.86	807.18	807.18	807.18
E	Average Gross Block (90% depreciable assets)	788.64	798.30	802.48	802.48	802.48
F	Average Gross Block (100% depreciable assets)	4.28	4.56	4.70	4.70	4.70
G	Depreciable value (excluding IT equipment and software) (E*90%)	709.78	718.47	722.23	722.23	722.23
H	Depreciable value of IT equipment and software	3.85	4.11	4.23	4.23	4.23
I	Total Depreciable Value (G+H)	714.06	723.03	726.93	726.93	726.93
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33	5.33	5.33
K	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00
L	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00
M	<b>Depreciation during the year (D*J)</b>	<b>42.28</b>	<b>42.81</b>	<b>43.06</b>	<b>43.06</b>	<b>43.06</b>
N	Aggregate Cumulative Depreciation at the end of the year	152.69	195.50	238.56	281.61	324.67
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	561.37	527.53	488.37	445.32	402.26

(₹ in lakh)

Asset-6						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	787.31	798.54	807.18	807.18	807.18
B	ACE	11.23	8.64	0.00	0.00	0.00
C	Closing Gross Block (A+B)	798.54	807.18	807.18	807.18	807.18
D	Average Gross Block (A+C)/2	792.92	802.86	807.18	807.18	807.18
E	Average Gross Block (90% depreciable assets)	788.64	798.30	802.48	802.48	802.48
F	Average Gross Block (100% depreciable assets)	4.28	4.56	4.70	4.70	4.70
G	Depreciable value (excluding IT equipment	709.78	718.47	722.23	722.23	722.23



Asset-6						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	and software) (E*90%)					
H	Depreciable value of IT equipment and software	3.85	4.11	4.23	4.23	4.23
I	Total Depreciable Value (G+H)	714.06	723.03	726.93	726.93	726.93
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33	5.33	5.33
K	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00
L	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00
M	<b>Depreciation during the year (D*J)</b>	<b>42.28</b>	<b>42.81</b>	<b>43.06</b>	<b>43.06</b>	<b>43.06</b>
N	Aggregate Cumulative Depreciation at the end of the year	152.69	195.50	238.56	281.61	324.67
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	561.37	527.53	488.37	445.32	402.26

(₹ in lakh)

Asset-7						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	787.42	798.22	806.43	806.43	806.43
B	ACE	10.80	8.21	0.00	0.00	0.00
C	Closing Gross Block (A+B)	798.22	806.43	806.43	806.43	806.43
D	Average Gross Block (A+C)/2	792.82	802.32	806.43	806.43	806.43
E	Average Gross Block (90% depreciable assets)	788.68	798.12	802.19	802.19	802.19
F	Average Gross Block (100% depreciable assets)	4.13	4.20	4.24	4.24	4.24
G	Depreciable value (excluding IT equipment and software) (E*90%)	709.81	718.31	721.97	721.97	721.97
H	Depreciable value of IT equipment and software	3.72	3.78	3.81	3.81	3.81
I	Total Depreciable Value (G+H)	713.95	722.51	726.21	726.21	726.21
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33	5.33	5.33
K	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00
L	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00
M	<b>Depreciation during the year (D*J)</b>	<b>42.28</b>	<b>42.76</b>	<b>42.98</b>	<b>42.98</b>	<b>42.98</b>
N	Aggregate Cumulative Depreciation at the end of	147.07	189.83	232.81	275.80	318.78



<b>Asset-7</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
	the year					
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	566.88	532.68	493.39	450.41	407.43

(₹ in lakh)

<b>Asset-8</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Opening Gross Block	801.78	813.60	822.83	822.83	822.83
B	ACE	11.82	9.23	0.00	0.00	0.00
C	Closing Gross Block (A+B)	813.60	822.83	822.83	822.83	822.83
D	Average Gross Block (A+C)/2	807.69	818.21	822.83	822.83	822.83
E	Average Gross Block (90% depreciable assets)	803.62	814.07	818.65	818.65	818.65
F	Average Gross Block (100% depreciable assets)	4.07	4.14	4.17	4.17	4.17
G	Depreciable value (excluding IT equipment and software) (E*90%)	723.26	732.67	736.79	736.79	736.79
H	Depreciable value of IT equipment and software	3.66	3.73	3.76	3.76	3.76
I	Total Depreciable Value (G+H)	727.33	736.81	740.96	740.96	740.96
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33	5.33	5.33
K	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00
L	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00
M	<b>Depreciation during the year (D*J)</b>	<b>43.05</b>	<b>43.59</b>	<b>43.83</b>	<b>43.83</b>	<b>43.83</b>
N	Aggregate Cumulative Depreciation at the end of the year	133.99	177.57	221.40	265.24	309.07
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	593.34	559.24	519.56	475.73	431.89

(₹ in lakh)

<b>Asset-9</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Opening Gross Block	801.78	813.60	822.83	822.83	822.83
B	ACE	11.82	9.23	0.00	0.00	0.00
C	Closing Gross Block (A+B)	813.60	822.83	822.83	822.83	822.83
D	Average Gross Block (A+C)/2	807.69	818.21	822.83	822.83	822.83
E	Average Gross Block (90% depreciable assets)	803.62	814.07	818.65	818.65	818.65
F	Average Gross Block (100% depreciable assets)	4.07	4.14	4.17	4.17	4.17



<b>Asset-9</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
G	Depreciable value (excluding IT equipment and software) (E*90%)	723.26	732.67	736.79	736.79	736.79
H	Depreciable value of IT equipment and software	3.66	3.73	3.76	3.76	3.76
I	Total Depreciable Value (G+H)	727.33	736.81	740.96	740.96	740.96
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.33	5.33	5.33	5.33	5.33
K	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00
L	Balance useful life at the beginning of the year (Year)	23.00	22.00	21.00	20.00	19.00
M	<b>Depreciation during the year (D*J)</b>	<b>43.05</b>	<b>43.59</b>	<b>43.83</b>	<b>43.83</b>	<b>43.83</b>
N	Aggregate Cumulative Depreciation at the end of the year	133.99	177.57	221.40	265.24	309.07
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	593.34	559.24	519.56	475.73	431.89

### **Interest on Loan (“IoL”)**

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

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

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

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

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



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

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

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

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

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

108. The weighted average rate of interest of IoL 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 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 allowed in respect of the Combined Asset (1, 2, 3, 4) and Asset-5 to Asset-9 are as follows:

		(₹ in lakh)				
		Combined Asset (1,2,3,4)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	27461.39	27882.37	28400.52	28400.52	28400.52
B	Cumulative Repayments upto Previous Year	5685.25	7664.36	9681.44	11719.88	13758.32
C	Net Loan-Opening (A-B)	21776.14	20218.01	18719.08	16680.64	14642.20
D	Additions	420.98	518.15	0.00	0.00	0.00
E	Repayment during the year	1979.11	2017.08	2038.44	2038.44	2038.44
F	Net Loan-Closing (C+D-E)	20218.01	18719.08	16680.64	14642.20	12603.75
G	Average Loan (A+F)/2	20997.08	19468.55	17699.86	15661.42	13622.97
H	Weighted Average Rate of Interest on Loan (in %)	8.710	8.692	8.685	8.673	8.647
I	<b>Interest on Loan (GxH)</b>	<b>1828.76</b>	<b>1692.20</b>	<b>1537.31</b>	<b>1358.32</b>	<b>1177.94</b>





(₹ in lakh)

Asset-5						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	551.12	558.98	565.03	565.03	565.03
B	Cumulative Repayments upto Previous Year	110.41	152.69	195.50	238.56	281.61
C	Net Loan-Opening (A-B)	440.72	406.29	369.53	326.48	283.42
D	Additions	7.86	6.05	0.00	0.00	0.00
E	Repayment during the year	42.28	42.81	43.06	43.06	43.06
F	Net Loan-Closing (C+D-E)	406.29	369.53	326.48	283.42	240.37
G	Average Loan (A+F)/2	423.51	387.91	348.01	304.95	261.89
H	Weighted Average Rate of Interest on Loan (in %)	8.392	8.370	8.389	8.414	8.402
I	<b>Interest on Loan (GxH)</b>	<b>35.54</b>	<b>32.47</b>	<b>29.19</b>	<b>25.66</b>	<b>22.00</b>

(₹ in lakh)

Asset-6						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	551.12	558.98	565.03	565.03	565.03
B	Cumulative Repayments upto Previous Year	110.41	152.69	195.50	238.56	281.61
C	Net Loan-Opening (A-B)	440.72	406.29	369.53	326.48	283.42
D	Additions	7.86	6.05	0.00	0.00	0.00
E	Repayment during the year	42.28	42.81	43.06	43.06	43.06
F	Net Loan-Closing (C+D-E)	406.29	369.53	326.48	283.42	240.37
G	Average Loan (A+F)/2	423.51	387.91	348.01	304.95	261.89
H	Weighted Average Rate of Interest on Loan (in %)	8.392	8.370	8.389	8.414	8.402
I	<b>Interest on Loan (GxH)</b>	<b>35.54</b>	<b>32.47</b>	<b>29.19</b>	<b>25.66</b>	<b>22.00</b>

(₹ in lakh)

Asset-7						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	551.19	558.75	564.50	564.50	564.50
B	Cumulative Repayments upto Previous Year	104.79	147.07	189.83	232.81	275.80
C	Net Loan-Opening (A-B)	446.40	411.69	374.67	331.69	288.71
D	Additions	7.56	5.75	0.00	0.00	0.00
E	Repayment during the year	42.28	42.76	42.98	42.98	42.98
F	Net Loan-Closing (C+D-E)	411.69	374.67	331.69	288.71	245.72
G	Average Loan (A+F)/2	429.05	393.18	353.18	310.20	267.22
H	Weighted Average Rate of Interest on Loan (in %)	8.566	8.557	8.585	8.619	8.624
I	<b>Interest on Loan (GxH)</b>	<b>36.75</b>	<b>33.64</b>	<b>30.32</b>	<b>26.73</b>	<b>23.05</b>

(₹ in lakh)

Asset-8						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	561.27	569.54	576.00	576.00	576.00
B	Cumulative Repayments upto Previous Year	90.94	133.99	177.57	221.40	265.24
C	Net Loan-Opening (A-B)	470.33	435.55	398.43	354.60	310.76
D	Additions	8.27	6.46	0.00	0.00	0.00
E	Repayment during the year	43.05	43.59	43.83	43.83	43.83
F	Net Loan-Closing (C+D-E)	435.55	398.43	354.60	310.76	266.93
G	Average Loan (A+F)/2	452.94	416.99	376.51	332.68	288.85



Asset-8						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
H	Weighted Average Rate of Interest on Loan (in %)	8.566	8.582	8.603	8.629	8.656
I	<b>Interest on Loan (GxH)</b>	<b>38.80</b>	<b>35.79</b>	<b>32.39</b>	<b>28.71</b>	<b>25.00</b>

(₹ in lakh)

Asset-9						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	561.27	569.54	576.00	576.00	576.00
B	Cumulative Repayments upto Previous Year	90.94	133.99	177.57	221.40	265.24
C	Net Loan-Opening (A-B)	470.33	435.55	398.43	354.60	310.76
D	Additions	8.27	6.46	0.00	0.00	0.00
E	Repayment during the year	43.05	43.59	43.83	43.83	43.83
F	Net Loan-Closing (C+D-E)	435.55	398.43	354.60	310.76	266.93
G	Average Loan (A+F)/2	452.94	416.99	376.51	332.68	288.85
H	Weighted Average Rate of Interest on Loan (in %)	8.566	8.582	8.603	8.629	8.656
I	<b>Interest on Loan (GxH)</b>	<b>38.80</b>	<b>35.79</b>	<b>32.39</b>	<b>28.71</b>	<b>25.00</b>

### Return on Equity ("RoE")

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

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

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

*Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.*

*Provided further that:*

- 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:
- rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
  - an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

**“31. Tax on Return on Equity.** (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

#### **Illustration-**

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;



- (b) Estimated Advance Tax for the year on above is Rs 240 crore;  
(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;  
(d) Rate of return on equity =  $15.50 / (1 - 0.24) = 20.395\%$ .

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

110. RoE considered in respect of the Combined Asset (1, 2 ,3, 4) and Asset-5 to Asset-9 under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)

Combined Asset (1, 2, 3, 4)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	11769.11	11949.53	12171.59	12171.59	12171.59
B	Addition due to ACE	180.42	222.07	0.00	0.00	0.00
C	Closing Equity (A+B)	11949.53	12171.59	12171.59	12171.59	12171.59
D	Average Equity (A+C)/2	11859.32	12060.56	12171.59	12171.59	12171.59
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity for the year (D*G)</b>	2227.42	2265.21	2286.07	2286.07	2286.07

(₹ in lakh)

Asset - 5						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	236.19	239.55	242.14	242.14	242.14
B	Addition due to ACE	3.37	2.59	0.00	0.00	0.00
C	Closing Equity (A+B)	239.55	242.14	242.14	242.14	242.14
D	Average Equity (A+C)/2	237.87	240.85	242.14	242.14	242.14
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity for the year (D*G)</b>	<b>44.68</b>	<b>45.24</b>	<b>45.48</b>	<b>45.48</b>	<b>45.48</b>



(₹ in lakh)

Asset - 6						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	236.19	239.55	242.14	242.14	242.14
B	Addition due to ACE	3.37	2.59	0.00	0.00	0.00
C	Closing Equity (A+B)	239.55	242.14	242.14	242.14	242.14
D	Average Equity (A+C)/2	237.87	240.85	242.14	242.14	242.14
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity for the year (D*G)</b>	<b>44.68</b>	<b>45.24</b>	<b>45.48</b>	<b>45.48</b>	<b>45.48</b>

(₹ in lakh)

Asset - 7						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	236.22	239.46	241.92	241.92	241.92
B	Addition due to ACE	3.24	2.46	0.00	0.00	0.00
C	Closing Equity (A+B)	239.46	241.92	241.92	241.92	241.92
D	Average Equity (A+C)/2	237.84	240.69	241.92	241.92	241.92
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity for the year (D*G)</b>	<b>44.67</b>	<b>45.21</b>	<b>45.44</b>	<b>45.44</b>	<b>45.44</b>

(₹ in lakh)

Asset - 8						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	240.51	244.06	246.83	246.83	246.83
B	Addition due to ACE	3.55	2.77	0.00	0.00	0.00
C	Closing Equity (A+B)	244.06	246.83	246.83	246.83	246.83
D	Average Equity (A+C)/2	242.29	245.44	246.83	246.83	246.83
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity for the year (D*G)</b>	<b>45.51</b>	<b>46.10</b>	<b>46.36</b>	<b>46.36</b>	<b>46.36</b>



(₹ in lakh)

Asset - 9						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	240.51	244.06	246.83	246.83	246.83
B	Addition due to ACE	3.55	2.77	0.00	0.00	0.00
C	Closing Equity (A+B)	244.06	246.83	246.83	246.83	246.83
D	Average Equity (A+C)/2	242.29	245.44	246.83	246.83	246.83
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity for the year (D*G)</b>	<b>45.51</b>	<b>46.10</b>	<b>46.36</b>	<b>46.36</b>	<b>46.36</b>

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

111. O&M Expenses claimed by the Petitioner in respect of the Combined Asset (1, 2, 3, 4) and Asset-5 to Asset-9 are as follows:

(₹ in lakh)

Combined Asset (1,2,3,4)				
Transmission lines				
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length km
1	Meerut-Bagpat Transmission Line (Loop in Portion)	Double Circuit	4	30.157
2	Kaithal-Bagpat Transmission Line (Loop Out Portion)	Double Circuit	4	30.791
<b>Sub-station</b>				
<b>Sl. No.</b>	<b>400 kV Sub-station bay</b>			
1	Kaithal:Bus reactor bays			
<b>Sl. No.</b>	<b>400 kV GIS Sub-station bay</b>			
1	Bagpat:LILO of 400 kV D/C(QUAD) Meerut-Kaithal, Bagpat line bay			
2	Bagpat:Bagpat bus reactor bay			
3	Bagpat: Bagpat ICT-1 bay			
4	Bagpat: ICT-2_Bagpat_Bagpat (GIS)			
<b>Sl. No.</b>	<b>400 kV Sub-station ICT bay</b>			
1	Bagpat: BAGPAT ICT II			
<b>Sl. No.</b>	<b>220 kV GIS Sub-station bay</b>			
1	Bagpat: Bagpat ICT-1 bay			
2	Bagpat: Bagpat LINE-1 bay			
3	Bagpat: ICT-2_Bagpat_Bagpat (GIS)			
4	Bagpat: Baraut-1_Bagpat_Bagpat (GIS)			



5	Bagpat: Baraut-2_Bagpat_Bagpat (GIS)				
<b>O&amp;M Expenses</b>					
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station</b>					
220 kV GIS					
Number of bays	5	5	5	5	5
400 kV					
Number of bays	1	1	1	1	1
400 kV ICT					
Number of bays	1	1	1	1	1
400 kV GIS					
Number of bays	7	7	7	7	7
<b>Transmission lines</b>					
D/C with four Conductors (km)	60.948	60.948	60.948	60.948	60.948
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>528.04</b>	<b>546.78</b>	<b>565.98</b>	<b>586.10</b>	<b>606.17</b>

<b>Asset-5</b>					
<b>Sub-station</b>					
<b>Sl. No.</b>	<b>220 kV GIS Sub-station bay</b>				
1	Bagpat:205 number Bagpat (UP)-Bagpat-Bagpat (GIS)				
<b>O&amp;M Expenses</b>					
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station</b>					
220 kV GIS					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

<b>Asset-6</b>					
<b>Sub-station</b>					
<b>Sl. No.</b>	<b>220 kV GIS Sub-station bay</b>				
1	Bagpat: 210 Number Bagpat (GIS)				
<b>O&amp;M Expenses</b>					
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Sub-station</b>					
220 kV GIS					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>



Asset-7					
Sub-station					
SI. No.	220 kV GIS Sub-station bay				
1	Bagpat: 1 Number 220 kV line bays Number 206 at 400/220 kV Bagpat Sub-station				
O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
220 kV GIS					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

Asset-8					
Sub-station					
SI. No.	220 kV GIS Sub-station bay				
1	Bagpat: 1 Number 220 kV line bays Number 207 at 400/220 kV Bagpat Sub-station				
O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
220 kV GIS					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

Asset-9					
Sub-station					
Srl. No.	220 kV GIS Sub-station bay				
1	Bagpat: 1 Nos 220 kV line bays No.207 at 400/220 kV Bagpat Sub-station				
O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
220 kV GIS					
Number of bays	1	1	1	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

112. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provides as follows:





**“35 (3) Transmission system:** (a) The following normative operation and maintenance expenses shall be admissible for the 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 (Rs. Lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (Rs. Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (Rs. Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakhper 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (Rs. Lakhper 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

(i) the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-



pole scheme for the corresponding year of the tariff period;

(ii) the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

(iii) the O&M expenses of  $\pm 500$  kV Mundra-Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for  $\pm 500$  kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

(iv) the O&M expenses of  $\pm 800$  kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme;

(v) the O&M expenses of  $\pm 800$  kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for  $\pm 800$  kV, Bishwanath-Agra HVDC bi-pole scheme; and

(v) the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

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

113. We have considered the submissions of the Petitioner. O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and the same is as follows:

	(₹ in lakh)				
Combined Asset (1, 2, 3, 4)	2019-20	2020-21	2021-22	2022-23	2023-24
5 Numbers of 220 kV GIS Sub-station bays	78.79	81.55	84.42	87.36	90.44
1 Number of 400 kV Sub-station bays	32.15	33.28	34.45	35.66	36.91
1 Number of 400 kV Sub-station ICT	179.00	185.50	192.00	199.00	205.50
7 Numbers of 400 kV GIS Sub-station bays	157.54	163.07	168.81	174.73	180.86



<b>Combined Asset (1, 2, 3, 4)</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
60.948 km D/C four Conductor transmission line	80.57	83.38	86.30	89.35	92.46
<b>Total</b>	<b>528.04</b>	<b>546.78</b>	<b>565.98</b>	<b>586.10</b>	<b>606.17</b>

(₹ in lakh)

<b>Asset-5</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
1 Number of 220 kV Sub-station bays	15.76	16.31	16.88	17.47	18.09
<b>Total</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

(₹ in lakh)

<b>Asset -6</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
1 Number of 220 kV Sub-station bays	15.76	16.31	16.88	17.47	18.09
<b>Total</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

(₹ in lakh)

<b>Asset -7</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
1 Number of 220 kV Sub-station bays	15.76	16.31	16.88	17.47	18.09
<b>Total</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

(₹ in lakh)

<b>Asset -8</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
1 Number of 220 kV Sub-station bays	15.76	16.31	16.88	17.47	18.09
<b>Total</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

(₹ in lakh)

<b>Asset -9</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
1 Number of 220 kV Sub-station bays	15.76	16.31	16.88	17.47	18.09
<b>Total</b>	<b>15.76</b>	<b>16.31</b>	<b>16.88</b>	<b>17.47</b>	<b>18.09</b>

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

114. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 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 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

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

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

115. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 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 points) for 2021-22 and 10.50% (SBI 1 year MCLR applicable as on 1.4.2022 of 7.10% plus 350 basis points) for 2022-24. The components of the working capital and interest allowed thereon in respect of the Combined Asset (1, 2, 3, 4) and Asset-5 to Asset-9 are as follows:

(₹ in lakh)						
<b>Combined Asset (1, 2, 3, 4)</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	44.00	45.56	47.16	48.84	50.51
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	79.21	82.02	84.90	87.92	90.93
C	Working Capital for Receivables (Equivalent to 45 days of annual	820.96	817.09	804.59	784.81	762.73



<b>Combined Asset (1, 2, 3, 4)</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
	transmission charges)					
D	<b>Total Working Capital (A+B+C)</b>	944.17	944.68	936.65	921.57	904.17
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on Working Capital (DxE)</b>	113.77	106.28	98.35	96.76	94.94

(₹ in lakh)

<b>Asset-5</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	1.31	1.36	1.41	1.46	1.51
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	2.36	2.45	2.53	2.62	2.71
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	17.31	17.16	16.87	16.50	16.08
D	<b>Total Working Capital (A+B+C)</b>	<b>20.99</b>	<b>20.97</b>	<b>20.80</b>	<b>20.58</b>	<b>20.30</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on Working Capital (DxE)</b>	<b>2.53</b>	<b>2.36</b>	<b>2.18</b>	<b>2.18</b>	<b>2.15</b>

(₹ in lakh)

<b>Asset-6</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	1.31	1.36	1.41	1.46	1.51
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	2.36	2.45	2.53	2.62	2.71
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	17.31	17.16	16.87	16.50	16.08
D	<b>Total Working Capital (A+B+C)</b>	<b>20.99</b>	<b>20.97</b>	<b>20.80</b>	<b>20.58</b>	<b>20.30</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on Working Capital (DxE)</b>	<b>2.53</b>	<b>2.36</b>	<b>2.18</b>	<b>2.18</b>	<b>2.15</b>

(₹ in lakh)

<b>Asset-7</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	1.31	1.36	1.41	1.46	1.51
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	2.36	2.45	2.53	2.62	2.71
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	17.46	17.30	16.99	16.62	16.19
D	<b>Total Working Capital (A+B+C)</b>	<b>21.14</b>	<b>21.10</b>	<b>20.93</b>	<b>20.70</b>	<b>20.42</b>



<b>Asset-7</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on Working Capital (DxE)</b>	<b>2.55</b>	<b>2.37</b>	<b>2.20</b>	<b>2.19</b>	<b>2.16</b>

(₹ in lakh)

<b>Asset-8</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	1.31	1.36	1.41	1.46	1.51
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	2.36	2.45	2.53	2.62	2.71
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	17.92	17.78	17.47	17.09	16.66
D	<b>Total Working Capital (A+B+C)</b>	<b>21.59</b>	<b>21.59</b>	<b>21.41</b>	<b>21.17</b>	<b>20.88</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on Working Capital (DxE)</b>	<b>2.60</b>	<b>2.43</b>	<b>2.25</b>	<b>2.24</b>	<b>2.21</b>

(₹ in lakh)

<b>Asset-9</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for one month)	1.31	1.36	1.41	1.46	1.51
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	2.36	2.45	2.53	2.62	2.71
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	17.92	17.78	17.47	17.09	16.66
D	<b>Total Working Capital (A+B+C)</b>	<b>21.59</b>	<b>21.59</b>	<b>21.41</b>	<b>21.17</b>	<b>20.88</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	<b>Interest on Working Capital (DxE)</b>	<b>2.60</b>	<b>2.43</b>	<b>2.25</b>	<b>2.24</b>	<b>2.21</b>

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

116. The AFC allowed in respect of the Combined Asset (1, 2, 3, 4) and Asset-5 to

Asset-9 for 2019-24 tariff period are as follows:

(₹ in lakh)

<b>Combined Asset (1,2,3,4)</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	1979.11	2017.08	2038.44	2038.44	2038.44
Interest on Loan	1828.76	1692.20	1537.31	1358.32	1177.94
Return on Equity	2227.42	2265.21	2286.07	2286.07	2286.07



O&M Expenses	528.04	546.78	565.98	586.10	606.17
Interest on Working Capital	113.77	106.28	98.35	96.76	94.94
<b>Total</b>	<b>6677.10</b>	<b>6627.54</b>	<b>6526.14</b>	<b>6365.70</b>	<b>6203.56</b>

(₹ in lakh)

<b>Asset-5</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	42.28	42.81	43.06	43.06	43.06
Interest on Loan	35.54	32.47	29.19	25.66	22.00
Return on Equity	44.68	45.24	45.48	45.48	45.48
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.53	2.36	2.18	2.18	2.15
<b>Total</b>	<b>140.79</b>	<b>139.19</b>	<b>136.79</b>	<b>133.85</b>	<b>130.78</b>

(₹ in lakh)

<b>Asset-6</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	42.28	42.81	43.06	43.06	43.06
Interest on Loan	35.54	32.47	29.19	25.66	22.00
Return on Equity	44.68	45.24	45.48	45.48	45.48
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.53	2.36	2.18	2.18	2.15
<b>Total</b>	<b>140.79</b>	<b>139.19</b>	<b>136.79</b>	<b>133.85</b>	<b>130.78</b>

(₹ in lakh)

<b>Asset-7</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	42.28	42.76	42.98	42.98	42.98
Interest on Loan	36.75	33.64	30.32	26.73	23.05
Return on Equity	44.67	45.21	45.44	45.44	45.44
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.55	2.37	2.20	2.19	2.16
<b>Total</b>	<b>142.01</b>	<b>140.29</b>	<b>137.82</b>	<b>134.81</b>	<b>131.72</b>

(₹ in lakh)

<b>Asset-8</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	43.05	43.59	43.83	43.83	43.83
Interest on Loan	38.80	35.79	32.39	28.71	25.00
Return on Equity	45.51	46.10	46.36	46.36	46.36
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.60	2.43	2.25	2.24	2.21
<b>Total</b>	<b>145.72</b>	<b>144.22</b>	<b>141.71</b>	<b>138.61</b>	<b>135.49</b>



(₹ in lakh)

<b>Asset-9</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	43.05	43.59	43.83	43.83	43.83
Interest on Loan	38.80	35.79	32.39	28.71	25.00
Return on Equity	45.51	46.10	46.36	46.36	46.36
O&M Expenses	15.76	16.31	16.88	17.47	18.09
Interest on Working Capital	2.60	2.43	2.25	2.24	2.21
<b>Total</b>	<b>145.72</b>	<b>144.22</b>	<b>141.71</b>	<b>138.61</b>	<b>135.49</b>

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

117. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. UPPTCL has objected to the claim of filing fee submitting that the same is at the discretion of the Commission and the Petitioner has not submitted the justification regarding such discretion. UPPTCL has further submitted that the Commission vide order dated 11.9.2008 in Petition No. 129 of 2005 declined the reimbursement of filing fee holding that the Central Power Sector undertakings in furtherance of their business interests are statutorily required to approach the Commission for determination and approval of the tariff.

118. In response, the Petitioner has submitted that it has requested for reimbursement of expenditure by the beneficiaries towards petition filing fee and publication expense, in terms of Regulation 70(1) the 2019 of Tariff Regulations. The Petitioner has further submitted that the Commission vide order dated 28.3.2016 in Petition No. 137/TT/2015 has rejected the similar contention on the same issue and allowed the recovery of petition filing fee and publication of notices from the beneficiaries on pro rata basis. Accordingly, the Petitioner may be allowed to claim the filing fee and expenses incurred on publication of notices from the beneficiaries.





119. We have considered the above submissions of the Petitioner and UPPTCL. 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.

#### **License Fee & RLDC Fees and Charges**

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

#### **Good and Service Tax**

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

122. We have considered the submission of the Petitioner. Since, GST is not levied on transmission services at present, we are of the view that Petitioner's prayer is premature.

#### **Security Expenses**

123. The Petitioner has submitted that security expenses in respect of transmission assets/ Combined Asset are not claimed in the instant petition and it would file a



separate petition for claiming the overall security expenses and the consequential IWC.

124. UPPTCL has objected to the claim of Security expenses and the consequential IWC and also submitted that the Petitioner may clarify under which provision of the 2019 Tariff Regulations, it has sought such relief.

125. In response, the Petitioner has reiterated its submissions and further submitted that Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 has allowed the security expenses for 2019-24 tariff period based on security expense for year 2018-19 and considering escalation rate of 3.51%. The Petitioner has further submitted that the capital spares will be claimed at the end of tariff period as per actual and hence, IWC claimed in the instant petition is exclusive of security expenses and same may be allowed.

126. We have considered the submissions of the Petitioner and UPPTCL. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, 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

127. 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

128. The Petitioner has submitted that UPPTCL has filed Appeal No. 264 of 2021 before the APTEL against the order dated 1.10.2019 in Petition No. 268/TT/2018 regarding the direction of the Commission to bear the transmission charges till COD of the downstream system and the same is pending adjudication. UPPTCL has further submitted that the Petitioner had filed an appeal against the order dated 1.10.2019 in Petition No. 268/TT/2018 being Appeal No. 445 of 2019 has been allowed partially and disposed of vide order dated 13.9.2021.

129. UPPTCL has not paid the bilateral bills raised on it and as such subject to outcome of the said Appeal, UPPTCL may be directed to pay the transmission charges. The two bays pertaining to Asset-7 and Asset-8 are yet to be put into commercial operation by UPPTCL.

130. The Petitioner has submitted the status of downstream lines vide affidavit dated 22.9.2021 and the same are as follows:

Sl. No.	220 kV downstream lines of UPPTCL	Status of 220 kV downstream lines of UPPTCL
5.	Bagpat (PG)-Baraut (UP) 220 kV S/C Transmission Line associated with One Number 220 kV line Bay ( <b>212 number Bay Asset-9</b> ) at Bagpat GIS(PG) Sub-station.	Charged on 26.9.2017



Sl. No.	220 kV downstream lines of UPPTCL	Status of 220 kV downstream lines of UPPTCL
6.	220 kV II <sup>nd</sup> ckt of Bagpat (PG) to Baraut (UP) Transmission Line associated with One Number 220 kV line Bay ( <b>210 number Bay, Asset-6</b> ) at Bagpat GIS(PG) Sub-station.	Charged on 23.10.2017
7.	220 kV II <sup>nd</sup> ckt of Bagpat (PG) to Bagpat (UP) Transmission Line associated with One Number 220 kV line Bay ( <b>205 number Bay, Asset-5</b> ) at Bagpat GIS(PG) Sub-station.	Charged on 10.9.2020
8.	220 kV Bagpat (PG) to Modipuram (UP) D/C Transmission Line associated with two Numbers 220kV line Bay ( <b>206 &amp; 207 number Bays Asset-7&amp;8</b> ) at Bagpat GIS(PG) Sub-station.	Yet to be put into commercial operation

131. We have considered the submissions of the Petitioner. COD of Asset-5, Asset-6, Asset-7, Asset-8 and Asset-9 is approved as 3.7.2016, 3.7.2016, 20.8.2016, 26.1.2017 and 26.1.2017 respectively under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations due to non-readiness of the associated 220 kV downstream system of UPPTCL.

132. The Petitioner has submitted the present status of downstream transmission system is under the scope of UPPTCL. Therefore, the liability of transmission charges payable by UPPTCL is as follows:

Asset	220 kV downstream lines of UPPTCL	COD approved under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations	Status of 220 kV downstream lines of UPPTCL	Liability of transmission charges payable by UPPTCL
Asset-5	220 kV II <sup>nd</sup> ckt of Bagpat (PG) to Bagpat (UP) T/L associated with One Number 220 kV line Bay ( <b>205 number Bay, Asset-5</b> )	3.7.2016	Charged on 10.9.2020	The transmission charges from 3.7.2016 to 9.10.2020 shall be payable by UPPTCL and



Asset	220 kV downstream lines of UPPTCL	COD approved under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations	Status of 220 kV downstream lines of UPPTCL	Liability of transmission charges payable by UPPTCL
	at Bagpat GIS(PG) Sub-station.			from 10.9.2020, the transmission charges of Asset-5 shall be included in PoC Pool
Asset-6	220 kV I <sup>nd</sup> ckt of Bagpat (PG) to Baraut (UP) Transmission Line associated with One Number 220kV line Bay <b>(210 number Bay, Asset-6)</b> at Bagpat GIS (PG) Sub-station.	3.7.2016	Charged on 23.10.2017	The transmission charges from 3.7.2016 to 22.10.2017 shall be payable by UPPTCL and from 23.10.2017, the transmission charges of Asset-6 shall be included in PoC Pool
Asset-7 and 8	220 kV Bagpat (PG) to Modipuram (UP) D/C Transmission Line associated with two Numbers 220 kV line Bay <b>(206 &amp; 207 number Bays Asset-7&amp;8) at Bagpat GIS (PG) Sub-station.</b>	20.8.2016 and 26.1.2017	Yet to be put into commercial operation	The transmission charges of Asset-7 and Asset-8 from COD of transmission system to till COD of downstream system shall be borne by UPPTCL.
Asset-9	Bagpat (PG)-Baraut (UP) 220 kV S/C Transmission Line associated with one Number 220 kV line Bay <b>(212 number Bay Asset-9)</b> at Bagpat GIS(PG) Sub-station.	26.1.2017	Charged on 26.9.2017	transmission charges from 26.1.2017 to 25.9.2017 shall be payable by UPPTCL and from 26.9.2017, the transmission charges of Asset-9 shall be included in PoC Pool



133. UPPTCL has raised issues regarding statutory COD of the assets and bilateral billing of the transmission charges to it. However, as the said issues are pending adjudication before the APTEL, we refrain from interfering with the same. Further, in absence of any stay on the order dated 1.10.2019 in Petition No. 268/TT/2018 passed by the Commission, UPPTCL is bound to honour the bilateral bills being raised upon it by the Petitioner. Further, as per this Commission's order dated 1.10.2019 in Petition No. 268/TT/2018, UPPTCL shall bear the transmission charges till the COD of its downstream system subject to the outcome of Appeal No. 264 of 2021.

134. The transmission charges of remaining Assets i.e. Asset-1, Asset-2, Asset-3 and Asset-4 shall be included in the common PoC pool.

135. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 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 the 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.



136. To summarise:

- a) Trued-up AFC approved in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-1					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>AFC</b>	239.34	236.62	233.61	230.70	228.01

(₹ in lakh)

Asset-2			
Particulars	2016-17 (Pro-rata for 328 days)	2017-18	2018-19
<b>AFC</b>	5024.74	5707.33	5633.57

(₹ in lakh)

Asset-3			
Particulars	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
<b>AFC</b>	607.22	920.87	929.21

(₹ in lakh)

Asset-4			
Particulars	2016-17 (Pro-rata for 202 days)	2017-18	2018-19
<b>AFC</b>	167.29	335.55	334.55

(₹ in lakh)

Asset-5			
Particulars	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
<b>AFC</b>	128.02	179.89	179.02

(₹ in lakh)

Asset-6			
Particulars	2016-17 (Pro-rata for 272 days)	2017-18	2018-19
<b>AFC</b>	128.02	179.89	179.02



(₹ in lakh)

Asset-7			
Particulars	2016-17 (Pro-rata for 224 days)	2017-18	2018-19
AFC	102.82	178.25	177.69

(₹ in lakh)

Asset-8			
Particulars	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
AFC	32.61	184.38	183.50

(₹ in lakh)

Asset-9			
Particulars	2016-17 (Pro-rata for 65 days)	2017-18	2018-19
AFC	32.61	184.38	183.50

- b) AFC allowed in respect of the Combined Asset (1, 2, 3, 4) and Asset-5 to Asset-9 for 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset (1, 2, 3, 4)	6677.10	6627.54	6526.14	6365.70	6203.56

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-5	140.79	139.19	136.79	133.85	130.78

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-6	140.79	139.19	136.79	133.85	130.78

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-7	142.01	140.29	137.82	134.81	131.72

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-8	145.72	144.22	141.71	138.61	135.49





(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-9	145.72	144.22	141.71	138.61	135.49

137. Annexure-I to Annexure-XV given hereinafter form part of the order.

138. This order disposes of Petition No. 359/TT/2020 in terms of the above discussion and findings.

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

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

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



Annexure-I

Asset-1	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
					2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station</b>	1080.00	0.00	1080.00	5.28	57.02	57.02	57.02	57.02	57.02
<b>Total</b>	<b>1080.00</b>	0.00	<b>1080.00</b>		<b>57.02</b>	<b>57.02</b>	<b>57.02</b>	<b>57.02</b>	<b>57.02</b>
Weighted Average Rate of Depreciation (in %)					5.28	5.28	5.28	5.28	5.28
Average Gross Block (₹ in lakh)					1080.00	1080.00	1080.00	1080.00	1080.00



Annexure-II

Asset-2	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2019-24			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
Freehold land	1443.33	0.00	0.00	0.00	1443.33	0.00	28.23	0.00	0.00
Building	628.32	433.72	211.83	1.81	1275.68	3.34	28.23	39.01	42.58
Transmission line	14898.19	774.09	374.28	0.00	16046.56	5.28	807.06	837.38	847.26
Sub-station	10927.11	1304.48	61.48	212.43	12505.50	5.28	611.39	647.45	654.68
PLCC	129.51	62.88	4.07	14.05	210.51	6.33	10.19	12.31	12.88
IT equipment and software	20.13	0.57	0.00	0.00	20.70	5.28	1.08	1.09	1.09
<b>Total</b>	<b>28046.58</b>	<b>2575.74</b>	<b>651.66</b>	<b>228.29</b>	<b>31502.27</b>		<b>1457.94</b>	<b>1537.24</b>	<b>1558.49</b>
Weighted Average Rate of Depreciation (in %)							4.97	4.97	4.97
Average Gross Block (₹ in lakh)							1310.15	1537.24	1558.49



Annexure-III

Asset-3	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	181.58	294.27	150.81	1.29	622.31	3.34	10.79	18.22	20.76
<b>Sub-station</b>	3455.9	938.61	59.37	204.60	4551.19	5.28	201.58	227.93	234.90
<b>PLCC</b>	0.39	0.00	0.00	0.00	0.38	6.33	0.02	0.02	0.02
<b>IT equipment and software</b>	24.83	0.00	0.00	0.00	24.06	5.28	1.27	1.27	1.27
<b>Total</b>	<b>3662.70</b>	<b>1232.87</b>	<b>210.18</b>	<b>205.89</b>	<b>5197.94</b>		<b>213.67</b>	<b>247.45</b>	<b>256.96</b>
Weighted Average Rate of Depreciation (in %)							5.13	5.06	5.04
Average Gross Block (₹ in lakh)							4027.00	4710.37	4918.14



Annexure-IV

Asset-4	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	18.17	139.31	15.52	0.13	173.13	3.34	2.93	5.42	5.68
<b>Sub-station</b>	935.04	281.50	5.57	19.23	1241.34	5.28	56.80	61.93	62.59
<b>PLCC</b>	17.83	10.64	0.16	0.55	29.18	6.33	1.46	1.75	1.77
<b>IT equipment and software</b>	6.33	0.00	0.00	0.00	6.33	5.28	0.35	0.33	0.33
<b>Total</b>	<b>977.67</b>	<b>431.46</b>	<b>21.25</b>	<b>19.91</b>	<b>1450.28</b>		<b>61.55</b>	<b>69.44</b>	<b>70.37</b>
Weighted Average Rate of Depreciation (in %)							5.15	5.07	5.06
Average Gross Block (₹ in lakh)							1193.39	1419.75	1440.33



Annexure-V

Asset-5	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	6.10	0.37	0.00	0.00	6.47	3.34	0.21	0.22	0.22
<b>Sub-station</b>	635.83	108.05	12.75	6.00	762.63	5.28	36.42	39.61	40.11
<b>PLCC</b>	11.56	2.12	0.26	0.12	14.06	6.33	0.80	0.87	0.89
<b>IT equipment and software</b>	3.90	0.24	0.00	0.00	4.14	5.28	0.21	0.22	0.22
<b>Total</b>	<b>657.40</b>	<b>110.78</b>	<b>13.01</b>	<b>6.12</b>	<b>787.31</b>		<b>37.65</b>	<b>40.92</b>	<b>41.43</b>
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28
Average Gross Block (₹ in lakh)							712.79	774.68	784.25



Annexure-VI

Asset-6	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	6.10	0.37	0.00	0.00	6.47	3.34	0.21	0.22	0.22
<b>Sub-station</b>	635.83	108.05	12.75	6.00	762.63	5.28	36.42	39.61	40.11
<b>PLCC</b>	11.56	2.12	0.26	0.12	14.06	6.33	0.80	0.87	0.89
<b>IT equipment and software</b>	3.90	0.24	0.00	0.00	4.14	5.28	0.21	0.22	0.22
<b>Total</b>	<b>657.40</b>	<b>110.78</b>	<b>13.01</b>	<b>6.12</b>	<b>787.31</b>		<b>37.65</b>	<b>40.92</b>	<b>41.43</b>
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28
Average Gross Block (₹ in lakh)							712.79	774.68	784.25



Annexure-VII

Asset-7	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	5.69	0.77	0.01	0.00	6.47	3.34	0.20	0.22	0.22
<b>Sub-station</b>	592.12	149.67	13.54	5.79	761.12	5.28	35.22	39.52	40.03
<b>PLCC</b>	12.28	3.06	0.27	0.12	15.73	6.33	0.87	0.98	0.99
<b>IT equipment and software</b>	3.60	0.49	0.01	0.00	4.10	5.28	0.20	0.22	0.22
<b>Total</b>	<b>613.69</b>	<b>424.79</b>	<b>21.25</b>	<b>19.91</b>	<b>787.42</b>		<b>36.50</b>	<b>40.94</b>	<b>41.46</b>
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28
Average Gross Block (₹ in lakh)							690.68	774.59	784.46





Annexure-VIII

Asset-8	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	6.30	0.00	0.05	0.00	6.36	3.34	0.21	0.21	0.21
<b>Sub-station</b>	726.87	25.74	18.50	5.79	776.90	5.28	39.06	40.23	40.87
<b>PLCC</b>	13.49	0.00	0.00	0.00	14.49	6.33	0.87	0.90	0.91
<b>IT equipment and software</b>	3.99	0.00	0.00	0.00	4.03	5.28	0.21	0.21	0.21
<b>Total</b>	<b>750.65</b>	<b>424.79</b>	<b>21.25</b>	<b>19.91</b>	<b>801.78</b>		<b>233.31</b>	<b>41.55</b>	<b>42.21</b>
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28
Average Gross Block (₹ in lakh)							763.78	786.39	798.82



Annexure-IX

Asset-9	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
<b>Building</b>	6.30	0.00	0.05	0.00	6.36	3.34	0.21	0.21	0.21
<b>Sub-station</b>	726.87	25.74	18.50	5.79	776.90	5.28	39.06	40.23	40.87
<b>PLCC</b>	13.49	0.00	0.00	0.00	14.49	6.33	0.87	0.90	0.91
<b>IT equipment and software</b>	3.99	0.00	0.00	0.00	4.03	5.28	0.21	0.21	0.21
<b>Total</b>	<b>750.65</b>	<b>424.79</b>	<b>21.25</b>	<b>19.91</b>	<b>801.78</b>		<b>233.31</b>	<b>41.55</b>	<b>42.21</b>
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28
Average Gross Block (₹ in lakh)							763.78	786.39	798.82



Annexure-X

Combined Asset (1,2,3,4)	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Freehold land	1443.33	0.00	0.00	0.00	0.00	0.00	1443.33	0.00	0.00	0.00	0.00	0.00	0.00
Building	2071.12	13.18	12.00	0.00	0.00	0.00	2096.30	3.34	69.40	69.82	70.02	70.02	70.02
Transmission line	16046.56	125.00	0.00	0.00	0.00	0.00	16171.56	5.28	850.56	853.86	853.86	853.86	853.86
Sub-station	19378.03	430.00	655.00	0.00	0.00	0.00	20463.03	5.28	1034.51	1063.16	1080.45	1080.45	1080.45
PLCC	240.07	17.39	37.39	0.00	0.00	0.00	294.85	6.33	15.75	17.48	18.66	18.66	18.66
IT equipment and software	51.39	15.83	35.83	0.00	0.00	0.00	103.05	15.00	8.90	12.77	15.46	15.46	15.46
<b>Total</b>	<b>39230.50</b>	<b>601.40</b>	<b>740.22</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>40572.12</b>		1979.11	2017.08	2038.44	2038.44	2038.44
Weighted Average Rate of Depreciation (in %)									5.01	5.02	5.02	5.02	5.02
Average Gross Block (₹ in lakh)									39531.20	40202.01	40572.12	40572.12	40572.12



Annexure-XI

Asset-5	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Building	6.47	2.59	0.00	0.00	0.00	0.00	9.06	3.34	0.26	0.30	0.30	0.30	0.30
Sub-station	762.63	8.00	8.00	0.00	0.00	0.00	778.63	5.28	40.48	40.90	41.11	41.11	41.11
PLCC	14.06	0.36	0.36	0.00	0.00	0.00	14.78	6.33	0.90	0.92	0.94	0.94	0.94
IT equipment and software	4.14	0.28	0.28	0.00	0.00	0.00	4.70	15.00	0.64	0.68	0.71	0.71	0.71
<b>Total</b>	<b>787.31</b>	<b>11.23</b>	<b>8.64</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>807.18</b>		42.28	42.81	43.06	43.06	43.06
Weighted Average Rate of Depreciation (in %)									5.33	5.33	5.33	5.33	5.33
Average Gross Block (₹ in lakh)									<b>792.92</b>	<b>802.86</b>	<b>807.18</b>	<b>807.18</b>	<b>807.18</b>



Annexure-XII

Asset-6	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Building	6.47	2.59	0.00	0.00	0.00	0.00	9.06	3.34	0.26	0.30	0.30	0.30	0.30
Sub-station	762.63	8.00	8.00	0.00	0.00	0.00	778.63	5.28	40.48	40.90	41.11	41.11	41.11
PLCC	14.06	0.36	0.36	0.00	0.00	0.00	14.78	6.33	0.90	0.92	0.94	0.94	0.94
IT equipment and software	4.14	0.28	0.28	0.00	0.00	0.00	4.70	15.00	0.64	0.68	0.71	0.71	0.71
<b>Total</b>	<b>787.31</b>	<b>11.23</b>	<b>8.64</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>807.18</b>		42.28	42.81	43.06	43.06	43.06
Weighted Average Rate of Depreciation (in %)									5.33	5.33	5.33	5.33	5.33
Average Gross Block (₹ in lakh)									<b>792.92</b>	<b>802.86</b>	<b>807.18</b>	<b>807.18</b>	<b>807.18</b>



Annexure-XIII

Asset-7	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Building	6.47	2.59	0.00	0.00	0.00	0.00	9.06	3.34	0.26	0.30	0.30	0.30	0.30
Sub-station	761.12	8.00	8.00	0.00	0.00	0.00	777.12	5.28	40.40	40.82	41.03	41.03	41.03
PLCC	15.73	0.14	0.14	0.00	0.00	0.00	16.01	6.33	1.00	1.01	1.01	1.01	1.01
IT equipment and software	4.10	0.07	0.07	0.00	0.00	0.00	4.24	15.00	0.62	0.63	0.64	0.64	0.64
<b>Total</b>	<b>787.42</b>	<b>10.80</b>	<b>8.21</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>806.43</b>		42.28	42.76	42.98	42.98	42.98
Weighted Average Rate of Depreciation (in %)									5.33	5.33	5.33	5.33	5.33
Average Gross Block (₹ in lakh)									<b>792.82</b>	<b>802.32</b>	<b>806.43</b>	<b>806.43</b>	<b>806.43</b>



Annexure-XIV

Asset-8	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
<b>Building</b>	<b>6.36</b>	2.59	0.00	0.00	0.00	0.00	<b>8.95</b>	3.34	0.26	0.30	0.30	0.30	0.30
<b>Sub-station</b>	<b>776.90</b>	9.00	9.00	0.00	0.00	0.00	<b>794.9</b>	5.28	41.26	41.73	41.97	41.97	41.97
<b>PLCC</b>	14.49	0.16	0.16	0.00	0.00	0.00	14.81	6.33	0.92	0.93	0.94	0.94	0.94
<b>IT equipment and software</b>	4.03	0.07	0.07	0.00	0.00	0.00	4.17	15.00	0.61	0.62	0.63	0.63	0.63
<b>Total</b>	<b>801.78</b>	<b>11.82</b>	<b>9.23</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>822.83</b>		43.05	43.59	43.83	43.83	43.83
Weighted Average Rate of Depreciation (in %)									5.33	5.33	5.33	5.33	5.33
Average Gross Block (₹ in lakh)									<b>807.69</b>	<b>818.21</b>	<b>822.83</b>	<b>822.83</b>	<b>822.83</b>



Annexure-XV

Asset-9	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
<b>Building</b>	<b>6.36</b>	2.59	0.00	0.00	0.00	0.00	<b>8.95</b>	3.34	0.26	0.30	0.30	0.30	0.30
<b>Sub-station</b>	<b>776.90</b>	9.00	9.00	0.00	0.00	0.00	<b>794.9</b>	5.28	41.26	41.73	41.97	41.97	41.97
<b>PLCC</b>	14.49	0.16	0.16	0.00	0.00	0.00	14.81	6.33	0.92	0.93	0.94	0.94	0.94
<b>IT equipment and software</b>	4.03	0.07	0.07	0.00	0.00	0.00	4.17	15.00	0.61	0.62	0.63	0.63	0.63
<b>Total</b>	<b>801.78</b>	<b>11.82</b>	<b>9.23</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>822.83</b>		43.05	43.59	43.83	43.83	43.83
Weighted Average Rate of Depreciation (in %)									5.33	5.33	5.33	5.33	5.33
<b>Average Gross Block (₹ in lakh)</b>									<b>807.69</b>	<b>818.21</b>	<b>822.83</b>	<b>822.83</b>	<b>822.83</b>

