

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 382/TT/2020

Coram:

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

Date of order: 14.11.2023

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the assets under "Transfer of Power from Generation Projects in Sikkim to NR / WR Part-B" in Eastern Region

And in the matter of:

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

.....Petitioner

Vs.

1. Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board-BSEB),
Vidyut Bhawan, Bailey Road, Patna-800001.
2. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhaan Nagar,
Block DJ, Sector-II, Salt Lake City,
Calcutta-700091.
3. Grid Corporation of Orissa Limited,
Shahid Nagar, Bhubaneshwar-751007.
4. Jharkhand State Electricity Board,
Infront of Main Secretariat,
Doranda, Ranchi-834002.



5. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre,
VIP Road, Calcutta-700054.
6. Power Department,
Government of Sikkim,
Gangtok-737101.
7. Gati Infrastructure Chuzachen Limited,
1-7-293 MG Road, 268, Udyog Vihar, Phase-IV,
Secunderabad, Andhra Pradesh-500003.
8. PTC India Limited,
2nd Floor, NBCC Tower,
15, Bhikaji Cama Place, New Delhi.
9. Lanco Energy Private Limited,
Plot No. 397, 2nd Floor,
Udyog Vihar, Phase III, Gurgaon,
Haryana-122016.
10. DANS Energy Private Limited,
5th Floor. DLF Building No. 8, Tower C,
DLF Cyber City, Phase-II, Gurgaon, Haryana-122002.
11. Jal Power Corporation Limited,
405-406, Raja House, 30-31,
Nehru Place, New Delhi-110019.
12. Madhya Bharat Power Corporation Limited,
NH-31-A, Golitar, Singtam,
Gangtok-737134, Sikkim.
13. Shiga Energy Private Limited,
5th Floor, DLF Building No. 8, Tower C,
DLF Cyber City, Phase-II, Gurgaon-122002, Haryana.
14. Sikkim Hydro Power Ventures Limited,
5th Floor, Orbit Plaza, New Prabhadevi Road,
Prabhadevi, Mumbai-4000025, Maharashtra.
15. Teestavalley Power Transmission Limited,
2nd Floor, Vijaya Building,
17, Barakhamba Road, New Delhi-110001.
16. Teesta Urja Limited,
2nd Floor, Vijaya Building,



For Petitioner: Shri Sitiesh Mukhjee, Advocate, PGCIL
Ms. Abiha Zaidi, Advocate, PGCIL
Shri B.B. Rath, PGCIL
Shri Vipin Jacob Joseph, PGCIL
Shri D. K. Biswal, PGCIL

For Respondent: Shri Tarun Johri, Advocate, TUL
Shri Ankur Gupta, Advocate, TPTL
Shri Manish Kumar Chowdhury, Advocate, BSPHCL
Shri Kushagra Sinha, Advocate, BSPHCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, for truing up of transmission tariff for 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff for 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as “transmission assets/ Combined Asset”) under “Transfer of Power from Generation Projects in Sikkim to NR/ WR Part-B” (hereinafter referred to as “transmission project”) in Eastern Region:

Asset-1: 400/220 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-station

Asset-2: Termination of Gangtok-Rangpo/ Chujachen and Melli- Rangpo/ Chujachen Line at Rangpo and associated bays at Rangpo Sub-station, LILO of 400 kV D/C Teesta V- Siliguri Line (Ckt-I) at Rangpo and associated bays alongwith 01 Number 400 kV Bus Coupler bay at Rangpo Sub-station, 01 number 3X105 MVA Single Phase 400/220 kV Transformer (1st) and associated bays alongwith 01 Number 1X105 MVA Single Phase, 400/220 kV Spare Transformer at Rangpo Sub-station, and One number 100 MVA 220/132 kV Transformer (1st) and



associated bays alongwith 01 number 132 kV Bus Coupler Bay and 01 number 132 kV Bus Sectionaliser bay at Rangpo Sub-station

- Asset-3:** LILO of 132 kV S/C Gangtok-Rangit Line at Rangpo and associated bays at Rangpo Sub-station
- Asset-4:** 01 number 3X105 MVA Single Phase 400/220 kV Transformer (2nd) and associated bays at Rangpo Sub-station
- Asset-5:** 01 number 80 MVAR Bus Reactor (1st) & associated bays at Rangpo Sub-station
- Asset-6:** 01 number 3X105 Single phase, 400/220 kV Transformer (3rd) with associated bays under Rangpo Sub-station
- Asset-7:** 01 number 100 MVA , 220/132 kV Transformer (2nd), 01 number 132 kV Bus Coupler bay & 01 number 132 kV Bus Sectionaliser with associated bays at Rangpo Sub-station
- Asset-8:** 01 number 80 MVAR Bus Reactor(2nd) and associated bays at Rangpo
- Asset-9:** 01 number 3X105 Single phase, 400/220 kV Transformer (4th) with associated bays under Rangpo Sub-station
- Asset-10:** 01 number 3X105 Single phase, 400/220 kV Transformer (5th) with associated bays under Rangpo Sub-station
- Asset-11:** 01 number 100 MVA , 220/132 kV Transformer (3rd) with associated bays under Rangpo Sub-station
- Asset-12:** LILO of 400 kV D/C Teesta V-Siliguri line (Ckt-II) at Rangpo and associated bays at Rangpo Sub-station
- Asset-13:** 63 MVAR Line Reactor of Ckt-I of 400 kV D/C Patna-Kishenganj line at Patna Sub-station as bus reactor;
- Asset-14:** 63 MVAR Line Reactor of Ckt-II of 400 kV D/C Patna-Kishenganj line at Patna Sub-station as Bus reactor
- Asset-15:** 400 kV (Quad) D/C Kishanganj-Patna transmission line alongwith associated bays including 02 numbers 80 MVAR Switchable line reactors at Kishanganj (GIS)
- Asset-16:** 220 kV D/C Rangpo-New Melli Line and associated bays at Rangpo and New Melli alongwith one number 220 kV Bus Coupler bay each at Rangpo and New Melli
- Asset-17:** 01 number 31.5 MVAR Bus Reactor (1st) at New Melli and associated bay



Asset-18: 01 number 31.5 MVAR Bus Reactor (2nd) at New Melli and associated bay

Asset-19: LILO of Teesta-III-Kishanganj Line (LILO-I) at Rangpo and associated bays at Rangpo

(For 2014-19 tariff period, the assets are termed as “transmission assets”. The transmission assets have been combined during 2019-24 period and are termed as “Combined Asset” for 2019-24 tariff period.)

2. The Petitioner has made the following prayers in the Petition:

- 1) *“Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9.1 and 10.0 above.*
- 2) *Approve the Completion cost and additional capitalization incurred during 2014-19.*
- 3) *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9.1 and 10.0 above for respective block.*
- 4) *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
- 5) *Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
- 6) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.*
- 7) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 8) *Allow the petitioner to claimed initial spares project as whole.*
- 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 as mentioned at para 10.6 above.*
- 10) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*



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

Background

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

- a) The Investment Approval (IA) of the transmission project was accorded by Board of Directors (BoD) of the Petitioner's company vide Memorandum C/CP/Sikkim Generation Projects-Part-B Ph-I IPPs (Part-B) dated 17.3.2011 at an estimated cost of ₹158512.00 lakh including an IDC of ₹10183.00 lakh based on 3rd quarter, 2010 price level. The BoD of the Petitioner's Company in its 338th meeting held on 10.3.2017, communicated vide Memorandum No. C/CP/PA1617-03-0AA-RCE015 dated 30.3.2017 approved the Revised Cost Estimates (RCE) of the transmission project at an estimated cost of ₹191360.00 lakh including IDC of ₹18916.00 lakh on April, 2016 price level.
- b) As per IA, the transmission assets were scheduled to be put under commercial operation within 32 months from the date of IA, i.e. by 1.12.2013 (as the 2009 Tariff Regulations provides for COD to be declared from 00.00 hours of first day of succeeding month). As per the RCE dated 10.3.2017, the entire transmission project was scheduled to be put under commercial operation progressively by November, 2016.
- c) The scope of work covered under the transmission project is as follows:

Transmission Lines:

- (i) LILO of Teesta-III Kishanganj 400 kV D/C line (quad) at Rangpo
- (ii) Rangpo-New Melli 220 kV D/C line
- (iii) LILO of Gangtok-Rangit 132 kV S/C line at Rangpo and Termination of Gangtok-Rangpo/Chuzachen & Melli- Rangpo/ Chuzachen 132 kV line at Rangpo
- (iv) LILO of Teesta V-Siliguri 400 kV D/C line at Rangpo
- (v) Kishanganj-Patna 400 kV D/C (quad) line

Sub-stations:

- (i) Establishment 400/220/132 kV Gas Insulated Sub-station at Rangpo with 16x105 MVA, 400/220 kV 1-Phase transformers and 3x100 MVA, 220/132 kV 1-Phase transformer.



- (ii) Establishment of 220 kV GIS switching station at New Melli
- (iii) Extension of bays at Kishanganj 400/220 kV Sub-station
- (iv) Extension of bays at Patna 400/220 kV Sub-station

d) 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:

| Asset Nomenclature in previous petition | Asset nomenclature in the instant petition | SCOD | Actual COD | Time over-run | Time over-run condoned |
|--|--|-----------|------------|---------------|------------------------|
| 400/220 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-station | Asset-1 400/220 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-station | 1.12.2013 | 1.8.2013 | Nil | - |
| Asset 1 | Asset-2 Termination of Gangtok-Rangpo/Chujachen and Melli- Rangpo/Chujachen Line at Rangpo and associated bays at Rangpo Sub-station, LILO of 400 kV D/C Teesta V-Siliguri Line (Ckt-I) at Rangpo and associated bays alongwith 1 Number 400 kV Bus Coupler bay at Rangpo Sub-station, 01 number 3X105 MVA Single Phase 400/220 kV Transformer (1 st) and associated bays alongwith 1 Number 1X105 MVA Single Phase, 400/220 kV Spare Transformer at Rangpo Sub-station, and One number 100 MVA 220/132 kV Transformer (1 st) and associated bays alongwith 1 number 132 kV Bus Coupler Bay and 1 number 132 kV Bus Sectionaliser bay at Rangpo Sub-station | 1.12.2013 | 24.4.2014 | 144 days | 27 days |
| Asset 2 | Asset-3 LILO of 132 kV S/C Gangtok-Rangit Line at Rangpo and associated bays at Rangpo | 1.12.2013 | 1.12.2014 | 365 days | 248 days |



| Asset Nomenclature in previous petition | Asset nomenclature in the instant petition | SCOD | Actual COD | Time over-run | Time over-run condoned |
|---|--|-----------|------------|---------------|------------------------|
| | Sub-station | | | | |
| Asset 3 | Asset-4 01 number 3X105 MVA Single Phase 400/220 kV Transformer (2 nd) and associated bays at Rangpo Sub-station | 1.12.2013 | 22.5.2014 | 172 days | 55 days |
| Asset 4 | Asset-5 01 number 80 MVAR Bus Reactor (1 st) & associated bays at Rangpo Sub-station | 1.12.2013 | 22.5.2014 | 172 days | 55 days |
| Asset-1 | Asset-6 01 number 3X105 Single phase, 400/220 kV Transformer (3 rd) with associated bays under Rangpo Sub-station | 1.12.2013 | 9.6.2014 | 190 days | 190 days |
| Asset-2 | Asset-7 1 number 100 MVA, 220/132 kV Transformer (2 nd), 01 number 132 kV Bus Coupler bay, & 01 number 132 kV Bus Sectionalizer with associated bays at Rangpo Sub-station | 1.12.2013 | 22.5.2014 | 172 days | 172 days |
| Asset-3 | Asset-8 1 number 80 MVAR Bus Reactor(2 nd) and associated bays at Rangpo Sub-station | 1.12.2013 | 9.6.2014 | 190 days | 190 days |
| Asset-4 | Asset-9 01 number 3X105 Single phase, 400/220 kV Transformer (4 th) with associated bays under Rangpo Sub-station | 1.12.2013 | 30.6.2014 | 211 days | 211 days |
| Asset-5 | Asset-10 01 number 3X105 Single phase, 400/220 kV Transformer (5 th) with associated bays under Rangpo Sub-station | 1.12.2013 | 3.7.2014 | 214 days | 214 days |
| Asset-6 | Asset-11 1 number 100 MVA, 220/132 kV Transformer (3 rd) with associated bays under Rangpo Sub-station | 1.12.2013 | 13.6.2014 | 194 days | 194 days |



| Asset Nomenclature in previous petition | Asset nomenclature in the instant petition | SCOD | Actual COD | Time over-run | Time over-run condoned |
|---|---|------------|------------|---|------------------------|
| Asset-7 | Asset-12 LILO of 400 kV D/C Teesta V-Siliguri line (Ckt-II) at Rangpo and associated bays at Rangpo Sub-station | 1.12.2013 | 31.10.2014 | 334 days | 334 days |
| Asset-IV | Asset-13 63 MVAR Line Reactor of Ckt-I of 400 kV D/C Patna-Kishanganj line at Patna Sub-station as Bus reactor; | 16.11.2013 | 2.10.2014 | 320 days | 0 days |
| Asset-V | Asset-14 63 MVAR Line Reactor of Ckt-II of 400 kV D/C Patna-Kishanganj line at Patna Sub-station as Bus reactor | 16.11.2013 | 29.11.2014 | 378 days | 0 days |
| Asset | Asset-15 400 kV (Quad) D/C Kishanganj-Patna transmission line alongwith associated bays including 02 numbers 80 MVAR Switchable line reactors at Kishanganj (GIS) | 1.12.2013 | 28.3.2016 | 848 days | 848 days |
| Asset-I | Asset-16 220 kV D/C Rangpo-New Melli Line and associated bays at Rangpo and New Melli alongwith one number 220 kV Bus Coupler Bay each at Rangpo and New Melli | 1.12.2013 | 22.9.2015 | 536 days (COD for Time over run calculation has been considered as 21.5.2015) | 536 days |
| Asset-II | Asset-17 1 number 31.5 MVAR Bus Reactor (1 st) at New Melli and associated bay | 1.12.2013 | 31.1.2016 | 791 days | 536 days |
| Asset-III | Asset-18 1 number 31.5 MVAR Bus Reactor (2 nd) at New Melli and associated bay | 1.12.2013 | 21.3.2016 | 841 days | 536 days |
| Asset-I | Asset-19 LILO of Teesta-III- Kishanganj Line (LILo-I) at Rangpo and | 1.12.2013 | 26.11.2016 | 830 days (COD for time over- | 830 days |



| Asset Nomenclature in previous petition | Asset nomenclature in the instant petition | SCOD | Actual COD | Time over-run | Time over-run condoned |
|--|---|-------------|-------------------|--|-------------------------------|
| | associated bays at Rangpo | | | run calculation was considered as 10.3.2016) | |
| Balance asset(s) not under the instant petition | 02 numbers 400 kV line bays at Rangpo GIS | 1.12.2013 | 13.2.2022 | The Petitioner has filed separate Petition as per the 2019 Tariff Regulations. | |

(e) The transmission tariff for 2014-19 tariff period for Asset-1 was determined vide order dated 10.7.2017 in Petition No. 165/TT/2016; for Asset-2 to Asset-5 vide order dated 29.7.2016 in Petition No. 68/TT/2016; for Asset-6 to Asset-12 vide order dated 29.12.2016 in Petition No. 118/TT/2014; for Asset-13 and Asset-14 vide order dated 29.2.2016 in Petition No. 530/TT/2014; for Asset-15 vide order dated 31.5.2016 in Petition No. 230/TT/2015; for Asset-16 to Asset-18 vide order dated 14.11.2017 in Petition No. 183/TT/2016 and for Asset-19 vide order dated 5.9.2018 in Petition No. 123/TT/2017.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspaper 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 notice published in the newspaper by the Petitioner. Bihar State Power (Holding) Company Limited (BSPHCL), Respondent No. 1, vide affidavit dated 23.8.2021 has filed its reply and has raised the issues of time over-run in execution of Asset-13 and Asset-14, grossed-up Return on Equity



(RoE) rate, additional capital expenditure (ACE) after cut-off date, O&M Expenses with respect to Asset-2 and Asset-7, effect of GST, Interest on Loan (IoL), filing fee and expenses and sharing of transmission tariff . Teestavalley Power Transmission Limited (TPTL), Respondent No. 16 and Teesta Urja Limited (TUL), Respondent No. 17, *vide* their respective affidavits dated 1.9.2021 have filed their reply and have raised the issues of energisation of Asset-19 and IDC. The Petitioner *vide* affidavits dated 3.1.2022 has filed separate rejoinders to the reply of BSPHCL, TPTL and TUL respectively. The issues raised by BSPHCL, TPTL and TUL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. It is observed that BSPHCL has been raising the same issues like MAT rate and RoE in other petitions as well despite clear findings of the Commission rejecting the contentions of BSPHCL in order dated 28.5.2021 in Petition No. 476/TT/2019. As the BSPHCL has not challenged the findings, the same have attained finality. The findings of the Commission in order dated 28.5.2021 in respect of MAT and RoE is applicable in the instant matter as well. Therefore, we are not going into the BSPHCL's contention in respect of MAT rate and RoE in this order again. The other issues which are specific to the instant petition are considered in the relevant paragraphs of this order.

7. The hearing in this matter was held on 14.9.2022 and the order was reserved.

8. This order is issued considering the submission made by the Petitioner in the petition *vide* affidavit dated 28.1.2020 and affidavits dated 6.8.2021, 9.8.2021, 22.7.2022 and 30.9.2022, BSPHCL's, TPTL's and TUL's reply *vide* affidavits dated



23.8.2021, 31.8.2021 and 31.8.2021 respectively and the Petitioner's rejoinder to the reply of BHSPHCL, TPTL and TUL vide respective affidavits dated 3.1.2022.

9. Having heard the learned counsel of the Petitioner and the Respondents and after perusal of the materials on record, we proceed to dispose of the petition.

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

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

(₹ in lakh)

| Particulars | Asset-1 | | | | |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 39.12 | 40.80 | 43.69 | 46.17 | 47.24 |
| Interest on Loan | 20.63 | 20.53 | 21.37 | 21.39 | 19.82 |
| Return on Equity | 41.06 | 43.13 | 46.34 | 49.12 | 50.45 |
| O&M Expenses | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Interest on Working Capital | 5.65 | 5.85 | 6.12 | 6.36 | 6.50 |
| Total | 166.76 | 172.61 | 181.89 | 189.55 | 192.72 |

(₹ in lakh)

| Particulars | Asset-2 | | | | |
|-----------------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|
| | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 676.39 | 821.01 | 875.18 | 875.91 | 876.60 |
| Interest on Loan | 553.35 | 657.25 | 685.04 | 646.54 | 618.62 |
| Return on Equity | 818.40 | 978.05 | 1,031.70 | 1,032.90 | 1,036.44 |
| O&M Expenses | 65.95 | 77.28 | 81.09 | 80.96 | 81.15 |
| Interest on Working Capital | 340.52 | 375.49 | 387.95 | 400.80 | 414.16 |
| Total | 2,454.61 | 2,909.08 | 3,060.96 | 3,037.11 | 3,026.97 |

(₹ in lakh)

| Particulars | Asset-3 | | | | |
|------------------|--------------------------------|---------|---------|---------|---------|
| | 2014-15 (pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 13.34 | 49.65 | 63.71 | 68.60 | 68.79 |
| Interest on Loan | 8.09 | 33.36 | 45.99 | 47.37 | 45.76 |
| Return on Equity | 14.88 | 55.09 | 69.10 | 73.40 | 73.81 |
| O&M Expenses | 1.96 | 6.69 | 7.74 | 8.10 | 8.20 |



| Particulars | Asset-3 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | 20.37 | 63.48 | 65.57 | 67.76 | 70.01 |
| Total | 58.64 | 208.27 | 252.11 | 265.23 | 266.57 |

(₹ in lakh)

| Particulars | Asset-4 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 93.04 | 118.97 | 126.98 | 127.97 | 129.16 |
| Interest on Loan | 68.86 | 85.85 | 89.50 | 84.89 | 81.71 |
| Return on Equity | 103.75 | 131.63 | 138.90 | 140.01 | 141.72 |
| O&M Expenses | 10.57 | 13.10 | 13.71 | 13.83 | 14.02 |
| Interest on Working Capital | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| Total | 356.87 | 446.41 | 469.17 | 470.09 | 473.44 |

(₹ in lakh)

| Particulars | Asset-5 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 44.42 | 53.24 | 56.48 | 58.96 | 58.96 |
| Interest on Loan | 31.73 | 36.81 | 38.58 | 38.13 | 36.04 |
| Return on Equity | 49.53 | 59.64 | 62.41 | 64.38 | 64.55 |
| O&M Expenses | 5.34 | 6.39 | 6.66 | 6.86 | 6.92 |
| Interest on Working Capital | 44.34 | 53.25 | 55.02 | 56.84 | 58.73 |
| Total | 175.36 | 209.33 | 219.15 | 225.17 | 225.20 |

(₹ in lakh)

| Particulars | Asset-6 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 87.41 | 111.87 | 113.06 | 120.98 | 129.04 |
| Interest on Loan | 64.88 | 80.46 | 78.95 | 80.14 | 82.58 |
| Return on Equity | 97.48 | 125.31 | 126.58 | 133.82 | 141.59 |
| O&M Expenses | 9.95 | 12.66 | 12.86 | 13.42 | 14.03 |
| Interest on Working Capital | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| Total | 335.75 | 427.16 | 431.53 | 451.75 | 474.07 |



(₹ in lakh)

| Particulars | Asset-7 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 63.41 | 80.45 | 85.41 | 91.42 | 96.65 |
| Interest on Loan | 52.97 | 62.97 | 62.24 | 61.59 | 60.18 |
| Return on Equity | 70.71 | 88.20 | 91.79 | 97.03 | 101.66 |
| O&M Expenses | 9.18 | 11.18 | 11.56 | 12.00 | 12.40 |
| Interest on Working Capital | 88.19 | 105.91 | 109.42 | 113.05 | 116.82 |
| Total | 284.46 | 348.71 | 360.42 | 375.09 | 387.71 |

(₹ in lakh)

| Particulars | Asset-8 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 43.06 | 54.47 | 57.79 | 60.34 | 60.34 |
| Interest on Loan | 31.78 | 38.28 | 38.84 | 37.80 | 35.46 |
| Return on Equity | 48.02 | 61.02 | 63.88 | 65.93 | 66.11 |
| O&M Expenses | 5.14 | 6.48 | 6.73 | 6.92 | 6.97 |
| Interest on Working Capital | 41.80 | 53.25 | 55.02 | 56.84 | 58.73 |
| Total | 169.80 | 213.50 | 222.26 | 227.83 | 227.61 |

(₹ in lakh)

| Particulars | Asset-9 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 81.11 | 119.18 | 126.33 | 126.33 | 127.52 |
| Interest on Loan | 74.06 | 102.32 | 100.45 | 92.25 | 85.42 |
| Return on Equity | 90.45 | 131.87 | 138.17 | 138.17 | 139.88 |
| O&M Expenses | 9.55 | 13.49 | 13.93 | 13.92 | 14.02 |
| Interest on Working Capital | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| Total | 325.80 | 463.72 | 478.96 | 474.06 | 473.67 |

(₹ in lakh)

| Particulars | Asset-10 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 85.72 | 126.22 | 126.36 | 126.36 | 127.55 |
| Interest on Loan | 75.46 | 105.49 | 98.13 | 89.89 | 83.35 |
| Return on Equity | 94.37 | 138.12 | 138.21 | 138.21 | 139.91 |
| O&M Expenses | 9.74 | 13.86 | 13.88 | 13.87 | 13.98 |
| Interest on Working Capital | 69.87 | 96.86 | 100.08 | 103.39 | 106.83 |
| Total | 335.16 | 480.55 | 476.66 | 471.72 | 471.62 |

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(₹ in lakh)

| Particulars | Asset-11 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 41.71 | 58.48 | 63.58 | 66.23 | 68.36 |
| Interest on Loan | 30.40 | 40.82 | 42.27 | 41.57 | 40.85 |
| Return on Equity | 46.51 | 63.80 | 67.77 | 70.74 | 73.32 |
| O&M Expenses | 5.93 | 7.88 | 8.26 | 8.52 | 8.76 |
| Interest on Working Capital | 57.89 | 74.76 | 77.24 | 79.80 | 82.46 |
| Total | 182.44 | 245.74 | 259.12 | 266.86 | 273.75 |

(₹ in lakh)

| Particulars | Asset-12 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 59.64 | 162.56 | 185.70 | 191.20 | 192.36 |
| Interest on Loan | 56.30 | 145.80 | 156.16 | 148.72 | 137.04 |
| Return on Equity | 66.51 | 178.73 | 201.17 | 207.32 | 209.18 |
| O&M Expenses | 6.65 | 17.28 | 18.77 | 19.08 | 19.09 |
| Interest on Working Capital | 44.30 | 109.90 | 113.55 | 117.31 | 121.21 |
| Total | 233.40 | 614.27 | 675.35 | 683.63 | 678.88 |

(₹ in lakh)

| Particulars | Asset-13 | | | | |
|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 23.15 | 50.32 | 53.70 | 56.91 | 58.45 |
| Interest on Loan | 25.34 | 52.13 | 51.42 | 49.68 | 46.07 |
| Return on Equity | 24.48 | 53.64 | 57.29 | 60.78 | 62.66 |
| O&M Expenses | 3.33 | 7.03 | 7.29 | 7.53 | 7.65 |
| Interest on Working Capital | 29.90 | 62.30 | 64.37 | 66.51 | 68.71 |
| Total | 106.20 | 225.42 | 234.07 | 241.41 | 243.54 |

(₹ in lakh)

| Particulars | Asset-14 | | | | |
|-----------------------------|-----------------------------------|---------|---------|---------|---------|
| | 2014-15 (pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 15.92 | 50.74 | 54.27 | 57.48 | 59.01 |
| Interest on Loan | 17.62 | 53.47 | 52.52 | 50.39 | 46.74 |
| Return on Equity | 16.85 | 54.12 | 57.92 | 61.41 | 63.29 |
| O&M Expenses | 2.28 | 7.09 | 7.35 | 7.57 | 7.69 |
| Interest on Working Capital | 20.32 | 62.30 | 64.37 | 66.51 | 68.71 |

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| Particulars | Asset-14 | | | | |
|--------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Total | 72.99 | 227.72 | 236.43 | 243.36 | 245.44 |

(₹ in lakh)

| Particulars | Asset-15 | | | |
|-----------------------------|------------------------------|-----------------|-----------------|-----------------|
| | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 56.26 | 5257.02 | 5377.68 | 5412.61 |
| Interest on Loan | 56.42 | 5158.93 | 4891.84 | 4504.60 |
| Return on Equity | 62.99 | 5892.01 | 6016.98 | 6072.39 |
| O&M Expenses | 4.40 | 409.02 | 409.89 | 404.22 |
| Interest on Working Capital | 6.48 | 613.23 | 633.70 | 654.79 |
| Total | 186.55 | 17330.21 | 17330.09 | 17048.61 |

(₹ in lakh)

| Particulars | Asset-16 | | | |
|-----------------------------|--------------------------------|----------------|----------------|----------------|
| | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 401.66 | 812.52 | 952.43 | 1087.59 |
| Interest on Loan | 269.54 | 585.22 | 701.96 | 810.53 |
| Return on Equity | 467.38 | 943.13 | 1095.45 | 1247.67 |
| O&M Expenses | 31.56 | 64.42 | 74.19 | 83.66 |
| Interest on Working Capital | 96.86 | 190.82 | 197.11 | 203.70 |
| Total | 1267.00 | 2596.11 | 3021.14 | 3433.15 |

(₹ in lakh)

| Particulars | Asset-17 | | | |
|-----------------------------|-------------------------------|---------------|---------------|---------------|
| | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 8.84 | 62.32 | 71.30 | 74.05 |
| Interest on Loan | 8.10 | 55.08 | 58.69 | 57.20 |
| Return on Equity | 9.90 | 68.76 | 77.81 | 81.10 |
| O&M Expenses | 1.02 | 6.78 | 7.35 | 7.55 |
| Interest on Working Capital | 7.27 | 45.06 | 46.55 | 48.10 |
| Total | 35.13 | 238.00 | 261.70 | 268.00 |



(₹ in lakh)

| Particulars | Asset-18 | | | |
|--------------------------------|----------------------------------|---------------|---------------|---------------|
| | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| Depreciation | 1.55 | 59.98 | 69.98 | 73.93 |
| Interest on Loan | 1.44 | 53.36 | 58.09 | 57.83 |
| Return on Equity | 1.74 | 66.15 | 76.33 | 80.97 |
| O&M Expenses | 0.18 | 6.62 | 7.28 | 7.55 |
| Interest on Working Capital | 1.31 | 45.06 | 46.55 | 48.10 |
| Total | 6.22 | 231.17 | 258.23 | 268.38 |

(₹ in lakh)

| Particulars | Asset-19 | | |
|--------------------------------|--------------------------------|----------------|----------------|
| | 2016-17 (pro-rata 126 days) | 2017-18 | 2018-19 |
| Depreciation | 189.67 | 589.88 | 600.02 |
| Interest on Loan | 214.76 | 610.27 | 564.10 |
| Return on Equity | 211.09 | 653.67 | 666.89 |
| O&M Expenses | 15.58 | 46.87 | 46.59 |
| Interest on Working Capital | 41.24 | 123.40 | 127.51 |
| Total | 672.34 | 2024.09 | 2005.11 |

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

(₹ in lakh)

| Particulars | Asset-1 | | | | |
|---|--------------|--------------|--------------|--------------|--------------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 5.03 | 5.19 | 5.36 | 5.54 | 5.73 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.05 | 9.35 | 9.66 | 9.98 | 10.31 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 27.79 | 28.77 | 30.32 | 31.59 | 32.12 |
| Total Working Capital | 41.87 | 43.31 | 45.34 | 47.11 | 48.16 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 5.65 | 5.85 | 6.12 | 6.36 | 6.50 |



(₹ in lakh)

| Particulars | Asset-2 | | | | |
|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 30.29 | 31.29 | 32.33 | 33.40 | 34.51 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 54.52 | 56.32 | 58.19 | 60.12 | 62.12 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 436.62 | 484.85 | 510.16 | 506.19 | 504.50 |
| Total Working Capital | 521.43 | 572.46 | 600.68 | 599.71 | 601.13 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 65.95 | 77.28 | 81.09 | 80.96 | 81.15 |

(₹ in lakh)

| Particulars | Asset-3 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 5.12 | 5.29 | 5.46 | 5.65 | 5.83 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.21 | 9.52 | 9.84 | 10.16 | 10.50 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 29.48 | 34.71 | 42.02 | 44.21 | 44.43 |
| Total Working Capital | 43.81 | 49.52 | 57.32 | 60.02 | 60.76 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 1.96 | 6.69 | 7.74 | 8.10 | 8.20 |

(₹ in lakh)

| Particulars | Asset-4 | | | | |
|---|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 69.14 | 74.40 | 78.20 | 78.35 | 78.91 |
| Total Working Capital | 91.01 | 97.00 | 101.55 | 102.48 | 103.83 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |



| Particulars | Asset-4 | | | | |
|------------------------------------|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | 10.57 | 13.10 | 13.71 | 13.83 | 14.02 |

(₹ in lakh)

| Particulars | Asset-5 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 4.30 | 4.44 | 4.59 | 4.74 | 4.89 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 7.73 | 7.99 | 8.25 | 8.53 | 8.81 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 33.97 | 34.89 | 36.53 | 37.53 | 37.53 |
| Total Working Capital | 46.00 | 47.32 | 49.37 | 50.80 | 51.23 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 5.34 | 6.39 | 6.66 | 6.86 | 6.92 |

(₹ in lakh)

| Particulars | Asset-6 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|---------------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 69.00 | 71.19 | 71.92 | 75.29 | 79.01 |
| Total Working Capital | 90.87 | 93.79 | 95.27 | 99.42 | 103.93 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 9.95 | 12.66 | 12.86 | 13.42 | 14.03 |

(₹ in lakh)

| Particulars | Asset-7 | | | | |
|---|-----------------------------------|---------|---------|---------|---------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 8.54 | 8.83 | 9.12 | 9.42 | 9.74 |



| Particulars | Asset-7 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 15.38 | 15.89 | 16.41 | 16.96 | 17.52 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 55.11 | 58.12 | 60.07 | 62.52 | 64.62 |
| Total Working Capital | 79.03 | 82.84 | 85.60 | 88.90 | 91.88 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 9.18 | 11.18 | 11.56 | 12.00 | 12.40 |

(₹ in lakh)

| Particulars | Asset-8 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 4.30 | 4.44 | 4.59 | 4.74 | 4.89 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 7.73 | 7.99 | 8.25 | 8.53 | 8.81 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 34.90 | 35.58 | 37.04 | 37.97 | 37.94 |
| Total Working Capital | 46.93 | 48.01 | 49.88 | 51.24 | 51.64 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 5.14 | 6.48 | 6.73 | 6.92 | 6.97 |

(₹ in lakh)

| Particulars | Asset-9 | | | | |
|---|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 72.08 | 77.29 | 79.83 | 79.01 | 78.95 |
| Total Working Capital | 93.95 | 99.89 | 103.18 | 103.14 | 103.87 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 9.55 | 13.49 | 13.93 | 13.92 | 14.02 |



(₹ in lakh)

| Particulars | Asset-10 | | | | |
|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 74.96 | 80.09 | 79.44 | 78.62 | 78.60 |
| Total Working Capital | 96.83 | 102.69 | 102.79 | 102.75 | 103.52 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 9.74 | 13.86 | 13.88 | 13.87 | 13.98 |

(₹ in lakh)

| Particulars | Asset-11 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 6.03 | 6.23 | 6.44 | 6.65 | 6.87 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 10.85 | 11.21 | 11.59 | 11.97 | 12.37 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 38.01 | 40.96 | 43.19 | 44.48 | 45.63 |
| Total Working Capital | 54.89 | 58.40 | 61.22 | 63.10 | 64.87 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 5.93 | 7.88 | 8.26 | 8.52 | 8.76 |

(₹ in lakh)

| Particulars | Asset-12 | | | | |
|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 8.86 | 9.16 | 9.46 | 9.78 | 10.10 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 15.96 | 16.49 | 17.03 | 17.60 | 18.18 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 93.41 | 102.38 | 112.56 | 113.94 | 113.15 |
| Total Working Capital | 118.23 | 128.03 | 139.05 | 141.32 | 141.43 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 6.65 | 17.28 | 18.77 | 19.08 | 19.09 |



(₹ in lakh)

| Particulars | Asset-13 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 5.03 | 5.19 | 5.36 | 5.54 | 5.73 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.05 | 9.35 | 9.66 | 9.98 | 10.31 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 35.70 | 37.57 | 39.01 | 40.24 | 40.59 |
| Total Working Capital | 49.78 | 52.11 | 54.03 | 55.76 | 56.63 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 3.33 | 7.03 | 7.29 | 7.53 | 7.85 |

(₹ in lakh)

| Particulars | Asset-14 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 5.03 | 5.19 | 5.36 | 5.54 | 5.73 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.05 | 9.35 | 9.66 | 9.98 | 10.31 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 36.10 | 37.95 | 39.41 | 40.56 | 40.91 |
| Total Working Capital | 50.18 | 52.49 | 54.43 | 56.08 | 56.95 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 2.28 | 7.09 | 7.35 | 7.57 | 7.69 |

(₹ in lakh)

| Particulars | Asset-15 | | | |
|---|---------------------------------|----------------|----------------|----------------|
| | 2015-16 (Pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 49.47 | 51.10 | 52.81 | 54.57 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 89.05 | 91.98 | 96.06 | 98.22 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 2845.03 | 2886.70 | 2888.35 | 2841.44 |
| Total Working Capital | 2983.55 | 3029.78 | 3036.22 | 2994.23 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 4.40 | 409.02 | 409.89 | 404.22 |



(₹ in lakh)

| Particulars | Asset-16 | | | |
|---|-----------------------------------|---------------|---------------|---------------|
| | 2015-16 (Pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 15.39 | 15.90 | 16.43 | 16.98 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 27.70 | 28.62 | 29.57 | 30.56 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 402.54 | 432.69 | 503.52 | 572.19 |
| Total Working Capital | 445.63 | 477.21 | 549.52 | 619.73 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 31.56 | 64.42 | 74.19 | 83.66 |

(₹ in lakh)

| Particulars | Asset-17 | | | |
|---|----------------------------------|--------------|--------------|--------------|
| | 2015-16 (Pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 3.63 | 3.76 | 3.88 | 4.01 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 6.54 | 6.76 | 6.98 | 7.22 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 35.13 | 39.67 | 43.62 | 44.67 |
| Total Working Capital | 45.30 | 50.19 | 54.48 | 55.90 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 1.02 | 6.78 | 7.35 | 7.55 |

(₹ in lakh)

| Particulars | Asset-18 | | | |
|---|----------------------------------|--------------|--------------|--------------|
| | 2015-16 (Pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 3.63 | 3.76 | 3.88 | 4.01 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 6.54 | 6.76 | 6.98 | 7.22 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 34.50 | 38.53 | 43.04 | 44.73 |
| Total Working Capital | 44.67 | 49.05 | 53.90 | 55.96 |
| Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| Interest on Working Capital | 0.18 | 6.62 | 7.28 | 7.55 |



(₹ in lakh)

| Particulars | Asset-19 | | |
|---|-----------------------------------|---------------|---------------|
| | 2016-17 (Pro-rata 126 days) | 2017-18 | 2018-19 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 9.96 | 10.28 | 10.63 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 17.92 | 18.51 | 19.13 |
| Working Capital for Receivables (Equivalent to two months of annual fixed cost) | 324.61 | 337.35 | 334.19 |
| Total Working Capital | 352.49 | 366.14 | 363.95 |
| Rate of Interest (in %) | 12.80 | 12.80 | 12.80 |
| Interest on Working Capital | 15.58 | 46.87 | 46.59 |

Date of Commercial Operation (COD)

12. The Commission vide order dated 5.9.2018 in Petition No. 123/TT/2017 has held as follows:

“15. As per proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations, if a transmission asset is prevented from being put into regular service for reasons not attributable to the transmission licensee but due to delay in COD of upstream or downstream assets, the transmission licensee can approach the Commission for approval of COD of the transmission asset. In the instant case, the petitioner has submitted the CEA energisation certificate dated 4.3.2016 for “Loop in” portion of one circuit of 400 kV D/C Teesta III-Kishanganj line and “No-load” RLDC charging certificate dated 25.1.2017 showing charging on 10.3.2016 at “no load” which implies that the instant asset was ready on 10.3.2016. Though the petitioner has submitted the “no-load”, RLDC Certificate for LILO portion i.e. both “Loop in” and “Loop out” portion of 400 kV D/C Teesta-Kishanganj line, the petitioner has not submitted CEA energisation certificate for “loop out” portion. The petitioner is directed to submit CEA energisation certificate for “loop out” portion at the time of truing up.....”

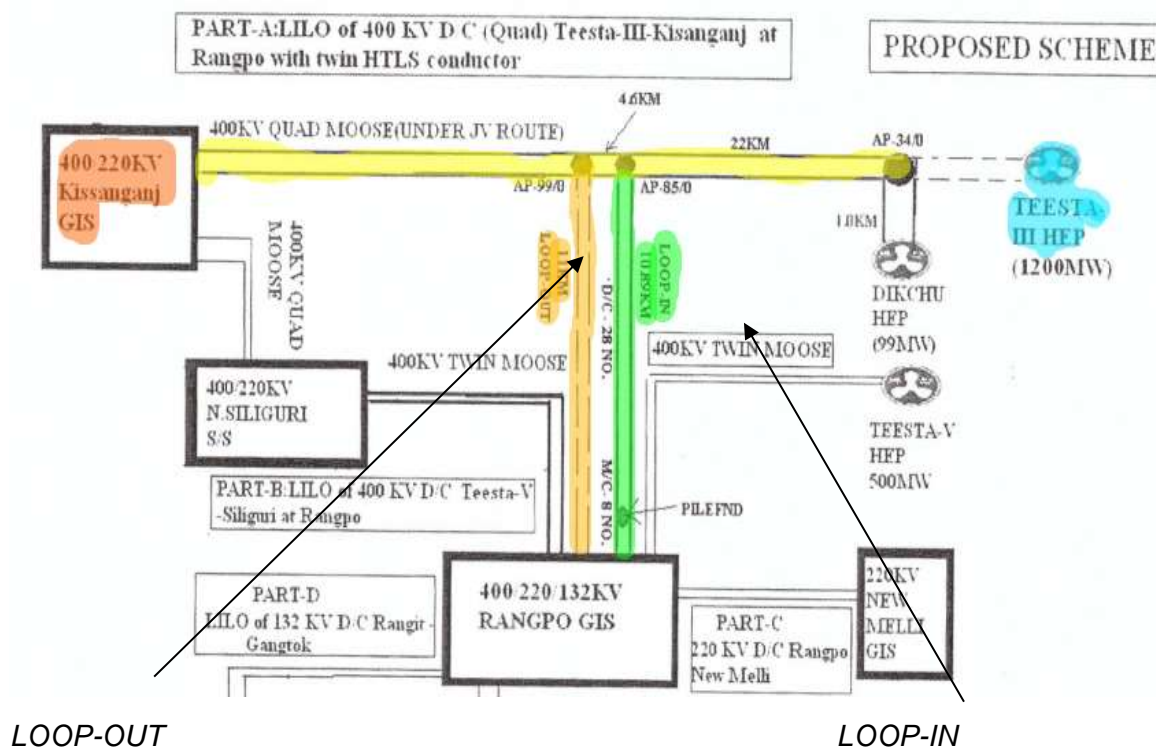
13. The Petitioner has submitted that it has sought the revised CEA Energisation Certificate for Asset-19 from CEA and the same will be submitted on its issuance. However, the Petitioner has prayed to take the following clarifications on record:

(a) The CEA letter dated 4.3.2016 has approval of energisation of “Loop in of one circuit of 400 kV Double Ckt. Testa III – Kishanganj Transmission Line at Loc. No. 85 (length 10.8 km)”. It is clarified that “Loop In” as mentioned by



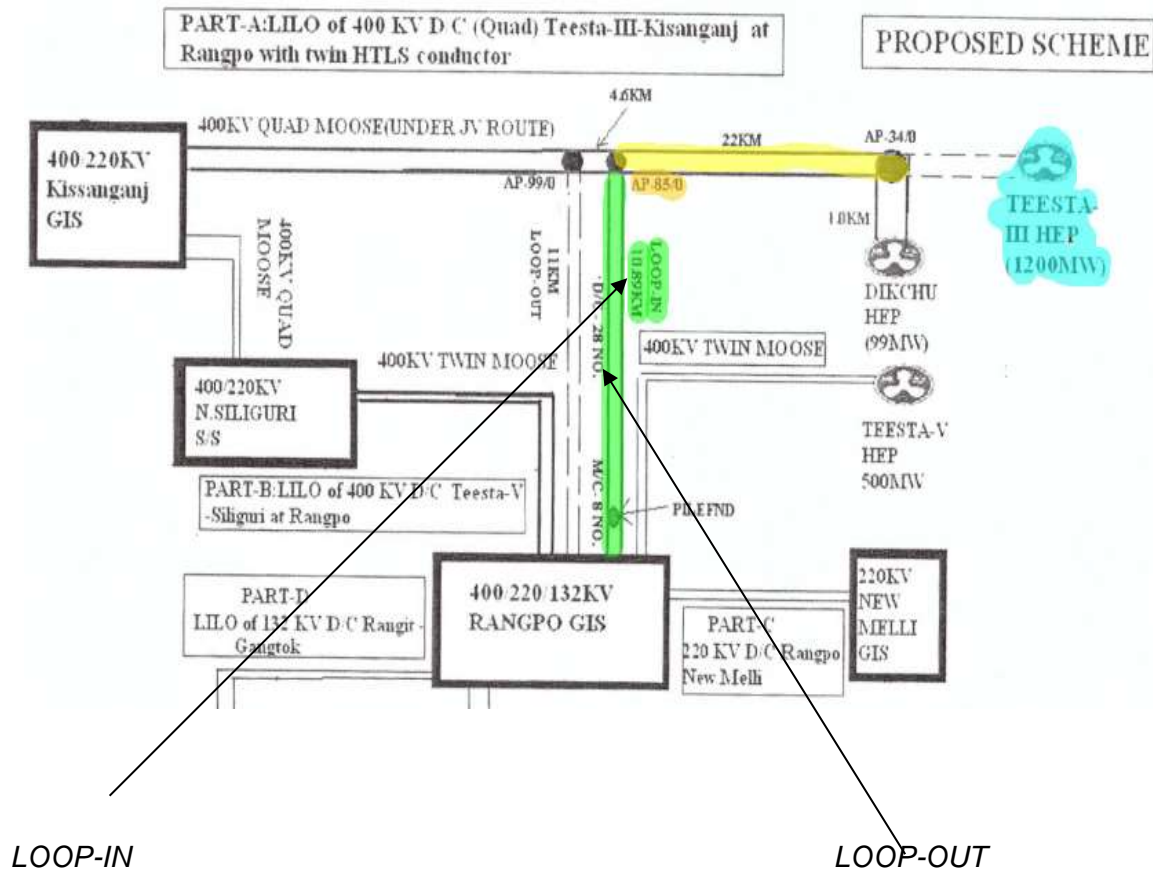
CEA in their Certificate dated 4.3.2016 refers to Loop In which is a Double Ckt. line as depicted in Green color in the diagram below.

(b) As per the original scope of works, the Petitioner had to LILO both the circuits of TPTL's 400 kV D/C Teesta-III-Kishanganj Line at Rangpo GIS and the same is as follows:



(c) As per the original scope of works, the 02 numbers circuits form LILO point, Loc – AP-85/0, to the Rangpo GIS, referred to as “Loop In” {highlighted in Green color} and similarly the 02 numbers circuits from the LILO point, Loc – AP-99/0, to the Rangpo GIS, referred to as “Loop Out” {highlighted in Orange color}.

(d) However, due to various constraints during 2016, TPTL was not able to complete its line beyond Loc. No. 85/0 towards Kishanganj-end due to which only one ckt. of 400 kV D/C Teesta III – Kishnagnj Line could be LIL0ed at Loc. No. AP- 85/0 which is the subject Asset-19 {highlighted in Green color} depicted in the following diagram.



(e) The “Loop In” has itself been transformed into a LILO (i.e. LILO within Loop In). This LILO within “Loop In” is Double circuit as shown above in the diagram and 10.8 km in length.

(f) The energization of both circuits of subject LILO has been carried out duly after approval from CEA and the same has been ratified by the no-load ERLC Certificate dated 10.3.2016.

14. The Petitioner has submitted that from the above it can be concluded that Asset-19 has completed energization as per the CEA certification and accordingly requested to approve the COD of Asset-19.

15. TPTL and TUL have submitted that the Petitioner, while claiming the COD for the LILO of Asset-19 in Petition No. 123/TT/2017, had failed to submit the mandatory

CEA approval for energisation of the 'Line Out' and had only submitted the CEA Approval for the 'Line In'. This lapse had been pointed out by TPTL and TUL in their reply dated 31.5.2018 in Petition No. 123/TT/2017. They submitted that the Petitioner in its additional affidavit dated 9.8.2021 in the instant petition has made the following distorting, misleading and evasive submissions with regard to the availability of CEA approval for energisation of LILO of Asset-19:

(i) The Petitioner has mis-quoted the Commission's direction by stating that the Commission had directed it vide order dated 5.9.2018 in Petition No. 123/TT/2017 for submitting revised CEA Energisation Certificate at the time of truing up. The Petitioner has further given a misleading and evasive submission by stating that the revised CEA Energisation Certificate for Asset-19 is being pursued from ERLDC (POSOCO) and will be provided upon its issuance.

(ii) The Petitioner has erroneously contended for the Loop In of one circuit of 400 kV D/C Teesta III – Kishanganj Transmission Line that the Loop In as mentioned by CEA refers to Loop In which is a double Ckt line. While having failed to obtain CEA Approval / Certificate for the Line Out, the Petitioner has coined a new terminology of 'Loop In' itself having been transformed into a LILO (i.e. LILO within Loop In). Such terminology or nomenclature has not been mentioned in any of the meetings of the Standing Committee on Power System Planning (Eastern Region) during its deliberations on the implementation of the LILO of Asset-19 by the Petitioner and it is an after-thought to cover up the lapse of not having secured CEA Approval / Certificate for the Line Out.

(iii) The Petitioner has wrongly contended that energisation of both circuits of the subject LILO has been carried out duly after approval from CEA and that the same has been ratified by the no-load ERLDC Certificate. The Petitioner has wrongly concluded from the same that the subject Asset-19 has been completed energised as per CEA certification and that only the naming discrepancy arising out of Loop In functioning as LILO in itself.



(iv) The Petitioner has wrongly stated that due to various constraints at the time during 2016, TPTL was not able to complete its line beyond Loc. 85/0 towards Kishanganj-end due to which only one Ckt. of 400 kV D/C Teesta III-Kishanganj line could be LILoed at Loc. No. AP- 85/0, which is the subject Asset-19.

16. TPTL and TUL has further submitted that there is no provision under any Regulation for issuing a revised energisation certificate by CEA and the Petitioner has to “submit CEA Energisation Certificate for “Loop Out” portion at the time of truing up.” Further, ERLDC (POSOCO) is not the competent authority to issue the energisation certificate of CEA. It is evident that the Standing Committee on Power Systems Planning (ER) has all along planned for and insisted on construction of LILo of both Circuits of 400 kV D/C Teesta III Kishanganj Line by the Petitioner. However, the Standing Committee (ER) in its meeting held on 13.6.2016 on the suggestion of the Petitioner, agreed to delink the second LILo at Rangpo from Part-B of the transmission project and take it up as a separate part (Part-B1) of the same transmission project as “Transmission System for Transfer of power from generation projects in Sikkim to NR/WR (Part-B1). The reason for delay in construction of LILo of the second circuit by the Petitioner of 400 kV D/C Teesta III Kishanganj Line has been the lack of forest clearance. The Petitioner should submit the target of completion of “Loop Out” of the Petitioner so that other circuit of 400 kV Teesta III-Kishanganj D/C line could be LILoed at Rangpo as per the original approval of the Standing Committee.

17. In response, the Petitioner has submitted that the Commission vide order dated 5.9.2018 in Petition No. 123/TT/2017 for Asset-19 [LILo of Teesta-III- Kishanganj Line (LILo-I) at Rangpo and associated bays at Rangpo; Asset-1 in Petition No.



123/TT/2017] directed the Petitioner to submit revised CEA energisation letter for Asset-19 at the time of truing up. The relevant extract of the said order is as follows:

“15.In the instant case, the petitioner has submitted the CEA energisation certificate dated 4.3.2016 for “Loop in” portion of one circuit of 400 kV D/C Teesta III-Kishanganj line and “No-load” RLDC charging certificate dated 25.1.2017 showing charging on 10.3.2016 at “no load” which implies that the instant asset was ready on 10.3.2016. Though the petitioner has submitted the “no-load”, RLDC Certificate for LILO portion i.e. both “Loop in” and “Loop out” portion of 400 kV D/C Teesta-Kishanganj line, the petitioner has not submitted CEA energisation certificate for “loop out” portion. The petitioner is directed to submit CEA energisation certificate for “loop out” portion at the time of truing up.”

18. The Petitioner has submitted that it has already submitted in the instant petition that the revised CEA Energization Certificate is being pursued from CEA which is still awaited and the same will be submitted upon its receipt. The Petitioner has submitted that, vide additional affidavit dated 9.8.2021, it has inadvertently mentioned that “the revised CEA Energisation Certificate for the instant Asset-19 is being pursued from ERLDC (POSOCO) and will be provided upon its issuance”. The Respondents’ intention are misplaced and regarding confusion of the Petitioner as to who issues the CEA Certificate is completely undesirable. Such typographical error could have been overlooked by the Respondents. The Petitioner has further submitted that the RLDC Charging Certificate (no-load) clearly mentions the name of asset charged is “LILO of one ckt of 400 kV D/C Teesta-III-Kishanganj line” and the COD letter issued by the Petitioner also mentions the same name. Additionally, the charging/ execution of the elements are also noted by the members and the representatives of the constituents of the Eastern Region in the minutes of the 33rd ERPC and the 120th OCC. The application made by the Petitioner for CEA energization made before CEA, clearly mentioning the asset name as “LILO of one ckt of 400 kV D/C Teesta III-Kishanganj Line” and in the CEA charging clearance letter issued by CEA, the name of asset has



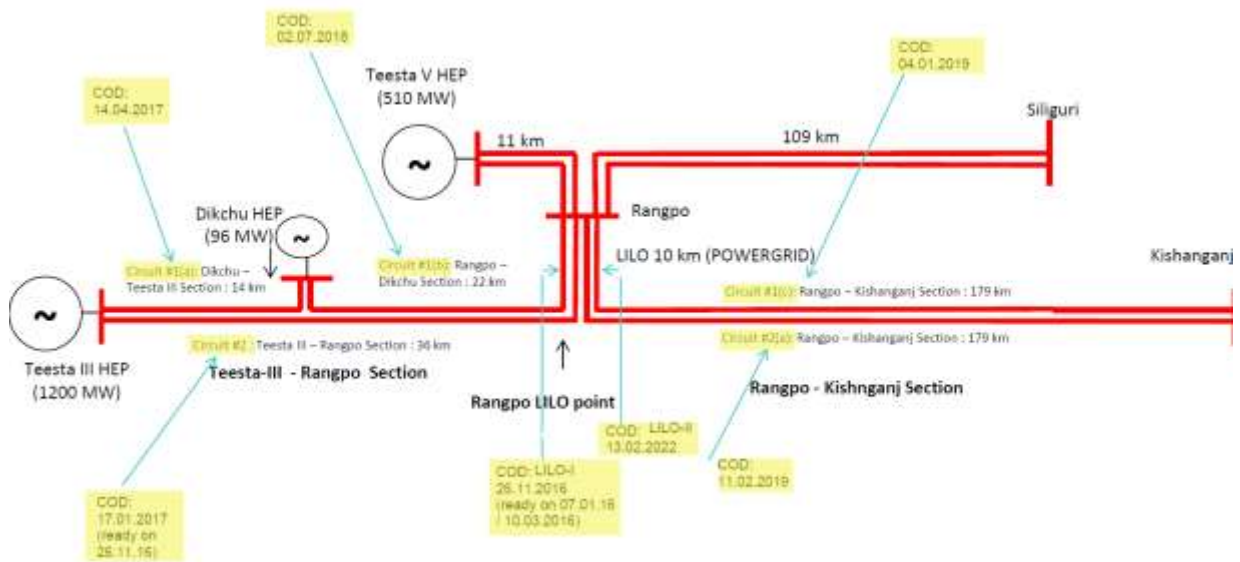
got transformed from “LILO of one ckt. of 400 kV D/C Teesta III-Kishnaganj Line” to “Loop In of one ckt. of 400 kV D/C Teesta III-Kishnaganj Line”.

19. We have considered the submissions made by the Petitioner, TPTL and TUL. As per the CEA Energisation Certificate dated 4.3.2016, CEA accorded the approval for energisation of “Loop In” of one circuit of 400 kV DC Teesta-III-Kisanganj transmission line at location No-85 (length 10.8 km) to 400/220/132 kV, Rangpo GIS Sub-station. The Petitioner has filed Petition No. 337/TT/2022 wherein the Petitioner has sought tariff for Asset-I: LILO of second ckt. of Teesta III-Kishanganj 400 kV D/C (Quad Moose) line at Rangpo by adopting (i) LoopIn portion of 400 kV D/C Teesta III-Kishanganj transmission line utilizing for LILO of one circuit of 400 kV D/C Teesta-III Kishanganj transmission line at Rangpo and (ii) LoopOut portion of 400 kV D/C Teesta-III-Kishanganj Transmission Lline utilising for LILO of second ckt. of Teesta III-Kishanganj 400 kV D/C (Quad Moose) line at Rangpo (along with associated 02 numbers 400 kV line bays at Rangpo, and claimed the COD of the asset as 13.2.2022). The Petitioner also filed Petition No. 291/TT/2022 wherein tariff for 02 numbers 400 kV line bays at Rangpo GIS has been sought and claimed the COD of the asset as 13.2.2022. CEA vide letter dated 10.2.2022 accorded the approval for energisation of the following:

- (i) Loop Out Double Circuit of 400 kV D/C Teesta-III-Kishanganj at Rangpo
- (ii) Loop In Single Circuit of Teesta-III- Kishanganj using one circuit of Existing LILO of 400 kV D/C Teesta-III- Dikchu-Kishanganj at Rangpo
- (iii) 2 numbers GIS bay (402 & 406) for Loop Out Circuit at Rangpo Sub-station

20. The Single line diagram of the transmission scheme is as follows:





21. As per the above diagram, LILo of both circuits of Teesta-III-Kishanganj 400 kV D/C at Rangpo and associated bays at Rangpo comprises of four numbers of circuits (i.e., Loop-in of two ckts. and Loop-out of two ckts.) alongwith 4 numbers of associated bays at Rangpo Sub-station. The Petitioner has claimed the transmission charges for the assets associated with LILo of both circuits of Teesta-III-Kishanganj 400 kV D/C at Rangpo and associated bays at Rangpo in two other petitions besides the instant petition and the details are as follows:

| Petition No. 382/TT/2020 | No. | Petition No. 337/TT/2022 (COD claimed: 13.2.2022) | Petition No. 291/TT/2022 (COD claimed: 13.2.2022) |
|---|-----|---|---|
| LILo of Teesta-III-Kishanganj Line (LILo-I) at Rangpo and associated bays at Rangpo | | LILo of second circuit of Teesta III-Kishanganj 400kV D/C (Quad Moose) line at Rangpo adopting the following: LOOP IN of 400 kV D/C Teesta III-Kishanganj transmission line utilizing the existing LILo of one circuit of 400 kV D/C Teesta III- Kishanganj transmission line at Rangpo. LOOP OUT of 400 kV D/C Teesta III-Kishanganj transmission line at Rangpo (^associated 02 nos 400 kV line bays at Rangpo under Sikkim B project). | 2 Nos 400 kV line bays at Rangpo GIS Sub-station |



22. The CEA Energisation certificate dated 10.2.2022 reveals that only one 400 kV ckt. alongwith its associated bay at Ranpo Sub-station was ready on 26.11.2016 and remaining assets associated with the LILO of 400 kV D/C Teesta-III-Kishanganj at Rangpo Sub-station alongwith associated bays were put into commercial operation on 13.2.2022.

23. It is observed that the Petitioner has claimed tariff for the elements/assets associated with the LILO of 400 kV D/C Teesta-III-Kishanganj at Rangpo Sub-station in three different petitions. We are of the view that all the transmission assets/elements associated with the LILO of 400 kV D/C Teesta-III-Kishanganj at Rangpo Sub-station should be dealt together in one petition so that we are able to take a comprehensive view. Accordingly, we are not inclined to grant tariff for Asset-19 of the instant petition in this order. The same will be dealt in Petition No. 337/TT/2022, wherein the Petitioner has claimed the tariff for balance portion of LILO of Teesta-III-Kishanganj at Rangpo Sub-station. The Petitioner is directed to submit the bifurcation of capital cost of each circuit of LILO of of Teesta-III-Kishanganj at Rangpo Sub-station alongwith each bay associated with LILO of Rangpo Sub-station. The Petitioner is further directed to claim the transmission charges of the transmission elements covered in Petition No. 291/TT/2022 also, besides Asset-19 in the instant petition, in Petition No 337/TT/2022. Accordingly, we will issue a combined order in Petition No.291/TT/2022 and Petition No.337/TT/2022.

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 details of the capital cost considered as on 1.4.2014/ COD and capital cost as on 31.3.2019 admitted vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18) is as follows:

(₹ in lakh)

| Assets | FR Apportioned approved cost | RCE Apportioned approved cost | Admitted cost as on 31.3.2014/ COD* | Admitted ACE | | | | | Total cost as on 31.3.2019* |
|---|------------------------------|-------------------------------|-------------------------------------|--------------|----------|---------|---------|---------|-----------------------------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| Order dated 10.7.2017 in Petition No. 165/TT/2016 | | | | | | | | | |
| 1 | 925.09 | - | 693.56 | 7.70 | 52.95* | 116.00 | 0.00 | 0.00 | 870.21 |
| Order dated 29.7.2016 in Petition No. 68/TT/2016 | | | | | | | | | |
| 2 | 14263.97 | | 13994.26* | 269.71 | 0.00 | 0.00 | 0.00 | 0.00 | 14263.97* |
| 3 | 1783.08 | | 736.55* | 8.26 | 490.50 | 0.00 | 0.00 | 0.00 | 1235.41 |
| 4 | 2766.12 | | 1970.08* | 150.27 | 130.50 | 0.00 | 0.00 | 0.00 | 2250.85 |
| 5 | 1079.74 | | 958.58* | 35.56 | 12.90 | 0.00 | 0.00 | 0.00 | 1007.04 |
| Order dated 29.12.2016 in Petition No. 118/TT/2014 | | | | | | | | | |
| 6 | 2766.12 | | 1956.93* | 148.86 | 163.44 | 0.00 | 0.00 | 0.00 | 2278.23 |
| 7 | 1694.11 | | 1298.19* | 96.91 | 160.76 | 0.00 | 0.00 | 0.00 | 1555.86 |
| 8 | 1079.74 | | 992.98* | 23.90 | 5.00 | 0.00 | 0.00 | 0.00 | 1021.88 |
| 9 | 2766.12 | | 1956.23* | 165.59 | 163.46 | 0.00 | 0.00 | 0.00 | 2285.28 |
| 10 | 2766.12 | | 1968.11* | 153.29 | 163.46 | 0.00 | 0.00 | 0.00 | 2284.86 |
| 11 | 1396.69 | | 943.98* | 67.07 | 117.41 | 0.00 | 0.00 | 0.00 | 1127.73 |
| 12 | 3279.22 | | 2679.93* | 65.05 | 534.24** | 0.00 | 0.00 | 0.00 | 3279.22* |
| Order dated 29.2.2016 in Petition No. 530/TT/2014 | | | | | | | | | |
| 13 | 1213.47 | | 770.66* | 132.82 | 99.62 | 99.61 | 0.00 | 0.00 | 1102.71 |
| 14 | 1213.47 | | 814.93* | 116.22 | 87.17 | 87.15 | 0.00 | 0.00 | 1105.47 |
| order dated 31.5.2016 in Petition No. 230/TT/2015 | | | | | | | | | |
| 15 | 82353.95 | | 82353.95* | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 82353.95* |
| Order dated 14.11.2017 in Petition No. 183/TT/2016 | | | | | | | | | |
| 16 | 11690.68 | 23940.90 | 14357.59* | 1200.88 | 5167.94 | 0.00 | 0.00 | 0.00 | 20726.41 |
| 17 | 1061.86 | 1472.05 | 952.25* | 97.00 | 206.89 | 0.00 | 0.00 | 0.00 | 1256.14 |
| 18 | 1061.86 | 1479.61 | 946.14* | 55.52 | 247.51 | 0.00 | 0.00 | 0.00 | 1249.17 |

*Remarks:

| | |
|---------|--|
| Asset-1 | Initial spares (under sub-station head) amounting to ₹2.97 lakh were disallowed from ACE claimed for 2015-16 of ₹55.92 lakh. |
| Asset-2 | IDC & IEDC (due to delay) amounting to ₹107.58 lakh were disallowed. IDC discharge after DOCO amounting to ₹244.26 lakh (in FY 2014-15) was deferred. Further, estimated completion cost restricted to FR approved apportioned cost in the absence of RCE. |
| Asset-3 | IDC & IEDC (due to delay) amounting to ₹4.74 lakh, and initial spares (under sub-station head) amounting to ₹21.67 lakhs were disallowed. |
| Asset-4 | IDC & IEDC (due to delay) amounting to ₹14.48 lakh were disallowed and IDC discharge after COD amounting to ₹24.12 lakh (in FY 2014-15) was deferred. |
| Asset-5 | IDC & IEDC (due to delay) amounting to ₹6.69 lakh were disallowed and IDC discharge after COD amounting to ₹10.29 lakh (in FY 2014-15) was deferred. |
| Asset-6 | IDC discharge after COD amounting to ₹157.86 lakh (in FY 2014-15) was deferred. |



| | |
|----------|--|
| Asset-7 | IDC discharge after COD amounting to ₹105.21 lakh (in FY 2014-15) was deferred. Initial Spares (under Sub-station head) amounting to ₹48.67 lakh were disallowed. |
| Asset-8 | IDC discharge after COD amounting to ₹157.86 lakh (in FY 2014-15) was deferred. |
| Asset-9 | IDC discharge after COD amounting to ₹163.74 lakh (in FY 2014-15) was deferred. |
| Asset-10 | IDC discharge after COD amounting to ₹164.32 lakh (in FY 2014-15) was deferred. |
| Asset-11 | IDC discharge after COD amounting to ₹77.53 lakh (in FY 2014-15) was deferred. Initial Spares (under Sub-station head) amounting to ₹9.91 lakh were disallowed. |
| Asset-12 | IDC discharge after COD amounting to ₹259.65 lakh (in FY 2014-15 & 2015-16) was deferred. Further, estimated completion cost restricted to FR approved apportioned cost in the absence of RCE. |
| Asset-13 | COD cost claim was based on anticipated COD of 01.10.2014. IDC amounting to ₹44.88 lakh disallowed on computation on accrual basis. IEDC amounting to ₹4.04 lakh disallowed (provisionally) due to time over-run |
| Asset-14 | COD cost claim was based on anticipated COD of 01.11.2014. IDC amounting to ₹47.10 lakh disallowed on computation on accrual basis. IEDC amounting to ₹4.92 lakh disallowed (provisionally) due to time over-run |
| Asset-15 | COD & Estimated completion cost restricted to FR approved apportioned cost in the absence of RCE. |
| Asset-16 | COD cost has been revised due to shifting of COD from 21.5.2015 (claimed) to 22.9.2015 (approved). IDC discharge after COD amounting to ₹131.44 lakh (in FY 2015-16) was deferred. Initial Spare (due to undercharged liability) amounting to ₹36.55 lakh were disallowed. |
| Asset-17 | IDC & IEDC (due to delay) amounting to ₹18.26 lakh and Initial Spare (due to undercharged liability) amounting to ₹3.99 lakh were disallowed. |
| Asset-18 | IDC & IEDC (due to delay) amounting to ₹31.78 lakh and initial spare (due to undercharged liability) amounting to ₹3.99 lakh were disallowed. |

26. The Petitioner in the instant true-up petition has submitted the following capital cost for true-up in the 2014-19 tariff period:

| Assets | FR Apportioned approved cost | RCE Apportioned approved cost | Actual cost as on 31.3.2014/ COD | Actual ACE | | | | | Total cost as on 31.3.2019 |
|--------|------------------------------|-------------------------------|----------------------------------|------------|---------|---------|---------|---------|----------------------------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| 1 | 925.09 | 1277.78 | 693.56 | 7.70 | 55.92 | 53.53 | 40.45 | | 851.16 |
| 2 | 14263.97 | 18620.14 | 14346.10 | 1399.68 | 1796.45 | 35.71 | 5.00 | 20.65 | 17603.59 |
| 3 | 1783.08 | 1457.52 | 763.06 | 8.26 | 329.70 | 145.32 | | 7.14 | 1253.48 |
| 4 | 2766.12 | 2616.66 | 2008.68 | 126.15 | 210.52 | 37.56 | | 45.00 | 2427.91 |
| 5 | 1079.74 | 1270.95 | 975.56 | 25.27 | 28.29 | 66.62 | | | 1095.74 |
| 6 | 2766.12 | 2632.92 | 2006.57 | 109.39 | 5.39 | 39.75 | 205.13 | 45.00 | 2411.23 |
| 7 | 1694.11 | 1854.15 | 1377.46 | 66.98 | 93.68 | 29.39 | 147.59 | 0.00 | 1715.10 |
| 8 | 1079.74 | 1281.15 | 1012.56 | 5.00 | 28.29 | 69.39 | | | 1115.24 |
| 9 | 2766.12 | 2639.71 | 2015.34 | 106.48 | 215.52 | 0.00 | | 45.00 | 2382.34 |
| 10 | 2766.12 | 2640.38 | 2015.91 | 316.62 | 5.39 | 0.00 | | 45.00 | 2382.92 |
| 11 | 1396.69 | 1414.92 | 974.07 | 46.89 | 115.46 | 20.00 | 80.61 | | 1237.03 |
| 12 | 3279.22 | 3890.76 | 2722.54 | 60.48 | 515.79 | 208.35 | | 43.93 | 3551.09 |
| 13 | 1213.47 | 1856.83 | 818.02 | 65.05 | 55.92 | 60.18 | 58.01 | | 1057.18 |
| 14 | 1213.47 | 1867.50 | 842.02 | 49.71 | 55.92 | 60.18 | 58.01 | | 1067.84 |
| 15 | 82353.95 | 105680.21 | 99046.25 | | | 2304.31 | 867.71 | 455.62 | 102673.89 |
| 16 | 11690.68 | 23940.90 | 14663.83 | | 931.19 | 718.28 | 4435.04 | 601.84 | 21350.18 |
| 17 | 1061.86 | 1472.05 | 974.50 | | 97.00 | 220.01 | 85.91 | 18.26 | 1395.68 |
| 18 | 1061.86 | 1479.61 | 981.91 | | 55.52 | 226.63 | 117.91 | 31.78 | 1413.75 |



Cost over-run

27. The Commission vide order dated 29.7.2016 in Petition No 68/TT/2016 has restricted the completion cost of Asset-1 (Asset-2 in the instant true-up petition) up to approved apportioned cost.

28. The Commission vide order dated 29.12.2016 in Petition No. 118/TT/2014 has held as follows:

“15. The cost variation in case of Assets 1 to 6 is allowed. The estimated completion cost Asset-7 is higher than approved apportioned cost. Therefore, in the absence of Revised Cost Estimate (RCE), the approved apportioned cost of the individual asset is considered for the purpose of tariff calculations. However, the capital cost in case of Asset-7 shall be reviewed at the time truing-up.”

29. The Commission vide order dated 31.5.2016 in Petition No. 230/TT/2015 held as follows:

“32. We have considered the submissions of the petitioner. There is cost overrun as on COD itself w.r.t. the approved apportioned cost. Even after considering the time overrun, deducting IDC and IEDC for the period not condoned and considering IDC discharged on COD as on cash basis, the capital cost as on COD i.e. `96047.61 lakh exceeds the apportioned approved cost for the asset. The petitioner has not submitted RCE for the same. Hence capital cost as on COD has been restricted to apportioned approved cost which will be reviewed at the time of truing up on submission of RCE by the petitioner. Therefore the capital cost as on COD considered for the purpose of tariff calculation is ₹82353.95 lakh”

30. The Petitioner has submitted the capital cost for the transmission project as follows:

(₹ in lakh)

| Assets | FR Apportioned approved cost | RCE Apportioned approved cost | Actual cost as on 31.3.2014/ COD | Actual ACE | | | | | Total cost as on 31.3.2019 |
|--------|------------------------------|-------------------------------|----------------------------------|------------|---------|---------|---------|---------|----------------------------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| 1 | 925.09 | 1277.78 | 693.56 | 7.70 | 55.92 | 53.53 | 40.45 | 0.00 | 851.16 |
| 2 | 14263.97 | 18620.14 | 14346.10 | 1399.68 | 1796.45 | 35.71 | 5.00 | 20.65 | 17603.59 |
| 3 | 1783.08 | 1457.52 | 763.06 | 8.26 | 329.70 | 145.32 | 0.00 | 7.14 | 1253.48 |
| 4 | 2766.12 | 2616.66 | 2008.68 | 126.15 | 210.52 | 37.56 | 0.00 | 45.00 | 2427.91 |
| 5 | 1079.74 | 1270.95 | 975.56 | 25.27 | 28.29 | 66.62 | 0.00 | 0.00 | 1095.74 |
| 6 | 2766.12 | 2632.92 | 2006.57 | 109.39 | 5.39 | 39.75 | 205.13 | 45.00 | 2411.23 |
| 7 | 1694.11 | 1854.15 | 1377.46 | 66.98 | 93.68 | 29.39 | 147.59 | | 1715.10 |
| 8 | 1079.74 | 1281.15 | 1012.56 | 5.00 | 28.29 | 69.39 | | | 1115.24 |
| 9 | 2766.12 | 2639.71 | 2015.34 | 106.48 | 215.52 | | | 45.00 | 2382.34 |
| 10 | 2766.12 | 2640.38 | 2015.91 | 316.62 | 5.39 | | | 45.00 | 2382.92 |



| Assets | FR AppORTIONED approved cost | RCE AppORTIONED approved cost | Actual cost as on 31.3.2014/ COD | Actual ACE | | | | | Total cost as on 31.3.2019 |
|--------|------------------------------|-------------------------------|----------------------------------|------------|---------|---------|---------|---------|----------------------------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| 11 | 1396.69 | 1414.92 | 974.07 | 46.89 | 115.46 | 20.00 | 80.61 | 0.00 | 1237.03 |
| 12 | 3279.22 | 3890.76 | 2722.54 | 60.48 | 515.79 | 208.35 | 0.00 | 43.93 | 3551.09 |
| 13 | 1213.47 | 1856.83 | 818.02 | 65.05 | 55.92 | 60.18 | 58.01 | | 1057.18 |
| 14 | 1213.47 | 1867.50 | 842.02 | 49.71 | 55.92 | 60.18 | 58.01 | | 1067.84 |
| 15 | 82353.95 | 105680.21 | 99046.25 | | 0.00 | 2304.31 | 867.71 | 455.62 | 102673.89 |
| 16 | 11690.68 | 23940.90 | 14663.83 | | 931.19 | 718.28 | 4435.04 | 601.84 | 21350.18 |
| 17 | 1061.86 | 1472.05 | 974.50 | | 97.00 | 220.01 | 85.91 | 18.26 | 1395.68 |
| 18 | 1061.86 | 1479.61 | 981.91 | | 55.52 | 226.63 | 117.91 | 31.78 | 1413.75 |
| 19 | 9952.66 | 13465.86 | 11130.83 | | | 1040.95 | 222.70 | 13.18 | 12407.66 |

31. The Commission restricted the estimated completion of Asset-2 (referred as Asset-1 in Petition No. 68/TT/2016) to the FR apportioned cost in the absence of Revised Cost Estimate (RCE).

32. In this regard, the Petitioner has submitted the apportioned cost for Asset-2 (in the instant petition) as per the RCE approval from BoD. The same is mentioned at the above table. The estimated completion cost of Asset-2 is within the RCE apportionment approved cost and the Petitioner has prayed to consider the entire completion cost for the purpose of tariff approval.

33. The Commission vide their order dated 29.12.2016 in Petition No. 118/TT/2014 had restricted the estimated completion of Asset-7 (Asset-12 in the instant petition) to the FR apportioned cost in the absence of RCE and directed the Petitioner to submit the RCE based apportioned cost for Asset-7 (Asset-12 in the instant petition) at the time of truing up.

34. In this regard, the Petitioner has submitted the apportioned cost for Asset-12 (in the instant petition) as per the RCE approval from BoD and the same has been mentioned at the table above. The estimated completion cost of Asset-12 is within the



RCE based apportionment and the Petitioner has prayed to consider the entire completion cost for the purpose of tariff approval.

35. The Commission vide their order dated 31.5.2016 in Petition No. 230/TT/2015 had restricted the estimated completion of Asset-15 to the FR apportioned cost in the absence of RCE and directed to submit the RCE based apportioned cost for Asset-15 at the time of truing up.

36. In this regard, the Petitioner has submitted the apportioned cost for Asset-15 (in the instant petition) as per the RCE approval from BoD and the same has been mentioned at the table above. The estimated completion cost of Asset-15 is within the RCE apportionment cost and the Petitioner has prayed to consider the entire completion cost for the purpose of tariff approval.

37. The Petitioner vide affidavit dated 22.7.2022 has submitted that the cost certificate for the instant Asset-19 has been revised vide Auditor signed certificate dated 6.5.2022 and that there is revision of cost w.r.t. the cost certificate dated 31.07.2019 which was initially submitted alongwith the instant truing up petition.

38. The Petitioner has further submitted that the transmission asset "LILO of one ckt. of 400 kV D/C Teesta-III-Kishanganj line (LIL0-I) at Rangpo" was declared under commercial operation on 26.11.2016 which inadvertently included cost of 04 bays at Rangpo instead of 02 numbers bays associated with this LILO.

39. However, subsequently, it was identified that the above said LILO line has only 02 bays. Hence, the cost of 02 numbers excess bays is separated from this asset leaving behind LILO line and its 02 numbers bays. Further, the said additional 02



numbers bays at Rangpo were commercially declared separately under same project w.e.f. 13.2.2022 (matching with its associated line under project Sikkim-Part-B-1).

40. Due to this change, the corresponding capital cost, IEDC and IDC and FR/ RCE based apportionment has been segregated in two separate assets and allocation of loan is changed accordingly.

41. The Petitioner further submitted that the loan allocation for COD cost was done for Asset-19 i.e. "LILO of one ckt of 400 kV D/C Teesta-III-Kishangunj line (LILLO-I) at Rangpo (including associated 400 kV bays at Rangpo Sub-station)" based on provisional cost during the quarter ending 31.12.2016. One of the major loan allocated to the asset is SBI loan for which interest rate as prevailing on COD was considered for IDC forming part of provisional cost. Subsequently, the Petitioner has submitted that the IDC has been revised considering actual interest rates (floating) on which the loan was serviced as per loan agreement. Furthermore, the interest rate for the said loan had increased to more than 10% p.a. during the 2013-14 and 2014-15 tariff period leading to increase in IDC for the asset during the said period. Accordingly, suitable loan funding was deployed in Asset-19 towards increased cost (on account of revised IDC).

42. The increased IDC has been funded by Bond XLIII to the extent possible as its rate of interest was lowest in that period. Further residual requirement of loan funding was made up through post COD loans which had no IDC implication.



43. As stated above, Asset-19 is not being considered for grant of tariff in the instant petition, therefore, the submissions of the Petitioner with respect to Asset-19 are not considered.

44. As compared to FR cost, the estimated completion cost of Asset-1, Asset-3, Asset-4, Asset-5, Asset-6, Asset-7, Asset-8, Asset-9, Asset-10, Asset-11, Asset-13 and Asset-14 are within FR cost. The estimated completion cost of Asset-16, Asset-17 and Asset-18 are within the RCE cost.

45. As compared to the FR cost, the estimated completion cost of Asset-2, Asset-12 and Asset-15 is varied about ₹3339.62 lakh, ₹71.87 lakh and ₹20319.94 lakh respectively. The Petitioner has submitted the RCE duly approved by the BoD in its 338th meeting held on 10.3.2017, communicated vide Ref. No. C/CP/PA1617-03-0AA-RCE015 dated 30.3.2017 and the RCE of the transmission project is ₹191360 lakh including IDC of ₹18916 lakh based on April, 2016 price level. The Petitioner has re-apportioned the capital cost of Asset-2, Asset-12 and Asset-15 and based on the re-apportioned approved cost, the capital cost of Asset-2, Asset-12 and Asset-15 is within RCE cost and the same has been considered for the computation of their tariff.

Time Over-run

46. As per IA dated 17.3.2011, SCOD of the transmission assets was 1.12.2013. However, the transmission assets under the scope of the transmission project were put into commercial operation as follows:

| Assets | SCOD | Actual COD | Time over-run | Time Over-run condoned |
|---------------|-------------|-------------------|----------------------|-------------------------------|
| Asset-1 | 1.12.2013 | 1.8.2013 | NIL | NIL |
| Asset-2 | | 24.4.2014 | 144 days | 27 days |
| Asset-3 | | 1.12.2014 | 365 days | 248 days |
| Asset-4 | | 22.5.2014 | 172 days | 55 days |



| Assets | SCOD | Actual COD | Time over-run | Time Over-run condoned | |
|---------------|-------------|-------------------|----------------------|-------------------------------|----------|
| Asset-5 | 16.11.2013 | 22.5.2014 | 172 days | 55 days | |
| Asset-6 | | 9.6.2014 | 190 days | 190 days | |
| Asset-7 | | 22.5.2014 | 172 days | 172 days | |
| Asset-8 | | 9.6.2014 | 190 days | 190 days` | |
| Asset-9 | | 30.6.2014 | 211 days | 211 days | |
| Asset-10 | | 3.7.2014 | 214 days | 214 days | |
| Asset-11 | | 13.6.2014 | 194 days | 194 days | |
| Asset-12 | | 31.10.2014 | 334 days | 334 days | |
| Asset-13 | | 2.10.2014 | 319 days | 0 days | |
| Asset-14 | | 29.11.2014 | 377 days | 0 days | |
| Asset-15 | | 1.12.2013 | 28.3.2016 | 848 days | 848 days |
| Asset-16 | | | 22.9.2015 | 536 days | 536 days |
| Asset-17 | 31.1.2016 | | 791 days | 536 days | |
| Asset-18 | 21.3.2016 | | 841 days | 536 days | |

47. There was no time over-run with respect to Asset-1. With respect to the other assets, there were time over-run and the details are given in the table above. The Commission has partially condoned the time over-run for Asset-2, Asset-3, Asset-4 and Asset-5 vide order dated 29.7.2016 in Petition No. 68/TT/2016 and partially condoned time over-run for Asset-17 and Asset-18 vide order dated 14.11.2017 in Petition No. 183/TT/2016. The time over-run in case of the remaining assets except Asset-13 and Asset-14 has been condoned.

48. The Commission vide order dated 29.2.2016 in Petition No. 530/TT/2014 had not condoned the time over-run for Asset-13 and Asset-14 because the Petitioner failed to submit the reasons for delay along with the supporting documentary evidence. However, the Commission in the said order directed the Petitioner to submit the same along with documentary evidences at the time of truing up.

49. The Petitioner has submitted that Asset-13 and Asset-14 are 63 MVAR Line reactors that were supposed to be put under commercial operation at Patna-end with



associated 400 kV D/C (Quad) Patna-Kishanganj line. However, due to delay in completion of this line owing to various factors and due to increasing voltage transients (undesired voltage profile) these 02 numbers 63 MVAR Line reactors were put under commercial operation as Bus Reactors. The matter of worsening voltage profile was taken up 99th OCC (Operational Coordination Committee) of ERPC held on 18.7.2014 wherein ERLDC agreed for this operational option. Further, the matter was deliberated and agreed to in the presence of regional constituents in the 28th ERPC/ TCC held on 12.9.2014 and the same has been recorded in the order dated 29.2.2016 in Petition No. 530/TT/2014. The Petitioner has further submitted that if these 63 MVAR line reactors had not been put under commercial operation as Bus Reactors, the same would have been put into commercial operation with associated 400 kV D/C (Quad) Patna-Kishanganj on 21.3.2016, leading to situation of worsening of voltage profile at Patna Sub-station unattended.

50. The Petitioner has further submitted that it has already submitted the reasons for time over-run in case of 400 kV (Quad) D/C Kishanganj-Patna Transmission Line (Asset-15 in the instant petition) along with documentary evidence in Petition No. 230/TT/2015). Further, the Commission took cognizance of the time over-run reasons and condoned the entire time over-run at Kishanganj GIS vide order dated 31.5.2016 in Petition No. 230/TT/2015.

51. The reasons for time over-run submitted by the Petitioner in Petition No. 230/TT/2015 and as recorded in the order dated 21.5.2016 in Petition No. 230/TT/2015 are as follows:



“Delay due to court cases & obstruction by villagers in transmission line:

18. The landowners at location No. 191/2, 202/0, 200/1 to 201/3 obstructed foundation work at this location and the land owner at location No. 191/2 filed a Writ Petition 12108/2012 in Patna High court on 29.6.2012. The Hon'ble court vide order dated 25.9.2013 direct to put up the matter after decision in other matter under SLA No 14939/2011 filed by the petitioner, in the Supreme Court. The petitioner has submitted that during construction of 400 kV D/C Biharsharif - Sasaram line under DVC Supplementary Transmission System, a person namely Shri Ram Naresh Singh had objected to laying of transmission line in his field and filed Writ Petition no. 6993/2010 in Patna High Court praying for stay order which was awarded by the Court vide Order dated 17.5.2010 against this order the petitioner approached Hon'ble Supreme Court and filed the above said SLP No 14939/11. The Supreme Court vacated the stay and ordered to put up this matter with some other appeal vide order dated 20.10.2011. After the order dated 20.11.2011, local administration was approached to provide police protection for taking up the work of foundation at Location No 191/2. However the concerned magistrate was reluctant to exercise his powers stating that the order dated 25.9.2013 of Patna High Court is not clear whether stay as requested by the petitioner has been granted or not. Since local administration was reluctant to act due to lack of clarity as per the High Court order, the petitioner approached DM Patna for providing necessary direction. DM, Patna preferred to obtain legal opinion on the matter from Secretary (Law) Government of Bihar. The matter was referred by DM Patna to Secretary (Energy) Government of Bihar. Through different channels of Energy Department and BSPHCL, the matter could be referred to Secretary (Law) Government of Bihar whose opinion that there is no legal obstruction in getting the work completed at Location No 191/2 and the same was conveyed on 5.6.2015 after obtaining this order. The petitioner followed up local administration for police protection. The work was executed amidst police protection and stringing could be completed in the section 191/0 to 192/0 in July 2015. The erection work of these location was affected from June 2012 to June 2015 i.e. for 3 years

Pile Foundation in river Ganga

19. The work of pile foundation was badly affected due to poor law and order situation prevailing in the area. Even the commencement of pile foundation work was delayed due to obstructions created by the villagers of Mahendrapur of Begusarai district in February, 2012. After intervention of DM Begusarai, the work could be started after 8 months i.e in October 2012. Again the progress of work of pile foundation was marred due to local law and order issues. Local administration and Police Authorities were approached a number of times to help in sorting out the issues vide letters dated 15.5.2013, 25.5.2013. However at Location number 128F/0 which is mid-stream location of river Ganga, was most severely affected due to stoppage of movement of man and construction material. The approach to the location was through agricultural field for 8-9 km which is a Ganga river basin area in February/ March 2013. Being remote and difficult area, there is very poor law and order situation in this area. The crew of the barge mobilized for foundation work at this location was severely beaten by local criminals and their personal belongings like mobile, money, clothes etc were taken away. The crew members deserted the site due to fear. After a lot of persuasion through the letter dated 27.3.2014 and 30.1.2015, deployment of 10 nos. of armed police force for the round the clock security. The work of tower erection and stringing is to be taken up amidst full blown monsoon with extensive mobilization of 2 nos. of barges and 4 nos. of boats.



20. The petitioner vide affidavit dated 23.5.2015, has submitted the additional delay reasons stating that after erection of four legs, there was sudden rise in water level of Ganga River which forced the work to be stopped from 2.8.2015. All man & materials were shifted from the bank of river to a safe location and only after the reduction in water level of the river, the work was resumed from first week of October 2015, but due to bad law & order situation in the area, the transportation of tower parts was stopped. The District administration was not able to provide police force due to State Assembly Election in Bihar in the month of October 2015 in Begusarai Distt. As a result, the work was suspended till 29.10.2015. Further, the vehicle movement of the petitioner's officials were also affected due to state assembly election during the month of October 2015. The petitioner further submitted a letter written to Principal Secretary, Home Government of Bihar dated 9.10.15 for requesting to provide the police protection to resume the work. After rigorous follow up with administration and signing of the an agreement with District Commandant of Home guard Begusarai on 30.10.2015 for providing security forces for the period from 30.10.15 to 13.12.15, the work could be resumed on 30.10.2015 at Location no.: 128F/0. The tower was erected and stringing of the adjoining sections was completed by 25.12.2015. The petitioner has submitted all the relevant letters, documents in this respect.

Change in the scope of Kishanganj Sub-station:

21. Around 3 years to finalize the location of Kishanganj GIS Sub-station which was discussed in various Standing Committees on Power System Planning of ER & ERPC meetings. The chronological details are as follows:-

- a) The Transmission System for transfer of power from Generation Projects in Sikkim to NR/WR Part-A in Eastern Region was approved in SCM on power System Planning of ER dated 14.9.2009. Subsequently the investment approval was accorded by the Board of Directors for execution of 2x315MVA 400/220/33 kV Kishanganj Substation along with LIL0 lines.
- b) In the SCM on Power System Planning of ER dated 28.12.2010, it was agreed to change the location of the sub-station from Kishanganj, Bihar to Karandighi, West Bengal, as a part of the transmission scheme for evacuation and transfer of power from generation projects in Sikkim. Even after persistent efforts and constant persuasion by the petitioner and local administration of West Bengal Government, the land for sub-station could not be acquired near Karandighi in West Bengal. The matter was taken up by the petitioner at higher level of West Bengal Government. Further the matter was also discussed in various ERPC meetings where the time taken in acquisition of land was discussed and help of state government was sought. However no development on this front was observed. CEA vide, letter dated 13.9.2012, considering fair possibility of getting land in Kishanganj area in Bihar, had agreed in principle for locating the Sub-station as GIS Sub-station at Kishanganj in Bihar. It was subsequently discussed and ratified in the SCM held on 5.1.2013 and also in TCC / ERPC held on 26/27 April, 2013.
- c) After CEA concurrence, vide letter dated 13.9.2012, to locate the new sub-station at Kishanganj in Bihar, suitable land was identified in consultation with DM of Kishanganj and land acquisition process was started by the petitioner for approximately 28 acres near village Kutti and Barmasia in Kishanganj District of Bihar. With expeditious follow up with district administration, the possession of the land was obtained in September 2013."



52. Taking into consideration the submissions of the Petitioner, the Commission condoned the time over-run in case of 400 kV (Quad) D/C Kishanganj-Patna Transmission Line (Asset-15 in the instant petition), the relevant portion of the order dated 21.5.2016 in Petition No. 230/TT/2015 :

22. *“We have considered the submissions of the petitioner. With regards the first issue, in delay due to court cases & obstruction by villagers in transmission line, it is observed that local residents of village Mahadipur, Patna had written letter to EMC Pvt. Ltd. (contractor of PGCIL) for illegal excavation on 27.6.2012 at their land and the petitioner had sent a letter dated 4.8.2012 to the local residents stating the reasons for excavation. However, due to further obstruction by the locals, the petitioner had written letters to SDM, Patna dated 6.6.2013 and 22.8.2013 with name of the persons responsible for obstruction of the work. The petitioner had again submitted the letters dated 10.1.2014 and 21.2.2014 to DM, Patna with regard to obstruction of work with the list of persons responsible for obstruction. The petitioner also requested to Police in charge, Gaurichak, Patna vide letter dated 7.5.2014 to take action on the locals for obstruction of work. The petitioner also submitted letter of SDM, Masaurhi informing that no work could be carried out till disposal of the case filed by one of the land owner at Patna High Court. The petitioner had further, requested the Principal Secretary, Home Department, Government of Bihar vide letter dated 7.1.2015 to take action on land owner as he was demanding to change the route of the line. In response, the Principal Secretary, Home Department, Government of Bihar directed DSP, Patna vide letter dated 7.1.2015 to provide police protection to the petitioner. The work was started only after the letter dated 5.6.2015 from Energy Department, Government of Bihar directing to start work at the specified location. It is evident that the petitioner made all efforts from local authority to the Principal Secretary, Govt. of Bihar in the matter to resolve the issues. However, due to obstruction by the locals, it became difficult to start the work. Hence the delay with regard to ROW issue is condoned.”*

23. *Second issue is rise in the level of river Ganga and local hindrances for pile foundation works. The petitioner has submitted that Simplex Projects Ltd. (Contractor) informed the petitioner about the hindrances at river Ganga by the locals. The petitioner has also submitted letters dated 15.2.2012, 4.4.2012, 9.10.2012, 25.5.2013 and 27.3.2014 to DM, Begusarai with regard to obstruction in construction work near village Mahendrapur. The petitioner had also requested SP, Begusarai vide letters dated 15.5.2013 and 30.1.2015 to provide police protection. The petitioner has further submitted the news paper cutting dated 12.5.2013 in support of his claim of the rise in water level of river Ganga. The petitioner had submitted letter to DM, Begusarai dated 26.10.2015, regarding extension in police protection (round the clock) at construction site. As per the petitioner's submissions, it is evident that due to assembly elections in state, the work was affected and could only start from 30.10.2015. We are of the view that the petitioner made all the necessary efforts, but due to local obstructions, pile foundation work was not started before October, 2015. Hence, reason for pile foundation is not attributable to the petitioner and condoned.”*

24. *With regards to the third issue of change in the scope of kishanganj Substation due to delay in finalization of location of sub-station. We have considered the petitioner's submission. The petitioner had submitted a letter to CEA on 31.8.2012 to change location of Sub-station from Karandighi in West Bengal to Kishanganj (Bihar)*



and Sub-station to be changed to GIS from AIS. CEA permitted in-principle approval for establishment of 400 kV GIS at Kishanganj in Bihar instead of AIS at Karandighi in West Bengal. Further, the petitioner has also submitted a letter written to DM, Kishanganj for land acquisition dated 15.10.2012. The petitioner has further submitted reply of letter from Collector, Kishanganj dated 5.12.2012 with regard to compensation amount to the petitioner, letter from Revenue Department, Government of Bihar dated 24.1.2013, letter dated 12.2.2013 from CEA regarding summary record of discussions of the 1st standing committee meeting on power system planning in Eastern Region held on 5.1.2013 at PGCIL, Gurgaon and letter from Additional Collector, Kishanganj dated 13.7.2013 regarding submission of compensation amount. It is evident from the letter dated 13.7.2013 regarding demand of compensation amount from Additional Collector, Kishanganj for land acquisition that issue was resolved July, 2013. As per documents placed on record by the petitioner, the issue of change in scope was resolved in July, 2013. We are of the view that change in scope was due to unforeseen reasons and is not attributable to the petitioner.”

25. It is observed that the petitioner has made all efforts to resolve the issues and after all the issues were resolved, the work could only start from 30.10.2015 due to ROW problem. It is noted that all the issues discussed above, were beyond the control of the petitioner and the petitioner made all the necessary efforts to resolve them, however the same were resolved till 30.10.2015 only. In view of above, we are condoning the delay of 848 days which is not attributable to the petitioner.”

53. BSPHCL has submitted that Asset-13 and Asset-14 being 63 MVAR line reactors were supposed to be put under commercial operation at Patna- Kishanganj Line but due to delay in completion of said line these two assets were put into commercial operation as bus reactors at Patna Sub-station . BSPHCL has further submitted that the Commission did not condone the delay in execution of Asset-13 and Asset-14 in its earlier order dated 29.2.2016 in Petition No. 530/TT/2014 and directed the Petitioner to provide documentary evidence for reasons of delay at the time of truing up. However, in the present petition, the Petitioner has not assigned or given any reason whatsoever for the inordinate/ extraordinary delay in execution of Asset-13 and Asset-14 and even no documentary evidence has been brought on record. BSPHCL has submitted that the Petitioner, in the instant petition has stated that since Asset-13 and Asset-14 were envisaged to be executed alongwith associated 400 kV D/C (quad) Patna- Kishanganj Line and, hence, delay in completion



of this line was the reason for delay in execution of Asset-13 and Asset-14. The Petitioner has further stated in the instant petition that the Commission vide order dated 31.5.2016 in Petition No. 230/TT/2015 has condoned the delay of 848 days in completion of associated Patna- Kishangarj Line for the reasons assigned in said petition and on basis of that it has been prayed in the instant petition to condone the delay of 320 days and 378 days in execution of Asset-13 and Asset-14, respectively. The reasons which were assigned in Petition No. 230/TT/2015 by the Petitioner have been referred to in the instant petition and no separate and specific reason has been given for condoning the delay in the instant petition. BSPHCL has submitted that the averments made for condoning the said delay are an eye-wash, wrong, incorrect and baseless and can't be taken into consideration at all. BSPHCL has further submitted that the completion of the associated Patna- Kishangarj line was delayed by 848 days and was declared under commercial operation w.e.f 28.3.2016 (as per Para 8 of order dated 31.5.2016 in Petition No. 230/TT/2015) and if that be the case then how come Asset-13 and Asset-14 was put into commercial operation much earlier on 2.10.2014 and 29.11.2014, respectively, and hence, the Petitioner is not justified in stating on oath that the delay in completion of the associated Patna- Kishangarj Line led to delay in execution of Asset-13 and Asset-14. The Petitioner is bound to explain the delay of 320 days and 378 days by giving detailed explanation but in the present petition no such effort has been made by the Petitioner and hence, the delay in execution of Asset-13 and Asset-14 may not be condoned and the Petitioner's reliance on its averments made in Petition No. 230/TT/2015 in the instant petition is totally unjustified and incorrect and has no relevance whatsoever for seeking condonation of delay in



execution of Asset-13 and Asset-14 in the present petition and hence, may not be considered.

54. In response, the Petitioner has submitted that the detailed justification along with documentary evidence/ Commission's order extract has been provided in the instant petition with respect to time over-run for Asset-13 and Asset-14. The Petitioner has prayed to condone the time over-run in the Asset-13 and Asset-14 on account of being related to unforeseen delay of associated transmission line 400 kV D/C Patna-Kishanganj Line.

55. We have considered the submissions made by the Petitioner and BSPHCL. The Petitioner has submitted the reasons for time over-run alongwith the supporting documentary evidences for Asset-15 (in the instant petition) in Petition No. 230/TT/2015 wherein the Commission had condoned the delay are similar and attributable reasons for time over-run in respect of Asset-13 and Asset-14. The Commission has observed that the reasons for time over-run for Assets-15 are similar to that of the reasons for time over-run in Asset-13 and Asset-14.

56. The Petitioner has executed the 63 MVAR line reactors of Ckt-I and Ckt-II of 400 kV D/C Patna-Kishanganj Line at Patna Sub-station as bus reactor and claimed the COD of Asset-13 and Asset-14 as 2.10.2014 and 29.11.2014, respectively. The project was scheduled to be commissioned within 32 months from the date of IA. Accordingly, the SCOD works out to 16.11.2013. Asset-13 and Asset-14 were put into commercial operation on 2.10.2014 and 29.11.2014, respectively. Therefore, there is time over-run of 320 days and 378 days in case of Asset-13 and Asset-14 into



commercial operation, respectively. The Commission vide order dated 29.2.2016 in

Petition No. 530/TT/2014 has held as follows:

“20. The petitioner has attributed the time over-run in commissioning in case of instant reactors to the delay in finding suitable land for Kishanganj Sub-station. As per Regulations 11 and 12 (i) (a) of the 2014 Tariff Regulations, IDC and IEDC is allowable only for uncontrollable factors and not for controllable factors. Time overrun due to land acquisition issues is a controllable factor and hence IDC and IEDC for the period of time over-run in the instant case are not allowable. However, the petitioner may justify time over-run due to land acquisition at the time of truing-up alongwith documentary evidence. However, we would like to make it clear that the petitioner will not be eligible for any interest for the increase in capital cost due to condonation of time over-run and allowance of IDC and IEDC, as the petitioner has not sufficiently shown that the reasons for time over-run are beyond its control.”

57. The Petitioner has filed Petition No. 230/TT/2015 for determination of transmission tariff for 400 kV D/C (Quad) Kishanganj-Patna Transmission Line along with associated bays at Kishanganj Sub-station wherein the Commission dealt with change in the scope of Kishanganj Sub-station. The relevant extracts of the order dated 31.5.2016 in Petition No. 230/TT/2015 is as follows:

“24. With regards to the third issue of change in the scope of kishanganj Substation due to delay in finalization of location of sub-station. We have considered the petitioner's submission. The petitioner had submitted a letter to CEA on 31.8.2012 to change location of Sub-station from Karandighi in West Bengal to Kishanganj (Bihar) and Sub-station to be changed to GIS from AIS. CEA permitted in-principle approval for establishment of 400 kV GIS at Kishanganj in Bihar instead of AIS at Karandighi in West Bengal. Further, the petitioner has also submitted a letter written to DM, Kishanganj for land acquisition dated 15.10.2012. The petitioner has further submitted reply of letter from Collector, Kishanganj dated 5.12.2012 with regard to compensation amount to the petitioner, letter from Revenue Department, Government of Bihar dated 24.1.2013, letter dated 12.2.2013 from CEA regarding summary record of discussions of the 1st standing committee meeting on power system planning in Eastern Region held on 5.1.2013 at PGCIL, Gurgaon and letter from Additional Collector, Kishanganj dated 13.7.2013 regarding submission of compensation amount. It is evident from the letter dated 13.7.2013 regarding demand of compensation amount from Additional Collector, Kishanganj for land acquisition that issue was resolved July, 2013. As per documents placed on record by the petitioner, the issue of change in scope was resolved in July, 2013. We are of the view that change in scope was due to unforeseen reasons and is not attributable to the petitioner.”

58. The Commission has already condoned the time over-run in case of Asset-15, i.e. 400 kV (Quad) D/C Kishanganj-Patna Transmission Line, vide order dated 31.5.2016 in Petition No. 230/TT/2015, which are similar to Asset-13 and Asset-14.



Accordingly, we condone the time over-run in case of Asset-13 and Asset-14 on account of delay in finding suitable land for Kishanganj Sub-station.

Interest During Construction (IDC)/ Incidental Expenditure During Construction (IEDC)

59. The Petitioner has claimed IDC for the following transmission assets covered in the instant petition and has submitted the statement showing IDC claim, discharge of IDC liability as on COD as follows:

| (₹ in lakh) | | | | | | |
|-------------|----------------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Assets | IDC as per Auditor's Certificate | IDC Discharged upto COD | IDC discharged during 2014-15 | IDC discharged during 2015-16 | IDC discharged during 2016-17 | IDC discharged during 2017-18 |
| Asset-2 | 646.61 | 374.25 | 272.36 | | | |
| Asset-3 | 34.14 | 34.14 | | | | |
| Asset-4 | 89.21 | 62.39 | 26.82 | | | |
| Asset-5 | 41.53 | 30.09 | 11.44 | | | |
| Asset-6 | 105.11 | 65.64 | 39.47 | | | |
| Asset-7 | 68.91 | 38.98 | 29.93 | | | |
| Asset-8 | 49.59 | 30.69 | 18.9 | | | |
| Asset-9 | 110.83 | 51.72 | 59.11 | | | |
| Asset-10 | 111.4 | 64.6 | 46.8 | | | |
| Asset-11 | 51.79 | 31.61 | 20.18 | | | |
| Asset-12 | 187.44 | 144.83 | 4.57 | 38.03 | | |
| Asset-13 | 78.18 | 61.78 | 8.32 | 8.08 | | |
| Asset-14 | 87.18 | 61.78 | 11.96 | 13.45 | | |
| Asset-15 | 14201.76 | 12399.54 | 407.77 | 1394.44 | | |
| Asset-16 | 742.64 | 611.2 | | 131.44 | | |
| Asset-17 | 63.96 | 59.14 | | 4.82 | | |
| Asset-18 | 69.76 | 69.76 | | | | |

60. TUL and TPTL have submitted that in para 27 of the order dated 5.9.2018 in Petition No. 123/TT/2017, the Commission observed that against the capital cost (hard cost) addition of ₹505.26 lakh during the period from 11.3.2016 to 26.11.2016, corresponding IDC addition is ₹1140.88 lakh which is 2.25 times of the hard cost addition and appears to be illogical without proper justification from the Petitioner.



61. TUL and TPTL further submitted that while observing inconsistencies in the values of IDC claimed by the Petitioner, the Commission had directed the Petitioner to clarify the same at the time of truing up. TUL and TPTL submitted that the IDC as claimed by the Petitioner should not be imposed on TUL and TPTL, especially after having found that the claim of the Petitioner itself was devoid of any logic. The Commission may determine the IDC after prudence check as per the Regulations.

62. TUL and TPTL further submitted that according to the documents submitted by the Petitioner, it was observed that the IDC discharged up to 10.3.2016 amounts to ₹1382.19 lakh while the IDC discharged during 1.4.2016 to 26.11.2016 amounts to ₹1089.89 lakh during 1.4.2016 to 26.11.2016. Further, the documents put on record vide affidavits dated 6.8.2021 and 10.8.2021 by the Petitioner do not substantiate such huge amount of IDC disbursement during 1.4.2016 to 26.11.2016. The Petitioner has also not submitted the quarter-wise details of IDC discharged for the given assets. The Petitioner has failed to justify the disbursement of IDC in huge trench even after the completion of the transmission project and has prayed to allow IDC submitted by the Petitioner only after the prudence check of the requisite/necessary documents required for calculating IDC discharged pre/ post 10.3.2016 by the Petitioner.

63. The Petitioner has submitted IDC computation statement which contains name of the loan, drawl date, loan amount, interest rate and interest claimed. Since tariff claimed by the Petitioner for Asset-19 is not being considered in the instant petition, the submissions of TUL and TPTL with regard to IDC are not relevant to work out IDC for other assets. Accordingly, IDC is worked out based on the details given in IDC statement. Further, loan amount as on COD has been mentioned in Form 6 and Form



9C. On scrutiny of these documents, certain discrepancies have been noted such as mismatch in loan amount between IDC statement and Form 6 and Form 9C. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form 9C. The summary of discharge of IDC liability up to COD and thereafter considered for the purpose of tariff determination is as follows.

(₹ in lakh)

| Assets | IDC as per Auditor's Certificate | IDC disallowed due to time over-run not condoned | IDC Allowed |
|----------|----------------------------------|--|-------------|
| Asset-1 | 8.80 | | 8.80 |
| Asset-2 | 646.61 | 87.98 | 558.63 |
| Asset-3 | 34.14 | | 34.14 |
| Asset-4 | 89.21 | 8.04 | 81.17 |
| Asset-5 | 41.53 | 2.55 | 38.98 |
| Asset-6 | 105.11 | | 105.11 |
| Asset-7 | 68.91 | | 68.91 |
| Asset-8 | 49.59 | | 49.59 |
| Asset-9 | 110.83 | | 110.83 |
| Asset-10 | 111.40 | | 111.40 |
| Asset-11 | 51.79 | | 51.79 |
| Asset-12 | 187.44 | | 187.44 |
| Asset-13 | 78.18 | 0.12 | 78.06 |
| Asset-14 | 87.18 | 1.61 | 85.57 |
| Asset-15 | 14201.76 | | 14201.76 |
| Asset-16 | 742.64 | | 742.64 |
| Asset-17 | 63.96 | 13.84 | 50.12 |
| Asset-18 | 69.76 | 19.69 | 50.07 |

64. The discharge details of IDC allowed is as follows:

| Assets | IDC allowed in this order | IDC Discharged upto COD | IDC discharg ed during 2014-15 | IDC discharg ed during 2015-16 | IDC discharged during 2016-17 | IDC discharg ed during 2017-18 |
|----------|---------------------------|-------------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|
| Asset-2 | 558.63 | 374.25 | 184.38 | | | |
| Asset-3 | 34.14 | 34.14 | 0.00 | | | |
| Asset-4 | 81.17 | 55.33 | 25.84 | | | |
| Asset-5 | 38.98 | 30.09 | 8.89 | | | |
| Asset-6 | 105.11 | 65.64 | 39.47 | | | |
| Asset-7 | 68.91 | 38.98 | 29.93 | | | |
| Asset-8 | 49.59 | 30.69 | 18.90 | | | |
| Asset-9 | 110.83 | 51.72 | 59.11 | | | |
| Asset-10 | 111.40 | 64.60 | 46.80 | | | |



| Assets | IDC allowed in this order | IDC Discharged upto COD | IDC discharged during 2014-15 | IDC discharged during 2015-16 | IDC discharged during 2016-17 | IDC discharged during 2017-18 |
|----------|---------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Asset-11 | 51.79 | 31.61 | 20.18 | | | |
| Asset-12 | 187.44 | 144.83 | 4.57 | 38.04 | | |
| Asset-13 | 78.06 | 61.78 | 8.32 | 7.96 | | |
| Asset-14 | 85.57 | 61.78 | 11.96 | 11.83 | | |
| Asset-15 | 14201.76 | 12399.54 | | 407.77 | 1394.45 | |
| Asset-16 | 742.64 | 611.20 | | 131.44 | | |
| Asset-17 | 50.12 | 50.12 | | | | |
| Asset-18 | 50.07 | 50.07 | | | | |

65. We have considered the submissions of the Petitioner. IEDC claimed and considered as on COD and IEDC disallowed for the purpose of tariff determination is as follows:

(₹ in lakh)

| Assets | IEDC as per Auditor's Certificate | IEDC disallowed due to time over-run |
|----------|-----------------------------------|--------------------------------------|
| Asset-2 | 396.13 | 40.87 |
| Asset-3 | 20.73 | 1.79 |
| Asset-4 | 54.58 | 5.50 |
| Asset-5 | 24.92 | 2.51 |
| Asset-6 | 52.75 | |
| Asset-7 | 36.30 | |
| Asset-8 | 25.69 | |
| Asset-9 | 52.91 | |
| Asset-10 | 52.92 | |
| Asset-11 | 25.74 | |
| Asset-12 | 72.21 | |
| Asset-13 | 14.38 | |
| Asset-14 | 16.04 | |
| Asset-15 | 1474.08 | |
| Asset-16 | 396.62 | |
| Asset-17 | 25.88 | 3.71 |
| Asset-18 | 26.63 | 4.44 |



Initial Spares

66. Regulation 8 (iv) of the 2009 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of the original capital cost, subject to the following ceiling norms:

- “(iv) Transmission System
(a) Transmission line: 0.75%
(b) Transmission sub-station: 2.5%
(c) Series Compensation devices and HVDC station: 3.5%”*

67. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of plant and machinery cost up to cut-off date, subject to the following ceiling norms:

- “(d) Transmission System
(i) Transmission line: 1.00%
(ii) Transmission Sub-station (Green Field): 4.00%
(iii) Transmission Sub-station (Brown Field): 6.00%
(iv) Series Compensation devices and HVDC Station: 4.00%
(v) Gas Insulated Sub-station :5.00%
(vi) Communication System: 3.5%”*

68. Initial Spares claimed by the Petitioner are as follows:

(₹ in lakh)

| Assets | Parts | Estimated completion cost | Ceiling limit | Initial Spares claimed | Allowable Initial Spares* |
|----------------------------|--------------------------|---------------------------|---------------|------------------------|---------------------------------|
| | | (A) | (B) | (C) | $D = \frac{[(A-C)*B]}{(100-B)}$ |
| Assets executed in 2009-14 | Sub-station | 905.37 | 2.50 | 21.83 | 22.65 |
| Assets executed in 2014-19 | Transmission Line | 102952.37 | 1.00 | 990.87 | 1029.91 |
| | Sub-station | 46081.50 | 5.00 | 1651.11 | 2353.57 |
| Total | Transmission Line | | | 990.87 | 1029.91 |
| | Sub-station | | | 1672.94 | 2376.23 |

69. We have considered the submissions of the Petitioner. In terms of the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed



as per the ceiling limit on overall project cost. The APTEL vide judgement dated 14.9.2019 in Appeal No. 74 of 2017 held as follows:

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

70. In terms of the above, Initial Spares are to be allowed as percentage of the project cost as a whole when all the transmission assets are combined. The transmission project was completed during 2014-19 tariff period and the overall project cost of the transmission assets is arrived at only in the 2019-24 tariff period. Therefore, Initial Spares are allowed on the basis of the overall project cost in the 2019-24 tariff period when all the transmission assets are combined and the overall project cost is arrived at. Initial Spares allowed for the transmission assets are as follows:

Assets put to commercial operation in 2009-14 tariff period

| Asset | Particulars | Capital cost upto cut-off date | Initial Spares as claimed | Ceiling % as per Regulation | Ceiling amount as per Regulation | Excess spares |
|---------|-------------|--------------------------------|---------------------------|-----------------------------|----------------------------------|---------------|
| Asset-1 | Sub-station | 905.37 | 21.83 | 2.50% | 22.65 | NIL |

Assets put to commercial operation in the 2014-19 tariff period

(₹ in lakh)

| Assets | Elements | Plant and machinery cost (excluding IDC, IE DC, land cost and cost of civil works for the purpose of Initial Spares) | Apportioned Initial Spares claimed | Ceiling limits as per 2014 Tariff Regulations (in %) | Ceiling limit of Initial Spares | Excess Initial Spares claimed | Initial Spares allowed |
|---------|------------------|--|------------------------------------|--|---------------------------------|-------------------------------|------------------------|
| Asset-2 | Tranmission Line | 3201.80 | 18.10 | 1.00 | 32.16 | NIL | 18.1 |
| | Sub-station | 13333.40 | 358.25 | 5.00 | 682.90 | NIL | 358.25 |
| Asset-3 | Tranmission Line | 643.56 | 58.77 | 5.00 | 30.78 | NIL | 4.35 |



| Assets | Elements | Plant and machinery cost (excluding IDC, IEDC, land cost and cost of civil works for the purpose of Initial Spares) | Apportioned Initial Spares claimed | Ceiling limits as per 2014 Tariff Regulations (in %) | Ceiling limit of Initial Spares | Excess Initial Spares claimed | Initial Spares allowed |
|-----------------|-------------------|---|------------------------------------|--|---------------------------------|-------------------------------|------------------------|
| | Sub-station | 547.91 | 4.35 | 1.00 | 5.49 | 27.99 | 30.78 |
| Asset-4 | Sub-station | 2239.12 | 60.85 | 5.00 | 114.65 | NIL | 60.85 |
| Asset-5 | Sub-station | 1029.29 | 33.56 | 5.00 | 52.41 | NIL | 33.56 |
| Asset-6 | Sub-station | 2003.24 | 60.85 | 5.00 | 102.23 | NIL | 60.85 |
| Asset-7 | Sub-station | 1462.30 | 121.24 | 5.00 | 70.58 | 45.12 | 70.58 |
| Asset-8 | Sub-station | 1039.96 | 33.56 | 5.00 | 52.97 | NIL | 33.56 |
| Asset-9 | Sub-station | 2173.60 | 60.85 | 5.00 | 111.20 | NIL | 60.85 |
| Asset-10 | Sub-station | 2173.60 | 60.85 | 5.00 | 111.20 | NIL | 33.56 |
| Asset-11 | Sub-station | 1078.89 | 62.46 | 5.00 | 53.50 | 8.96 | 53.50 |
| Asset-12 | Transmission Line | 1897.22 | 13.49 | 1.00 | 19.03 | NIL | 13.49 |
| | Sub-station | 1350.29 | 57.12 | 5.00 | 68.06 | NIL | 57.12 |
| Asset-13 | Sub-station | 700.73 | 24.86 | 6.00 | 43.14 | NIL | 24.86 |
| Asset-14 | Sub-station | 700.39 | 24.86 | 6.00 | 43.12 | NIL | 24.86 |
| Asset-15 | Transmission Line | 78425.68 | 784 | 1.00 | 784.26 | NIL | 784 |
| | Sub-station | 5494.03 | 219.76 | 5.00 | 277.59 | NIL | 219.76 |
| Asset-16 | Transmission Line | 10839.53 | 97 | 1.00 | 108.51 | NIL | 97 |
| | Sub-station | 7595.29 | 268.5 | 5.00 | 385.62 | NIL | 268.5 |
| Asset-17 | Sub-station | 1305.84 | 39.59 | 5.00 | 66.64 | NIL | 39.59 |
| Asset-18 | Sub-station | 1317.36 | 39.89 | 5.00 | 67.24 | NIL | 39.89 |

71. The details of the capital cost approved as on the COD after adjustment of IDC, IEDC and Initial Spares, if any, are as follows:

(₹ in lakh)

| Assets | Capital cost claimed as on COD/2014 (Auditor's Certificate) (A) | IDC disallowed (B) | Excess Initial Spares disallowed (C) | IEDC disallowed (D) | Undischarged IDC as on COD (E) | Capital cost approved as on COD (F=A-B-C-D-E) |
|--------|---|--------------------|--------------------------------------|---------------------|--------------------------------|---|
| 1 | 693.56 | | | | | 693.56 |
| 2 | 14346.10 | 87.98 | | 40.87 | 184.38 | 14032.87 |
| 3 | 763.06 | | 27.99 | 1.79 | | 733.28 |
| 4 | 2008.68 | 8.04 | | 5.50 | 25.84 | 1969.30 |
| 5 | 975.56 | 2.55 | | 2.51 | 8.89 | 961.61 |
| 6 | 2006.57 | | | | 39.47 | 1967.10 |



| Assets | Capital cost claimed as on COD/2014 (Auditor's Certificate) (A) | IDC disallowed (B) | Excess Initial Spares disallowed (C) | IEDC disallowed (D) | Undischarged IDC as on COD (E) | Capital cost approved as on COD (F=A-B-C-D-E) |
|--------|---|--------------------|--------------------------------------|---------------------|--------------------------------|---|
| 7 | 1377.46 | | 50.66 | | 29.93 | 1296.87 |
| 8 | 1012.56 | | | | 18.90 | 993.66 |
| 9 | 2015.34 | | | | 59.11 | 1956.23 |
| 10 | 2015.91 | | | | 46.80 | 1969.11 |
| 11 | 974.07 | | 8.96 | | 20.18 | 944.93 |
| 12 | 2722.54 | | | | 42.61 | 2679.93 |
| 13 | 818.02 | 0.12 | | | 16.28 | 801.62 |
| 14 | 844.02 | 1.61 | | | 23.79 | 818.62 |
| 15 | 99046.25 | | | | 1802.22 | 97244.03 |
| 16 | 14663.83 | | | | 131.44 | 14532.39 |
| 17 | 974.50 | 13.84 | | 3.71 | 0.00 | 956.95 |
| 18 | 981.91 | 19.69 | | 4.44 | 0.00 | 957.78 |

Additional Capital Expenditure ("ACE")

72. The Commission vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18) had allowed the following ACE for 2014-19 tariff period:

| Assets | Admitted ACE | | | | |
|--------|--------------|---------|---------|---------|---------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| 1 | 7.70 | 52.95 | 116.00 | | |
| 2 | 269.71 | | | | |
| 3 | 8.26 | 490.50 | | | |
| 4 | 150.27 | 130.50 | | | |
| 5 | 35.56 | 12.90 | | | |
| 6 | 148.86 | 163.44 | | | |
| 7 | 96.91 | 160.76 | | | |
| 8 | 23.90 | 5.00 | | | |



| Assets | Admitted ACE | | | | |
|--------|--------------|---------|---------|---------|---------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| 9 | 165.59 | 163.46 | | | |
| 10 | 153.29 | 163.46 | | | |
| 11 | 67.07 | 117.41 | | | |
| 12 | 65.05 | 534.24 | | | |
| 13 | 132.82 | 99.62 | 99.61 | | |
| 14 | 116.22 | 87.17 | 87.15 | | |
| 15 | | | | | |
| 16 | 1200.88 | 5167.94 | | | |
| 17 | 97.00 | 206.89 | | | |
| 18 | 55.52 | 247.51 | | | |
| 19 | | | 327.00 | 200.00 | |

73. The Petitioner has claimed the following ACE based on actual expenditure:

(₹ in lakh)

| Assets | Actual ACE | | | | |
|--------|------------|---------|---------|---------|---------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| 1 | 7.70 | 55.92 | 53.53 | 40.45 | 0.00 |
| 2 | 1399.68 | 1796.45 | 35.71 | 5.00 | 20.65 |
| 3 | 8.26 | 329.70 | 145.32 | | 7.14 |
| 4 | 126.15 | 210.52 | 37.56 | | 45.00 |
| 5 | 25.27 | 28.29 | 66.62 | | |
| 6 | 109.39 | 5.39 | 39.75 | 205.13 | 45.00 |
| 7 | 66.98 | 93.68 | 29.39 | 147.59 | |
| 8 | 5.00 | 28.29 | 69.39 | | |
| 9 | 106.48 | 215.52 | | | 45.00 |
| 10 | 316.62 | 5.39 | | | 45.00 |
| 11 | 46.89 | 115.46 | 20.00 | 80.61 | |
| 12 | 60.48 | 515.79 | 208.35 | | 43.93 |
| 13 | 65.05 | 55.92 | 60.18 | 58.01 | |
| 14 | 49.71 | 55.92 | 60.18 | 58.01 | |
| 15 | | | 2304.31 | 867.71 | 455.62 |
| 16 | | 931.19 | 718.28 | 4435.04 | 601.84 |
| 17 | | 97.00 | 220.01 | 85.91 | 18.26 |
| 18 | | 55.52 | 226.63 | 117.91 | 31.78 |
| | | | | | |

74. The cut-off dates in case of the transmission assets are as follows:



| Assets | Description | COD | Cut-off date |
|---------------|--|------------|---------------------|
| 1 | 400/220 kV, 125 MVAR Bus Reactor along with associated bays at Patna Sub-station | 1.8.2013 | 31.3.2016 |
| 2 | Termination of Gangtok-Rangpo/Chujachen and Melli- Rangpo/Chujachen Line at Rangpo and associated bays at Rangpo Sub-station, LILO of 400 kV D/C Teesta V-Siliguri Line (Ckt-I) at Rangpo and associated bays alongwith 01 Number 400 kV Bus Coupler bay at Rangpo Sub-station, 01 number 3X105 MVA Single Phase 400/220 kV Transformer (1st) and associated bays alongwith 01 Number 1X105 MVA Single Phase, 400/220 kV Spare Transformer at Rangpo Sub-station, and 01 number 100 MVA 220/132 kV Transformer (1st) and associated bays alongwith 01 number 132 kV Bus Coupler Bay and 01 number 132 kV Bus Sectionaliser bay at Rangpo Sub-station | 24.4.2014 | 31.3.2017 |
| 3 | LILO of 132 kV S/C Gangtok-Rangit Line at Rangpo and associated bays at Rangpo Sub-station | 1.12.2014 | 31.3.2017 |
| 4 | 01 number 3X105 MVA Single Phase 400/220 kV Transformer (2 nd) and associated bays at Rangpo Sub-station | 22.5.2014 | 31.3.2017 |
| 5 | 01 number 80 MVAR Bus Reactor (1 st) & associated bays at Rangpo Sub-station | 22.5.2014 | 31.3.2017 |
| 6 | 01 number 3X105 Single phase, 400/220 kV Transformer (3 rd) with associated bays under Rangpo Sub-station | 9.6.2014 | 31.3.2017 |
| 7 | 01 number 100 MVA , 220/132 kV Transformer (2 nd), 01 number 132 kV Bus Coupler bay, & 1 number 132 kV Bus Sectionaliser with associated bays at Rangpo Sub-station | 22.5.2014 | 31.3.2017 |
| 8 | 01 number 80 MVAR Bus Reactor(2 nd) and associated bays at Rangpo | 9.6.2014 | 31.3.2017 |
| 9 | 01 number 3X105 Single phase, 400/220 kV Transformer (4 th) with associated bays under Rangpo S/s | 30.6.2014 | 31.3.2017 |
| 10 | 01 no. 3X105 Single phase, 400/220 kV Transformer (5 th) with associated bays under Rangpo Sub-station | 3.7.2014 | 31.3.2017 |
| 11 | 01 number 100 MVA , 220/132 kV Transformer (3 rd) with associated bays under Rangpo Sub-station | 13.6.2014 | 31.3.2017 |
| 12 | LILO of 400 kV D/C Teesta V-Siliguri line (Ckt-II) at Rangpo and associated bays at Rangpo Sub-station | 31.10.2014 | 31.3.2017 |
| 13 | 63 MVAR Line Reactor of Ckt-I of 400 kV D/C Patna-Kishenganj line at Patna Sub-station as Bus reactor; | 2.10.2014 | 31.3.2017 |
| 14 | 63 MVAR Line Reactor of Ckt-II of 400 kV D/C Patna-Kishenganj line at Patna Sub-station as Bus reactor | 29.11.2014 | 31.3.2017 |



| Assets | Description | COD | Cut-off date |
|---------------|---|------------|---------------------|
| 15 | 400 kV (Quad) D/C Kishanganj-Patna transmission line alongwith associated bays including 2 numbers 80 MVAR Switchable line reactors at Kishanganj (GIS) | 28.3.2016 | 31.3.2019 |
| 16 | 220 kV D/C Rangpo-New Melli Line and associated bays at Rangpo and New Melli alongwith one number 220 kV Bus Coupler Bay each at Rangpo and New Melli | 22.9.2015 | 31.3.2019 |
| 17 | 01 number 31.5 MVAR Bus Reactor (1 st) at New Melli and associated bay | 31.1.2016 | 31.3.2019 |
| 18 | 01 number 31.5 MVAR Bus Reactor (2 nd) at New Melli and associated bay | 21.3.2016 | 31.3.2019 |

75. The Petitioner has submitted that ACE has been claimed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and ACE incurred after the cut-off date has been claimed under Regulation 14(3)(v) of the 2014 Tariff Regulations in respective transmission assets.

76. BSPHCL has submitted that the justification provided by the Petitioner to claim the increased ACE are not justified and sufficient as the Petitioner ought to have known at the time of filing of the original tariff Petition about such expenditure and it should have factored the same and should have accordingly increased the capital cost at that stage itself. BSPHCL has further submitted that at this stage it cannot be permitted to put the financial burden for its lack of foresightedness and proper calculation/ planning upon BSPHCL and other beneficiaries. Even otherwise, the claim as sought is not covered by the provisions of Regulation 14 of the 2014 Tariff Regulations as relied upon. Hence, there is no justification in claiming the approval for ACE incurred during 2014-19 tariff period in the present petition and the same ought not be allowed in the interest of justice.



77. In response, the Petitioner has submitted that the justification for ACE for 2014-19 tariff period has already been provided in the instant petition.

78. In response to technical validation letter, the Petitioner has submitted liability flow statement for the transmission assets vide affidavit dated 6.8.2021. The details of the cut-off dates for the subject assets have been tabulated in the preceding paragraphs of the instant order and have been derived as per the 2014 Tariff Regulations.

79. Further, the Petitioner has submitted that the contention of BSPHCL is misplaced.

80. We have considered the submissions of the Petitioner and BSPHCL. ACE claimed towards balance and retention payments and unexecuted works within the cut-off date has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) and ACE incurred after cut-off date has been allowed under Regulation 14(2)(iv) and 14(3)(v) of the 2014 Tariff Regulations. The Petitioner has further submitted that in case of Asset-2, Asset-17 and Asset-18 the Commission disallowed IDC and IEDC on account of time over-run not condoned and reduced it from the capital cost as on the COD. Subsequently, Liquidated Damages (LD) were recovered from the executing agencies and was reduced from the capital cost as per the accounting procedures. The details of IDC and IEDC disallowed vide previous orders and LD recovered from the executing agencies are as follows:



(₹ in lakh)

| Assets | Order | IDC and IEDC disallowed as on the date of COD | LD recovered | Year of LD recovery |
|----------|--|---|--------------|---------------------|
| Asset-2 | Order dated 29.7.2016 in Petition No. 68/TT/2016 | 107.58 | 13.96 | 2018-19 |
| Asset-17 | Order dated 14.11.2017 in Petition No. 183/TT/2016 | 18.26 | 18.26 | 2018-19 |
| Asset-18 | Order dated 14.11.2017 in Petition No. 183/TT/2016 | 31.78 | 31.78 | 2018-19 |

81. The Petitioner has submitted that the disallowed IDC and IEDC to the extent of LD recovered from the contractors is added back as ACE in the respective years when such recovery is made as mentioned in footnote of the Auditor's Certificate.

82. We have considered the submissions of the Petitioner. The APTEL in its judgement dated 27.4.2011 in Appeal No. 72 of 2010 has laid down the following principles for dealing with the issue of time over-run in execution of projects:

"7.4. The delay in execution of a generating project could occur due to following reasons: i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc. ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project. iii) situation not covered by (i) & (ii) above.

In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract

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between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices.”

83. In terms of the above judgement of the APTEL, when the time over-run is attributable to the project developer (in the instant case, PGCIL), or its contractors, the cost of the time over-run, i.e. IDC and IEDC has to be borne by the project developer and LD, if any, recovered can be retained by the Petitioner. In the instant case, the time over-run in case of Asset-2, Asset-17 and Asset-18 were not condoned. Accordingly, IDC and IEDC for the period of time over-run not condoned are not capitalised and LD recovered by the Petitioner from the contractors pertaining to respective assets can be retained by the Petitioner. Hence, LD allowed to be retained by the Petitioner is as follows:

(₹ in lakh)

| Assets | IDC and IEDC disallowed from capital cost as on COD in the previous order | LD recovered during 2018-19 from contractors | IDC and IEDC disallowed in this order | LD allowed to be retained upto IDC and IEDC disallowed | Excess LD recovered deduct ed from respective years | Adjust ment to be made in claimed ACE | LD recovered and aadjusted in year |
|----------|---|--|---------------------------------------|--|---|---------------------------------------|------------------------------------|
| | A | B | C | D | E=B-D | F=IF B>A, D-A otherwise NIL | |
| Asset-2 | 107.58 | 13.96 | 16.72 | 13.96 | 0.00 | NIL | 2018-19 |
| Asset-17 | 18.26 | 18.26 | 22.25 | 18.26 | 0.00 | NIL | 2018-19 |
| Asset-18 | 31.78 | 31.78 | 29.58 | 31.78 | 0.00 | NIL | 2018-19 |

84. Accordingly, the capital cost allowed for the 2014-19 tariff period is as follows:

(₹ in lakh)

| Assets | FR Apportioned approved cost | RCE Apportioned approved cost | Actual cost as on 31.3.2014/ COD | Actual ACE (including IDC discharge) | | | | | Total cost as on 31.3.2019 |
|--------|------------------------------|-------------------------------|----------------------------------|---------------------------------------|---------|---------|---------|---------|----------------------------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| 1 | 925.09 | 1277.78 | 693.56 | 7.70 | 55.92 | 53.53 | 40.45 | | 851.16 |



| Assets | FR Appportioned approved cost | RCE Appportioned approved cost | Actual cost as on 31.3.2014/ COD | Actual ACE (including IDC discharge) | | | | | Total cost as on 31.3.2019 |
|--------|-------------------------------|--------------------------------|----------------------------------|---------------------------------------|---------|---------|---------|---------|----------------------------|
| | | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| 2 | 14263.97 | 18620.14 | 14032.87 | 1556.56 | 1796.45 | 35.71 | 5.00 | 20.65 | 17447.24 |
| 3 | 1783.08 | 1457.52 | 733.28 | 8.26 | 329.70 | 145.32 | | 7.14 | 1223.70 |
| 4 | 2766.12 | 2616.66 | 1969.30 | 151.99 | 210.52 | 37.56 | | 45.00 | 2414.37 |
| 5 | 1079.74 | 1270.95 | 961.61 | 34.16 | 28.29 | 66.62 | | | 1090.68 |
| 6 | 2766.12 | 2632.92 | 1967.10 | 148.86 | 5.39 | 39.75 | 205.13 | 45.00 | 2411.23 |
| 7 | 1694.11 | 1854.15 | 1296.87 | 96.91 | 93.68 | 29.39 | 147.59 | | 1664.44 |
| 8 | 1079.74 | 1281.15 | 993.66 | 23.90 | 28.29 | 69.39 | | | 1115.24 |
| 9 | 2766.12 | 2639.71 | 1956.23 | 165.59 | 215.52 | | | 45.00 | 2382.34 |
| 10 | 2766.12 | 2640.38 | 1969.11 | 363.42 | 5.39 | | | 45.00 | 2382.92 |
| 11 | 1396.69 | 1414.92 | 944.93 | 67.07 | 115.46 | 20.00 | 80.61 | 0.00 | 1228.07 |
| 12 | 3279.22 | 3890.76 | 2679.93 | 65.05 | 553.83 | 208.35 | | 43.93 | 3551.09 |
| 13 | 1213.47 | 1856.83 | 801.62 | 73.37 | 63.88 | 60.18 | 58.01 | | 1057.06 |
| 14 | 1213.47 | 1867.50 | 818.62 | 61.67 | 67.75 | 60.18 | 58.01 | | 1066.23 |
| 15 | 82353.95 | 105680.21 | 97244.03 | | 407.77 | 3698.76 | 867.71 | 455.62 | 102673.89 |
| 16 | 11690.68 | 23940.90 | 14532.39 | | 1062.63 | 718.28 | 4435.04 | 601.84 | 21350.18 |
| 17 | 1061.86 | 1472.05 | 956.96 | | 97.00 | 220.01 | 85.91 | 18.26 | 1378.14 |
| 18 | 1061.86 | 1479.61 | 957.78 | | 55.52 | 226.63 | 117.91 | 31.78 | 1389.62 |

Debt-Equity ratio

85. Debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 as on COD for transmission assets. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 are as follows:

| Asset-1 | | | | | | |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------------|---------------|
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 208.07 | 70.00 | 110.32 | 70.00 | 318.39 | 70.00 |
| Equity | 485.49 | 30.00 | 47.28 | 30.00 | 532.77 | 30.00 |
| Total | 693.56 | 100.00 | 157.60 | 100.00 | 851.16 | 100.00 |
| Asset-2 | | | | | | |



| Funding | Capital cost as on COD | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
|----------------|------------------------|---------------|----------------|---------------|------------------------------|---------------|
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 9823.01 | 70.00 | 2390.06 | 70.00 | 12213.06 | 70.00 |
| Equity | 4209.86 | 30.00 | 1024.31 | 30.00 | 5234.17 | 30.00 |
| Total | 14032.87 | 100.00 | 3414.37 | 100.00 | 17447.24 | 100.00 |
| Asset-3 | | | | | | |
| Funding | Capital cost as on COD | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 513.29 | 70.00 | 343.29 | 70.00 | 856.59 | 70.00 |
| Equity | 219.98 | 30.00 | 147.13 | 30.00 | 367.11 | 30.00 |
| Total | 733.27 | 100.00 | 490.42 | 100.00 | 1223.70 | 100.00 |
| Asset-4 | | | | | | |
| Funding | Capital cost as on COD | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 1378.51 | 70.00 | 311.55 | 70.00 | 1690.06 | 70.00 |
| Equity | 590.79 | 30.00 | 133.52 | 30.00 | 724.31 | 30.00 |
| Total | 1969.30 | 100.00 | 445.07 | 100.00 | 2414.37 | 100.00 |
| Asset-5 | | | | | | |
| Funding | Capital cost as on COD | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 673.13 | 70.00 | 90.35 | 70.00 | 763.47 | 70.00 |
| Equity | 288.48 | 30.00 | 38.72 | 30.00 | 327.20 | 30.00 |
| Total | 961.61 | 100.00 | 129.07 | 100.00 | 1090.68 | 100.00 |
| Asset-6 | | | | | | |
| Funding | Capital cost as on COD | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 1376.97 | 70.00 | 310.89 | 70.00 | 1687.86 | 70.00 |
| Equity | 590.13 | 30.00 | 133.24 | 30.00 | 723.37 | 30.00 |
| Total | 1967.10 | 100.00 | 444.13 | 100.00 | 2411.23 | 100.00 |
| Asset-7 | | | | | | |
| Funding | Capital cost as on COD | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 907.81 | 70.00 | 257.30 | 70.00 | 1165.11 | 70.00 |
| Equity | 389.06 | 30.00 | 110.27 | 30.00 | 499.33 | 30.00 |
| Total | 1296.87 | 100.00 | 367.57 | 100.00 | 1664.44 | 100.00 |



| Asset-8 | | | | | | |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------------|---------------|
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 695.56 | 70.00 | 85.11 | 70.00 | 780.67 | 70.00 |
| Equity | 298.10 | 30.00 | 36.47 | 30.00 | 334.57 | 30.00 |
| Total | 993.66 | 100.00 | 121.58 | 100.00 | 1115.24 | 100.00 |

| Asset-9 | | | | | | |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------------|---------------|
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 1369.36 | 70.00 | 298.28 | 70.00 | 1667.64 | 70.00 |
| Equity | 586.87 | 30.00 | 127.83 | 30.00 | 714.70 | 30.00 |
| Total | 1956.23 | 100.00 | 426.11 | 100.00 | 2382.34 | 100.00 |

| Asset-10 | | | | | | |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------------|---------------|
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 1378.38 | 70.00 | 289.67 | 70.00 | 1668.04 | 70.00 |
| Equity | 590.73 | 30.00 | 124.14 | 30.00 | 714.88 | 30.00 |
| Total | 1969.11 | 100.00 | 413.81 | 100.00 | 2382.92 | 100.00 |

| Asset-11 | | | | | | |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------------|---------------|
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 661.45 | 70.00 | 198.20 | 70.00 | 859.65 | 70.00 |
| Equity | 283.48 | 30.00 | 84.94 | 30.00 | 368.42 | 30.00 |
| Total | 944.93 | 100.00 | 283.14 | 100.00 | 1228.07 | 100.00 |

| Asset-12 | | | | | | |
|--------------|-----------------------------|---------------|---------------|---------------|------------------------------|---------------|
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 1875.95 | 70.00 | 609.93 | 70.00 | 2485.76 | 70.00 |
| Equity | 803.98 | 30.00 | 261.40 | 30.00 | 1065.33 | 30.00 |
| Total | 2679.93 | 100.00 | 871.32 | 100.00 | 3551.09 | 100.00 |

| Asset-13 | | | | | | |
|----------|--|--|--|--|--|--|
|----------|--|--|--|--|--|--|



| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
|-----------------|-----------------------------|---------------|----------------|---------------|------------------------------|---------------|
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 561.13 | 70.00 | 178.81 | 70.00 | 739.94 | 70.00 |
| Equity | 240.49 | 30.00 | 76.63 | 30.00 | 317.12 | 30.00 |
| Total | 801.62 | 100.00 | 255.44 | 100.00 | 1057.06 | 100.00 |
| Asset-14 | | | | | | |
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 573.03 | 70.00 | 173.33 | 70.00 | 746.36 | 70.00 |
| Equity | 245.59 | 30.00 | 74.28 | 30.00 | 319.87 | 30.00 |
| Total | 818.62 | 100.00 | 247.61 | 100.00 | 1066.23 | 100.00 |
| Asset-15 | | | | | | |
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 68070.82 | 70.00 | 3800.90 | 70.00 | 71871.72 | 70.00 |
| Equity | 29173.21 | 30.00 | 1628.96 | 30.00 | 30802.17 | 30.00 |
| Total | 97244.03 | 100.00 | 5429.86 | 100.00 | 102673.89 | 100.00 |
| Asset-16 | | | | | | |
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 10172.67 | 70.00 | 4772.45 | 70.00 | 14945.13 | 70.00 |
| Equity | 4359.72 | 30.00 | 2045.34 | 30.00 | 6405.05 | 30.00 |
| Total | 14532.39 | 100.00 | 6817.79 | 100.00 | 21350.18 | 100.00 |
| Asset-17 | | | | | | |
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 669.87 | 70.00 | 294.83 | 70.00 | 964.70 | 70.00 |
| Equity | 287.09 | 30.00 | 126.35 | 30.00 | 413.44 | 30.00 |
| Total | 956.96 | 100.00 | 421.18 | 100.00 | 1378.14 | 100.00 |
| Asset-18 | | | | | | |
| Funding | Capital cost as on 1.4.2014 | (in %) | ACE 2014-19 | (in %) | Capital cost as on 31.3.2019 | (in %) |
| | (₹ in lakh) | | (₹ in lakh) | | (₹ in lakh) | |
| Debt | 670.45 | 70.00 | 302.29 | 70.00 | 972.74 | 70.00 |



| | | | | | | |
|--------------|---------------|---------------|---------------|---------------|----------------|---------------|
| Equity | 287.33 | 30.00 | 129.55 | 30.00 | 416.89 | 30.00 |
| Total | 957.78 | 100.00 | 431.84 | 100.00 | 1389.62 | 100.00 |

Depreciation

86. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset- 18). The Petitioner has neither given any justification for claiming higher depreciation than what was allowed in previous orders nor has made any specific prayer for allowing higher depreciation in this petition. Similar issue was dealt vide order dated 9.5.2020 Petition No. 19/TT/2020. The relevant extract of the said order is as follows:

"29. The petitioner was directed as follows:

Submit the working of depreciation considered for IT Equipment & Software. Also clarify the useful life considered by the Petitioner for the same".

30. In response, the Petitioner vide affidavit dated 25.2.2020 submitted as follows:- "....., it is submitted that the depreciation @ 15% on account of IT equipment has been provided under Appendix-II of the Tariff Regulations, 2014. Further, clause 3 of the Regulation 27 of Tariff Regulations 2014 provides NIL salvage value for IT equipment. Similar provisions have been provided in Tariff Regulations, 2019. It is submitted that during the truing up for 2009-14 block in petition 529/TT/2014, capital cost of IT equipment was included in the substation cost inadvertently and therefore depreciation for IT equipment was allowed based on substation cost inadvertently and therefore depreciation for IT equipment upto 31.3.2014 has been considered @ 5.28% of corresponding capital cost in line with earlier approved order. The Petitioner has submitted that during the truing up of the tariff of the 2009-14 period, the capital cost of the IT equipment was considered as part of the sub-station cost inadvertently and to avoid revision of tariff of the 2009-14 block, it requested to consider depreciation of IT Equipment upto 31.3.2014 as 5.28%. The Petitioner has further submitted that the depreciation rate for IT Equipment in the 2014 Tariff Regulations and the 2019 Tariff Regulations is 15% and the salvage value for IT Equipment is NIL."



87. In line with the above decision, depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station equipment up to 31.3.2019 while truing up the capital expenditure for 2014-19 tariff period. During 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD). WAROD at Annexure-I has been worked out after taking into account the depreciation rates of the transmission assets as specified in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 tariff period is as follows:

(₹ in lakh)

| Asset-1 | | | | | | |
|---------|--|--------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 693.56 | 701.26 | 757.18 | 810.71 | 851.16 |
| B | ACE | 7.70 | 55.92 | 53.53 | 40.45 | 0.00 |
| C | Closing Gross Block | 701.26 | 757.18 | 810.71 | 851.16 | 851.16 |
| D | Average Gross Block | 697.41 | 729.22 | 783.95 | 830.94 | 851.16 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 24 | 23 | 22 | 21 | 20 |
| G | Lapsed life at the beginning of the year (Year) | 0 | 1 | 2 | 3 | 4 |
| H | Aggregate Depreciable Value | 627.67 | 656.30 | 705.55 | 747.84 | 766.04 |
| I | Combined Depreciation during the year | 36.82 | 38.50 | 41.39 | 43.87 | 44.94 |
| J | Aggregate Cumulative Depreciation | 59.62 | 98.13 | 139.52 | 183.39 | 228.33 |
| K | Remaining Aggregate Depreciable Value | 568.05 | 558.17 | 566.03 | 564.45 | 537.71 |



(₹ in lakh)

| Asset-2 | | | | | | |
|---------|--|--------------------------------------|---------------|---------------|---------------|---------------|
| | Particulars | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 14032.87 | 15589.43 | 17385.88 | 17421.59 | 17426.59 |
| B | ACE | 1556.56 | 1796.45 | 35.71 | 5.00 | 20.65 |
| C | Closing Gross Block (A+B) | 15589.43 | 17385.88 | 17421.59 | 17426.59 | 17447.24 |
| D | Average Gross Block (A+C)/2 | 14811.15 | 16487.65 | 17403.73 | 17424.09 | 17436.91 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 4.84 | 4.89 | 4.90 | 4.90 | 4.90 |
| F | Balance useful life of the asset (Year) | 27.00 | 27.00 | 26.00 | 25.00 | 24.00 |
| G | Lapsed life at the beginning of the year | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 13330.03 | 14838.89 | 15663.36 | 15681.68 | 15693.22 |
| I | Depreciation during the year | 672.05 | 805.61 | 853.64 | 854.38 | 855.06 |
| J | Aggregate Cumulative Depreciation | 672.05 | 1477.66 | 2331.30 | 3185.68 | 4040.73 |
| K | Remaining Aggregate Depreciable Value | 12657.98 | 13361.23 | 13332.06 | 12496.00 | 11652.49 |

(₹ in lakh)

| Asset-3 | | | | | | |
|---------|--|--------------------------------------|---------|---------|---------|---------|
| | Particulars | 2014-15 (pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 733.28 | 741.54 | 1071.24 | 1216.56 | 1216.56 |
| B | ACE | 8.26 | 329.70 | 145.32 | 0.00 | 7.14 |
| C | Closing Gross Block | 741.54 | 1071.24 | 1216.56 | 1216.56 | 1223.70 |
| D | Average Gross Block | 737.41 | 906.39 | 1143.90 | 1216.56 | 1220.13 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 27.00 | 27.00 | 26.00 | 25.00 | 24.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 663.67 | 815.75 | 1029.51 | 1094.90 | 1098.12 |



| Asset-3 | | | | | | |
|---------|--|--------------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| I | Combined Depreciation during the year | 12.91 | 47.86 | 60.40 | 64.23 | 64.42 |
| J | Aggregate Cumulative Depreciation | 12.91 | 60.76 | 121.16 | 185.40 | 249.82 |
| K | Remaining Aggregate Depreciable Value | 650.76 | 754.99 | 908.35 | 909.51 | 848.30 |

(₹ in lakh)

| Asset-4 | | | | | | |
|---------|--|--------------------------------------|---------------|---------------|---------------|---------------|
| | Particulars | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 1969.30 | 2121.29 | 2331.81 | 2369.37 | 2369.37 |
| B | ACE | 151.99 | 210.52 | 37.56 | 0.00 | 45.00 |
| C | Closing Gross Block | 2121.29 | 2331.81 | 2369.37 | 2369.37 | 2414.37 |
| D | Average Gross Block | 2045.30 | 2226.55 | 2350.59 | 2369.37 | 2391.87 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 1840.77 | 2003.90 | 2115.53 | 2132.43 | 2152.68 |
| I | Combined Depreciation during the year | 92.90 | 117.56 | 124.11 | 125.10 | 126.29 |
| J | Aggregate Cumulative Depreciation | 92.90 | 210.46 | 334.58 | 459.68 | 585.97 |
| K | Remaining Aggregate Depreciable Value | 1747.86 | 1793.43 | 1780.96 | 1672.76 | 1566.72 |

(₹ in lakh)

| Asset-5 | | | | | | |
|---------|---------------------|-----------------------------------|---------|---------|---------|---------|
| | Particulars | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 961.61 | 995.77 | 1024.06 | 1090.68 | 1090.68 |
| B | ACE | 34.16 | 28.29 | 66.62 | 0.00 | 0.00 |
| C | Closing Gross Block | 995.77 | 1024.06 | 1090.68 | 1090.68 | 1090.68 |



| Asset-5 | | | | | | |
|---------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| D | Average Gross Block | 978.69 | 1009.91 | 1057.37 | 1090.68 | 1090.68 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 880.82 | 908.92 | 951.63 | 981.61 | 981.61 |
| I | Combined Depreciation during the year | 44.45 | 53.32 | 55.83 | 57.59 | 57.59 |
| J | Aggregate Cumulative Depreciation | 44.45 | 97.78 | 153.61 | 211.19 | 268.78 |
| K | Remaining Aggregate Depreciable Value | 836.37 | 811.14 | 798.02 | 770.42 | 712.83 |

(₹ in lakh)

| Asset-6 | | | | | | |
|---------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | Particulars | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 1967.10 | 2115.96 | 2121.35 | 2161.10 | 2366.23 |
| B | ACE | 148.86 | 5.39 | 39.75 | 205.13 | 45.00 |
| C | Closing Gross Block | 2115.96 | 2121.35 | 2161.10 | 2366.23 | 2411.23 |
| D | Average Gross Block | 2041.53 | 2118.66 | 2141.23 | 2263.67 | 2388.73 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 1837.38 | 1906.79 | 1927.10 | 2037.30 | 2149.86 |
| I | Combined Depreciation during the year | 87.42 | 111.86 | 113.06 | 119.52 | 126.12 |
| J | Aggregate Cumulative Depreciation | 87.42 | 199.28 | 312.34 | 431.86 | 557.98 |
| K | Remaining Aggregate Depreciable Value | 1749.96 | 1707.51 | 1614.77 | 1605.44 | 1591.87 |

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(₹ in lakh)

| Asset-7 | | | | | | |
|---------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 1296.87 | 1393.78 | 1487.46 | 1516.85 | 1664.44 |
| B | ACE | 96.91 | 93.68 | 29.39 | 147.59 | 0.00 |
| C | Closing Gross Block | 1393.78 | 1487.46 | 1516.85 | 1664.44 | 1664.44 |
| D | Average Gross Block | 1345.33 | 1440.62 | 1502.16 | 1590.65 | 1664.44 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 1210.79 | 1296.56 | 1351.94 | 1431.58 | 1498.00 |
| I | Combined Depreciation during the year | 61.11 | 76.06 | 79.31 | 83.99 | 87.88 |
| J | Aggregate Cumulative Depreciation | 61.11 | 137.17 | 216.49 | 300.47 | 388.36 |
| K | Remaining Aggregate Depreciable Value | 1149.69 | 1159.39 | 1135.45 | 1131.11 | 1109.64 |

(₹ in lakh)

| Asset-8 | | | | | | |
|---------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 993.66 | 1017.56 | 1045.85 | 1115.24 | 1115.24 |
| B | ACE | 23.90 | 28.29 | 69.39 | 0.00 | 0.00 |
| C | Closing Gross Block | 1017.56 | 1045.85 | 1115.24 | 1115.24 | 1115.24 |
| D | Average Gross Block | 1005.61 | 1031.71 | 1080.55 | 1115.24 | 1115.24 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 905.05 | 928.53 | 972.49 | 1003.72 | 1003.72 |
| I | Combined Depreciation during the year | 43.06 | 54.47 | 57.05 | 58.88 | 58.88 |

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| Asset-8 | | | | | | |
|---------|---------------------------------------|-----------------------------------|---------|---------|---------|---------|
| | Particulars | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| J | Aggregate Cumulative Depreciation | 43.06 | 97.53 | 154.59 | 213.47 | 272.35 |
| K | Remaining Aggregate Depreciable Value | 861.99 | 831.00 | 817.90 | 790.25 | 731.36 |

(₹ in lakh)

| Asset-9 | | | | | | |
|---------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | Particulars | 2014-15 (pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 1956.23 | 2121.82 | 2337.34 | 2337.34 | 2337.34 |
| B | ACE | 165.59 | 215.52 | 0.00 | 0.00 | 45.00 |
| C | Closing Gross Block | 2121.82 | 2337.34 | 2337.34 | 2337.34 | 2382.34 |
| D | Average Gross Block | 2039.03 | 2229.58 | 2337.34 | 2337.34 | 2359.84 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 1835.12 | 2006.62 | 2103.61 | 2103.61 | 2123.86 |
| I | Combined Depreciation during the year | 81.11 | 117.72 | 123.41 | 123.41 | 124.60 |
| J | Aggregate Cumulative Depreciation | 81.11 | 198.84 | 322.25 | 445.66 | 570.26 |
| K | Remaining Aggregate Depreciable Value | 1754.01 | 1807.79 | 1781.36 | 1657.95 | 1553.60 |

(₹ in lakh)

| Asset-10 | | | | | | |
|----------|--|-----------------------------------|---------|---------|---------|---------|
| | Particulars | 2014-15 (pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 1969.11 | 2332.53 | 2337.92 | 2337.92 | 2337.92 |
| B | ACE | 363.42 | 5.39 | 0.00 | 0.00 | 45.00 |
| C | Closing Gross Block | 2332.53 | 2337.92 | 2337.92 | 2337.92 | 2382.92 |
| D | Average Gross Block | 2150.82 | 2335.23 | 2337.92 | 2337.92 | 2360.42 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |



| Asset-10 | | | | | | |
|----------|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | Particulars | 2014-15 (pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 1935.74 | 2101.70 | 2104.13 | 2104.13 | 2124.38 |
| I | Combined Depreciation during the year | 84.63 | 123.30 | 123.44 | 123.44 | 124.63 |
| J | Aggregate Cumulative Depreciation | 84.63 | 207.93 | 331.37 | 454.81 | 579.44 |
| K | Remaining Aggregate Depreciable Value | 1851.11 | 1893.77 | 1772.76 | 1649.32 | 1544.94 |

(₹ in lakh)

| Asset-11 | | | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 944.93 | 1012.00 | 1127.46 | 1147.46 | 1228.07 |
| B | ACE | 67.07 | 115.46 | 20.00 | 80.61 | 0.00 |
| C | Closing Gross Block | 1012.00 | 1127.46 | 1147.46 | 1228.07 | 1228.07 |
| D | Average Gross Block | 978.46 | 1069.73 | 1137.46 | 1187.76 | 1228.07 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 880.62 | 962.75 | 1023.71 | 1068.99 | 1105.26 |
| I | Combined Depreciation during the year | 41.33 | 56.48 | 60.06 | 62.71 | 64.84 |
| J | Aggregate Cumulative Depreciation | 41.33 | 97.81 | 157.87 | 220.58 | 285.43 |
| K | Remaining Aggregate Depreciable Value | 839.28 | 864.94 | 865.84 | 848.40 | 819.83 |



(₹ in lakh)

| Asset-12 | | | | | | |
|----------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | Particulars | 2014-15 (pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 2679.93 | 2744.98 | 3298.81 | 3507.16 | 3507.16 |
| B | ACE | 65.05 | 553.83 | 208.35 | 0.00 | 43.93 |
| C | Closing Gross Block | 2744.98 | 3298.81 | 3507.16 | 3507.16 | 3551.09 |
| D | Average Gross Block | 2712.46 | 3021.90 | 3402.99 | 3507.16 | 3529.13 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 30.00 | 30.00 | 29.00 | 28.00 | 27.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 2441.21 | 2719.71 | 3062.69 | 3156.44 | 3176.21 |
| I | Combined Depreciation during the year | 59.64 | 159.56 | 179.68 | 185.18 | 186.34 |
| J | Aggregate Cumulative Depreciation | 59.64 | 219.20 | 398.87 | 584.05 | 770.39 |
| K | Remaining Aggregate Depreciable Value | 2381.57 | 2500.51 | 2663.81 | 2572.39 | 2405.82 |

(₹ in lakh)

| Asset-13 | | | | | | |
|----------|--|-----------------------------------|---------|---------|---------|---------|
| | Particulars | 2014-15 (pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 801.62 | 874.99 | 938.87 | 999.05 | 1057.06 |
| B | ACE | 73.37 | 63.88 | 60.18 | 58.01 | 0.00 |
| C | Closing Gross Block | 874.99 | 938.87 | 999.05 | 1057.06 | 1057.06 |
| D | Average Gross Block | 838.31 | 906.93 | 968.96 | 1028.06 | 1057.06 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.30 | 5.30 | 5.30 | 5.31 | 5.31 |
| F | Balance useful life of the asset (Year) | 24.00 | 24.00 | 23.00 | 22.00 | 21.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 754.47 | 816.24 | 872.07 | 925.25 | 951.36 |



| Asset-13 | | | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| I | Combined Depreciation during the year | 22.02 | 48.03 | 51.40 | 54.60 | 56.14 |
| J | Aggregate Cumulative Depreciation | 22.02 | 70.06 | 121.45 | 176.06 | 232.19 |
| K | Remaining Aggregate Depreciable Value | 732.45 | 746.18 | 750.61 | 749.19 | 719.16 |

(₹ in lakh)

| Asset-14 | | | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | Particulars | 2014-15 (pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 818.62 | 880.29 | 948.04 | 1008.22 | 1066.23 |
| B | ACE | 61.67 | 67.75 | 60.18 | 58.01 | 0.00 |
| C | Closing Gross Block | 880.29 | 948.04 | 1008.22 | 1066.23 | 1066.23 |
| D | Average Gross Block | 849.45 | 914.16 | 978.13 | 1037.22 | 1066.23 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.30 | 5.30 | 5.30 | 5.31 | 5.31 |
| F | Balance useful life of the asset (Year) | 24.00 | 24.00 | 23.00 | 22.00 | 21.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 | 3.00 |
| H | Aggregate Depreciable Value | 764.51 | 822.75 | 880.31 | 933.50 | 959.60 |
| I | Combined Depreciation during the year | 15.16 | 48.42 | 51.88 | 55.09 | 56.62 |
| J | Aggregate Cumulative Depreciation | 15.16 | 63.58 | 115.46 | 170.55 | 227.17 |
| K | Remaining Aggregate Depreciable Value | 749.34 | 759.16 | 764.85 | 762.95 | 732.43 |

(₹ in lakh)

| | Particulars | Asset-15 | | | |
|---|---------------------|---------------------------------|----------|-----------|-----------|
| | | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | |
| A | Opening Gross Block | 97244.03 | 97651.80 | 101350.56 | 102218.27 |
| B | ACE | 407.77 | 3698.76 | 867.71 | 455.62 |



| | Particulars | Asset-15 | | | |
|---|--|------------------------------|----------------|----------------|----------------|
| | | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| C | Closing Gross Block | 97651.80 | 101350.56 | 102218.27 | 102673.89 |
| D | Average Gross Block | 97447.92 | 99501.18 | 101784.42 | 102446.08 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 35.00 | 35.00 | 34.00 | 33.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 |
| H | Aggregate Depreciable Value | 87703.12 | 89551.06 | 91605.97 | 92201.47 |
| I | Combined Depreciation during the year | 56.24 | 5254.39 | 5375.04 | 5409.97 |
| J | Aggregate Cumulative Depreciation | 56.24 | 5310.63 | 10685.67 | 16095.64 |
| K | Remaining Aggregate Depreciable Value | 87646.88 | 84240.43 | 80920.30 | 76105.83 |

(₹ in lakh)

| | Particulars | Asset-16 | | | |
|---|--|--------------------------------|---------------|---------------|----------------|
| | | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | |
| A | Opening Gross Block | 14532.39 | 15595.02 | 16313.30 | 20748.34 |
| B | ACE | 1062.63 | 718.28 | 4435.04 | 601.84 |
| C | Closing Gross Block | 15595.02 | 16313.30 | 20748.34 | 21350.18 |
| D | Average Gross Block | 15063.71 | 15954.16 | 18530.82 | 21049.26 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.08 | 5.08 | 5.10 | 5.12 |
| F | Balance useful life of the asset (Year) | 31.62 | 31.62 | 30.62 | 29.62 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 |
| H | Aggregate Depreciable Value | 13557.33 | 14358.74 | 16677.74 | 18944.33 |
| I | Combined Depreciation during the year | 401.67 | 810.28 | 945.14 | 1077.11 |
| J | Aggregate Cumulative Depreciation | 401.67 | 1211.94 | 2157.08 | 3234.19 |
| K | Remaining Aggregate Depreciable Value | 13155.67 | 13146.80 | 14520.66 | 15710.14 |



(₹ in lakh)

| | Particulars | Asset-17 | | | |
|---|--|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | |
| A | Opening Gross Block | 956.96 | 1053.96 | 1273.97 | 1359.88 |
| B | ACE | 97.00 | 220.01 | 85.91 | 18.26 |
| C | Closing Gross Block | 1053.96 | 1273.97 | 1359.88 | 1378.14 |
| D | Average Gross Block | 1005.46 | 1163.96 | 1316.92 | 1369.01 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 |
| H | Aggregate Depreciable Value | 904.91 | 1047.57 | 1185.23 | 1232.11 |
| I | Combined Depreciation during the year | 8.85 | 61.46 | 69.53 | 72.28 |
| J | Aggregate Cumulative Depreciation | 8.85 | 70.31 | 139.84 | 212.12 |
| K | Remaining Aggregate Depreciable Value | 896.06 | 977.26 | 1045.39 | 1019.98 |

(₹ in lakh)

| | Particulars | Asset-18 | | | |
|---|--|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| | Depreciation | | | | |
| A | Opening Gross Block | 957.78 | 1013.30 | 1239.93 | 1357.84 |
| B | ACE | 55.52 | 226.63 | 117.91 | 31.78 |
| C | Closing Gross Block | 1013.30 | 1239.93 | 1357.84 | 1389.62 |
| D | Average Gross Block | 985.54 | 1126.62 | 1298.89 | 1373.73 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.28 | 5.28 | 5.28 | 5.28 |
| F | Balance useful life of the asset (Year) | 25.00 | 25.00 | 24.00 | 23.00 |
| G | Lapsed life at the beginning of the year (Year) | 0.00 | 0.00 | 1.00 | 2.00 |
| H | Aggregate Depreciable Value | 886.99 | 1013.96 | 1169.00 | 1236.36 |
| I | Combined Depreciation during the year | 1.56 | 59.49 | 68.58 | 72.53 |
| J | Aggregate Cumulative Depreciation | 1.56 | 61.05 | 129.63 | 202.16 |
| K | Remaining Aggregate Depreciable Value | 885.42 | 952.91 | 1039.37 | 1034.20 |



88. The details of depreciation approved vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18), claimed by the Petitioner in the instant petition and true-up depreciation in the instant order are as follows:

| (₹ in lakh) | | | | | |
|---|---------|---------|---------|---------|---------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Asset-1 | | | | | |
| Allowed <i>vide</i> order dated 10.7.2017 in Petition No. 165/TT/2016 | 36.82 | 38.42 | 42.88 | 45.95 | 45.95 |
| Claimed by the Petitioner in the instant petition | 39.12 | 40.80 | 43.69 | 46.17 | 47.24 |
| Approved after true-up in this order | 36.82 | 38.50 | 41.39 | 43.87 | 44.94 |
| Asset-2 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 571.52 | 617.04 | 617.04 | 617.04 | 617.04 |
| Claimed by the Petitioner in the instant petition | 676.39 | 821.01 | 875.18 | 875.91 | 876.60 |
| Approved after true-up in this order | 672.05 | 805.61 | 853.64 | 854.38 | 855.06 |
| Asset-3 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 12.97 | 52.28 | 65.23 | 65.23 | 65.23 |
| Claimed by the Petitioner in the instant petition | 13.34 | 49.65 | 63.71 | 68.60 | 68.79 |
| Approved after true-up in this order | 12.91 | 47.86 | 60.40 | 64.23 | 64.42 |
| Asset-4 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 92.90 | 115.40 | 118.84 | 118.84 | 118.84 |
| Claimed by the Petitioner in the instant petition | 93.04 | 118.97 | 126.98 | 127.97 | 129.16 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|-----------------|----------------|----------------|----------------|----------------|
| Approved after true-up in this order | 92.90 | 117.56 | 124.11 | 125.10 | 126.29 |
| | Asset-5 | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 44.35 | 52.83 | 53.17 | 53.17 | 53.17 |
| Claimed by the Petitioner in the instant petition | 44.42 | 53.24 | 56.48 | 58.96 | 58.96 |
| Approved after true-up in this order | 44.45 | 53.32 | 55.83 | 57.59 | 57.59 |
| | Asset-6 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 87.37 | 115.98 | 120.29 | 120.29 | 120.29 |
| Claimed by the Petitioner in the instant petition | 87.41 | 111.87 | 113.06 | 120.98 | 129.04 |
| Approved after true-up in this order | 87.42 | 111.86 | 113.06 | 119.52 | 126.12 |
| | Asset-7 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 61.17 | 77.91 | 82.15 | 82.15 | 82.15 |
| Claimed by the Petitioner in the instant petition | 63.41 | 80.45 | 85.41 | 91.42 | 96.65 |
| Approved after true-up in this order | 61.11 | 76.06 | 79.31 | 83.99 | 87.88 |
| | Asset-8 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 43.03 | 53.82 | 53.96 | 53.96 | 53.96 |
| Claimed by the Petitioner in the instant petition | 43.06 | 54.47 | 57.79 | 60.34 | 60.34 |
| Approved after true-up in this order | 43.06 | 54.47 | 57.05 | 58.88 | 58.88 |
| | Asset-9 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 81.11 | 116.35 | 120.66 | 120.66 | 120.66 |
| Claimed by the Petitioner in the instant petition | 81.11 | 119.18 | 126.33 | 126.33 | 127.52 |
| Approved after true-up in this order | 81.11 | 117.72 | 123.41 | 123.41 | 124.60 |
| | Asset-10 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 80.45 | 116.33 | 120.64 | 120.64 | 120.64 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|-----------------|----------------|----------------|----------------|----------------|
| Claimed by the Petitioner in the instant petition | 85.72 | 126.22 | 126.36 | 126.26 | 127.55 |
| Approved after true-up in this order | 84.63 | 123.30 | 123.44 | 123.44 | 124.63 |
| | Asset-11 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 41.27 | 56.44 | 59.54 | 59.54 | 59.54 |
| Claimed by the Petitioner in the instant petition | 41.71 | 58.48 | 63.58 | 66.23 | 68.36 |
| Approved after true-up in this order | 41.33 | 56.48 | 60.06 | 62.71 | 64.84 |
| | Asset-12 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 59.64 | 159.04 | 173.14 | 173.14 | 173.14 |
| Claimed by the Petitioner in the instant petition | 59.64 | 162.56 | 185.70 | 191.20 | 192.36 |
| Approved after true-up in this order | 59.64 | 159.56 | 179.68 | 185.18 | 186.34 |
| | Asset-13 | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 22.02 | 50.58 | 55.89 | 58.54 | 58.54 |
| Claimed by the Petitioner in the instant petition | 23.15 | 50.32 | 53.70 | 56.91 | 58.45 |
| Approved after true-up in this order | 22.02 | 48.03 | 51.40 | 54.60 | 56.14 |
| | Asset-14 | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 15.61 | 51.73 | 56.36 | 58.68 | 58.68 |
| Claimed by the Petitioner in the instant petition | 15.92 | 50.74 | 54.27 | 57.48 | 59.01 |
| Approved after true-up in this order | 15.16 | 48.42 | 51.88 | 55.09 | 56.62 |
| | Asset-15 | | | | |
| Allowed <i>vide</i> order dated 31.5.2016 in Petition No. 230/TT/2015 | | 47.53 | 4348.83 | 4348.83 | 4348.83 |
| Claimed by the Petitioner in the instant petition | | 56.26 | 5257.02 | 5377.68 | 5412.61 |
| Approved after true-up in this order | | 56.24 | 5254.39 | 5375.04 | 5409.97 |
| | Asset-16 | | | | |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|---------|---------|---------|---------|---------|
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 375.97 | 875.96 | 1005.57 | 1005.57 |
| Claimed by the Petitioner in the instant petition | | 401.66 | 812.52 | 952.43 | 1087.59 |
| Approved after true-up in this order | | 401.67 | 810.28 | 945.14 | 1077.11 |
| Asset-17 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition no. 183/TT/2016 | | 8.81 | 60.86 | 66.32 | 66.32 |
| Claimed by the Petitioner in the instant petition | | 8.84 | 62.32 | 71.30 | 74.05 |
| Approved after true-up in this order | | 8.85 | 61.46 | 69.53 | 72.28 |
| Asset-18 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 1.55 | 59.42 | 65.96 | 65.96 |
| Claimed by the Petitioner in the instant petition | | 1.55 | 59.98 | 69.98 | 73.93 |
| Approved after true-up in this order | | 1.56 | 59.49 | 68.58 | 72.53 |

Interest on Loan (“IoL”)

89. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest.

90. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The true-up IoL approved is as follows:

| | | (₹ in lakh) | | | | |
|---|--|-------------|---------|---------|---------|---------|
| | Particulars | Asset-1 | | | | |
| | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 485.49 | 490.88 | 530.03 | 567.50 | 595.81 |
| B | Cumulative Repayments upto Previous Year | 22.80 | 59.62 | 98.13 | 139.52 | 183.39 |



| | Particulars | Asset-1 | | | | |
|----------|--|--------------|--------------|--------------|--------------|--------------|
| | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| C | Net Loan-Opening (A-B) | 462.69 | 431.26 | 431.90 | 427.98 | 412.42 |
| D | Additions | 5.39 | 39.14 | 37.47 | 28.32 | 0.00 |
| E | Repayment during the year | 36.82 | 38.50 | 41.39 | 43.87 | 44.94 |
| F | Net Loan-Closing (C+D-E) | 431.26 | 431.90 | 427.98 | 412.42 | 367.48 |
| G | Average Loan (C+F)/2 | 446.98 | 431.58 | 429.94 | 420.20 | 389.95 |
| H | Weighted Average Rate of Interest on Loan (in %) | 4.6266 | 4.7959 | 5.0383 | 5.1899 | 5.2213 |
| H | Interest on Loan (G*H) | 20.68 | 20.70 | 21.66 | 21.81 | 20.36 |

(₹ in lakh)

| | Particulars | Asset-2 | | | | |
|----------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 9823.01 | 10912.60 | 12170.11 | 12195.11 | 12198.61 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 672.05 | 1477.66 | 2331.30 | 3185.68 |
| C | Net Loan-Opening (A-B) | 9823.01 | 10240.55 | 10692.45 | 9863.81 | 9012.93 |
| D | Additions | 1089.59 | 1257.52 | 25.00 | 3.50 | 14.46 |
| E | Repayment during the year | 672.05 | 805.61 | 853.64 | 854.38 | 855.06 |
| F | Net Loan-Closing (C+D-E) | 10240.55 | 10692.45 | 9863.81 | 9012.93 | 8172.33 |
| G | Average Loan (C+F)/2 | 10031.78 | 10466.50 | 10278.13 | 9438.37 | 8592.63 |
| H | Weighted Average Rate of Interest on Loan (in %) | 5.8782 | 6.2663 | 6.6627 | 6.8630 | 7.2326 |
| H | Interest on Loan (G*H) | 552.53 | 655.87 | 684.80 | 647.76 | 621.47 |

(₹ in lakh)

| | Particulars | Asset-3 | | | | |
|---|--|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (Pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 513.29 | 519.08 | 749.87 | 851.59 | 851.59 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 12.91 | 60.76 | 121.16 | 185.40 |
| C | Net Loan-Opening (A-B) | 513.29 | 506.17 | 689.10 | 730.43 | 666.19 |
| D | Additions | 5.78 | 230.79 | 101.72 | 0.00 | 5.00 |



| | Particulars | Asset-3 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| E | Repayment during the year | 12.91 | 47.86 | 60.40 | 64.23 | 64.42 |
| F | Net Loan-Closing (C+D-E) | 506.17 | 689.10 | 730.43 | 666.19 | 606.77 |
| G | Average Loan (C+F)/2 | 509.73 | 597.64 | 709.77 | 698.31 | 636.48 |
| H | Weighted Average Rate of Interest on Loan (in %) | 4.6293 | 5.4339 | 6.3568 | 6.6902 | 7.1292 |
| H | Interest on Loan (G*H) | 7.82 | 32.48 | 45.12 | 46.72 | 45.38 |

(₹ in lakh)

| | Particulars | Asset-4 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 1378.51 | 1484.90 | 1632.27 | 1658.56 | 1658.56 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 92.90 | 210.46 | 334.58 | 459.68 |
| C | Net Loan-Opening (A-B) | 1378.51 | 1392.00 | 1421.80 | 1323.98 | 1198.88 |
| D | Additions | 106.39 | 147.36 | 26.29 | 0.00 | 31.50 |
| E | Repayment during the year | 92.90 | 117.56 | 124.11 | 125.10 | 126.29 |
| F | Net Loan-Closing (C+D-E) | 1392.00 | 1421.80 | 1323.98 | 1198.88 | 1104.09 |
| G | Average Loan (C+F)/2 | 1385.26 | 1406.90 | 1372.89 | 1261.43 | 1151.49 |
| H | Weighted Average Rate of Interest on Loan (in %) | 5.7693 | 6.1083 | 6.5362 | 6.7643 | 7.1545 |
| H | Interest on Loan (G*H) | 68.75 | 85.94 | 89.73 | 85.33 | 82.38 |

(₹ in lakh)

| | Particulars | Asset-5 | | | | |
|---|--|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 673.13 | 697.04 | 716.84 | 763.47 | 763.47 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 44.45 | 97.78 | 153.61 | 211.19 |
| C | Net Loan-Opening (A-B) | 673.13 | 652.58 | 619.06 | 609.87 | 552.28 |
| D | Additions | 23.91 | 19.80 | 46.63 | 0.00 | 0.00 |
| E | Repayment during the year | 44.45 | 53.32 | 55.83 | 57.59 | 57.59 |



| | Particulars | Asset-5 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| F | Net Loan-Closing (C+D-E) | 652.58 | 619.06 | 609.87 | 552.28 | 494.69 |
| G | Average Loan (C+F)/2 | 662.86 | 635.82 | 614.47 | 581.07 | 523.49 |
| H | Weighted Average Rate of Interest on Loan (in %) | 5.5679 | 5.7990 | 6.2917 | 6.5886 | 6.9340 |
| H | Interest on Loan (G*H) | 31.75 | 36.87 | 38.66 | 38.28 | 36.30 |

(₹ in lakh)

| | Particulars | Asset-6 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 1376.97 | 1481.17 | 1484.95 | 1512.77 | 1656.36 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 87.42 | 199.28 | 312.34 | 431.86 |
| C | Net Loan-Opening (A-B) | 1376.97 | 1393.76 | 1285.66 | 1200.43 | 1224.50 |
| D | Additions | 104.20 | 3.77 | 27.83 | 143.59 | 31.50 |
| E | Repayment during the year | 87.42 | 111.86 | 113.06 | 119.52 | 126.12 |
| F | Net Loan-Closing (C+D-E) | 1393.76 | 1285.66 | 1200.43 | 1224.50 | 1129.88 |
| G | Average Loan (C+F)/2 | 1385.36 | 1339.71 | 1243.05 | 1212.47 | 1177.19 |
| H | Weighted Average Rate of Interest on Loan (in %) | 5.7750 | 6.0058 | 6.3514 | 6.6137 | 7.0323 |
| H | Interest on Loan (G*H) | 64.88 | 80.46 | 78.95 | 80.19 | 82.78 |

(₹ in lakh)

| | Particulars | Asset-7 | | | | |
|---|--|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 907.81 | 975.65 | 1041.22 | 1061.80 | 1165.11 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 61.11 | 137.17 | 216.49 | 300.47 |
| C | Net Loan-Opening (A-B) | 907.81 | 914.54 | 904.05 | 845.31 | 864.64 |
| D | Additions | 67.84 | 65.58 | 20.57 | 103.31 | 0.00 |
| E | Repayment during the year | 61.11 | 76.06 | 79.31 | 83.99 | 87.88 |
| F | Net Loan-Closing (C+D-E) | 914.54 | 904.05 | 845.31 | 864.64 | 776.75 |
| G | Average Loan (C+F)/2 | 911.17 | 909.29 | 874.68 | 854.97 | 820.70 |

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| | Particulars | Asset-7 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| H | Weighted Average Rate of Interest on Loan (in %) | 6.5121 | 6.6973 | 6.9119 | 7.0475 | 7.2365 |
| H | Interest on Loan (G*H) | 51.05 | 60.90 | 60.46 | 60.25 | 59.39 |

(₹ in lakh)

| | Particulars | Asset-8 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 695.56 | 712.29 | 732.10 | 780.67 | 780.67 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 43.06 | 97.53 | 154.59 | 213.47 |
| C | Net Loan-Opening (A-B) | 695.56 | 669.23 | 634.56 | 626.08 | 567.20 |
| D | Additions | 16.73 | 19.80 | 48.57 | 0.00 | 0.00 |
| E | Repayment during the year | 43.06 | 54.47 | 57.05 | 58.88 | 58.88 |
| F | Net Loan-Closing (C+D-E) | 669.23 | 634.56 | 626.08 | 567.20 | 508.31 |
| G | Average Loan (C+F)/2 | 682.40 | 651.90 | 630.32 | 596.64 | 537.76 |
| H | Weighted Average Rate of Interest on Loan (in %) | 5.7426 | 5.8717 | 6.1650 | 6.3505 | 6.6292 |
| H | Interest on Loan (G*H) | 31.78 | 38.28 | 38.86 | 37.89 | 35.65 |

(₹ in lakh)

| | Particulars | Asset-9 | | | | |
|---|--|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 1369.36 | 1485.27 | 1636.14 | 1636.14 | 1636.14 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 81.11 | 198.84 | 322.25 | 445.66 |
| C | Net Loan-Opening (A-B) | 1369.36 | 1404.16 | 1437.30 | 1313.89 | 1190.48 |
| D | Additions | 115.91 | 150.86 | 0.00 | 0.00 | 31.50 |
| E | Repayment during the year | 81.11 | 117.72 | 123.41 | 123.41 | 124.60 |
| F | Net Loan-Closing (C+D-E) | 1404.16 | 1437.30 | 1313.89 | 1190.48 | 1097.38 |
| G | Average Loan (C+F)/2 | 1386.76 | 1420.73 | 1375.60 | 1252.18 | 1143.93 |
| H | Weighted Average Rate of Interest on Loan (in %) | 7.0905 | 7.2059 | 7.3175 | 7.4013 | 7.5244 |



| | Particulars | Asset-9 | | | | |
|----------|-------------------------------|-----------------------------------|---------------|---------------|--------------|--------------|
| | | 2014-15 (pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| H | Interest on Loan (G*H) | 74.08 | 102.38 | 100.66 | 92.68 | 86.07 |

(₹ in lakh)

| | Particulars | Asset-10 | | | | |
|----------|--|-----------------------------------|---------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 1378.38 | 1632.77 | 1636.54 | 1636.54 | 1636.54 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 84.63 | 207.93 | 331.37 | 454.81 |
| C | Net Loan-Opening (A-B) | 1378.38 | 1548.14 | 1428.62 | 1305.17 | 1181.73 |
| D | Additions | 254.39 | 3.77 | 0.00 | 0.00 | 31.50 |
| E | Repayment during the year | 84.63 | 123.30 | 123.44 | 123.44 | 124.63 |
| F | Net Loan-Closing (C+D-E) | 1548.14 | 1428.62 | 1305.17 | 1181.73 | 1088.60 |
| G | Average Loan (C+F)/2 | 1463.26 | 1488.38 | 1366.90 | 1243.45 | 1135.17 |
| H | Weighted Average Rate of Interest on Loan (in %) | 6.9224 | 7.0994 | 7.2076 | 7.2781 | 7.4168 |
| H | Interest on Loan (G*H) | 75.48 | 105.67 | 98.52 | 90.50 | 84.19 |

(₹ in lakh)

| | Particulars | Asset-11 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 661.45 | 708.40 | 789.22 | 803.22 | 859.65 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 41.33 | 97.81 | 157.87 | 220.58 |
| C | Net Loan-Opening (A-B) | 661.45 | 667.07 | 691.41 | 645.35 | 639.06 |
| D | Additions | 46.95 | 80.82 | 14.00 | 56.43 | 0.00 |
| E | Repayment during the year | 41.33 | 56.48 | 60.06 | 62.71 | 64.84 |
| F | Net Loan-Closing (C+D-E) | 667.07 | 691.41 | 645.35 | 639.06 | 574.22 |
| G | Average Loan (C+F)/2 | 664.26 | 679.24 | 668.38 | 642.21 | 606.64 |
| H | Weighted Average Rate of Interest on Loan (in %) | 5.6688 | 5.9667 | 6.3047 | 6.4875 | 6.7884 |
| H | Interest on Loan (G*H) | 30.12 | 40.53 | 42.14 | 41.66 | 41.18 |



(₹ in lakh)

| | Particulars | Asset-12 | | | | |
|----------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 1875.95 | 1921.49 | 2309.17 | 2455.01 | 2455.01 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 59.64 | 219.20 | 398.87 | 584.05 |
| C | Net Loan-Opening (A-B) | 1875.95 | 1861.84 | 2089.97 | 2056.14 | 1870.96 |
| D | Additions | 45.54 | 387.68 | 145.85 | 0.00 | 30.75 |
| E | Repayment during the year | 59.64 | 159.56 | 179.68 | 185.18 | 186.34 |
| F | Net Loan-Closing (C+D-E) | 1861.84 | 2089.97 | 2056.14 | 1870.96 | 1715.37 |
| G | Average Loan (C+F)/2 | 1868.90 | 1975.91 | 2073.05 | 1963.55 | 1793.17 |
| H | Weighted Average Rate of Interest on Loan (in %) | 7.2335 | 7.3843 | 7.5545 | 7.6208 | 7.7202 |
| H | Interest on Loan (G*H) | 56.30 | 145.91 | 156.61 | 149.64 | 138.44 |

(₹ in lakh)

| | Particulars | Asset-13 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 561.13 | 612.49 | 657.21 | 699.34 | 739.94 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 22.02 | 70.06 | 121.45 | 176.06 |
| C | Net Loan-Opening (A-B) | 561.13 | 590.47 | 587.15 | 577.88 | 563.89 |
| D | Additions | 51.36 | 44.72 | 42.13 | 40.61 | 0.00 |
| E | Repayment during the year | 22.02 | 48.03 | 51.40 | 54.60 | 56.14 |
| F | Net Loan-Closing (C+D-E) | 590.47 | 587.15 | 577.88 | 563.89 | 507.75 |
| G | Average Loan (C+F)/2 | 575.80 | 588.81 | 582.52 | 570.88 | 535.82 |
| H | Weighted Average Rate of Interest on Loan (in %) | 8.8806 | 8.8864 | 8.8950 | 8.8062 | 8.7457 |
| H | Interest on Loan (G*H) | 25.36 | 52.32 | 51.82 | 50.27 | 46.86 |



(₹ in lakh)

| | Particulars | Asset-14 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 573.03 | 616.20 | 663.62 | 705.75 | 746.36 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 15.16 | 63.58 | 115.46 | 170.55 |
| C | Net Loan-Opening (A-B) | 573.03 | 601.04 | 600.04 | 590.29 | 575.81 |
| D | Additions | 43.17 | 47.42 | 42.13 | 40.61 | 0.00 |
| E | Repayment during the year | 15.16 | 48.42 | 51.88 | 55.09 | 56.62 |
| F | Net Loan-Closing (C+D-E) | 601.04 | 600.04 | 590.29 | 575.81 | 519.18 |
| G | Average Loan (C+F)/2 | 587.03 | 600.54 | 595.17 | 583.05 | 547.49 |
| H | Weighted Average Rate of Interest on Loan (in %) | 8.9113 | 8.9229 | 8.8703 | 8.7246 | 8.6627 |
| H | Interest on Loan (G*H) | 17.63 | 53.59 | 52.79 | 50.87 | 47.43 |

(₹ in lakh)

| | Particulars | Asset-15 | | | |
|----------|--|---------------------------------|----------------|----------------|----------------|
| | | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | |
| A | Gross Normative Loan | 68070.82 | 68356.26 | 70945.39 | 71552.79 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 56.24 | 5310.63 | 10685.67 |
| C | Net Loan-Opening (A-B) | 68070.82 | 68300.02 | 65634.76 | 60867.12 |
| D | Additions | 285.44 | 2589.13 | 607.40 | 318.93 |
| E | Repayment during the year | 56.24 | 5254.39 | 5375.04 | 5409.97 |
| F | Net Loan-Closing (C+D-E) | 68300.02 | 65634.76 | 60867.12 | 55776.08 |
| G | Average Loan (C+F)/2 | 68185.42 | 66967.39 | 63250.94 | 58321.60 |
| H | Weighted Average Rate of Interest on Loan (in %) | 7.5717 | 7.7038 | 7.7345 | 7.7246 |
| H | Interest on Loan (G*H) | 56.42 | 5159.05 | 4892.17 | 4505.11 |

(₹ in lakh)

| | Particulars | Asset-16 | | | |
|---|--|-----------------------------------|----------|----------|----------|
| | | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | |
| A | Gross Normative Loan | 10172.67 | 10916.51 | 11419.31 | 14523.84 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 401.67 | 1211.94 | 2157.08 |



| | Particulars | Asset-16 | | | |
|----------|---|-----------------------------------|---------------|---------------|---------------|
| | | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| C | Net Loan-Opening (A-B) | 10172.67 | 10514.85 | 10207.37 | 12366.76 |
| D | Additions | 743.84 | 502.80 | 3104.53 | 421.29 |
| E | Repayment during the year | 401.67 | 810.28 | 945.14 | 1077.11 |
| F | Net Loan-Closing (C+D-E) | 10514.85 | 10207.37 | 12366.76 | 11710.93 |
| G | Average Loan (C+F)/2 | 10343.76 | 10361.11 | 11287.06 | 12038.85 |
| H | Weighted Average Rate of Interest on Loan (in %) | 4.9673 | 5.6488 | 6.2224 | 6.7409 |
| H | Interest on Loan (G*H) | 269.53 | 585.27 | 702.33 | 811.52 |

(₹ in lakh)

| | Particulars | Asset-17 | | | |
|----------|---|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | |
| A | Gross Normative Loan | 669.87 | 737.77 | 891.78 | 951.91 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 8.85 | 70.31 | 139.84 |
| C | Net Loan-Opening (A-B) | 669.87 | 728.92 | 821.47 | 812.08 |
| D | Additions | 67.90 | 154.01 | 60.14 | 12.78 |
| E | Repayment during the year | 8.85 | 61.46 | 69.53 | 72.28 |
| F | Net Loan-Closing (C+D-E) | 728.92 | 821.47 | 812.08 | 752.57 |
| G | Average Loan (C+F)/2 | 699.40 | 775.20 | 816.77 | 782.32 |
| H | Weighted Average Rate of Interest on Loan (in %) | 6.9531 | 7.1135 | 7.2054 | 7.3488 |
| H | Interest on Loan (G*H) | 8.10 | 55.14 | 58.85 | 57.49 |

(₹ in lakh)

| | Particulars | Asset-18 | | | |
|---|---|----------------------------------|---------|---------|---------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Loan | | | | |
| A | Gross Normative Loan | 670.45 | 709.31 | 867.95 | 950.49 |
| B | Cumulative Repayments upto Previous Year | 0.00 | 1.56 | 61.05 | 129.63 |
| C | Net Loan-Opening (A-B) | 670.45 | 707.75 | 806.90 | 820.86 |
| D | Additions | 38.86 | 158.64 | 82.54 | 22.25 |
| E | Repayment during the year | 1.56 | 59.49 | 68.58 | 72.53 |
| F | Net Loan-Closing (C+D-E) | 707.75 | 806.90 | 820.86 | 770.57 |
| G | Average Loan (C+F)/2 | 689.10 | 757.33 | 813.88 | 795.72 |



| | Particulars | Asset-18 | | | |
|---|--|-------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| H | Weighted Average Rate of Interest on Loan (in %) | 6.9531 | 7.1135 | 7.2054 | 7.3488 |
| H | Interest on Loan (G*H) | 1.44 | 53.87 | 58.64 | 58.48 |

91. The details of IoL allowed vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18), claimed by the Petitioner in the instant petition and trued-up IoL in the instant order are as follows:

| Particulars | (₹ in lakh) | | | | |
|---|----------------|---------|---------|---------|---------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Asset-1 | | | | |
| Allowed <i>vide</i> order dated 10.7.2017 in Petition No. 165/TT/2016 | 20.68 | 20.65 | 22.13 | 21.88 | 19.50 |
| Claimed by the Petitioner in the instant petition | 20.63 | 20.53 | 21.37 | 21.39 | 19.82 |
| Approved after true-up in this order | 20.68 | 20.70 | 21.66 | 21.81 | 20.36 |
| | Asset-2 | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 530.13 | 521.44 | 864.79 | 864.79 | 864.79 |
| Claimed by the Petitioner in the instant petition | 553.35 | 657.25 | 685.04 | 646.54 | 618.62 |
| Approved after true-up in this order | 552.53 | 655.87 | 684.80 | 647.76 | 621.47 |
| | Asset-3 | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 7.90 | 30.78 | 36.56 | 33.93 | 31.01 |
| Claimed by the Petitioner in the instant petition | 8.09 | 33.36 | 45.99 | 47.37 | 45.76 |
| Approved after true-up in this order | 7.82 | 32.48 | 45.12 | 46.72 | 45.38 |
| | Asset-4 | | | | |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 68.79 | 81.67 | 78.30 | 72.13 | 64.68 |
| Claimed by the Petitioner in the instant petition | 68.86 | 85.85 | 89.50 | 84.89 | 81.71 |
| Approved after true-up in this order | 68.75 | 85.94 | 89.73 | 85.33 | 82.38 |
| Asset-5 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 31.76 | 35.98 | 34.04 | 31.53 | 28.24 |
| Claimed by the Petitioner in the instant petition | 31.73 | 36.81 | 38.58 | 38.13 | 36.04 |
| Approved after true-up in this order | 31.75 | 36.87 | 38.66 | 38.28 | 36.30 |
| Asset-6 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 64.71 | 82.37 | 79.52 | 73.11 | 65.69 |
| Claimed by the Petitioner in the instant petition | 64.88 | 80.46 | 78.95 | 80.14 | 82.58 |
| Approved after true-up in this order | 64.88 | 80.46 | 78.95 | 80.19 | 82.78 |
| Asset-7 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 50.90 | 61.32 | 59.71 | 54.56 | 48.67 |
| Claimed by the Petitioner in the instant petition | 52.97 | 62.97 | 62.24 | 61.59 | 60.18 |
| Approved after true-up in this order | 51.05 | 60.90 | 60.46 | 60.25 | 59.39 |
| Asset-8 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 31.56 | 36.96 | 33.91 | 30.97 | 27.47 |
| Claimed by the Petitioner in the instant petition | 31.78 | 38.28 | 38.84 | 37.80 | 35.46 |
| Approved after true-up in this order | 31.78 | 38.28 | 38.86 | 37.89 | 35.65 |
| Asset-9 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 73.90 | 100.34 | 95.93 | 87.63 | 78.34 |
| Claimed by the Petitioner in the instant petition | 74.06 | 102.32 | 100.45 | 92.25 | 85.42 |
| Approved after true-up in this order | 74.08 | 102.38 | 100.66 | 92.68 | 86.07 |
| Asset-10 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 70.50 | 96.62 | 92.34 | 84.32 | 75.45 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Claimed by the Petitioner in the instant petition | 75.46 | 105.49 | 98.13 | 89.89 | 83.35 |
| Approved after true-up in this order | 75.48 | 105.67 | 98.52 | 90.50 | 84.19 |
| Asset-11 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 29.89 | 38.93 | 37.89 | 34.63 | 30.88 |
| Claimed by the Petitioner in the instant petition | 30.40 | 40.82 | 42.27 | 41.57 | 40.85 |
| Approved after true-up in this order | 30.12 | 40.53 | 42.14 | 41.66 | 41.18 |
| Asset-12 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 56.17 | 142.54 | 143.98 | 131.86 | 118.60 |
| Claimed by the Petitioner in the instant petition | 56.30 | 145.80 | 156.16 | 148.72 | 137.04 |
| Approved after true-up in this order | 56.30 | 145.91 | 156.61 | 149.64 | 138.44 |
| Asset-13 | | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 24.51 | 53.29 | 54.67 | 52.67 | 47.77 |
| Claimed by the Petitioner in the instant petition | 25.34 | 52.13 | 51.42 | 49.68 | 46.07 |
| Approved after true-up in this order | 25.36 | 52.32 | 51.82 | 50.27 | 46.86 |
| Asset-14 | | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 17.83 | 56.18 | 56.77 | 54.41 | 49.32 |
| Claimed by the Petitioner in the instant petition | 17.62 | 53.47 | 52.52 | 50.39 | 46.74 |
| Approved after true-up in this order | 17.63 | 53.59 | 52.79 | 50.87 | 47.43 |
| Asset-15 | | | | | |
| Allowed <i>vide</i> order dated 31.5.2016 in Petition No. 230/TT/2014 | | 46.96 | 4244.62 | 3982.27 | 3629.89 |
| Claimed by the Petitioner in the instant petition | | 56.42 | 5158.93 | 4891.84 | 4504.60 |
| Approved after true-up in this order | | 56.42 | 5159.05 | 4892.17 | 4505.11 |
| Asset-16 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 268.76 | 630.04 | 697.10 | 647.37 |
| Claimed by the Petitioner in the instant petition | | 269.54 | 585.22 | 701.96 | 810.53 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|-----------------|---------|---------|---------|---------|
| Approved after true-up in this order | | 269.53 | 585.27 | 702.33 | 811.52 |
| | Asset-17 | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 8.07 | 53.79 | 54.62 | 50.12 |
| Claimed by the Petitioner in the instant petition | | 8.10 | 55.08 | 58.69 | 57.20 |
| Approved after true-up in this order | | 8.10 | 55.14 | 58.85 | 57.49 |
| | Asset-18 | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 1.43 | 52.97 | 54.86 | 50.38 |
| Claimed by the Petitioner in the instant petition | | 1.44 | 53.36 | 58.09 | 57.83 |
| Approved after true-up in this order | | 1.44 | 53.87 | 58.64 | 58.48 |

Return on Equity (“RoE”)

92. The Petitioner has claimed RoE for the transmission assets in accordance with Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for 2014-19 tariff period:

| Year | Claimed effective tax rate (in %) | Grossed up RoE [(Base Rate)/(1-t)] (in %) |
|---------|-----------------------------------|---|
| 2014-15 | 21.018 | 19.625 |
| 2015-16 | 21.382 | 19.715 |
| 2016-17 | 21.338 | 19.705 |
| 2017-18 | 21.337 | 19.705 |
| 2018-19 | 21.549 | 19.758 |

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



| Year | Notified MAT rates (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 |

94. The MAT rates considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations and the same is as follows:

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

95. Trued-up RoE is allowed on the basis of the MAT rate applicable in the respective years for the 2014-19 tariff period and it is as follows:

| | | (₹ in lakh) | | | | |
|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--|
| Particulars | Asset-1 | | | | | |
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| Return on Equity | | | | | | |
| A Opening Equity | 208.07 | 210.38 | 227.15 | 243.21 | 255.35 | |
| B Additions | 2.31 | 16.78 | 16.06 | 12.14 | 0.00 | |
| C Closing Equity (A+B) | 210.38 | 227.15 | 243.21 | 255.35 | 255.35 | |
| D Average Equity (A+C)/2 | 209.22 | 218.77 | 235.18 | 249.28 | 255.35 | |
| 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 Return on Equity (D*G) | 41.03 | 43.11 | 46.34 | 49.12 | 50.45 | |



(₹ in lakh)

| | Particulars | Asset-2 | | | | |
|---|--|-----------------------------------|---------------|----------------|----------------|----------------|
| | | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 4209.86 | 4676.83 | 5215.76 | 5226.48 | 5227.98 |
| B | Additions | 466.97 | 538.94 | 10.71 | 1.50 | 6.20 |
| C | Closing Equity (A+B) | 4676.83 | 5215.76 | 5226.48 | 5227.98 | 5234.17 |
| D | Average Equity (A+C)/2 | 4443.34 | 4946.30 | 5221.12 | 5227.23 | 5231.07 |
| 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 | Return on Equity (D*G) | 816.43 | 974.67 | 1028.82 | 1030.02 | 1033.56 |

(₹ in lakh)

| | Particulars | Asset-3 | | | | |
|---|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 219.98 | 222.46 | 321.37 | 364.97 | 364.97 |
| B | Additions | 2.48 | 98.91 | 43.60 | 0.00 | 2.14 |
| C | Closing Equity (A+B) | 222.46 | 321.37 | 364.97 | 364.97 | 367.11 |
| D | Average Equity (A+C)/2 | 221.22 | 271.92 | 343.17 | 364.97 | 366.04 |
| 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 | Return on Equity (D*G) | 14.38 | 53.58 | 67.62 | 71.92 | 72.32 |

(₹ in lakh)

| | Particulars | Asset-4 | | | | |
|---|-------------------------|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 590.79 | 636.39 | 699.54 | 710.81 | 710.81 |
| B | Additions | 45.60 | 63.16 | 11.27 | 0.00 | 13.50 |
| C | Closing Equity (A+B) | 636.39 | 699.54 | 710.81 | 710.81 | 724.31 |



| | Particulars | Asset-4 | | | | |
|---|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| D | Average Equity (A+C)/2 | 613.59 | 667.97 | 705.18 | 710.81 | 717.56 |
| 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 | Return on Equity (D*G) | 103.51 | 131.62 | 138.96 | 140.07 | 141.78 |

(₹ in lakh)

| | Particulars | Asset-5 | | | | |
|---|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 288.48 | 298.73 | 307.22 | 327.20 | 327.20 |
| B | Additions | 10.25 | 8.49 | 19.99 | 0.00 | 0.00 |
| C | Closing Equity (A+B) | 298.73 | 307.22 | 327.20 | 327.20 | 327.20 |
| D | Average Equity (A+C)/2 | 293.61 | 302.97 | 317.21 | 327.20 | 327.20 |
| 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 | Return on Equity (D*G) | 49.53 | 59.70 | 62.51 | 64.48 | 64.65 |

(₹ in lakh)

| | Particulars | Asset-6 | | | | |
|---|--|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 590.13 | 634.79 | 636.41 | 648.33 | 709.87 |
| B | Additions | 44.66 | 1.62 | 11.93 | 61.54 | 13.50 |
| C | Closing Equity (A+B) | 634.79 | 636.41 | 648.33 | 709.87 | 723.37 |
| D | Average Equity (A+C)/2 | 612.46 | 635.60 | 642.37 | 679.10 | 716.62 |
| E | Return on Equity (Base Rate) (in %) | 15.500 | 15.500 | 15.500 | 15.500 | 15.500 |



| | Particulars | Asset-6 | | | | |
|---|-------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| 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 | Return on Equity (D*G) | 97.40 | 125.24 | 126.58 | 133.82 | 141.59 |

(₹ in lakh)

| | Particulars | Asset-7 | | | | |
|---|-------------------------------------|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 389.06 | 418.13 | 446.24 | 455.06 | 499.33 |
| B | Additions | 29.07 | 28.10 | 8.82 | 44.28 | 0.00 |
| C | Closing Equity (A+B) | 418.13 | 446.24 | 455.06 | 499.33 | 499.33 |
| D | Average Equity (A+C)/2 | 403.60 | 432.19 | 450.65 | 477.19 | 499.33 |
| 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 | Return on Equity (D*G) | 68.09 | 85.16 | 88.80 | 94.03 | 98.66 |

(₹ in lakh)

| | Particulars | Asset-8 | | | | |
|---|-------------------------------------|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 298.10 | 305.27 | 313.76 | 334.57 | 334.57 |
| B | Additions | 7.17 | 8.49 | 20.82 | 0.00 | 0.00 |
| C | Closing Equity (A+B) | 305.27 | 313.76 | 334.57 | 334.57 | 334.57 |
| D | Average Equity (A+C)/2 | 301.68 | 309.51 | 324.16 | 334.57 | 334.57 |
| 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 |



| | Particulars | Asset-8 | | | | |
|---|-------------------------------|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| H | Return on Equity (D*G) | 47.98 | 60.99 | 63.88 | 65.93 | 66.10 |

(₹ in lakh)

| | Particulars | Asset-9 | | | | |
|---|-------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 586.87 | 636.55 | 701.20 | 701.20 | 701.20 |
| B | Additions | 49.68 | 64.66 | 0.00 | 0.00 | 13.50 |
| C | Closing Equity (A+B) | 636.55 | 701.20 | 701.20 | 701.20 | 714.70 |
| D | Average Equity (A+C)/2 | 611.71 | 668.87 | 701.20 | 701.20 | 707.95 |
| 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 | Return on Equity (D*G) | 90.38 | 131.80 | 138.17 | 138.17 | 139.88 |

(₹ in lakh)

| | Particulars | Asset-10 | | | | |
|---|-------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (Pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 590.73 | 699.76 | 701.38 | 701.38 | 701.38 |
| B | Additions | 109.03 | 1.62 | 0.00 | 0.00 | 13.50 |
| C | Closing Equity (A+B) | 699.76 | 701.38 | 701.38 | 701.38 | 714.88 |
| D | Average Equity (A+C)/2 | 645.25 | 700.57 | 701.38 | 701.38 | 708.13 |
| 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 | Return on Equity (D*G) | 94.29 | 138.05 | 138.21 | 138.21 | 139.91 |



(₹ in lakh)

| | Particulars | Asset-11 | | | | |
|---|---|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 283.48 | 303.60 | 338.24 | 344.24 | 368.42 |
| B | Additions | 20.12 | 34.64 | 6.00 | 24.18 | 0.00 |
| C | Closing Equity (A+B) | 303.60 | 338.24 | 344.24 | 368.42 | 368.42 |
| D | Average Equity (A+C)/2 | 293.54 | 320.92 | 341.24 | 356.33 | 368.42 |
| 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 | Return on Equity (D*G) | 46.05 | 63.24 | 67.24 | 70.21 | 72.79 |

(₹ in lakh)

| | Particulars | Asset-12 | | | | |
|---|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (Pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 803.98 | 823.49 | 989.64 | 1052.15 | 1052.15 |
| B | Additions | 19.52 | 166.15 | 62.51 | 0.00 | 13.18 |
| C | Closing Equity (A+B) | 823.49 | 989.64 | 1052.15 | 1052.15 | 1065.33 |
| D | Average Equity (A+C)/2 | 813.74 | 906.57 | 1020.90 | 1052.15 | 1058.74 |
| 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 | Return on Equity (D*G) | 66.45 | 178.64 | 201.17 | 207.33 | 209.19 |

(₹ in lakh)

| | Particulars | Asset-13 | | | | |
|---|-------------------------|-----------------------------------|---------|---------|---------|---------|
| | | 2014-15 (Pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 240.49 | 262.50 | 281.66 | 299.72 | 317.12 |
| B | Additions | 22.01 | 19.16 | 18.05 | 17.40 | 0.00 |
| C | Closing Equity (A+B) | 262.50 | 281.66 | 299.72 | 317.12 | 317.12 |

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| | Particulars | Asset-13 | | | | |
|---|-------------------------------------|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| D | Average Equity (A+C)/2 | 251.49 | 272.08 | 290.69 | 308.42 | 317.12 |
| 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 | Return on Equity (D*G) | 24.46 | 53.61 | 57.28 | 60.77 | 62.66 |

(₹ in lakh)

| | Particulars | Asset-14 | | | | |
|---|-------------------------------------|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (Pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | | |
| A | Opening Equity | 245.59 | 264.09 | 284.41 | 302.46 | 319.87 |
| B | Additions | 18.50 | 20.32 | 18.05 | 17.40 | 0.00 |
| C | Closing Equity (A+B) | 264.09 | 284.41 | 302.46 | 319.87 | 319.87 |
| D | Average Equity (A+C)/2 | 254.84 | 274.25 | 293.44 | 311.17 | 319.87 |
| 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 | Return on Equity (D*G) | 16.84 | 54.04 | 57.82 | 61.32 | 63.20 |

(₹ in lakh)

| | Particulars | Asset-15 | | | |
|---|-------------------------------------|---------------------------------|----------------|----------------|----------------|
| | | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | |
| A | Opening Equity | 29173.21 | 29295.54 | 30405.17 | 30665.48 |
| B | Additions | 122.33 | 1109.63 | 260.31 | 136.69 |
| C | Closing Equity (A+B) | 29295.54 | 30405.17 | 30665.48 | 30802.17 |
| D | Average Equity (A+C)/2 | 29234.37 | 29850.35 | 30535.32 | 30733.82 |
| E | Return on Equity (Base Rate) (in %) | 15.500 | 15.500 | 15.500 | 15.500 |
| F | MAT Rate for respective year (in %) | 21.342 | 21.342 | 21.342 | 21.549 |
| G | Rate of Return on Equity (in %) | 19.705 | 19.705 | 19.705 | 19.758 |
| H | Return on Equity (D*G) | 62.96 | 5882.01 | 6016.99 | 6072.39 |

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(₹ in lakh)

| | Particulars | Asset-16 | | | |
|---|-------------------------------------|-----------------------------------|---------------|----------------|----------------|
| | | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | |
| A | Opening Equity | 4359.72 | 4678.51 | 4893.99 | 6224.50 |
| B | Additions | 318.79 | 215.48 | 1330.51 | 180.55 |
| C | Closing Equity (A+B) | 4678.51 | 4893.99 | 6224.50 | 6405.05 |
| D | Average Equity (A+C)/2 | 4519.11 | 4786.25 | 5559.25 | 6314.78 |
| E | Return on Equity (Base Rate) (in %) | 15.500 | 15.500 | 15.500 | 15.500 |
| F | MAT Rate for respective year (in %) | 21.342 | 21.342 | 21.342 | 21.549 |
| G | Rate of Return on Equity (in %) | 19.705 | 19.705 | 19.705 | 19.758 |
| H | Return on Equity (D*G) | 467.14 | 943.13 | 1095.45 | 1247.67 |

(₹ in lakh)

| | Particulars | Asset-17 | | | |
|---|-------------------------------------|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | |
| A | Opening Equity | 287.09 | 316.19 | 382.19 | 407.96 |
| B | Additions | 29.10 | 66.00 | 25.77 | 5.48 |
| C | Closing Equity (A+B) | 316.19 | 382.19 | 407.96 | 413.44 |
| D | Average Equity (A+C)/2 | 301.64 | 349.19 | 395.08 | 410.70 |
| E | Return on Equity (Base Rate) (in %) | 15.500 | 15.500 | 15.500 | 15.500 |
| F | MAT Rate for respective year (in %) | 21.342 | 21.342 | 21.342 | 21.549 |
| G | Rate of Return on Equity (in %) | 19.705 | 19.705 | 19.705 | 19.758 |
| H | Return on Equity (D*G) | 9.91 | 68.81 | 77.85 | 81.15 |

(₹ in lakh)

| | Particulars | Asset-18 | | | |
|---|-------------------------------------|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| | Return on Equity | | | | |
| A | Opening Equity | 287.33 | 303.99 | 371.98 | 407.35 |
| B | Additions | 16.66 | 67.99 | 35.37 | 9.53 |
| C | Closing Equity (A+B) | 303.99 | 371.98 | 407.35 | 416.89 |
| D | Average Equity (A+C)/2 | 295.66 | 337.99 | 389.67 | 412.12 |
| E | Return on Equity (Base Rate) (in %) | 15.500 | 15.500 | 15.500 | 15.500 |
| F | MAT Rate for respective year (in %) | 21.342 | 21.342 | 21.342 | 21.549 |
| G | Rate of Return on Equity (in %) | 19.705 | 19.705 | 19.705 | 19.758 |
| H | Return on Equity (D*G) | 1.75 | 66.60 | 76.78 | 81.43 |

96. The details of RoE allowed vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to



Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18), claimed by the Petitioner in the instant petition and trued-up RoE in the instant order are as follows:

| (₹ in lakh) | | | | | |
|---|---------|---------|---------|---------|---------|
| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Asset-1 | | | | | |
| Allowed <i>vide</i> order dated 10.7.2017 in Petition No. 165/TT/2016 | 41.03 | 42.81 | 47.78 | 51.19 | 51.19 |
| Claimed by the Petitioner in the instant petition | 41.06 | 43.13 | 46.34 | 49.12 | 50.45 |
| Approved after true-up in this order | 41.03 | 43.11 | 46.34 | 49.12 | 50.45 |
| Asset-2 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 803.98 | 870.44 | 870.44 | 870.44 | 870.44 |
| Claimed by the Petitioner in the instant petition | 818.40 | 978.05 | 1031.70 | 1032.90 | 1036.44 |
| Approved after true-up in this order | 816.43 | 974.67 | 1028.82 | 1030.02 | 1033.56 |
| Asset-3 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 14.45 | 58.53 | 73.03 | 73.03 | 73.03 |
| Claimed by the Petitioner in the instant petition | 14.88 | 55.09 | 69.10 | 73.40 | 73.81 |
| Approved after true-up in this order | 14.38 | 53.58 | 67.62 | 71.92 | 72.32 |
| Asset-4 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 103.51 | 129.20 | 133.06 | 133.06 | 133.06 |
| Claimed by the Petitioner in the instant petition | 103.75 | 131.63 | 138.90 | 140.01 | 141.72 |
| Approved after true-up in this order | 103.51 | 131.62 | 138.96 | 140.07 | 141.78 |
| Asset-5 | | | | | |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 49.41 | 59.15 | 59.53 | 59.53 | 59.53 |
| Claimed by the Petitioner in the instant petition | 49.53 | 59.64 | 62.41 | 64.38 | 64.55 |
| Approved after true-up in this order | 49.53 | 59.70 | 62.51 | 64.48 | 64.65 |
| Asset-6 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 97.34 | 129.22 | 134.03 | 134.03 | 134.03 |
| Claimed by the Petitioner in the instant petition | 97.48 | 125.31 | 126.58 | 133.82 | 141.59 |
| Approved after true-up in this order | 97.40 | 125.24 | 126.58 | 133.82 | 141.59 |
| Asset-7 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 68.15 | 86.80 | 91.53 | 91.53 | 91.53 |
| Claimed by the Petitioner in the instant petition | 70.71 | 88.20 | 91.79 | 97.03 | 101.66 |
| Approved after true-up in this order | 68.09 | 85.16 | 88.80 | 94.03 | 98.66 |
| Asset-8 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 47.94 | 59.97 | 60.12 | 60.12 | 60.12 |
| Claimed by the Petitioner in the instant petition | 48.02 | 61.02 | 63.88 | 65.93 | 66.11 |
| Approved after true-up in this order | 47.98 | 60.99 | 63.88 | 65.93 | 66.10 |
| Asset-9 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 90.38 | 129.63 | 134.44 | 134.44 | 134.44 |
| Claimed by the Petitioner in the instant petition | 90.45 | 131.87 | 138.17 | 138.17 | 139.88 |
| Approved after true-up in this order | 90.38 | 131.80 | 138.17 | 138.17 | 139.88 |
| Asset-10 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 89.64 | 129.61 | 134.42 | 134.42 | 134.42 |
| Claimed by the Petitioner in the instant petition | 94.37 | 138.12 | 138.21 | 138.21 | 139.91 |
| Approved after true-up in this order | 94.29 | 138.05 | 138.21 | 138.21 | 139.91 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|-----------------|---------|---------|---------|---------|
| | Asset-11 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 45.99 | 62.89 | 66.34 | 66.34 | 66.34 |
| Claimed by the Petitioner in the instant petition | 46.51 | 63.80 | 67.77 | 70.74 | 73.32 |
| Approved after true-up in this order | 46.05 | 63.24 | 67.24 | 70.21 | 72.79 |
| | Asset-12 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 66.45 | 177.20 | 192.92 | 192.92 | 192.92 |
| Claimed by the Petitioner in the instant petition | 66.51 | 178.73 | 201.17 | 207.32 | 209.18 |
| Approved after true-up in this order | 66.45 | 178.64 | 201.17 | 207.33 | 209.19 |
| | Asset-13 | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 24.42 | 56.08 | 61.94 | 64.87 | 64.87 |
| Claimed by the Petitioner in the instant petition | 24.48 | 53.64 | 57.29 | 60.78 | 62.66 |
| Approved after true-up in this order | 24.46 | 53.61 | 57.28 | 60.77 | 62.66 |
| | Asset-14 | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 17.31 | 57.34 | 62.47 | 65.03 | 65.03 |
| Claimed by the Petitioner in the instant petition | 16.85 | 54.12 | 57.92 | 61.41 | 63.29 |
| Approved after true-up in this order | 16.84 | 54.04 | 57.82 | 61.32 | 63.20 |
| | Asset-15 | | | | |
| Allowed <i>vide</i> order dated 31.5.2016 in Petition No. 230/TT/2014 | | 53.21 | 4868.47 | 4868.47 | 4868.47 |
| Claimed by the Petitioner in the instant petition | | 62.99 | 5882.01 | 6016.98 | 6072.36 |
| Approved after true-up in this order | | 62.96 | 5882.01 | 6016.99 | 6072.39 |
| | Asset-16 | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 461.63 | 1067.32 | 1219.33 | 1219.33 |
| Claimed by the Petitioner in the instant petition | | 467.38 | 943.13 | 1095.45 | 1247.67 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|---------|---------|---------|---------|---------|
| Approved after true-up in this order | | 467.14 | 943.13 | 1095.45 | 1247.67 |
| Asset-17 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 9.81 | 67.81 | 73.90 | 73.90 |
| Claimed by the Petitioner in the instant petition | | 9.90 | 68.76 | 77.81 | 81.10 |
| Approved after true-up in this order | | 9.91 | 68.81 | 77.85 | 81.15 |
| Asset-18 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 1.72 | 66.21 | 54.86 | 50.38 |
| Claimed by the Petitioner in the instant petition | | 1.74 | 66.15 | 76.33 | 80.97 |
| Approved after true-up in this order | | 1.75 | 66.60 | 76.78 | 81.43 |

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

97. O&M Expenses claimed by the Petitioner for the transmission assets for the 2014-19 tariff period are as follows:

| Particulars | Asset-1 | | | | |
|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) 400 kV Patna – 125 MVAR Bus Reactor bay | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Total O&M Expenses claimed (₹ in lakh) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Particulars | Asset-2 | | | | |
| | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Lines | | | | | |
| (i) LILO of 400 kV D/C Teesta –V -Siliguri line (Ckt-I) at Rangpo (DC Portion) (1.950 km) | | | | | |
| (ii) Termination of Gangtok-Rangpo/Chujachen & Melli-Rangpo/Chujachen Transmission Line with Bays at Rangpo (D/C Portion) (0.484 KM) | | | | | |
| (iii) LILO of 400 kV D/C Tessta V-Siliguri Line (Ckt-I) at Rangpo (Multi Ckt Portion) (1.569 km) | | | | | |
| (iv) Termination of Gangtok-Rangpo/Chujachen & Melli-Rangpo/Chujachen Transmission Line (Multi Ckt Portion) (0.259 km) | | | | | |



| Particulars | Asset-3 | | | | |
|---|--|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Lines | | | | | |
| (i) | LILO of 132 kV S/C Gangtok -Rangit Line At Rangpo (1.456 km) | | | | |
| (ii) | LILO of 132 kV S/C Gangtok -Rangit Line At Rangpo (2.291 km) | | | | |
| Sub-station | | | | | |
| (iii) | Rangpo:132 kV Line Bay | | | | |
| 132 kV Bays | 2 | 2 | 2 | 2 | 2 |
| Norms (₹ lakh/Bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| D/C 1 Conductor | 3.747 | 3.747 | 3.747 | 3.747 | 3.747 |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| Total O&M Expenses claimed (₹ in lakh) | 20.37 | 63.47 | 65.57 | 67.75 | 70.02 |

| Particulars | Asset-1 | | | | |
|---|---|---------------|---------------|---------------|---------------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub-station | | | | | |
| (v) | Rangpo:02 Numbers Line Bays For 400 kV D/C Teesta V-Siliguri Line (Ckt-I) At Rangpo | | | | |
| (vi) | Rangpo:02 Numbers 132 kV Line Bays associated with termination lines | | | | |
| (vii) | Rangpo:3x105 MVA, 400/220 kV Transformer (1 st) 400 kV Bay | | | | |
| (viii) | Rangpo:3x105 MVA, 400/220 kV Transformer (1 st) 220 kV Bay | | | | |
| (ix) | Rangpo:100 MVA, 220/132 kV Transformer (1 st) 220 kV Bay | | | | |
| (x) | Rangpo:100 MVA, 220/132 kV Transformer (1 st) 132 kV Bay | | | | |
| (xi) | Rangpo:01 Number 132 kV Bus Sectionaliser At Rangpo | | | | |
| (xii) | Rangpo:3*105 MVA ICT (1 st) And 1*105 MVA Spare Unit bay At Rangpo | | | | |
| (xiii) | Rangpo:1*100 MVA ICT bay(1 st) at Rangpo | | | | |
| 400 kV GIS bays | 3 | 3 | 3 | 3 | 3 |
| Norms (₹ lakh/bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| 132 kV GIS bays | 4 | 4 | 4 | 4 | 4 |
| Norms (₹ lakh/bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| D/C 2 Conductors | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 |
| Norms (₹ lakh/km) | 0.707 | 0.731 | 0.755 | 0.78 | 0.806 |
| D/C 1 conductor | 0.484 | 0.484 | 0.484 | 0.484 | 0.484 |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| M/C 2 conductors | 1.828 | 1.828 | 1.828 | 1.828 | 1.828 |
| Norms (₹ lakh/km) | 1.24 | 1.282 | 1.324 | 1.368 | 1.413 |
| Total O&M Expenses (₹ in lakh) | 340.53 | 375.49 | 387.95 | 400.80 | 414.15 |



| Particulars | Asset-4 | | | | |
|---|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub-station | | | | | |
| (i) Rangpo: Transformer 220 kV Bay At Rangpo: GIS | | | | | |
| (ii) Rangpo: Transformer 400 kv Bay At Rangpo: GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses (₹ in lakh) | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-5 | | | | |
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) ER2 Common:80 MVAR BR Bay At Rangpo GIS Sub-station | | | | | |
| 400 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| Total O&M Expenses (₹ in lakh) | 44.34 | 53.25 | 55.02 | 56.84 | 58.73 |
| Particulars | Asset-6 | | | | |
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Rangpo:3*105 MVA 400/220 kV Transformer At Rangpo:GIS | | | | | |
| (ii) Rangpo:3x105 MVA ICT (3 rd) At Rangpo:GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses (₹ in lakh) | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-7 | | | | |
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Rangpo:100 MVA Transformer 01 Number of 220 kV ICT Bay At Rangpo:GIS | | | | | |
| (ii) Rangpo:100 MVA Transformer 01 Number of 132 kV ICT Bay At Rangpo:GIS | | | | | |
| (iii) Rangpo:132 kV Bus Sectionlizer Bay At Rangpo:GIS | | | | | |
| 220 kV GIS bays | 1 | 1 | 1 | 1 | 1 |



| Particulars | Asset-4 | | | | |
|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Norms (₹ lakh/bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| 132 kV GIS bays | 2 | 2 | 2 | 2 | 2 |
| Norms (₹ lakh/bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| Total O&M Expenses (₹ in lakh) | 88.19 | 105.91 | 109.42 | 113.05 | 116.82 |
| Particulars | Asset-8 | | | | |
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo: 01 Number of 80 MVAR Reactor-II Bay at Rangpo: | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| Total O&M Expenses (₹ in lakh) | 41.80 | 53.25 | 55.02 | 56.84 | 58.73 |

| Particulars | Asset-9 | | | | |
|--|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo:3x105 MVA 4th ICT – 400 kV Bay at Rangpo Sub-station (ii) Rangpo:3x105 MVA 4th ICT - 220kV Bay at Rangpo Sub-station | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses (₹ in lakh) | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-10 | | | | |
| | 2014-15 (Pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo 3x105 MV ICT (5 th) – 400 kV Bay at Rangpo: 400 kV GIS (ii) Rangpo 3x105 MV ICT (5 th) – 220 kV Bay at Rangpo: 220 kV GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |



| Particulars | Asset-9 | | | | |
|---|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Total O&M Expenses (₹ in lakh) | 69.86 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-11 | | | | |
| | 2014-15 (Pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Rangpo:100 MVA 220/132 kV Transformer 3 rd 220 kV Bay At Rangpo | | | | | |
| (ii) Rangpo:100 MVA 220/132 kV Transformer 3 rd 132 kV Bay At Rangpo | | | | | |
| 220 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| 132 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| Total O&M Expenses (₹ in lakh) | 57.89 | 74.76 | 77.24 | 79.80 | 82.46 |
| Particulars | Asset-12 | | | | |
| | 2014-15 (Pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Lines | | | | | |
| (i) LILO 400 kV D/C Teesta V -Siliguri Ckt-II At Rangpo | | | | | |
| (ii) LILO 400 kV D/C Teesta V- Siliguri Ckt-II At Rangpo | | | | | |
| Bay(s) | | | | | |
| (iii) Rangpo: 2 Numbers of Line Bays at 400 kV GIS Rangpo Sub-station | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| D/C 2 conductor | 2.298 | 2.298 | 2.298 | 2.298 | 2.298 |
| Norms (₹ lakh/km) | 0.707 | 0.731 | 0.755 | 0.78 | 0.806 |
| D/C 4 conductor | 1.569 | 1.569 | 1.569 | 1.569 | 1.569 |
| Norms (₹ lakh/km) | 1.062 | 1.097 | 1.133 | 1.171 | 1.21 |
| Total O&M Expenses (₹ in lakh) | 44.30 | 109.90 | 113.55 | 117.31 | 121.21 |
| Particulars | Asset-13 | | | | |
| | 2014-15 (Pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Patna:01 Number 63 MVAR Line Reactor of Ckt. -I of 400 kV D/C Patna-Kishanganj Line | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Total O&M Expenses (₹ in lakh) | 29.90 | 62.30 | 64.37 | 66.51 | 68.71 |



| Particulars | Asset-9 | | | | |
|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Particulars | Asset-14 | | | | |
| | 2014-15 (Pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Patna:01 Number 63 MVAR Line Reactor of Ckt. -II of 400 kV D/C Patna-Kishanganj Line | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Total O&M Expenses (₹ in lakh) | 20.32 | 62.30 | 64.37 | 66.51 | 68.71 |

| Particulars | Asset-15 | | | |
|--|---------------------------------|---------------|---------------|---------------|
| | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| Transmission Line | | | | |
| (i) 400 kV D/C Patna- Kishanganj Line | | | | |
| Bay(s) | | | | |
| (ii) Kishanganj:Patna Line Bay I & II at Kishanganj | | | | |
| (iii) Kishanganj: 2x63 MVAR Switchable Line Reactor bays at Kishanganj | | | | |
| 400 kV Bays GIS | 4 | 4 | 4 | 4 |
| Norms (₹ lakh/Bay) | 53.25 | 55.02 | 56.84 | 58.73 |
| D/C 4 Conductors | 347.00 | 347.00 | 347.00 | 347.00 |
| Norms (₹ lakh/km) | 1.097 | 1.133 | 1.171 | 1.21 |
| Total O&M Expenses (₹ in lakh) | 6.49 | 613.23 | 633.70 | 654.79 |

| Particulars | Asset-16 | | | |
|--|-----------------------------------|---------|---------|---------|
| | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| Transmission Line | | | | |
| (i) 220 kV D/C Rangpo - New Melli Line | | | | |
| (ii) 220 kV D/C Rangpo- New Melli Line | | | | |
| Bay(s) | | | | |
| (iii) Rangpo:02 Numbers Line Bays: 220 GIS | | | | |
| (iv) New Melli:02 Numbers Line Bays: 220 GIS | | | | |
| 220 kV GIS bays | 4 | 4 | 4 | 4 |
| Norms (₹ lakh/Bay) | 43.61 | 45.06 | 46.55 | 48.1 |
| D/C 1 conductor | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/km) | 0.313 | 0.324 | 0.334 | 0.346 |



| Particulars | Asset-15 | | | |
|--|-------------------------------|---------------|---------------|---------------|
| | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| M/C 2 conductor | 2 | 2 | 2 | 2 |
| Norms (₹ lakh/km) | 1.282 | 1.324 | 1.368 | 1.413 |
| Total O&M Expenses (₹ in lakh) | 96.87 | 190.82 | 197.11 | 203.69 |
| Particulars | Asset-17 | | | |
| | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | |
| (i) New Melli:31.5 MVAR Bus Reactor (1st) at New Melli | | | | |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses (₹ in lakh) | 7.27 | 45.06 | 46.55 | 48.10 |
| Particulars | Asset-18 | | | |
| | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | |
| (i) New Melli:31.5 MVAR Bus Reactor (2nd) at New Melli: 220 kV GIS | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses (₹ in lakh) | 1.31 | 45.06 | 46.55 | 48.10 |

98. The applicable norms for O&M Expenses as per the 2014 Tariff Regulations is as follows:

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| D/C Bundled Conductor with four or more subconductors | | | | | |
| Norms (₹ lakh/km) | 1.062 | 1.097 | 1.133 | 1.171 | 1.21 |
| D/C Twin/Triple Conductor | | | | | |
| Norms (₹ lakh/km) | 0.707 | 0.731 | 0.755 | 0.78 | 0.806 |
| D/C Single Conductor | | | | | |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| S/C Bundled Conductor with four subconductors | | | | | |
| Norms (₹ lakh/km) | 0.606 | 0.627 | 0.647 | 0.669 | 0.691 |
| 765 kV Bays | | | | | |
| Norms (₹ lakh/Bay) | 84.42 | 87.22 | 90.12 | 93.11 | 96.20 |
| 400 kV Bays | | | | | |
| Norms (₹ lakh/Bay) | 60.3 | 62.30 | 64.37 | 66.51 | 68.71 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--------------------|---------|---------|---------|---------|---------|
| 220 kV Bays | | | | | |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |

99. BSPHCL has submitted that with respect to Asset-2 and Asset-7, O&M Expenses for 132 kW bus sectionalized bay at Rangpo is being claimed which was inadvertently missed during in the tariff claimed in Petition No. 68/TT/2016 and Petition No. 118/TT/2014, respectively. The said claim is not legally maintainable and is barred under the provisions of law and, hence, deserves to be rejected. BSPHCL has submitted that making a claim for O&M Expenses for bus sectionalized in the truing up petition instead of claiming in the tariff petition is not permissible as the same admittedly falls beyond the 2014-19 tariff period and the Commission cannot be asked to revisit the tariff after 5 years. The Petitioner has not even taken the pain to assign any reason for its failure to make such claim at any point during the entire 2014-19 tariff period. BSPHCL has placed reliance upon the judgement of the Hon'ble Supreme Court in the case of U.P. Power Corporation Ltd. VS. NTPC and Ors. decided on 3.3.2009 in C.A. No. 1110/2007.

100. In response, the Petitioner has submitted that the bays are claimed as per the provisions mentioned in Form 3. Further, the truing-up Regulations under the 2014 Tariff Regulations provide for the re-determination or revision of tariff on account of change in O&M charges. Therefore, the statement of BSPHCL in this regard hold no merit and has prayed to allow the O&M charges as claimed in the instant truing-up petition.

101. We have considered the submission of the Petitioner and BSPHCL. The Petitioner has claimed O&M Expenses towards 1 Number of 132 kV Bays pertaining



to 132 kV Bus sectionaliser bay at Rangpo Sub-station each under Asset-2 and Asset-7. It is observed that as per the norms specified under the 2014 Tariff Regulations, O&M Expenses towards bus sectionaliser bays are not allowable as a separate asset. Accordingly, we do allow the O&M Expenses towards 2 Numbers of 132 kV Bus sectionaliser bays at Rangpo Sub-station.

102. O&M Expenses allowed for the transmission assets as per the norms specified in the 2014 Tariff Regulations are as follows:

| Particulars | Asset-1 | | | | |
|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) 400 kV Patna – 125 MVAR Bus Reactor Bay | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Total O&M Expenses allowed (₹ in lakh) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Particulars | Asset-2 | | | | |
| | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Lines | | | | | |
| (i) LILO of 400 kV D/C Teesta Siliguri line(Ckt-I) at Rangpo | | | | | |
| (ii) Termination of Gangtok-Rangpo/Chujachen & Melli-Rangpo/Chujachen Transmission Line with Bays at Rangpo (DC Portion) | | | | | |
| (iii) LILO of 400 kV D/C Teesta V-Siliguri Line (Ckt-I) at Rangpo (Multi Ckt Portion) | | | | | |
| (iv) Termination of Gangtok-Rangpo/Chujachen & Melli-Rangpo/Chujachen Transmission Line (Multi Ckt Portion) | | | | | |
| Substation | | | | | |
| (v) Rangpo:02 Numbers Line Bays for 400 kV D/C Teesta V-Siliguri Line (Ckt-I) At Rangpo | | | | | |
| (vi) Rangpo:02 Numbers 132 kV Line Bays | | | | | |
| (vii) Rangpo:3x105 MVA, 400/220 kV Transformer (1 st) 400 kV Bay | | | | | |
| (viii) Rangpo:3x105 MVA, 400/220 kV Transformer (1 st) 220 kV Bay | | | | | |
| (ix) Rangpo:100 MVA, 220/132 kV Transformer (1 st) 220 kV Bay | | | | | |
| (x) Rangpo:100 MVA, 220/132 kV Transformer (1 st) 132 kV Bay | | | | | |
| (xi) Rangpo:3*105 MVA ICT (1st) And 1*105 Mva Spare Unit At Rangpo | | | | | |
| (xii) Rangpo:1*100 MVA ICT (1ST) at Rangpo | | | | | |
| 400 kV GIS bays | 3 | 3 | 3 | 3 | 3 |
| Norms (₹ lakh/bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS bays | 1 | 1 | 1 | 1 | 1 |



| Particulars | Asset-1 | | | | |
|---|---------------|---------------|---------------|---------------|---------------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Norms (₹ lakh/bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| 132 kV GIS bays | 3 | 3 | 3 | 3 | 3 |
| Norms (₹ lakh/bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| D/C 2 Conductors | 1.95 | 1.95 | 1.95 | 1.95 | 1.95 |
| Norms (₹ lakh/km) | 0.707 | 0.731 | 0.755 | 0.78 | 0.806 |
| D/C 1 conductor | 0.484 | 0.484 | 0.484 | 0.484 | 0.484 |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| M/C 2 conductors | 1.828 | 1.828 | 1.828 | 1.828 | 1.828 |
| Norms (₹ lakh/km) | 1.24 | 1.282 | 1.324 | 1.368 | 1.413 |
| Total O&M Expenses allowed (₹ in lakh) | 312.28 | 344.34 | 355.77 | 367.55 | 379.79 |

| Particulars | Asset-3 | | | | |
|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | 2014-15 (Pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Lines | | | | | |
| (i) LILO of 132 kV S/C Gangtok -Rangit Line at Rangpo | | | | | |
| (ii) LILO of 132 kV S/C Gangtok -Rangit Line at Rangpo | | | | | |
| Substation | | | | | |
| (iii) Rangpo:132 kV Line Bay | | | | | |
| 132 kV Bays | 2 | 2 | 2 | 2 | 2 |
| Norms (₹ lakh/Bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| D/C 1 Conductor | 3.747 | 3.747 | 3.747 | 3.747 | 3.747 |
| Norms (₹ lakh/km) | 0.303 | 0.313 | 0.324 | 0.334 | 0.346 |
| Total O&M Expenses allowed (₹ in lakh) | 20.37 | 63.47 | 65.57 | 67.75 | 70.02 |

| Particulars | Asset-4 | | | | |
|--|-----------------------------------|---------|---------|---------|---------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub-station | | | | | |
| (i) Rangpo: Transformer 220 kV Bay at Rangpo: GIS | | | | | |
| (ii) Rangpo: Transformer 400 kv Bay at Rangpo: GIS | | | | | |
| (iii) Rangpo:3x105 MVA ICT(2nd) at Rangpo: GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |



| Particulars | Asset-4 | | | | |
|---|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses allowed (₹ in lakh) | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-5 | | | | |
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) ER2 Common:80 MVAR BR Bay at Rangpo: GIS | | | | | |
| 400 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| Total O&M Expenses allowed (₹ in lakh) | 44.34 | 53.25 | 55.02 | 56.84 | 58.73 |

| Particulars | Asset-6 | | | | |
|---|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo:3*105 MVA 400/220 kV Transformer at Rangpo:GIS (ii) Rangpo:3*105 MVA 400/220 kV Transformer at Rangpo:GIS (iii) Rangpo:3x105 MVA ICT (3rd) at Rangpo:GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses allowed (₹ in lakh) | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-7 | | | | |
| | 2014-15 (Pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo:100 MVA Transformer 01 Number of 220 kV Bay at Rangpo:GIS (ii) Rangpo:100 MVA Transformer 01 Number of 132 kV Bay at Rangpo:GIS (iii) Rangpo:100 MVA 220/13 kV ICT(2nd) at Rangpo:GIS | | | | | |
| 220 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| 132 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| Total O&M Expenses allowed (₹ in lakh) | 62.25 | 74.76 | 77.24 | 79.80 | 82.46 |
| Particulars | Asset-8 | | | | |



| Particulars | Asset-6 | | | | |
|--|-----------------------------------|--------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo: 01 Number of 80 MVAR Reactor-II Bay at Rangpo: 400 kV GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| Total O&M Expenses allowed (₹ in lakh) | 41.80 | 53.25 | 55.02 | 56.84 | 58.73 |
| Particulars | Asset-9 | | | | |
| | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | 2014-15 (Pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo:3x105 MVA 4th ICT - 400kV Bay at Rangpo Sub-station (ii) Rangpo:3x105 MVA 4th ICT - 220kV Bay at Rangpo Sub-station (iii) Rangpo:3x105 MVA ICT (4th) at Rangpo | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses allowed (₹ in lakh) | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-10 | | | | |
| | 2014-15 (Pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | 2014-15 (Pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo 3x105 MV ICT (5 th) – 400 kV Bay at Rangpo: 400 kV GIS (ii) Rangpo 3x105 MV ICT (5 th) – 220 kV Bay at Rangpo: 220 kV GIS (iii) Rangpo 3x105 MVA ICT (5 th) – Rangpo: 400 kV GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| Total O&M Expenses allowed (₹ in lakh) | 69.86 | 96.86 | 100.08 | 103.39 | 106.83 |
| Particulars | Asset-11 | | | | |
| | 2014-15 (Pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | 2014-15 (Pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) (i) Rangpo:100 MVA 220/132 kV Transformer 3rd 220 kV Bay at Rangpo (ii) Rangpo:100 MVA 220/132 kV Transformer 3rd 132 kV Bay at Rangpo | | | | | |



| Particulars | Asset-6 | | | | |
|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| (iii) Rangpo:100 MVA Transformer (3rd) at Rangpo | | | | | |
| 220 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 42.21 | 43.61 | 45.06 | 46.55 | 48.1 |
| 132 kV GIS bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/bay) | 30.15 | 31.15 | 32.18 | 33.25 | 34.36 |
| Total O&M Expenses allowed (₹ in lakh) | 57.89 | 74.76 | 77.24 | 79.80 | 82.46 |
| Particulars | Asset-12 | | | | |
| | 2014-15 (Pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Lines | | | | | |
| (i) LILO 400 kV D/C Teesta V Siliguri Ckt-II at Rangpo | | | | | |
| (ii) LILO 400 kV D/C Teesta V Siliguri Ckt-II at Rangpo | | | | | |
| Bay(s) | | | | | |
| (iii) Rangpo:2 Numbers of Line Bay: 400 kV GIS | | | | | |
| 400 kV GIS Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 51.54 | 53.25 | 55.02 | 56.84 | 58.73 |
| D/C 2 conductor | 2.298 | 2.298 | 2.298 | 2.298 | 2.298 |
| Norms (₹ lakh/km) | 0.707 | 0.731 | 0.755 | 0.78 | 0.806 |
| D/C 4 conductor | 1.569 | 1.569 | 1.569 | 1.569 | 1.569 |
| Norms (₹ lakh/km) | 1.062 | 1.097 | 1.133 | 1.171 | 1.21 |
| Total O&M Expenses allowed (₹ in lakh) | 44.30 | 109.90 | 113.55 | 117.31 | 121.21 |
| Particulars | Asset-13 | | | | |
| | 2014-15 (Pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Patna:01 Number 63 MVAR Line Reactor of Ckt. -I of 400 kV D/C Patna-Kishanganj Line used as Bus Reactor | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| Total O&M Expenses allowed (₹ in lakh) | 29.90 | 62.30 | 64.37 | 66.51 | 68.71 |
| Particulars | Asset-14 | | | | |
| | 2014-15 (Pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Bay(s) | | | | | |
| (i) Patna:01 Number 63 MVAR Line Reactor of Ckt. -II of 400 kV D/C Patna-Kishanganj Line used as Bus Reactor | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | 1 |
| Norms (₹ lakh/Bay) | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |



| Particulars | Asset-6 | | | | |
|--|-----------------------------------|---------------|---------------|---------------|--------------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Total O&M Expenses allowed (₹ in lakh) | 20.32 | 62.30 | 64.37 | 66.51 | 68.71 |
| Particulars | Asset-15 | | | | |
| | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 | |
| Transmission Line | | | | | |
| (i) 400 kV D/C Patna Kishanganj Line | | | | | |
| Bay(s) | | | | | |
| (ii) Kishanganj:Patna Line Bay I & II at Kishanganj | | | | | |
| (iii) Kishanganj:Switchable Line Reactor at Kishanganj | | | | | |
| 400 kV Bays GIS | 4 | 4 | 4 | 4 | |
| Norms (₹ lakh/Bay) | 53.25 | 55.02 | 56.84 | 58.73 | |
| D/C 4 Conductors | 347.00 | 347.00 | 347.00 | 347.00 | |
| Norms (₹ lakh/km) | 1.097 | 1.133 | 1.171 | 1.21 | |
| Total O&M Expenses allowed (₹ in lakh) | 6.49 | 613.23 | 633.70 | 654.79 | |
| Particulars | Asset-16 | | | | |
| | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 | |
| Transmission Line | | | | | |
| (i) 220 kV D/C Rangpo - New Melli Line | | | | | |
| (ii) 220 kV D/C Rangpo- New Melli Line | | | | | |
| Bay(s) | | | | | |
| (iii) Rangpo:02 Numbers Line Bays: 220 GIS | | | | | |
| (iv) New Melli:02 Numbers Line Bays: 220 GIS | | | | | |
| 220 kV GIS bays | 4 | 4 | 4 | 4 | |
| Norms (₹ lakh/Bay) | 43.61 | 45.06 | 46.55 | 48.1 | |
| D/C 1 conductor | 1 | 1 | 1 | 1 | |
| Norms (₹ lakh/km) | 0.313 | 0.324 | 0.334 | 0.346 | |
| M/C 2 conductor | 2 | 2 | 2 | 2 | |
| Norms (₹ lakh/km) | 1.282 | 1.324 | 1.368 | 1.413 | |
| Total O&M Expenses allowed (₹ in lakh) | 96.87 | 190.82 | 197.11 | 203.69 | |
| Particulars | Asset-17 | | | | |
| | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 | |
| Bay(s) | | | | | |
| (i) New Melli:31.5 MVAR Bus Reactor (1st) at New Melli | | | | | |
| 220 kV GIS Bays | 1 | 1 | 1 | 1 | |



| Particulars | Asset-6 | | | | |
|---|-----------------------------------|--------------|--------------|--------------|---------|
| | 2014-15 (Pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Norms (₹ lakh/Bay) | 43.61 | 45.06 | 46.55 | 48.1 | |
| Total O&M Expenses allowed (₹ in lakh) | 7.27 | 45.06 | 46.55 | 48.10 | |
| Particulars | Asset-18 | | | | |
| | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 | |
| Bay(s) (i) New Melli:31.5 MVAR Bus Reactor (2nd) at New Melli: 220 kV GIS | | | | | |
| 400 kV Bays | 1 | 1 | 1 | 1 | |
| Norms (₹ lakh/Bay) | 43.61 | 45.06 | 46.55 | 48.1 | |
| Total O&M Expenses allowed (₹ in lakh) | 1.31 | 45.06 | 46.55 | 48.10 | |

103. The details of O&M Expenses allowed vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18), claimed by the Petitioner in the instant petition and trued-up O&M Expenses in the instant order are as follows:

| Particulars | (₹ in lakh) | | | | |
|--|----------------|---------|---------|---------|---------|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Asset-1 | | | | |
| Allowed vide order dated 10.7.2017 in Petition No. 165/TT/2016 | 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 true-up in this order | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| | Asset-2 | | | | |
| Allowed vide order dated 29.7.2016 in Petition No. 68/TT/2016 | 312.28 | 344.34 | 355.77 | 367.55 | 379.79 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Claimed by the Petitioner in the instant petition | 340.52 | 375.49 | 387.95 | 400.80 | 414.16 |
| Approved after true-up in this order | 312.28 | 344.34 | 355.77 | 367.55 | 379.79 |
| | Asset-3 | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 20.37 | 63.47 | 65.57 | 67.75 | 70.02 |
| Claimed by the Petitioner in the instant petition | 20.37 | 63.48 | 65.57 | 67.76 | 70.01 |
| Approved after true-up in this order | 20.37 | 63.47 | 65.57 | 67.75 | 70.02 |
| | Asset-4 | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| Claimed by the Petitioner in the instant petition | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| Approved after true-up in this order | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| | Asset-5 | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 44.34 | 53.25 | 55.02 | 56.84 | 58.74 |
| Claimed by the Petitioner in the instant petition | 44.34 | 53.25 | 55.02 | 56.84 | 58.73 |
| Approved after true-up in this order | 44.34 | 53.25 | 55.02 | 56.84 | 58.73 |
| | Asset-6 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| Claimed by the Petitioner in the instant petition | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| Approved after true-up in this order | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| | Asset-7 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 88.18 | 105.91 | 109.42 | 113.05 | 116.82 |
| Claimed by the Petitioner in the instant petition | 88.19 | 105.91 | 109.42 | 113.05 | 116.82 |
| Approved after true-up in this order | 62.25 | 74.76 | 77.24 | 79.80 | 82.46 |
| | Asset-8 | | | | |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 41.79 | 53.25 | 55.02 | 56.84 | 58.73 |
| Claimed by the Petitioner in the instant petition | 41.80 | 53.25 | 55.02 | 56.84 | 58.73 |
| Approved after true-up in this order | 41.80 | 53.25 | 55.02 | 56.84 | 58.73 |
| Asset-9 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| Claimed by the Petitioner in the instant petition | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| Approved after true-up in this order | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| Asset-10 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 69.86 | 96.86 | 100.08 | 103.39 | 106.83 |
| Claimed by the Petitioner in the instant petition | 69.87 | 96.86 | 100.08 | 103.39 | 106.83 |
| Approved after true-up in this order | 69.86 | 96.86 | 100.08 | 103.39 | 106.83 |
| Asset-11 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 57.88 | 74.76 | 77.24 | 79.80 | 82.46 |
| Claimed by the Petitioner in the instant petition | 57.89 | 74.76 | 77.24 | 79.80 | 82.46 |
| Approved after true-up in this order | 57.89 | 74.76 | 77.24 | 79.80 | 82.46 |
| Asset-12 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 44.29 | 109.90 | 113.55 | 117.31 | 121.21 |
| Claimed by the Petitioner in the instant petition | 44.30 | 109.90 | 113.55 | 117.31 | 121.21 |
| Approved after true-up in this order | 44.30 | 109.90 | 113.55 | 117.31 | 121.21 |
| Asset-13 | | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 30.09 | 62.30 | 64.37 | 66.51 | 68.71 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|-----------------|----------------|----------------|----------------|----------------|
| Claimed by the Petitioner in the instant petition | 29.90 | 62.30 | 64.37 | 66.51 | 68.71 |
| Approved after true-up in this order | 29.90 | 62.30 | 64.37 | 66.51 | 68.71 |
| | Asset-14 | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 20.43 | 62.30 | 64.37 | 66.51 | 68.71 |
| Claimed by the Petitioner in the instant petition | 20.32 | 62.30 | 64.37 | 66.51 | 68.71 |
| Approved after true-up in this order | 20.32 | 62.30 | 64.37 | 66.51 | 68.71 |
| | Asset-15 | | | | |
| Allowed <i>vide</i> order dated 31.5.2016 in Petition No. 230/TT/2015 | | 6.49 | 613.23 | 633.70 | 654.79 |
| Claimed by the Petitioner in the instant petition | | 6.48 | 613.23 | 633.70 | 654.79 |
| Approved after true-up in this order | | 6.49 | 613.23 | 633.70 | 654.79 |
| | Asset-16 | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 96.87 | 190.82 | 197.11 | 203.69 |
| Claimed by the Petitioner in the instant petition | | 96.86 | 190.82 | 197.11 | 203.70 |
| Approved after true-up in this order | | 96.87 | 190.82 | 197.11 | 203.69 |
| | Asset-17 | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 7.27 | 45.06 | 46.55 | 48.10 |
| Claimed by the Petitioner in the instant petition | | 7.27 | 45.06 | 46.55 | 48.10 |
| Approved after true-up in this order | | 7.27 | 45.06 | 46.55 | 48.10 |
| | Asset-18 | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 1.31 | 45.06 | 46.55 | 48.10 |
| Claimed by the Petitioner in the instant petition | | 1.31 | 45.06 | 46.55 | 48.10 |
| Approved after true-up in this order | | 1.31 | 45.06 | 46.55 | 48.10 |



Interest on Working Capital (“IWC”)

104. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed as follows:

(₹ in lakh)

| | Particulars | Asset-1 | | | | |
|----------|--|--------------|--------------|--------------|--------------|--------------|
| | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 5.03 | 5.19 | 5.36 | 5.54 | 5.73 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.05 | 9.35 | 9.66 | 9.98 | 10.31 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 27.41 | 28.40 | 29.97 | 31.27 | 31.82 |
| D | Total Working Capital (A+B+C) | 41.48 | 42.94 | 44.99 | 46.79 | 47.85 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 5.60 | 5.80 | 6.07 | 6.32 | 6.46 |

(₹ in lakh)

| | Particulars | Asset-2 | | | | |
|----------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 27.77 | 28.70 | 29.65 | 30.63 | 31.65 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 49.99 | 51.65 | 53.37 | 55.13 | 56.97 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 430.02 | 475.93 | 500.30 | 496.38 | 494.77 |
| D | Total Working Capital (A+B+C) | 507.78 | 556.28 | 583.31 | 582.15 | 583.39 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 64.23 | 75.10 | 78.75 | 78.59 | 78.76 |



(₹ in lakh)

| | Particulars | Asset-3 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 5.12 | 5.29 | 5.46 | 5.65 | 5.83 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.22 | 9.52 | 9.84 | 10.16 | 10.50 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 28.86 | 34.00 | 41.05 | 43.10 | 43.37 |
| D | Total Working Capital (A+B+C) | 43.20 | 48.81 | 56.35 | 58.90 | 59.70 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 1.93 | 6.59 | 7.61 | 7.95 | 8.06 |

(₹ in lakh)

| | Particulars | Asset-4 | | | | |
|------------------------------------|--|-----------------------------------|--------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 69.04 | 74.17 | 77.76 | 77.94 | 78.54 |
| D | Total Working Capital (A+B+C) | 90.92 | 96.78 | 101.11 | 102.07 | 103.47 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 10.56 | 13.06 | 13.65 | 13.78 | 13.97 |



(₹ in lakh)

| | Particulars | Asset-5 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 4.30 | 4.44 | 4.59 | 4.74 | 4.89 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 7.73 | 7.99 | 8.25 | 8.53 | 8.81 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 33.98 | 34.92 | 36.44 | 37.34 | 37.36 |
| D | Total Working Capital (A+B+C) | 46.01 | 47.35 | 49.28 | 50.60 | 51.06 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 5.34 | 6.39 | 6.65 | 6.83 | 6.89 |

(₹ in lakh)

| | Particulars | Asset-6 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|---------------|
| | | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 68.99 | 71.18 | 71.92 | 75.05 | 78.55 |
| D | Total Working Capital (A+B+C) | 90.86 | 93.78 | 95.27 | 99.18 | 103.48 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 9.95 | 12.66 | 12.86 | 13.39 | 13.97 |



(₹ in lakh)

| | Particulars | Asset-7 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 6.03 | 6.23 | 6.44 | 6.65 | 6.87 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 10.85 | 11.21 | 11.59 | 11.97 | 12.37 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 48.45 | 51.02 | 52.56 | 54.66 | 56.43 |
| D | Total Working Capital (A+B+C) | 65.33 | 68.47 | 70.58 | 73.28 | 75.68 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 7.59 | 9.24 | 9.53 | 9.89 | 10.22 |

(₹ in lakh)

| | Particulars | Asset-8 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 4.30 | 4.44 | 4.59 | 4.74 | 4.89 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 7.73 | 7.99 | 8.25 | 8.53 | 8.81 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 34.89 | 35.58 | 36.92 | 37.74 | 37.72 |
| D | Total Working Capital (A+B+C) | 46.91 | 48.00 | 49.76 | 51.00 | 51.42 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 5.14 | 6.48 | 6.72 | 6.89 | 6.94 |



(₹ in lakh)

| | Particulars | Asset-9 | | | | |
|------------------------------------|--|-----------------------------------|--------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 72.06 | 77.04 | 79.36 | 78.59 | 78.56 |
| D | Total Working Capital (A+B+C) | 93.94 | 99.64 | 102.72 | 102.71 | 103.49 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 9.55 | 13.45 | 13.87 | 13.87 | 13.97 |

(₹ in lakh)

| | Particulars | Asset-10 | | | | |
|------------------------------------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 7.81 | 8.07 | 8.34 | 8.62 | 8.90 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 14.06 | 14.53 | 15.01 | 15.51 | 16.02 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 74.74 | 79.61 | 79.01 | 78.22 | 78.25 |
| D | Total Working Capital (A+B+C) | 96.62 | 102.21 | 102.36 | 102.35 | 103.17 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 9.72 | 13.80 | 13.82 | 13.82 | 13.93 |



(₹ in lakh)

| | Particulars | Asset-11 | | | | |
|----------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 6.03 | 6.23 | 6.44 | 6.65 | 6.87 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 10.85 | 11.21 | 11.59 | 11.97 | 12.37 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 37.77 | 40.47 | 42.47 | 43.80 | 44.99 |
| D | Total Working Capital (A+B+C) | 54.65 | 57.91 | 60.50 | 62.42 | 64.23 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 5.90 | 7.82 | 8.17 | 8.43 | 8.67 |

(₹ in lakh)

| | Particulars | Asset-12 | | | | |
|----------|--|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 8.86 | 9.16 | 9.46 | 9.78 | 10.10 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 15.96 | 16.49 | 17.03 | 17.60 | 18.18 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 93.38 | 101.87 | 111.61 | 113.07 | 112.36 |
| D | Total Working Capital (A+B+C) | 118.20 | 127.51 | 138.10 | 140.44 | 140.64 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 6.65 | 17.21 | 18.64 | 18.96 | 18.99 |



(₹ in lakh)

| | Particulars | Asset-13 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 5.03 | 5.19 | 5.36 | 5.54 | 5.73 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.05 | 9.35 | 9.66 | 9.98 | 10.31 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 35.30 | 37.21 | 38.69 | 39.94 | 40.33 |
| D | Total Working Capital (A+B+C) | 49.37 | 51.75 | 53.71 | 55.46 | 56.36 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 3.31 | 6.99 | 7.25 | 7.49 | 7.61 |

(₹ in lakh)

| | Particulars | Asset-14 | | | | |
|------------------------------------|--|-----------------------------------|--------------|--------------|--------------|--------------|
| | | 2014-15 (pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Interest on Working Capital | | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 5.03 | 5.19 | 5.36 | 5.54 | 5.73 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 9.05 | 9.35 | 9.66 | 9.98 | 10.31 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 35.72 | 37.56 | 39.03 | 40.22 | 40.60 |
| D | Total Working Capital (A+B+C) | 49.79 | 52.10 | 54.05 | 55.74 | 56.63 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 2.26 | 7.03 | 7.30 | 7.52 | 7.65 |



(₹ in lakh)

| | Particulars | Asset-15 | | | |
|----------|---|---------------------------------|----------------|----------------|----------------|
| | | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 49.47 | 51.10 | 52.81 | 54.57 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 89.05 | 91.98 | 95.05 | 98.22 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 2844.28 | 2886.27 | 2887.96 | 2841.07 |
| D | Total Working Capital (A+B+C) | 2982.80 | 3029.36 | 3035.82 | 2993.86 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 4.40 | 408.96 | 409.84 | 404.17 |

(₹ in lakh)

| | Particulars | Asset-16 | | | |
|----------|---|-----------------------------------|---------------|---------------|---------------|
| | | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 15.39 | 15.90 | 16.43 | 16.97 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 27.70 | 28.62 | 29.57 | 30.55 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 402.46 | 432.31 | 502.34 | 570.57 |
| D | Total Working Capital (A+B+C) | 445.55 | 476.84 | 548.33 | 618.10 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 31.55 | 64.37 | 74.03 | 83.44 |

(₹ in lakh)

| | Particulars | Asset-17 | | | |
|---|--|----------------------------------|---------|---------|---------|
| | | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 3.63 | 3.76 | 3.88 | 4.01 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 6.54 | 6.76 | 6.98 | 7.22 |



| | Particulars | Asset-17 | | | |
|----------|--|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 35.15 | 39.54 | 43.35 | 44.42 |
| D | Total Working Capital (A+B+C) | 45.32 | 50.05 | 54.21 | 55.65 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 1.02 | 6.76 | 7.32 | 7.51 |

(₹ in lakh)

| | Particulars | Asset-18 | | | |
|----------|---|----------------------------------|--------------|--------------|--------------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| | Interest on Working Capital | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 3.63 | 3.76 | 3.88 | 4.01 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 6.54 | 6.76 | 6.98 | 7.22 |
| C | Working Capital for Receivables (equivalent to two months of Annual Fixed Charges/Annual Transmission Charges) | 34.65 | 38.61 | 42.97 | 44.68 |
| D | Total Working Capital (A+B+C) | 44.82 | 49.12 | 53.83 | 55.90 |
| E | Rate of Interest (in %) | 13.50 | 13.50 | 13.50 | 13.50 |
| F | Interest of Working Capital (D*E) | 0.18 | 6.63 | 7.27 | 7.55 |

105. The details of IWC allowed vide order dated 10.7.2017 in Petition No. 165/TT/2016 (Asset-1), order dated 29.7.2016 in Petition No. 68/TT/2016 (Asset-2 to Asset-5), order dated 29.12.2016 in Petition No. 118/TT/2014 (Asset-6 to Asset-12), order dated 29.2.2016 in Petition No. 530/TT/2014 (Asset-13 and Asset-14), order dated 31.5.2016 in Petition No. 230/TT/2015 (Asset-15) and order dated 14.11.2017 in Petition No. 183/TT/2016 (Asset-16 to Asset-18), claimed by the Petitioner in the instant petition and trued-up IWC in the instant order are as follows:



(₹ in lakh)

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|---------|---------|---------|---------|---------|
| Asset-1 | | | | | |
| Allowed <i>vide</i> order dated 10.7.2017 in Petition No. 165/TT/2016 | 5.60 | 5.79 | 6.15 | 6.41 | 6.48 |
| Claimed by the Petitioner in the instant petition | 5.65 | 5.85 | 6.12 | 6.36 | 6.50 |
| Approved after true-up in this order | 5.60 | 5.80 | 6.07 | 6.32 | 6.46 |
| Asset-2 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 61.11 | 66.03 | 65.90 | 65.81 | 65.60 |
| Claimed by the Petitioner in the instant petition | 65.95 | 77.28 | 81.09 | 80.96 | 81.15 |
| Approved after true-up in this order | 65.79 | 76.82 | 80.52 | 80.43 | 80.66 |
| Asset-3 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 1.94 | 6.77 | 7.65 | 7.71 | 7.76 |
| Claimed by the Petitioner in the instant petition | 1.96 | 6.69 | 7.74 | 8.10 | 8.20 |
| Approved after true-up in this order | 1.93 | 6.59 | 7.61 | 7.95 | 8.06 |
| Asset-4 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 10.56 | 12.86 | 13.13 | 13.17 | 13.19 |
| Claimed by the Petitioner in the instant petition | 10.57 | 13.10 | 13.71 | 13.83 | 14.02 |
| Approved after true-up in this order | 10.56 | 13.06 | 13.65 | 13.78 | 13.97 |
| Asset-5 | | | | | |
| Allowed <i>vide</i> order dated 29.7.2016 in Petition No. 68/TT/2016 | 5.34 | 6.35 | 6.42 | 6.46 | 6.49 |
| Claimed by the Petitioner in the instant petition | 5.34 | 6.39 | 6.66 | 6.86 | 6.92 |
| Approved after true-up in this order | 5.34 | 6.39 | 6.65 | 6.83 | 6.89 |
| Asset-6 | | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 9.94 | 12.89 | 13.21 | 13.25 | 13.27 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|-----------------|----------------|----------------|----------------|----------------|
| Claimed by the Petitioner in the instant petition | 9.95 | 12.66 | 12.86 | 13.42 | 14.03 |
| Approved after true-up in this order | 9.95 | 12.66 | 12.86 | 13.39 | 13.97 |
| | Asset-7 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 9.02 | 11.05 | 11.42 | 11.50 | 11.57 |
| Claimed by the Petitioner in the instant petition | 9.18 | 11.18 | 11.56 | 12.00 | 12.40 |
| Approved after true-up in this order | 9.02 | 10.96 | 11.31 | 11.73 | 12.11 |
| | Asset-8 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 5.13 | 6.41 | 6.45 | 6.48 | 6.50 |
| Claimed by the Petitioner in the instant petition | 5.14 | 6.48 | 6.73 | 6.92 | 6.97 |
| Approved after true-up in this order | 5.14 | 6.48 | 6.72 | 6.89 | 6.94 |
| | Asset-9 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 9.55 | 13.32 | 13.61 | 13.60 | 13.58 |
| Claimed by the Petitioner in the instant petition | 9.55 | 13.49 | 13.93 | 13.92 | 14.02 |
| Approved after true-up in this order | 9.55 | 13.45 | 13.87 | 13.87 | 13.97 |
| | Asset-10 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 9.40 | 13.24 | 13.53 | 13.52 | 13.51 |
| Claimed by the Petitioner in the instant petition | 9.74 | 13.86 | 13.88 | 13.87 | 13.98 |
| Approved after true-up in this order | 9.72 | 13.80 | 13.82 | 13.82 | 13.93 |
| | Asset-11 | | | | |
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 5.89 | 7.77 | 8.04 | 8.10 | 8.16 |
| Claimed by the Petitioner in the instant petition | 5.93 | 7.88 | 8.26 | 8.52 | 8.76 |
| Approved after true-up in this order | 5.90 | 7.82 | 8.17 | 8.43 | 8.67 |
| | Asset-12 | | | | |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--|----------------|----------------|----------------|----------------|----------------|
| Allowed <i>vide</i> order dated 29.12.2016 in Petition No. 118/TT/2014 | 6.64 | 17.09 | 18.01 | 17.94 | 17.85 |
| Claimed by the Petitioner in the instant petition | 6.65 | 17.28 | 18.77 | 19.08 | 19.09 |
| Approved after true-up in this order | 6.65 | 17.21 | 18.64 | 18.96 | 18.99 |
| Asset-13 | | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 3.30 | 7.12 | 7.53 | 7.73 | 7.74 |
| Claimed by the Petitioner in the instant petition | 3.33 | 7.03 | 7.29 | 7.53 | 7.65 |
| Approved after true-up in this order | 3.31 | 6.99 | 7.25 | 7.49 | 7.61 |
| Asset-14 | | | | | |
| Allowed <i>vide</i> order dated 29.2.2016 in Petition No. 530/TT/2014 | 2.30 | 7.25 | 7.60 | 7.77 | 7.78 |
| Claimed by the Petitioner in the instant petition | 2.28 | 7.09 | 7.35 | 7.57 | 7.69 |
| Approved after true-up in this order | 2.26 | 7.03 | 7.30 | 7.52 | 7.65 |
| Asset-15 | | | | | |
| Allowed <i>vide</i> order dated 31.5.2016 in Petition No. 230/TT/2015 | | 22.68 | 343.74 | 338.83 | 331.88 |
| Claimed by the Petitioner in the instant petition | | 4.40 | 409.02 | 409.89 | 404.22 |
| Approved after true-up in this order | | 4.40 | 408.96 | 409.84 | 404.17 |
| Asset-16 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 30.82 | 69.77 | 78.15 | 77.37 |
| Claimed by the Petitioner in the instant petition | | 31.56 | 64.42 | 74.19 | 83.66 |
| Approved after true-up in this order | | 31.55 | 64.37 | 74.03 | 83.44 |
| Asset-17 | | | | | |
| Allowed <i>vide</i> order dated 14.11.2017 in Petition No. 183/TT/2016 | | 1.02 | 6.69 | 7.06 | 7.04 |
| Claimed by the Petitioner in the instant petition | | 1.02 | 6.78 | 7.35 | 7.55 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|-----------------|---------|---------|---------|---------|
| Approved after true-up in this order | | 1.02 | 6.76 | 7.32 | 7.51 |
| | Asset-18 | | | | |
| Allowed vide order dated 14.11.2017 in Petition No. 183/TT/2016 | | 0.18 | 6.60 | 7.04 | 7.03 |
| Claimed by the Petitioner in the instant petition | | 0.18 | 6.62 | 7.28 | 7.55 |
| Approved after true-up in this order | | 0.18 | 6.63 | 7.27 | 7.55 |

Approved Annual Fixed Charges for 2014-19 Tariff Period

106. The trued-up AFC for the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)

| | Particulars | Asset-1 | | | | |
|---|------------------------------------|---------------|---------------|---------------|---------------|---------------|
| | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 36.82 | 38.50 | 41.39 | 43.87 | 44.94 |
| B | Interest on Loan | 20.68 | 20.70 | 21.66 | 21.81 | 20.36 |
| C | Return on Equity | 41.03 | 43.11 | 46.34 | 49.12 | 50.45 |
| D | O&M Expenses | 60.30 | 62.30 | 64.37 | 66.51 | 68.71 |
| E | Interest on Working Capital | 5.60 | 5.80 | 6.07 | 6.32 | 6.46 |
| F | Total (A+B+C+D+E) | 164.43 | 170.41 | 179.84 | 187.63 | 190.92 |

(₹ in lakh)

| | Particulars | Asset-2 | | | | |
|---|------------------------------------|-----------------------------------|----------------|----------------|----------------|----------------|
| | | 2014-15 (pro-rata 342 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 672.05 | 805.61 | 853.64 | 854.38 | 855.06 |
| B | Interest on Loan | 552.53 | 655.87 | 684.80 | 647.76 | 621.47 |
| C | Return on Equity | 816.43 | 974.67 | 1028.82 | 1030.02 | 1033.56 |
| D | O&M Expenses | 312.28 | 344.34 | 355.77 | 367.55 | 379.79 |
| E | Interest on Working Capital | 64.23 | 75.10 | 78.75 | 78.59 | 78.76 |
| F | Total (A+B+C+D+E) | 2417.52 | 2855.58 | 3001.78 | 2978.31 | 2968.63 |



(₹ in lakh)

| | Particulars | Asset-3 | | | | |
|------------------------------------|--------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 121 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Annual Transmission Charges | | | | | | |
| A | Depreciation | 12.91 | 47.86 | 60.40 | 64.23 | 64.42 |
| B | Interest on Loan | 7.82 | 32.48 | 45.12 | 46.72 | 45.38 |
| C | Return on Equity | 14.38 | 53.58 | 67.62 | 71.92 | 72.32 |
| D | O&M Expenses | 20.37 | 63.47 | 65.57 | 67.75 | 70.02 |
| E | Interest on Working Capital | 1.93 | 6.59 | 7.61 | 7.95 | 8.06 |
| F | Total (A+B+C+D+E) | 57.41 | 203.98 | 246.32 | 258.57 | 260.20 |

(₹ in lakh)

| | Particulars | Asset-4 | | | | |
|------------------------------------|--------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Annual Transmission Charges | | | | | | |
| A | Depreciation | 92.90 | 117.56 | 124.11 | 125.10 | 126.29 |
| B | Interest on Loan | 68.75 | 85.94 | 89.73 | 85.33 | 82.38 |
| C | Return on Equity | 103.51 | 131.62 | 138.96 | 140.07 | 141.78 |
| D | O&M Expenses | 80.65 | 96.86 | 100.08 | 103.39 | 106.83 |
| E | Interest on Working Capital | 10.56 | 13.06 | 13.65 | 13.78 | 13.97 |
| F | Total (A+B+C+D+E) | 356.38 | 445.05 | 466.53 | 467.66 | 471.25 |

(₹ in lakh)

| | Particulars | Asset-5 | | | | |
|------------------------------------|--------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Annual Transmission Charges | | | | | | |
| A | Depreciation | 44.45 | 53.32 | 55.83 | 57.59 | 57.59 |
| B | Interest on Loan | 31.75 | 36.87 | 38.66 | 38.28 | 36.30 |
| C | Return on Equity | 49.53 | 59.70 | 62.51 | 64.48 | 64.65 |
| D | O&M Expenses | 44.34 | 53.25 | 55.02 | 56.84 | 58.73 |
| E | Interest on Working Capital | 5.34 | 6.39 | 6.65 | 6.83 | 6.89 |
| F | Total (A+B+C+D+E) | 175.42 | 209.54 | 218.67 | 224.02 | 224.16 |



(₹ in lakh)

| | Particulars | Asset-6 | | | | |
|------------------------------------|------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Annual Transmission Charges | | | | | | |
| A | Depreciation | 87.42 | 111.86 | 113.06 | 119.52 | 126.12 |
| B | Interest on Loan | 64.88 | 80.46 | 78.95 | 80.19 | 82.78 |
| C | Return on Equity | 97.40 | 125.24 | 126.58 | 133.82 | 141.59 |
| D | O&M Expenses | 76.03 | 96.86 | 100.08 | 103.39 | 106.83 |
| E | Interest on Working Capital | 9.95 | 12.66 | 12.86 | 13.39 | 13.97 |
| F | Total (A+B+C+D+E) | 335.67 | 427.09 | 431.53 | 450.31 | 471.30 |

(₹ in lakh)

| | Particulars | Asset-7 | | | | |
|------------------------------------|-----------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 314 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Annual Transmission Charges | | | | | | |
| A | Depreciation | 61.11 | 76.06 | 79.31 | 83.99 | 87.88 |
| B | Interest on Loan | 51.05 | 60.90 | 60.46 | 60.25 | 59.39 |
| C | Return on Equity | 68.09 | 85.16 | 88.80 | 94.03 | 98.66 |
| D | O&M Expenses | 62.25 | 74.76 | 77.24 | 79.80 | 82.46 |
| E | Interest on Working Capital | 7.59 | 9.24 | 9.53 | 9.89 | 10.22 |
| F | Total (A+B+C+D+E) | 250.08 | 306.13 | 315.34 | 327.96 | 338.61 |

(₹ in lakh)

| | Particulars | Asset-8 | | | | |
|------------------------------------|------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 296 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Annual Transmission Charges | | | | | | |
| A | Depreciation | 43.06 | 54.47 | 57.05 | 58.88 | 58.88 |
| B | Interest on Loan | 31.78 | 38.28 | 38.86 | 37.89 | 35.65 |
| C | Return on Equity | 47.98 | 60.99 | 63.88 | 65.93 | 66.10 |
| D | O&M Expenses | 41.80 | 53.25 | 55.02 | 56.84 | 58.73 |
| E | Interest on Working Capital | 5.14 | 6.48 | 6.72 | 6.89 | 6.94 |
| F | Total (A+B+C+D+E) | 169.75 | 213.47 | 221.53 | 226.43 | 226.31 |



(₹ in lakh)

| | Particulars | Asset-9 | | | | |
|---|------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 275 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 81.11 | 117.72 | 123.41 | 123.41 | 124.60 |
| B | Interest on Loan | 74.08 | 102.38 | 100.66 | 92.68 | 86.07 |
| C | Return on Equity | 90.38 | 131.80 | 138.17 | 138.17 | 139.88 |
| D | O&M Expenses | 70.63 | 96.86 | 100.08 | 103.39 | 106.83 |
| E | Interest on Working Capital | 9.55 | 13.45 | 13.87 | 13.87 | 13.97 |
| F | Total (A+B+C+D+E) | 325.76 | 462.21 | 476.19 | 471.52 | 471.35 |

(₹ in lakh)

| | Particulars | Asset-10 | | | | |
|---|------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 272 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 84.63 | 123.30 | 123.44 | 123.44 | 124.63 |
| B | Interest on Loan | 75.48 | 105.67 | 98.52 | 90.50 | 84.19 |
| C | Return on Equity | 94.29 | 138.05 | 138.21 | 138.21 | 139.91 |
| D | O&M Expenses | 69.86 | 96.86 | 100.08 | 103.39 | 106.83 |
| E | Interest on Working Capital | 9.72 | 13.80 | 13.82 | 13.82 | 13.93 |
| F | Total (A+B+C+D+E) | 333.98 | 477.67 | 474.07 | 469.36 | 469.49 |

(₹ in lakh)

| | Particulars | Asset-11 | | | | |
|---|------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 292 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 41.33 | 56.48 | 60.06 | 62.71 | 64.84 |
| B | Interest on Loan | 30.12 | 40.53 | 42.14 | 41.66 | 41.18 |
| C | Return on Equity | 46.05 | 63.24 | 67.24 | 70.21 | 72.79 |
| D | O&M Expenses | 57.89 | 74.76 | 77.24 | 79.80 | 82.46 |
| E | Interest on Working Capital | 5.90 | 7.82 | 8.17 | 8.43 | 8.67 |
| F | Total (A+B+C+D+E) | 181.30 | 242.83 | 254.85 | 262.82 | 269.95 |



(₹ in lakh)

| | Particulars | Asset-12 | | | | |
|---|------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 152 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 59.64 | 159.56 | 179.68 | 185.18 | 186.34 |
| B | Interest on Loan | 56.30 | 145.91 | 156.61 | 149.64 | 138.44 |
| C | Return on Equity | 66.45 | 178.64 | 201.17 | 207.33 | 209.19 |
| D | O&M Expenses | 44.30 | 109.90 | 113.55 | 117.31 | 121.21 |
| E | Interest on Working Capital | 6.65 | 17.21 | 18.64 | 18.96 | 18.99 |
| F | Total (A+B+C+D+E) | 233.33 | 611.22 | 669.65 | 678.41 | 674.16 |

(₹ in lakh)

| | Particulars | Asset-13 | | | | |
|---|------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 181 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 22.02 | 48.03 | 51.40 | 54.60 | 56.14 |
| B | Interest on Loan | 25.36 | 52.32 | 51.82 | 50.27 | 46.86 |
| C | Return on Equity | 24.46 | 53.61 | 57.28 | 60.77 | 62.66 |
| D | O&M Expenses | 29.90 | 62.30 | 64.37 | 66.51 | 68.71 |
| E | Interest on Working Capital | 3.31 | 6.99 | 7.25 | 7.49 | 7.61 |
| F | Total (A+B+C+D+E) | 105.04 | 223.26 | 232.11 | 239.65 | 241.97 |

(₹ in lakh)

| | Particulars | Asset-14 | | | | |
|---|------------------------------------|-----------------------------------|---------------|---------------|---------------|---------------|
| | | 2014-15 (pro-rata 123 days) | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 15.16 | 48.42 | 51.88 | 55.09 | 56.62 |
| B | Interest on Loan | 17.63 | 53.59 | 52.79 | 50.87 | 47.43 |
| C | Return on Equity | 16.84 | 54.04 | 57.82 | 61.32 | 63.20 |
| D | O&M Expenses | 20.32 | 62.30 | 64.37 | 66.51 | 68.71 |
| E | Interest on Working Capital | 2.26 | 7.03 | 7.30 | 7.52 | 7.65 |
| F | Total (A+B+C+D+E) | 72.22 | 225.38 | 234.16 | 241.31 | 243.60 |



(₹ in lakh)

| | Particulars | Asset-15 | | | |
|---|------------------------------------|---------------------------------|-----------------|-----------------|-----------------|
| | | 2015-16 (pro-rata 4 days) | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | |
| A | Depreciation | 56.24 | 5254.39 | 5375.04 | 5409.97 |
| B | Interest on Loan | 56.42 | 5159.05 | 4892.17 | 4505.11 |
| C | Return on Equity | 62.96 | 5882.01 | 6016.99 | 6072.39 |
| D | O&M Expenses | 6.49 | 613.23 | 633.70 | 654.79 |
| E | Interest on Working Capital | 4.40 | 408.96 | 409.84 | 404.17 |
| F | Total (A+B+C+D+E) | 186.51 | 17317.65 | 17327.73 | 17046.43 |

(₹ in lakh)

| | Particulars | Asset-16 | | | |
|---|------------------------------------|-----------------------------------|----------------|----------------|----------------|
| | | 2015-16 (pro-rata 192 days) | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | |
| A | Depreciation | 401.67 | 810.28 | 945.14 | 1077.11 |
| B | Interest on Loan | 269.53 | 585.27 | 702.33 | 811.52 |
| C | Return on Equity | 467.14 | 943.13 | 1095.45 | 1247.67 |
| D | O&M Expenses | 96.87 | 190.82 | 197.11 | 203.69 |
| E | Interest on Working Capital | 31.55 | 64.37 | 74.03 | 83.44 |
| F | Total (A+B+C+D+E) | 1266.77 | 2593.87 | 3014.05 | 3423.45 |

(₹ in lakh)

| | Particulars | Asset-17 | | | |
|---|------------------------------------|----------------------------------|---------------|---------------|---------------|
| | | 2015-16 (pro-rata 61 days) | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | |
| A | Depreciation | 8.85 | 61.46 | 69.53 | 72.28 |
| B | Interest on Loan | 8.10 | 55.14 | 58.85 | 57.49 |
| C | Return on Equity | 9.91 | 68.81 | 77.85 | 81.15 |
| D | O&M Expenses | 7.27 | 45.06 | 46.55 | 48.10 |
| E | Interest on Working Capital | 1.02 | 6.76 | 7.32 | 7.51 |
| F | Total (A+B+C+D+E) | 35.15 | 237.23 | 260.10 | 266.53 |

(₹ in lakh)

| | Particulars | Asset-18 | | | |
|---|------------------------------------|----------------------------------|---------|---------|---------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| | Annual Transmission Charges | | | | |
| A | Depreciation | 1.56 | 59.49 | 68.58 | 72.53 |
| B | Interest on Loan | 1.44 | 53.87 | 58.64 | 58.48 |
| C | Return on Equity | 1.75 | 66.60 | 76.78 | 81.43 |



| | Particulars | Asset-18 | | | |
|---|-----------------------------|----------------------------------|---------------|---------------|---------------|
| | | 2015-16 (pro-rata 11 days) | 2016-17 | 2017-18 | 2018-19 |
| D | O&M Expenses | 1.31 | 45.06 | 46.55 | 48.10 |
| E | Interest on Working Capital | 0.18 | 6.63 | 7.27 | 7.55 |
| F | Total (A+B+C+D+E) | 6.25 | 231.65 | 257.83 | 268.08 |

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

107. All assets are combined w.e.f. 1.4.2019 into Combined Asset. The Petitioner has claimed the following transmission charges for the Combined Asset for 2019-24 tariff period:

| (₹ in lakh) | | | | | |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| Depreciation | 9407.67 | 9430.58 | 9430.58 | 9370.56 | 9303.45 |
| Interest on Loan | 6767.04 | 6065.28 | 5344.63 | 4805.43 | 4277.78 |
| Return on Equity | 10061.10 | 10089.28 | 10089.28 | 10089.28 | 10089.28 |
| Interest on Working Capital | 480.49 | 474.90 | 467.16 | 461.38 | 454.60 |
| O&M Expenses | 1972.18 | 2042.01 | 2113.50 | 2188.34 | 2263.47 |
| Total | 28688.48 | 28102.05 | 27445.15 | 26914.99 | 26388.58 |

108. The details of the IWC claimed by the Petitioner for the 2019-24 period are as follows:

| (₹ in lakh) | | | | | |
|--|----------------|----------------|----------------|----------------|----------------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| Working Capital for O&M Expenses (O&M Expenses for one month) | 164.35 | 170.17 | 176.13 | 182.36 | 188.62 |
| Working Capital for Maintenance Spares (15% of O&M Expenses) | 295.83 | 306.30 | 317.03 | 328.25 | 339.52 |
| Working Capital for Receivables (Equivalent to 45 days of annual transmission charges) | 3527.27 | 3464.64 | 3383.65 | 3318.29 | 3244.50 |
| Total Working Capital | 3987.45 | 3941.11 | 3876.81 | 3828.90 | 3772.64 |
| Rate of Interest (in %) | 12.05 | 12.05 | 12.05 | 12.05 | 12.05 |
| Interest on Working Capital | 480.49 | 474.90 | 467.16 | 461.38 | 454.60 |



Effective Date of Commercial Operation (E-COD)

109. The Petitioner has claimed the E-COD of the Combined Asset as 27.10.2015.

E-COD of the Combined Asset has been worked out based on the trued-up capital cost and CODs of the individual assets which is as follows:

| Assets | Trued-up capital cost as on 31.3.2019 (₹ in lakh) | COD | No. of days from COD of Assets from COD of Project | Weight of cost (in %) | Weighted days |
|---|--|------------|---|------------------------------|----------------------|
| 1 | 851.16 | 1.8.2013 | 1148.00 | 0.51 | 5.86 |
| 2 | 17447.24 | 24.4.2014 | 882.00 | 10.47 | 92.32 |
| 3 | 1223.70 | 1.12.2014 | 661.00 | 0.73 | 4.85 |
| 4 | 2414.37 | 22.5.2014 | 854.00 | 1.45 | 12.37 |
| 5 | 1090.68 | 22.5.2014 | 854.00 | 0.65 | 5.59 |
| 6 | 2411.23 | 9.6.2014 | 836.00 | 1.45 | 12.09 |
| 7 | 1664.44 | 22.5.2014 | 854.00 | 1.00 | 8.53 |
| 8 | 1115.24 | 9.6.2014 | 836.00 | 0.67 | 5.59 |
| 9 | 2382.34 | 30.6.2014 | 815.00 | 1.43 | 11.65 |
| 10 | 2382.92 | 3.7.2014 | 812.00 | 1.43 | 11.61 |
| 11 | 1228.07 | 13.6.2014 | 832.00 | 0.74 | 6.13 |
| 12 | 3551.09 | 31.10.2014 | 692.00 | 2.13 | 14.74 |
| 13 | 1057.06 | 2.10.2014 | 721.00 | 0.63 | 4.57 |
| 14 | 1066.23 | 29.11.2014 | 663.00 | 0.64 | 4.24 |
| 15 | 102673.89 | 28.3.2016 | 178.00 | 61.60 | 109.65 |
| 16 | 21350.18 | 22.9.2016 | 0.00 | 12.81 | 0.00 |
| 17 | 1378.14 | 31.1.2016 | 235.00 | 0.83 | 1.94 |
| 18 | 1389.62 | 21.3.2016 | 185.00 | 0.83 | 1.54 |
| Total | 166677.59 | | | 1.00 | 313.29 |
| E-COD (latest COD – total weighted days) | | | 13.11.2015 | | |

110. E-COD is used to determine the lapsed life of the project as a whole which works out as 3 (three) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).



Weighted Average Life (“WAL”) of the Project

111. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.

112. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. The element-wise life as defined in the regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of all the transmission assets executed during 2004-09 and 2014-19 periods has been worked out as 32 years as follows:

| Particulars | Life (in years) (1) | Capital cost as on 31.3.2019 (₹ in lakh) (2) | Weighted cost (₹ in lakh) (3) = (1) * (2) | Weighted average life of assets (in years) (4) = (3) / (2) |
|-------------------------------|----------------------------|---|--|---|
| Building Civil Works & Colony | 25.00 | 1770.83 | 44270.85 | 31.9381 years (rounded off 32 years) |
| Transmission Line | 35.00 | 114885.57 | 4020994.81 | |
| Sub Station | 25.00 | 45693.07 | 1142326.85 | |
| PLCC | 15.00 | 154.31 | 2314.66 | |
| I.T. Equipment | 6.67 | 785.42 | 5236.14 | |
| Total | | 163289.21 | 5215143.30 | |

113. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the E-COD of the transmission assets is 13.11.2015 and the lapsed life of the transmission project as a



whole works out as 3 years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from the E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 29 years.

Capital Cost

114. Regulation 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 assets 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 renovation and modernisation as admitted by this Commission in accordance with these regulations;*
 - (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 upto 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 assets forming part of the project, but not in use, as declared in the tariff petition;*
 - (b) *De-capitalised Assets 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 de-capitalised 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 assets.*
- (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.”*

115. The Petitioner has claimed capital cost of ₹191360.00 lakh as on 31.3.2019 , however the capital cost of ₹1766677.59 lakh has been considered as opening capital cost as on 31.3.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Initial Spares

116. As discussed above, the assets covered in the transmission project are combined and the overall project cost is arrived at in 2019-24 tariff period and, therefore, Initial Spares are allowed during the 2019-24 tariff period on the basis of the overall project cost as per the APTEL’s judgement dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, Initial Spares allowed in 2019-24 tariff period are as follows:

Transmission Line:

| Assets | Capital Cost/Plant&Machinery cost considered as on cut-off date (₹ in lakh) | Initial Spares claimed (₹ in lakh) | Norms as per 2009/2014 Tariff Regulations | Initial Spares allowable as per 2009/2014 Tariff Regulations (₹ in lakh) | Excess initial spares claimed (₹ in lakh) | Initial spares allowed during 2014-19 period (₹ in lakh) | Initial Spares allowable on Combined Asset (₹ in lakh) | Additional Initial Spares allowed (₹ in lakh) |
|-----------------------|---|------------------------------------|---|--|---|--|--|---|
| Asset-2 | 3201.80 | 18.1 | 1.00 | 32.16 | | | | |
| Asset-3 | 547.91 | 4.35 | 1.00 | 5.49 | | | | |
| Asset-12 | 1897.22 | 13.49 | 1.00 | 19.03 | | | | |
| Asset-15 | 78425.68 | 784 | 1.00 | 784.26 | Nil | 916.94 | 949.45 | Nil |
| Asset-16 | 10839.53 | 97 | 1.00 | 108.51 | | | | |
| Combined Asset | 94912.14 | 916.94 | | 949.45 | | | | |



Sub-station:

| Assets | Capital Cost/Plant & Machinery cost considered as on cut-off date (₹ in lakh) | Initial Spares claimed (₹ in lakh) | Norms as per 2009/2014 Tariff Regulations | Initial Spares allowable as per 2009/2014 Tariff Regulations (₹ in lakh) | Excess initial spares claimed (₹ in lakh) | Initial spares allowed during 2014-19 period (₹ in lakh) | Initial Spares allowable on Combined Asset (₹ in lakh) | Additional Initial Spares allowed (₹ in lakh) |
|------------------------|---|------------------------------------|---|--|---|--|--|---|
| Asset-1 | 905.37 | 21.83 | 2.50 | 22.65 | | | | |
| Asset-2 | 13333.40 | 358.25 | 5.00 | 682.90 | | | | |
| Asset-3 | 643.56 | 58.77 | 5.00 | 30.78 | | | | |
| Asset-4 | 2239.12 | 60.85 | 5.00 | 114.65 | | | | |
| Asset-5 | 1029.29 | 33.56 | 5.00 | 52.41 | | | | |
| Asset-6 | 2003.24 | 60.85 | 5.00 | 102.23 | | | | |
| Asset-7 | 1462.30 | 121.24 | 5.00 | 70.58 | | | | |
| Asset-8 | 1039.96 | 33.56 | 5.00 | 52.97 | | | | |
| Asset-9 | 2173.60 | 60.85 | 5.00 | 111.20 | | | | |
| Asset-10 | 2173.60 | 60.85 | 5.00 | 111.20 | | | | |
| Asset-11 | 1078.89 | 62.46 | 5.00 | 53.50 | 87.61 | 1607.65 | 2365.19 | 87.61 |
| Asset-12 | 1350.29 | 57.12 | 5.00 | 68.06 | | | | |
| Asset-13 | 700.73 | 24.86 | 6.00 | 43.14 | | | | |
| Asset-14 | 700.39 | 24.86 | 6.00 | 43.12 | | | | |
| Asset-15 | 5494.03 | 219.76 | 5.00 | 277.59 | | | | |
| Asset-16 | 7595.29 | 268.5 | 5.00 | 385.62 | | | | |
| Asset-17 | 1305.84 | 39.59 | 5.00 | 66.64 | | | | |
| Asset-18 | 1317.36 | 39.89 | 5.00 | 67.24 | | | | |
| Combined Assets | 46546.26 | 1607.65 | | 2356.48 | | | | |

117. Thus, in line with the APTEL’s judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹87.61 lakh are admissible. Capital cost as on 1.4.2019 for the Combined Asset allowed after adding Initial Spares as follows:

(₹ in lakh)

| Capital Cost as on 31.3.2019 | Additional Initial Spares as per APTEL’s Judgment dated 14.9.2019 | Capital Cost as on 1.4.2019 |
|------------------------------|---|-----------------------------|
| 166677.59 | 87.61 | 166765.20 |



Additional Capital Expenditure (“ACE”)

118. Regulation 24 and Regulation 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 additional capital expenditure 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.”

119. The Petitioner has claimed that the ACE incurred/ projected to be incurred is mainly on account of balance/ retention payments and hence, the same is claimed under Regulations 24(1)(a) of the 2019 Tariff Regulations. The Petitioner has claimed the capital cost as per the cash IDC discharged as on 31.3.2024 as follows:

(₹ in lakh)

| Assets | FR Apportioned approved cost | RCE Apportioned approved cost | Capital cost upto 31.3.2019 | Projected ACE | Total Estimated Cost as on 31.3.2024 |
|--------|------------------------------|-------------------------------|-----------------------------|---------------|--------------------------------------|
| | | | | 2019-20 | |
| 1 | 925.09 | 1277.78 | 851.16 | 54.21 | 905.37 |
| 2 | 14263.97 | 18620.14 | 17447.24 | 236.00 | 17683.24 |
| 3 | 1783.08 | 1457.52 | 1223.70 | 0.00 | 1223.70 |
| 4 | 2766.12 | 2616.66 | 2414.37 | 0.00 | 2411.19 |
| 5 | 1079.74 | 1270.95 | 1090.68 | 0.00 | 1089.26 |
| 6 | 2766.12 | 2632.92 | 2411.23 | 0.00 | 2411.23 |
| 7 | 1694.11 | 1854.15 | 1664.44 | | 1672.21 |
| 8 | 1079.74 | 1281.15 | 1115.24 | | 1115.24 |
| 9 | 2766.12 | 2639.71 | 2382.34 | | 2382.34 |
| 10 | 2766.12 | 2640.38 | 2382.92 | | 2382.92 |
| 11 | 1396.69 | 1414.92 | 1228.07 | | 1237.03 |
| 12 | 3279.22 | 3890.76 | 3551.09 | | 3551.09 |
| 13 | 1213.47 | 1856.83 | 1057.06 | 94.71 | 1151.77 |
| 14 | 1213.47 | 1867.50 | 1066.23 | 95.05 | 1161.28 |
| 15 | 82353.95 | 105680.21 | 102673.89 | 395.38 | 103069.27 |
| 16 | 11690.68 | 23940.90 | 21350.18 | 125.00 | 21475.18 |
| 17 | 1061.86 | 1472.05 | 1378.14 | | 1378.14 |
| 18 | 1061.86 | 1479.61 | 1389.62 | | 1389.62 |
| 19 | 9952.66 | 13465.86 | 10845.82 | | 10845.82 |



120. The Petitioner has submitted that the ACE projected to be incurred during 2019-20 is on account of undischarged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date. The Petitioner has claimed the following ACE for Asset-1, Asset-2, Asset-13, Asset-14 and Asset-16 under Regulation 25(1)(d) of the 2019 Tariff Regulations:

(₹ in lakh)

| Assets | Projected ACE | |
|-----------------------|----------------|--------------|
| | 2019-20 | 2021-22 |
| Asset-1 | 54.21 | |
| Asset-2 | 236.00 | |
| Asset-13 | 94.71 | |
| Asset-14 | 95.05 | |
| Asset-15 | 395.38 | |
| Asset-16 | 125.00 | |
| Asset-19 | | 11.75 |
| Combined Asset | 1000.35 | 11.75 |

121. We have considered the submissions made by the Petitioner. As we have not granted tariff for Asset-19, the ACE claimed for Asset-19 in 2020-21 is not allowed. ACE claimed by the Petitioner for the Combined Asset has been allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations on account of liabilities for works executed prior to the cut-off date, subject to true-up as per actuals and on submission of documentary evidence(s). Accordingly, the capital cost considered for the Combined Asset for 2019-24 tariff period is as follows:

(₹ in lakh)

| Capital cost as on 1.4.2019 | ACE 2019-24 | | | | | Capital cost as on 31.3.2024 |
|-----------------------------|-------------|---------|---------|---------|---------|------------------------------|
| | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 | |
| 166765.20 | 1000.35 | 0.00 | 0.00 | 0.00 | 0.00 | 167765.55 |



Debt-Equity ratio

122. Regulation 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.”

123. Debt-Equity ratio is considered for the purpose of computation of tariff for 2019-24 tariff period as per Regulation 18(3) of the 2019 Tariff Regulations. The debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

| Funding | Capital Cost as on 1.4.2019 (₹ in lakh) | (in %) | ACE 2019-24 (₹ in lakh) | (in %) | Capital Cost as on 31.3.2024 (₹ in lakh) | (in %) |
|--------------|--|---------------|-------------------------------|---------------|---|---------------|
| Debt | 116735.64 | 70.00 | 700.25 | 70.00 | 117435.88 | 70.00 |
| Equity | 50029.56 | 30.00 | 300.11 | 30.00 | 50329.67 | 30.00 |
| Total | 166765.20 | 100.00 | 1000.35 | 100.00 | 167765.55 | 100.00 |

Depreciation

124. 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 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission 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.”

125. The IT equipment has been considered as part of the gross block and depreciated using WAROD. WAROD at Annexure-II 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 as NIL, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed for the Combined Asset for the 2019-24 tariff period is as follows:

| (₹ in lakh) | | | | | | |
|-------------|--|-----------|-----------|-----------|-----------|-----------|
| | Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| | Depreciation | | | | | |
| A | Opening Gross Block | 166765.20 | 167765.55 | 167765.55 | 167765.55 | 167765.55 |
| B | ACE | 1000.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| C | Closing Gross Block (A+B) | 167765.55 | 167765.55 | 167765.55 | 167765.55 | 167765.55 |
| D | Average Gross Block (A+C)/2 | 167265.38 | 167765.55 | 167765.55 | 167765.55 | 167765.55 |
| E | Weighted average rate of Depreciation (WAROD) (in %) | 5.26 | 5.26 | 5.26 | 5.26 | 5.26 |
| F | Balance useful life of the asset (Year) | 29 | 28 | 27 | 26 | 25 |



| | Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|---|----------------|----------------|----------------|----------------|----------------|
| G | Lapsed life at the beginning of the year (Year) | 3 | 4 | 5 | 6 | 7 |
| H | Aggregate Depreciable Value | 150617.38 | 151067.54 | 151067.54 | 151067.54 | 151067.54 |
| I | Depreciation during the year | 8805.98 | 8828.89 | 8828.89 | 8828.89 | 8828.89 |
| J | Cumulative Depreciation | 39125.20 | 47954.09 | 56782.99 | 65611.88 | 74440.77 |
| K | Remaining Depreciable Value (I-K) | 111492.18 | 103113.45 | 94284.56 | 85455.66 | 76626.77 |

Interest on Loan (“IoL”)

126. 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.”

127. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted.

128. BSPHCL has submitted that the 2019 Tariff Regulations do not permit change in interest rate due to floating rate of interest. In response, the Petitioner has reiterated its submission.

129. We have considered the submissions of the Petitioner and BSPHCL. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset for the 2019-24 tariff period is as follows:

| (₹ in lakh) | | | | | | |
|-------------|--|----------------|----------------|----------------|----------------|----------------|
| | Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| | Interest on Loan | | | | | |
| A | Gross Normative Loan | 116735.64 | 117435.88 | 117435.88 | 117435.88 | 117435.88 |
| B | Cumulative Repayments upto Previous Year | 30319.22 | 39125.20 | 47954.09 | 56782.99 | 65611.88 |
| C | Net Loan-Opening (A-B) | 86416.42 | 78310.68 | 69481.79 | 60652.90 | 51824.01 |
| D | Additions | 700.25 | 0.00 | 0.00 | 0.00 | 0.00 |
| E | Repayment during the year | 8805.98 | 8828.89 | 8828.89 | 8828.89 | 8828.89 |
| F | Net Loan-Closing (C+D-E) | 78310.68 | 69481.79 | 60652.90 | 51824.01 | 42995.11 |
| G | Average Loan (C+F)/2 | 82363.55 | 73896.24 | 65067.34 | 56238.45 | 47409.56 |
| H | Weighted Average Rate of Interest on Loan (in %) | 7.5397 | 7.5188 | 7.5043 | 7.7742 | 8.1509 |
| I | Interest on Loan (G*H) | 6209.96 | 5556.12 | 4882.87 | 4372.10 | 3864.31 |



Return on Equity (“RoE”)

130. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides as follows:

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

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

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

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

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which



the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%,”

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

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

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

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

Illustration-

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

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

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

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

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



beneficiaries or the long term customers, as the case may be, on year to year basis.”

131. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset for the 2019-24 tariff period is as follows:

| | | | | | | (₹ in lakh) |
|---|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
| | Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| | Return on Equity | | | | | |
| A | Opening Equity | 50029.56 | 50329.67 | 50329.67 | 50329.67 | 50329.67 |
| B | Additions | 300.11 | 0.00 | 0.00 | 0.00 | 0.00 |
| C | Closing Equity (A+B) | 50329.67 | 50329.67 | 50329.67 | 50329.67 | 50329.67 |
| D | Average Equity (A+C)/2 | 50179.61 | 50329.67 | 50329.67 | 50329.67 | 50329.67 |
| E | Return on Equity (Base Rate) (in %) | 15.500 | 15.500 | 15.500 | 15.500 | 15.500 |
| F | MAT Rate for respective year (in %) | 17.472 | 17.472 | 17.472 | 17.472 | 17.472 |
| G | Rate of Return on Equity (in %) | 18.782 | 18.782 | 18.782 | 18.782 | 18.782 |
| H | Return on Equity (D*G) | 9424.74 | 9452.92 | 9452.92 | 9452.92 | 9452.92 |

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

132. O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 tariff period are as follows:

| Particulars | Combined Asset | | | | |
|---|----------------|---------|---------|---------|---------|
| | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| 3 numbers of 400 kV Bays | 96.45 | 99.84 | 103.35 | 106.98 | 110.73 |
| 17 numbers of 400 kV GIS Bays | 382.62 | 396.05 | 409.99 | 424.32 | 439.23 |
| 9 numbers of 132 kV and below GIS bays | 101.32 | 104.85 | 108.54 | 112.32 | 116.28 |
| 14 numbers of 220 kV GIS bays | 220.62 | 228.34 | 236.34 | 244.58 | 253.26 |
| 8 numbers of 400 kV Sub-station ICT | 601.44 | 623.30 | 645.12 | 668.64 | 690.50 |
| 3 numbers of 220 kV Sub-station ICT | 73.50 | 76.20 | 78.90 | 81.60 | 84.60 |
| D/C (Twin Conductor) | 11.26 | 11.67 | 12.07 | 12.50 | 12.92 |
| D/C (Single Conductor) | 10.48 | 10.88 | 11.24 | 11.65 | 12.04 |
| M/C (Twin Conductor) | 9.71 | 10.05 | 10.40 | 10.77 | 11.15 |
| D/C (Bundle Conductor with Four Sub Conductors) | 460.80 | 476.85 | 493.57 | 511.00 | 528.78 |
| PLCC (@ 2% of capital cost) | | | | | |
| Capital cost for PLCC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |



| | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|
| Total O&M Expenses (₹ in lakh) | 1968.20 | 2038.03 | 2109.52 | 2184.36 | 2259.49 |
|---|----------------|----------------|----------------|----------------|----------------|

133. The O&M norms as per Regulation 35(3)(a) of the 2019 Tariff Regulations are as follows:

“35. Operation and Maintenance Expenses:

...

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

| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|----------------|----------------|----------------|----------------|----------------|
| Norms for sub-station Bays (₹ Lakh per bay) | | | | | |
| 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 |
| Norms for Transformers (₹ Lakh per MVA) | | | | | |
| 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 |
| Norms for AC and HVDC lines (₹ Lakh per km) | | | | | |
| 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 |
| Norms for HVDC stations | | | | | |
| HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB) | 834 | 864 | 894 | 925 | 958 |
| Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW) | 1,666 | 1,725 | 1,785 | 1,848 | 1,913 |



| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---|----------------|----------------|----------------|----------------|----------------|
| 500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW) | 2,252 | 2,331 | 2,413 | 2,498 | 2,586 |
| ±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW) | 2,468 | 2,555 | 2,645 | 2,738 | 2,834 |
| ±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW) | 1,696 | 1,756 | 1,817 | 1,881 | 1,947 |
| ±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW) | 2,563 | 2,653 | 2,746 | 2,842 | 2,942 |

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

Provided further that:

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

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-



station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

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

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

(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.”*

134. The Petitioner has claimed O&M Expenses towards 2 numbers of 132 kV bays pertaining to 132 kV bus sectionaliser at Rangpo Sub-station. As per the norms specified under the 2019 Tariff Regulations, O&M Expenses towards bus sectionaliser as separate bay is not allowable. Accordingly, we are not inclined to allow O&M Expenses towards 2 numbers of 132 kV bus sectionaliser bays at Rangpo Sub-station.

135. The Petitioner has claimed O&M Expenses towards 1 number 105 MVA Spares ICT at Rangpo Sub-station. The Commission vide order dated 24.1.2021 in Petition No. 136/TT/2020 has dealt with the issue of O&M Expenses for spares ICTs. The relevant portion of the order dated 24.1.2021 is extracted as follows:

“28. We are also not convinced with the Petitioner’s clarification that it has not claimed O&M Expenses for the 2014-19 tariff period since the 2019 Tariff Regulations provide for O&M Expenses for transformers based on their rating. The norms specified in the 2019 Tariff Regulations are for transmission elements that are in regular use and not for spares which are used only in case of any eventualities. As already stated earlier, the “assets in use as spares” are being granted tariff only on the basis of consent and approval of the concerned Regional Power Committee and as these assets are not being in regular use, we are of the view that O&M Expenses cannot be granted to the transmission assets. Accordingly, O&M Expenses are not allowed for the Combined Asset for the 2019-24 tariff period. We also feel that it is pertinent to mention here that disallowance of O&M Expenses for the Combined Asset does not mean that they do not need any maintenance and the consequent expenditure. The Combined Asset requires maintenance and the expenditure involved in maintaining them would be miniscule compared to the O&M Expenses in respect of transformers put to regular use. We are also of the view that the Petitioner should meet this expenditure from the



O&M Expenses allowed for the regular ICTs installed at Mandola and Ludhiana in Northern Region. In case, the expenses are unusually high and cannot be met from the O&M Expenses allowed for the regular ICTs, the Petitioner may approach the Commission with certification of O&M Expenses from RPC at the time of true-up.”

136. In view of the above, we are not inclined to grant O&M Expenses for 1 number of 105 MVA Spare ICT at Rangpo Sub-stations.

137. Furthermore, O&M Expenses for Asset-19 i.e. LILO of one ckt of 400 kV Double Circuit Teesta-III-Kishanganj (LILO) at Rangpo is also not allowed.

138. O&M Expenses are approved for the Combined Asset as per the norms in the 2019 Tariff Regulations and the same are as follows:

| Particulars | Combined Asset | | | | |
|---|----------------|---------|---------|---------|---------|
| | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| 400 kV Bays | 3 | 3 | 3 | 3 | 3 |
| Norms (₹ lakh/Bay) | 32.15 | 33.28 | 34.45 | 35.66 | 36.91 |
| O&M Expenses allowed (₹ in lakh) | 96.45 | 99.84 | 103.35 | 106.98 | 110.73 |
| 400 kV GIS Bays | 17 | 17 | 17 | 17 | 17 |
| Norms (₹ lakh/km) | 22.505 | 23.296 | 24.115 | 24.962 | 25.837 |
| O&M Expenses allowed (₹ in lakh) | 382.59 | 396.03 | 409.96 | 424.35 | 439.23 |
| 132 kV and below GIS bays | 7 | 7 | 7 | 7 | 7 |
| Norms (₹ lakh/bay) | 11.256 | 11.648 | 12.061 | 12.481 | 12.922 |
| O&M Expenses allowed (₹ in lakh) | 78.79 | 81.536 | 84.42 | 87.36 | 90.45 |
| 220 kV GIS bays | 14 | 14 | 14 | 14 | 14 |
| Norms (₹ lakh/bay) | 15.757 | 16.31 | 16.884 | 17.472 | 18.088 |
| O&M Expenses allowed (₹ in lakh) | 220.60 | 228.34 | 236.38 | 244.61 | 253.23 |
| 400 kV Sub-station ICT | 7 | 7 | 7 | 7 | 7 |
| Norms (₹ lakh/MVA) | 0.358 | 0.371 | 0.384 | 0.398 | 0.411 |
| O&M Expenses allowed (₹ in lakh) | 563.85 | 584.33 | 604.80 | 626.85 | 647.33 |
| 220 kV Sub-station ICT (3X100 MVA ICTs) | 3 | 3 | 3 | 3 | 3 |
| Norms (₹ lakh/MVA) | 0.245 | 0.254 | 0.263 | 0.272 | 0.282 |
| O&M Expenses allowed (₹ in lakh) | 73.50 | 76.20 | 78.90 | 81.60 | 84.60 |
| D/C (Twin Conductor) | 4.248 | 4.248 | 4.248 | 4.248 | 4.248 |
| Norms (₹ lakh/km) | 0.881 | 0.912 | 0.944 | 0.977 | 1.011 |



| Particulars | Combined Asset | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| O&M Expenses allowed (₹ in lakh) | 3.74 | 3.87 | 4.01 | 4.15 | 4.29 |
| D/C (Single Conductor) | 27.801 | 27.801 | 27.801 | 27.801 | 27.801 |
| Norms (₹ lakh/km) | 0.377 | 0.391 | 0.404 | 0.419 | 0.433 |
| O&M Expenses allowed (₹ in lakh) | 10.48 | 10.87 | 11.23 | 11.65 | 12.04 |
| M/C (Twin Conductor) | 4.048 | 4.048 | 4.048 | 4.048 | 4.048 |
| Norms (₹ lakh/km) | 1.544 | 1.598 | 1.654 | 1.713 | 1.773 |
| O&M Expenses allowed (₹ in lakh) | 6.25 | 6.47 | 6.70 | 6.93 | 7.18 |
| D/C (Bundle Conductor with Four Sub Conductors) | 348.569 | 348.569 | 348.569 | 348.569 | 348.569 |
| Norms (₹ lakh/km) | 1.322 | 1.368 | 1.416 | 1.466 | 1.517 |
| O&M Expenses allowed (₹ in lakh) | 460.81 | 476.84 | 493.57 | 511.00 | 528.78 |
| Total O&M Expenses allowed (₹ in lakh) | 1,897.06 | 1,964.33 | 2,033.32 | 2,105.49 | 2,177.86 |

Interest on Working Capital (“IWC”)

139. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specifies 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

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. Definitions. - *In these regulations, unless the context otherwise requires:-*

‘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;”*

140. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) 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, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 and from 2022-23 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points).. The components of the working capital and interest allowed thereon for the Combined Asset for the 2019-24 tariff period is as follows:

| | | | | | | (₹ in lakh) |
|----------|--|----------------|----------------|----------------|----------------|----------------|
| | Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| | Interest on Working Capital | | | | | |
| A | Working Capital for O&M Expenses (O&M Expenses for one month) | 158.09 | 163.69 | 169.44 | 175.46 | 181.49 |
| B | Working Capital for Maintenance Spares (15% of O&M Expenses) | 284.56 | 294.65 | 305.00 | 315.82 | 326.68 |
| C | Working Capital for Receivables (Equivalent to 45 days of annual transmission charges) | 3293.60 | 3232.29 | 3153.57 | 3099.01 | 3036.41 |
| D | Total Working Capital | 3736.25 | 3690.63 | 3628.01 | 3590.29 | 3544.58 |
| E | Rate of Interest (in %) | 12.05 | 11.25 | 10.50 | 10.50 | 10.50 |
| F | Interest on Working Capital | 450.22 | 415.20 | 380.94 | 376.98 | 372.18 |



Annual Fixed Charges of 2019-24 Tariff Period

141. The transmission charges allowed for the Combined Asset for the 2019-24 tariff period are as follows:

| (₹ in lakh) | | | | | | |
|-------------|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| | Annual Transmission Charges | | | | | |
| A | Depreciation | 8805.98 | 8828.89 | 8828.89 | 8828.89 | 8828.89 |
| B | Interest on Loan | 6209.96 | 5556.12 | 4882.87 | 4372.10 | 3864.31 |
| C | Return on Equity | 9424.74 | 9452.92 | 9452.92 | 9452.92 | 9452.92 |
| D | O&M Expense | 1897.06 | 1964.33 | 2033.32 | 2105.49 | 2177.86 |
| E | Interest on Working Capital | 450.22 | 415.20 | 380.94 | 376.98 | 372.18 |
| F | Total (A+B+C+D+E) | 26787.96 | 26217.45 | 25578.94 | 25136.39 | 24696.16 |

Filing Fee and Publication Expenses

142. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses.

143. BSPHCL has submitted that grant of filing fee is the discretion of the Commission and the present case is not a fit case for grant of filing fee.

144. In response, the Petitioner has submitted that the Commission vide order dated 28.3.2016 in Petition No. 137/TT/2015 for determination of tariff for the 2014-19 tariff period allowed the recovery of petition filing fee and publication of notices from the beneficiaries on pro-rata basis.

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



Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

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

148. BSPHCL has submitted that the prayer for GST is premature.

149. In response, the Petitioner has reiterated its submissions. Further, if GST is levied at any rate and at any point of time in future on Charges of Transmission of electricity, the same shall be borne and additionally paid by the respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further, additional taxes, if any, are to be paid by the petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries.



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

Security Expenses

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

152. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses 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 Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

153. 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

154. The Petitioner has submitted as follows:



- (a) For Asset-1 to Asset-15, Asset-17 and Asset-18: The transmission charges for 2014-19 period shall be recovered on monthly basis in accordance with Regulation 42 and shall be shared by the Respondents in accordance with Regulation 43 of the 2014 Tariff Regulations and shall be shared by the beneficiaries and long term transmission customers as per the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 (2010 Sharing Regulations).
- (b) For Asset-16: As per order dated 14.11.2017 in Petition No. 183/TT/2016, the transmission charges shall be shared by the generating companies (i.e. Jorethang {DANS Energy}) and Rangit-IV {JAL Power Ltd.}) in the ratio of the LTA granted. After operationalization of the LTA granted to these generators, the transmission charges shall be included in PoC charges as shall be shared as per Regulation 43 of the 2014 Tariff Regulations and recovered as provided in the 2010 Sharing Regulations.

155. BSPHCL has submitted that the present consumers should not be charged for the past charges. In response, the Petitioner has requested the Commission to take a suitable view in this regard.

156. We have considered the submissions of the Petitioner and BSPHCL. As regards Asset-16 to Asset-18 (Asset-I, II and III in Petition No. 183/TT/2016), the Commission vide order dated 5.2.2020 in Petition No. 183/TT/2016 has held as follows:

“44. We observe that regarding sharing of Transmission charges for the instant assets, Commission in its order dated 14.11.2017 directed as under:

“Sharing of Transmission Charges



83. *The petitioner has submitted that the annual transmission tariff for the instant assets for the period 2014-19 shall be shared as per Regulation 43 of the 2014 Tariff Regulations and that the charges shall be recovered on monthly basis and the billing collection and disbursement of Transmission Charges will be governed by provision of Central Electricity Regulatory Commission (Sharing of Page 53 of 64 Order in Petition No.183/TT/2016 inter-State Transmission Charges and Losses) Regulations, 2010 (2010 Sharing Regulations).*

84. *We have considered the submissions of the petitioner. As per the BPTA, the assets covered in the instant petition are constructed for evacuation of power from the two generating companies i.e. Jorethang and Rangit-IV. It is observed that LTA in case of the generators has not been operationalised. As such, the transmission charges shall be shared by the generating companies (i.e. Jorethang and Rangit-IV) in the ratio of the LTA granted. After operationalisation of the LTA granted to these generators, the transmission charges allowed in this order shall be included in PoC charges as shall be shared as provided under Regulation 43 of the 2014 Tariff Regulations and recovered as provided in the 2010 Sharing Regulations. Further, in case of part operationalisation of LTA, the corresponding charges shall be included in PoC.”*

45. *Vide above order, the Commission had directed to bill the transmission charges for instant assets on DANS and Rangit-IV till operationalization of their LTA. DANS has stated that LTA has not been operationalized by CTU due to non-commissioning of TPTL, TeestaIII-Kishnaganj line and PGCIL line (LILO of Teesta-Kishanganj at Rangpo). PGCIL has stated that LTA was not operationalised due to non-availability of Teesta-III-Kishanganj line. The CoD of instant assets, namely, Asset-I, II and III were declared on 22.9.2015, 31.1.2016 and 21.3.2016, respectively and the LTA was operationalized on 23.02.2019.*

46. *We observe that instant assets are part of LTA grant of several generators in Sikkim region. We observe from the Single Line diagram that the instant assets are not dedicated system for the generating stations. Each generating station had a separate dedicated line in its own scope of works. Therefore, we direct that the transmission charges for instant assets, approved in order dated 14.11.2017, shall be included in PoC pool from date of approved CODs under CERC (Sharing of Inter-state transmission charges and losses) Regulations, 2010.”*

157. The Commission vide order dated 5.2.2020 in Petition No. 183/TT/2016 has reiterated that the transmission charges approved in this order for Asset-16, Asset-17 and Asset-18 (Assets-I, II and III in Petition No. 183/TT/2016), from their COD shall be dealt as per the Sharing Regulations. Accordingly, the transmission charges approved for the transmission asset in the instant order for 2014-19 tariff period and 2019-24 tariff period shall be governed by the applicable Sharing Regulations as provided under Regulation 43 of the 2014 Tariff Regulations and 57 of the 2019 Tariff Regulations, respectively.



158. To summarize:

a) The trued-up AFC allowed for 2014-19 tariff period are as follows:

| (₹ in lakh) | | | | | |
|-------------|---------|---------|----------|----------|----------|
| Assets | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Asset-1 | 164.43 | 170.41 | 179.84 | 187.63 | 190.92 |
| Asset-2 | 2417.52 | 2855.58 | 3001.78 | 2978.31 | 2968.63 |
| Asset-3 | 57.41 | 203.98 | 246.32 | 258.57 | 260.20 |
| Asset-4 | 356.38 | 445.05 | 466.53 | 467.66 | 471.25 |
| Asset-5 | 175.42 | 209.54 | 218.67 | 224.02 | 224.16 |
| Asset-6 | 335.67 | 427.09 | 431.53 | 450.31 | 471.30 |
| Asset-7 | 250.08 | 306.13 | 315.34 | 327.96 | 338.61 |
| Asset-8 | 169.75 | 213.47 | 221.53 | 226.43 | 226.31 |
| Asset-9 | 325.76 | 462.21 | 476.19 | 471.52 | 471.35 |
| Asset-10 | 333.98 | 477.67 | 474.07 | 469.36 | 469.49 |
| Asset-11 | 181.30 | 242.83 | 254.85 | 262.82 | 269.95 |
| Asset-12 | 233.33 | 611.22 | 669.65 | 678.41 | 674.16 |
| Asset-13 | 105.04 | 223.26 | 232.11 | 239.65 | 241.97 |
| Asset-14 | 72.22 | 225.38 | 234.16 | 241.31 | 243.60 |
| Asset-15 | | 186.51 | 17317.65 | 17327.73 | 17046.43 |
| Asset-16 | | 1266.77 | 2593.87 | 3014.05 | 3423.45 |
| Asset-17 | | 35.15 | 237.23 | 260.10 | 266.53 |
| Asset-18 | | 6.25 | 231.65 | 257.83 | 268.08 |

b) AFC allowed for 2019-24 tariff period in this order are as follows:

| (₹ in lakh) | | | | | |
|-------------|----------|----------|----------|----------|----------|
| Particulars | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| AFC | 26787.96 | 26217.45 | 25578.94 | 25136.39 | 24696.16 |

159. The Annexures to this order will form part of this order.

160. This order disposes of Petition No. 382/TT/2020 in terms of the above discussion and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



Asset-1

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|--------------|--------------|---------------|---|---|--|---------------|---------------|---------------|---------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 669.89 | 7.70 | 55.92 | 53.53 | 157.60 | 827.49 | 5.28% | 35.57 | 37.25 | 40.14 | 42.62 | 43.69 |
| IT Equipment (Incl. Software) | 23.67 | - | - | - | - | 23.67 | 5.28% | 1.25 | 1.25 | 1.25 | 1.25 | 1.25 |
| Total | 693.56 | 7.70 | 55.92 | 53.53 | 157.60 | 851.16 | | 36.82 | 38.50 | 41.39 | 43.87 | 44.94 |
| Average Gross Block (₹ in lakh) | | | | | | | | 697.41 | 729.22 | 783.95 | 830.94 | 851.16 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-2

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|----------------|--------------|----------------|---|---|--|-----------------|-----------------|-----------------|-----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Land - Freehold | - | - | - | - | - | - | - | - | - | - | - | - |
| Land - Leasehold | 2093.28 | - | - | - | - | 2093.28 | 3.34% | 69.92 | 69.92 | 69.92 | 69.92 | 69.92 |
| Building Civil Works & Colony | 1237.86 | 16.26 | - | 34.72 | 50.98 | 1288.84 | 3.34% | 41.62 | 41.89 | 42.47 | 43.05 | 43.05 |
| Transmission Line | 2517.58 | 789.33 | 72.83 | 0.99 | 881.43 | 3399.01 | 5.28% | 153.77 | 176.53 | 178.48 | 178.50 | 178.99 |
| Sub Station | 8184.15 | 675.80 | 1597.18 | - | 2280.35 | 10464.50 | 5.28% | 449.96 | 509.97 | 552.14 | 552.27 | 552.46 |
| PLCC | - | - | - | - | - | - | 6.33% | - | - | - | - | - |
| IT Equipment (Incl. Software) | - | 75.16 | 126.44 | - | 201.60 | 201.60 | 5.28% | 1.98 | 7.31 | 10.64 | 10.64 | 10.64 |
| Total | 14032.87 | 1556.56 | 1796.45 | 35.71 | 3414.37 | 17447.24 | | 717.25 | 805.61 | 853.64 | 854.38 | 855.06 |
| Average Gross Block (₹ in lakh) | | | | | | | | 14811.15 | 16487.65 | 17403.73 | 17424.09 | 17436.91 |
| Weighted Average Rate of Depreciation | | | | | | | | 4.84% | 4.89% | 4.90% | 4.90% | 4.90% |



Asset-3

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|---------------|---------------|---------------|---|---|--|---------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Line | 164.78 | 0.29 | 299.94 | 96.41 | 403.78 | 568.56 | 5.28% | 8.71 | 16.63 | 27.10 | 29.64 | 29.83 |
| Sub Station | 568.50 | 7.97 | 20.05 | 27.32 | 55.34 | 623.84 | 5.28% | 30.23 | 30.97 | 32.22 | 32.94 | 32.94 |
| IT Equipment (Incl. Software) | - | - | 9.71 | 21.59 | 31.30 | 31.30 | 5.28% | - | 0.26 | 1.08 | 1.65 | 1.65 |
| Total | 733.28 | 8.26 | 329.70 | 145.32 | 490.42 | 1223.70 | | 38.94 | 47.86 | 60.40 | 64.23 | 64.42 |
| Average Gross Block (₹ in lakh) | | | | | | | | 737.41 | 911.24 | 1164.40 | 1247.86 | 1251.43 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-4

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|---------------|--------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 1969.30 | 151.99 | 180.51 | 37.56 | 415.06 | 2384.36 | 5.28% | 107.99 | 116.77 | 122.53 | 123.52 | 124.71 |
| IT Equipment (Incl. Software) | - | - | 30.01 | - | 30.01 | 30.01 | 5.28% | - | 0.79 | 1.58 | 1.58 | 1.58 |
| Total | 1969.30 | 151.99 | 210.52 | 37.56 | 445.07 | 2414.37 | | 107.99 | 117.56 | 124.11 | 125.10 | 126.29 |
| Average Gross Block (₹ in lakh) | | | | | | | | 2045.30 | 2226.55 | 2350.59 | 2369.37 | 2391.87 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |



Asset-5

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|--------------|--------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 961.61 | 34.16 | 28.29 | 51.61 | 114.06 | 1075.67 | 5.28% | 51.67 | 53.32 | 55.43 | 56.80 | 56.80 |
| IT Equipment (Incl. Software) | - | - | - | 15.01 | 15.01 | 15.01 | 5.28% | - | - | 0.40 | 0.79 | 0.79 |
| Total | 961.61 | 34.16 | 28.29 | 66.62 | 129.07 | 1090.68 | | 51.67 | 53.32 | 55.83 | 57.59 | 57.59 |
| Average Gross Block (₹ in lakh) | | | | | | | | 978.69 | 1009.91 | 1057.37 | 1090.68 | 1090.68 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-6

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|-------------|--------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 1967.10 | 148.86 | 5.39 | 39.75 | 414.12 | 2381.22 | 5.28% | 107.79 | 111.86 | 113.06 | 118.73 | 124.54 |
| IT Equipment (Incl. Software) | - | - | - | - | 30.01 | 30.01 | 5.28% | - | - | - | 0.79 | 1.58 |
| Total | 1967.10 | 148.86 | 5.39 | 39.75 | 444.13 | 2411.23 | | 107.79 | 111.86 | 113.06 | 119.52 | 126.12 |
| Average Gross Block (₹ in lakh) | | | | | | | | 2041.53 | 2118.66 | 2141.23 | 2263.67 | 2388.73 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |



Asset-7

| 2014-19 | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|--------------|--------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| Capital Expenditure | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 1296.87 | 96.91 | 58.46 | 29.39 | 304.93 | 1601.80 | 5.28% | 71.03 | 75.14 | 77.45 | 81.40 | 84.58 |
| IT Equipment (Incl. Software) | - | - | 35.22 | - | 62.64 | 62.64 | 5.28% | - | 0.93 | 1.86 | 2.58 | 3.31 |
| Total | 1296.87 | 96.91 | 93.68 | 29.39 | 367.57 | 1664.44 | | 71.03 | 76.06 | 79.31 | 83.99 | 87.88 |
| Average Gross Block (₹ in lakh) | | | | | | | | 1345.33 | 1440.62 | 1502.16 | 1590.65 | 1664.44 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-8

| 2014-19 | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|--------------|--------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| Capital Expenditure | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 993.66 | 23.90 | 28.29 | 54.38 | 106.57 | 1100.23 | 5.28% | 53.10 | 54.47 | 56.66 | 58.09 | 58.09 |
| IT Equipment (Incl. Software) | - | - | - | 15.01 | 15.01 | 15.01 | 5.28% | - | - | 0.40 | 0.79 | 0.79 |
| Total | 993.66 | 23.90 | 28.29 | 69.39 | 121.58 | 1115.24 | | 53.10 | 54.47 | 57.05 | 58.88 | 58.88 |
| Average Gross Block (₹ in lakh) | | | | | | | | 1005.61 | 1031.71 | 1080.55 | 1115.24 | 1115.24 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |



Asset-9

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|---------------|----------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 1956.23 | 165.59 | 185.51 | - | 396.10 | 2352.33 | 5.28% | 107.66 | 116.93 | 121.83 | 121.83 | 123.02 |
| IT Equipment (Incl. Software) | - | - | 30.01 | - | 30.01 | 30.01 | 5.28% | - | 0.79 | 1.58 | 1.58 | 1.58 |
| Total | 1956.23 | 165.59 | 215.52 | - | 426.11 | 2382.34 | | 107.66 | 117.72 | 123.41 | 123.41 | 124.60 |
| Average Gross Block (₹ in lakh) | | | | | | | | 2039.03 | 2229.58 | 2337.34 | 2337.34 | 2359.84 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-10

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|-------------|----------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 1969.11 | 333.41 | 5.39 | - | 383.80 | 2352.91 | 5.28% | 112.77 | 121.72 | 121.86 | 121.86 | 123.05 |
| IT Equipment (Incl. Software) | - | 30.01 | - | - | 30.01 | 30.01 | 5.28% | 0.79 | 1.58 | 1.58 | 1.58 | 1.58 |
| Total | 1969.11 | 363.42 | 5.39 | - | 413.81 | 2382.92 | | 113.56 | 123.30 | 123.44 | 123.44 | 124.63 |
| Average Gross Block (₹ in lakh) | | | | | | | | 2150.82 | 2335.23 | 2337.92 | 2337.92 | 2360.42 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |



Asset-11

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|---------------|--------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 944.93 | 67.07 | 84.13 | 20.00 | 251.81 | 1196.74 | 5.28% | 51.66 | 55.65 | 58.40 | 61.06 | 63.19 |
| IT Equipment (Incl. Software) | - | - | 31.33 | - | 31.33 | 31.33 | 5.28% | - | 0.83 | 1.65 | 1.65 | 1.65 |
| Total | 944.93 | 67.07 | 115.46 | 20.00 | 283.14 | 1228.07 | | 51.66 | 56.48 | 60.06 | 62.71 | 64.84 |
| Average Gross Block (₹ in lakh) | | | | | | | | 978.46 | 1069.73 | 1137.46 | 1187.76 | 1228.07 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-12

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|---------------|---------------|---------------|---|---|--|----------------|----------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Line | 1395.34 | 54.32 | 423.94 | 182.44 | 704.63 | 2099.97 | 5.28% | 75.11 | 87.73 | 103.74 | 108.56 | 109.72 |
| Sub Station | 1284.59 | 10.73 | 67.87 | 25.91 | 104.51 | 1389.10 | 5.28% | 68.11 | 70.18 | 72.66 | 73.34 | 73.34 |
| IT Equipment (Incl. Software) | - | - | 62.02 | - | 62.02 | 62.02 | 5.28% | - | 1.64 | 3.27 | 3.27 | 3.27 |
| Total | 2679.93 | 65.05 | 553.83 | 208.35 | 871.16 | 3551.09 | | 143.22 | 159.56 | 179.68 | 185.18 | 186.34 |
| Average Gross Block (₹ in lakh) | | | | | | | | 2712.46 | 3021.90 | 3402.99 | 3507.16 | 3529.13 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% | 5.28% |



Asset-13

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|--------------|--------------|---------------|---|---|--|---------------|---------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 764.51 | 72.98 | 63.51 | 43.63 | 238.14 | 1002.65 | 5.28% | 42.29 | 45.90 | 48.73 | 51.41 | 52.94 |
| PLCC | 13.92 | 0.14 | 0.14 | 16.55 | 16.83 | 30.75 | 6.33% | 0.89 | 0.89 | 1.42 | 1.95 | 1.95 |
| IT Equipment (Incl. Software) | 23.20 | 0.24 | 0.23 | - | 0.47 | 23.67 | 5.28% | 1.23 | 1.24 | 1.25 | 1.25 | 1.25 |
| Total | 801.62 | 73.37 | 63.88 | 60.18 | 255.44 | 1057.06 | | 44.41 | 48.03 | 51.40 | 54.60 | 56.14 |
| Average Gross Block (₹ in lakh) | | | | | | | | 838.43 | 907.29 | 969.43 | 1028.53 | 1057.53 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.30% | 5.30% | 5.30% | 5.31% | 5.31% |



Asset-14

| 2014-19 | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|-----------------|--------------|--------------|---------------|---|---|--|---------------|---------------|----------------|----------------|
| | | 2014-15 | 2015-16 | 2016-17 | Total | | | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 781.74 | 61.13 | 67.22 | 43.62 | 229.98 | 1011.72 | 5.28% | 42.89 | 46.28 | 49.20 | 51.89 | 53.42 |
| PLCC | 13.92 | 0.20 | 0.20 | 16.56 | 16.96 | 30.88 | 6.33% | 0.89 | 0.90 | 1.43 | 1.95 | 1.95 |
| IT Equipment (Incl. Software) | 22.96 | 0.34 | 0.33 | - | 0.67 | 23.62 | 5.28% | 1.22 | 1.24 | 1.25 | 1.25 | 1.25 |
| Total | 818.62 | 61.67 | 67.75 | 60.18 | 247.61 | 1066.23 | | 45.00 | 48.42 | 51.88 | 55.09 | 56.62 |
| Average Gross Block (₹ in lakh) | | | | | | | | 849.45 | 914.16 | 978.13 | 1037.22 | 1066.23 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.30% | 5.30% | 5.30% | 5.31% | 5.31% |



Asset-15

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | |
|--|--|-----------------|----------------|---------------|----------------|---|---|--|-----------------|------------------|------------------|
| | | 2015-16 | 2016-17 | 2017-18 | Total | | | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Transmission Line | 92703.84 | 388.73 | 2843.25 | 657.84 | 4238.59 | 96942.43 | 5.28% | 53.61 | 4990.35 | 5082.78 | 5109.35 |
| Sub Station | 4452.80 | 18.67 | 837.96 | 209.87 | 1173.35 | 5626.15 | 5.28% | 2.57 | 258.22 | 285.88 | 294.24 |
| PLCC | 60.76 | 0.25 | 17.17 | - | 17.43 | 78.19 | 6.33% | 0.04 | 4.41 | 4.95 | 4.95 |
| IT Equipment (Incl. Software) | 26.63 | 0.11 | 0.38 | - | 0.49 | 27.12 | 5.28% | 0.02 | 1.42 | 1.43 | 1.43 |
| Total | 97244.03 | 407.77 | 3698.76 | 867.71 | 5429.86 | 102673.89 | Total | 56.24 | 5254.39 | 5375.04 | 5409.97 |
| Average Gross Block (₹ in lakh) | | | | | | | | 97447.92 | 99501.18 | 101784.42 | 102446.08 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-16

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | |
|--|--|-----------------|---------------|----------------|----------------|---|---|--|-----------------|-----------------|-----------------|
| | | 2015-16 | 2016-17 | 2017-18 | Total | | | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Land - Leasehold | 1283.50 | 11.61 | - | - | 11.61 | 1295.11 | 3.34% | 43.06 | 43.26 | 43.26 | 43.26 |
| Building Civil Works & Colony | 141.17 | 215.19 | 22.50 | 99.58 | 340.82 | 481.99 | 3.34% | 8.31 | 12.28 | 14.32 | 16.04 |
| Transmission Line | 8780.35 | 481.66 | 143.31 | 2252.76 | 3095.24 | 11875.59 | 5.28% | 249.87 | 492.82 | 556.07 | 621.29 |
| Sub Station | 4313.01 | 354.04 | 506.49 | 2024.77 | 3258.62 | 7571.63 | 5.28% | 124.37 | 259.79 | 326.62 | 389.93 |
| PLCC | 14.36 | 0.13 | - | - | 0.13 | 14.49 | 6.33% | 0.48 | 0.92 | 0.92 | 0.92 |
| IT Equipment (Incl. Software) | - | - | 45.98 | 57.93 | 111.37 | 111.37 | 5.28% | - | 1.21 | 3.96 | 5.68 |
| Total | 14532.39 | 1062.63 | 718.28 | 4435.04 | 6817.79 | 21350.18 | Total | 426.09 | 810.28 | 945.14 | 1077.11 |
| Average Gross Block (₹ in lakh) | | | | | | | | 15063.71 | 15954.16 | 18530.82 | 21049.26 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.08% | 5.08% | 5.10% | 5.12% |



Asset-17

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | |
|--|--|-----------------|---------------|--------------|---------------|---|---|--|----------------|----------------|----------------|
| | | 2015-16 | 2016-17 | 2017-18 | Total | | | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 956.96 | 97.00 | 201.50 | 85.91 | 402.67 | 1359.63 | 5.28% | 8.85 | 60.97 | 68.56 | 71.31 |
| IT Equipment (Incl. Software) | - | - | 18.51 | - | 18.51 | 18.51 | 5.28% | - | 0.49 | 0.98 | 0.98 |
| Total | 956.96 | 97.00 | 220.01 | 85.91 | 421.18 | 1378.14 | Total | 8.85 | 61.46 | 69.53 | 72.28 |
| Average Gross Block (₹ in lakh) | | | | | | | | 1005.46 | 1163.96 | 1316.92 | 1369.01 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% |

Asset-18

| 2014-19 Capital Expenditure | Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh) | ACE (₹ in lakh) | | | | Admitted Capital Cost as on 31.3.2019 (₹ in lakh) | Rate of Depreciation as per Regulations | Annual Depreciation as per Regulations (₹ in lakh) | | | |
|--|--|-----------------|---------------|---------------|---------------|---|---|--|----------------|----------------|----------------|
| | | 2015-16 | 2016-17 | 2017-18 | Total | | | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| Sub Station | 957.78 | 55.52 | 208.12 | 117.91 | 413.33 | 1371.11 | 5.28% | 1.56 | 59.00 | 67.60 | 71.56 |
| IT Equipment (Incl. Software) | - | - | 18.51 | - | 18.51 | 18.51 | 5.28% | - | 0.49 | 0.98 | 0.98 |
| Total | 957.78 | 55.52 | 226.63 | 117.91 | 431.84 | 1389.62 | Total | 1.56 | 59.49 | 68.58 | 72.53 |
| Average Gross Block (₹ in lakh) | | | | | | | | 985.54 | 1126.62 | 1298.89 | 1373.73 |
| Weighted Average Rate of Depreciation | | | | | | | | 5.28% | 5.28% | 5.28% | 5.28% |



Annexure-II

| 2019-24 Capital Expenditure | Admitted Capital Cost as on 1.4.2019 (₹ in lakh) | Projected ACE (₹ in lakh) | | | Admitted Capital Cost as on 31.3.2024 (₹ in lakh) | Rate of Deprecia tion as per Regulati ons | Annual Depreciation as per Regulations (₹ in lakh) | | | | |
|--|--|------------------------------|----------|----------------|--|--|---|------------------|------------------|------------------|------------------|
| | | 2019-20 | 2021-22 | Total | | | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| Land - Leasehold | 3388.39 | - | - | - | 3388.39 | 3.34% | 113.17 | 113.17 | 113.17 | 113.17 | 113.17 |
| Building Civil Works & Colony | 1770.83 | 361.00 | - | 361.00 | 2131.83 | 3.34% | 65.17 | 71.20 | 71.20 | 71.20 | 71.20 |
| Transmission Line | 114885.57 | 204.30 | - | 204.30 | 115089.87 | 5.28% | 6071.35 | 6076.74 | 6076.74 | 6076.74 | 6076.74 |
| Sub Station | 45780.69 | 435.05 | - | 435.05 | 46215.74 | 5.28% | 2428.71 | 2440.19 | 2440.19 | 2440.19 | 2440.19 |
| PLCC | 154.31 | - | - | - | 154.31 | 6.33% | 9.77 | 9.77 | 9.77 | 9.77 | 9.77 |
| IT Equipment (Incl. Software) | 785.42 | - | - | - | 785.42 | 15.00% | 117.81 | 117.81 | 117.81 | 117.81 | 117.81 |
| Total | 166765.20 | 1000.35 | - | 1000.35 | 167765.55 | | 8805.98 | 8828.89 | 8828.89 | 8828.89 | 8828.89 |
| Average Gross Block (₹ in lakh) | | | | | | | 167265.38 | 167765.55 | 167765.55 | 167765.55 | 167765.55 |
| Weighted Average Rate of Depreciation | | | | | | | 5.26% | 5.26% | 5.26% | 5.26% | 5.26% |

