

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 355/TT/2020

Coram:

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

Date of Order: 21.03.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of combined asset comprising of **Asset-A:** 400/220 kV, 315 MVA ICT-I at Fatehpur extension, 400/220 kV, 315 MVA ICT-II at Fatehpur Extension, LILO of Singhrauli-Kanpur at Fatehpur, LILO of Fatehpur (UPPCL)-Kanpur (UPPCL) 220 kV D/C line at Fatehpur, LILO of Allahabad-Kanpur 400 kV S/C Line at Fatehpur, 765 kV Sasaram-Fatehpur S/C Transmission Line, LILO of Ckt.-I 220 kV D/C Dehri-Bodhgaya at Gaya Sub-station and associated 220 kV Line bays, LILO of Ckt.-II 220 kV D/C Dehri-Bodhgaya at Gaya Sub-station and associated 220 kV Line bays, 315 MVA 400/220 kV ICT-I at Gaya Extension, 315 MVA 400/220 kV ICT-II at Gaya Extension, 765 kV S/C Fatehpur-Agra Transmission Line, **Asset-B:** 400 kV D/C Maithon (RB)-Ranchi (PG) Transmission Line and associated bays at Ranchi Sub-station, **Asset-C:** 400 kV D/C Maithon (RB)-Mejia Transmission Line, **Asset-D:** One Ckt. of 400 kV D/C Biharsharif-Sasaram Transmission Line (Ckt. III) and Part of Ckt. IV of 400 kV D/C Biharsharif-Sasaram Transmission Line charged as Biharsharif-Gaya line, **Asset-E:** Part of another Ckt. of 400 kV D/C Biharsharif-Sasaram Transmission Line (Ckt. IV) charged as Sasaram-Balia line, **Asset-F:** 400 kV D/C Maithon-Koderma (part of Koderma TPS-Gaya) (QUAD) Transmission Line, **Asset-G:** Balance portion of 400 kV D/C Koderma Gaya Transmission Line Ckt. II including multi circuit, **Asset-H:** Balance portion of 400 kV D/C Koderma Gaya Transmission Line Ckt. I including multi circuit and **Asset-I:** 400 kV D/C Bokaro TPS Extension-Koderma TPS line and PLCC Equipment for Koderma TPS-Bokaro TPS line under Supplementary Transmission System associated with DVC & Maithon Right Bank Project in Eastern and Northern Regions.

And in the matter of:

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

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg, Jaipur-302005 (Rajasthan).



2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
6. Punjab State Electricity Board,
Thermal Shed Tia, Near 22 Phatak,
Patiala-147001 (Punjab).
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6
Panchkula-134109 (Haryana).
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg, Lucknow-226001.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran Building (Near Karkardooma Courts),
Karkardooma 2nd Floor, New Delhi-110002.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
13. Tata Power Delhi Distribution Limited,
NDPL House, Hudson Lane, Kingsway Camp,
Delhi-110009.
14. Chandigarh Administration,
Sector 9, Chandigarh.



15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road, Dehradun (Uttarakhand).
16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
18. NTPC Limited,
4th Floor, 6th Core, NTPC Bhawan,
SCOPE Complex, Institutional Area, Lodhi Road,
Delhi-110003.
19. Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board),
Vidyut Bhawan, Bailey Road, Patna-800001.
20. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhan Nagar, Block D, Sector-II, Salt Lake City,
Kolkatta-700091.
21. Grid Corporation of Orissa Limited,
Shahid Nagar, Bhubneshwar-751007.
22. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre,
VIP Road, Kolkatta.
23. Department of Power,
Government of Sikkim,
Gangtok-737101.
24. Jharkhand State Electricity Board,
In front of main secretariat,
Doranda, Ranchi-834002.

.....Respondent(s)

For Petitioner : Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri V. P. Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents : Shri Manish Kumar Choudhary, Advocate, BSPHCL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for true-up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014



(hereinafter referred to as “the 2014 Tariff Regulations”); and for determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets forming part of **Combined Asset-A** under Supplementary Transmission System associated with DVC and Maithon Right Bank Project in Eastern and Northern Regions (hereinafter referred to as “the transmission project”):

Asset-A: 400/220 kV, 315 MVA ICT-I at Fatehpur extension, 400/220 kV, 315 MVA ICT-II at Fatehpur Extension, LILO of Singhrauli-Kanpur at Fatehpur, LILO of Fatehpur (UPPCL)-Kanpur (UPPCL) 220 kV D/C line at Fatehpur, LILO of Allahabad-Kanpur 400 kV S/C Line at Fatehpur, 765 kV Sasaram-Fatehpur S/C Transmission Line, LILO of Ckt.-I 220 kV D/C Dehri-Bodhgaya at Gaya Sub-station and associated 220 kV Line bays, LILO of Ckt.-II 220 kV D/C Dehri-Bodhgaya at Gaya Sub-station and associated 220 kV Line bays, 315 MVA 400/220 kV ICT-I at Gaya Extension, 315 MVA 400/220 kV ICT-II at Gaya Extension, 765 kV S/C Fatehpur-Agra Transmission Line;

Asset-B: 400 kV D/C Maithon (RB)-Ranchi (PG) Transmission Line and associated bays at Ranchi Sub-station;

Asset-C: 400 kV D/C Maithon (RB)-Mejia Transmission Line;

Asset-D: One Ckt. of 400 kV D/C Biharsharif-Sasaram Transmission Line (Ckt. III) and Part of Ckt. IV of 400 kV D/C Biharsharif-Sasaram Transmission Line charged as Biharsharif-Gaya line;

Asset-E: Part of another Ckt. of 400 kV D/C Biharsharif-Sasaram Transmission Line (Ckt. IV) charged as Sasaram-Balia line;

Asset-F: 400 kV D/C Maithon-Koderma (part of Koderma TPS-Gaya) (QUAD) Transmission Line;

Asset-G: Balance portion of 400 kV D/C Koderma Gaya Transmission Line Ckt. II including multi circuit;

Asset-H: Balance portion of 400 kV D/C Koderma Gaya Transmission Line Ckt. I including multi circuit; and

Asset-I: 400 kV D/C Bokaro TPS Extension-Koderma TPS line and PLCC Equipment for Koderma TPS-Bokaro TPS line.

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

- “1) Allow the actual Additional Capital Expenditure during 2014-19 and projected for 2019-24 tariff block as claimed as per Para 6.1 and 7.1 above.



- 2) *Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 6.8 and 7.3 above.*
- 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 5.4 and 7.5 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 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 7.9 above.*
- 8) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 9) *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."

3. The brief facts of the case are as follows:
 - a) The Investment Approval (I.A.) for the Project was accorded by the Board of Directors (BoD) of the Petitioner's Company vide memorandum dated 29.8.2008 at an estimated cost of ₹236095 lakh, including an IDC of ₹23593 lakh (based on 1st Quarter 2008 price level). The Revised Cost Estimate (RCE) was accorded approval by the BoD of the Petitioner's Company vide memorandum dated 1.5.2013 at an estimated cost of ₹258090 lakh, including



an IDC of ₹24441 lakh (based on December 2012 price level). The scope of the work covered under “Supplementary Transmission System under DVC and Maithon Right Bank in Eastern Region” is as follows:

Transmission Lines:

A) Specific system for Maithon RB

i. Maithon RB TPD – Ranchi (PG) 400 kV D/C

B) Specific system for Bokaro Extension and Kodarma

i. Bokaro TPS Extension – Kodarma TPS 400 kV D/C

ii. Kodarma – Gaya (PG) 400 kV D/C

C) Specific system for Mejia Extension

i. Mejia – Maithon (PG) 400 kV D/C

D) Common Transmission system for import of power by NR

i. Sasaram – Fatehpur 765 kV S/C line

ii. Fatehpur – Agra 765 kV S/C line

iii. Biharsharif – Sasaram 400 kV D/C (Quad) line

iv. LILO of Singrauli – Kanpur 400 kV S/C line at Fatehpur

v. LILO of Allahabad – Kanpur 400 kV S/C at Fatehpur

vi. LILO of Fatehpur (UPPCL) – Kanpur (UPPCL) 220 kV D/C line at Fatehpur (PG)

vii. LILO of Dehri – Bodhgaya 220 kV D/C line at Gaya Sub-stations:

E) Additional scope at Fatehpur 765 / 400 kV Sub-station

i. 2x315 MVA 400 / 220 kV transformer with associated bays

ii. 4 nos. 400 kV line bays for LILOs

iii. 4 nos. of 220 kV line bays for LILOs F) Additional scope at Gaya 765 / 400 kV Sub-station

iv. 2x315 MVA 400 / 220 kV transformer with associated bays

v. 4 nos. of 220 kV line bays for LILOs

G) Additional scope at Ranchi 400/220 kV Sub-station

i. 2 nos. of 400 kV line bays

H) PLCC equipment for the following:

i. Kodarma TPS – Bokaro TPS line

ii. At Dehri and Bodhgaya 220 kV Sub-stations (for LILO)

Note: 1) Bays at Maithon RB TPS, Kodarma TPS, Bokaro TPS and Mejia TPS are to be covered under the scope of generation switchyard.



2) Bay Extension at POWERGRID sub-stations at Sasaram, Agra and Biharsharif for termination of associated lines are covered under main DPR for DVC and Maithon RB projects.

b) All the transmission assets under the instant transmission scheme are completed and are covered under instant petition. The details of assets under this project are as mentioned below:

Sr. No.	Name of Asset	COD	Previous Order	Asset nomenclature in previous order	Asset nomenclature in instant petition
1	400/220 kV, 315 MVA ICT -I at Fatehpur Extension	1.1.2012	order dated 27.6.2016 in Petition No. 52/TT/2016	Asset-I	Asset-A
2	400/220 kV, 315 MVA ICT -II at Fatehpur Extension	1.1.2012		Asset-II	Asset-A
3	LILO of Singrauli Kanpur at Fatehpur	1.2.2012		Asset-III	Asset-A
4	LILO of Fatehpur (UPPCL) - Kanpur (UPPCL) 220 kV D/C line at Fatehpur	1.1.2012		Asset-IV	Asset-A
5	LILO of Allahabad - Kanpur 400 kV S/C line at Fatehpur	1.1.2012		Asset-V	Asset-A
6	765 kV Sasaram – Fatehpur S/C Transmission line	1.4.2012		Asset-VI	Asset-A
7	LILO of Ckt- I 220 kV D/C Dehri Bodhgaya at Gaya Sub-station and associated 220 kV line bays	1.2.2012		Asset-VII	Asset-A
8	LILO of Ckt- II 220 kV D/C Dehri Bodhgaya at Gaya Sub-station and associated 220 kV line bays	1.4.2012		Asset-VIII	Asset-A
9	315 MVA 400/220 kV ICT-I at Gaya Extension	1.2.2012		Asset-IX	Asset-A
10	315 MVA 400/220 kV ICT-II at Gaya Extension	1.2.2012		Asset-X	Asset-A
11	765 kV S/C Fatehpur-Agra Transmission Line	1.6.2012		Asset-XI	Asset-A
12	400 kV D/C Maithan (RB) – Ranchi (PG) Transmission line and associated bays at Ranchi Sub-station	1.1.2012	order dated 18.4.2016 in Petition No. 27/TT/2015	Asset-I	Asset-B



13	400kV D/C Maithan (RB) - Mejia Transmission line	1.12.2011	order dated 18.4.2016 in Petition No. 27/TT/2015	Asset-II	Asset-C
14	One Ckt of 400 kV D/C Biharsharif - Sasaram transmission line (Ckt III) and Part of Ckt IV of 400 kV D/C Biharsharif - Sasaram transmission line Charged as Biharsharif - Gaya line	1.2.2012	order dated 18.4.2016 in Petition No. 27/TT/2015	Asset-III(A)	Asset-D
15	Part of another ckt of 400 kV D/C Biharsharif - Sasaram transmission line (Ckt IV) Charged as Sasaram - Balia line	1.3.2012		Asset-III(B)	Asset-E
16	400 kV D/C Maithon-Koderma (part of Koderma TPS - Gaya) (QUAD) Transmission line	1.2.2013	order dated 29.9.2016 in Petition No. 25/TT/2016	NA	Asset-F
17	Balance portion of 400 kV D/C Kodarma Gaya TL CKT II including multi circuit	8.9.2014	order dated 30.3.2016 in Petition No. 132/TT/2015	Asset I	Asset-G
18	Balance portion of 400 kV D/C Kodarma Gaya TL CKT I including multi circuit	30.12.2014		Asset II	Asset-H
19	400 kV D/C Bokaro TPS Extension - Kodarma TPS line and PLCC Equipment for Kodarma TPS - Bokaro TPS line	28.12.2014		Asset III	Asset-I

c) The details of the COD and the time over-run in case of the transmission assets covered in the instant petition are as follows:

Asset nomenclature in instant petition	Scheduled date of commercial operation	Date of commercial operation	Time over-run	Time over-run condoned
Asset-A	1.9.2012	1.1.2012 to 1.6.2012	Nil	N/A
Asset-B	1.9.2012	1.1.2012	Nil	N/A
Asset-C	1.9.2012	1.12.2011	Nil	N/A
Asset-D	1.9.2012	1.2.2012	Nil	N/A
Asset-E	1.9.2012	1.3.2012	Nil	N/A
Asset-F	1.9.2012	1.2.2013	5 months	Condoned vide Order in Petition



				No. 25/TT/2016
Asset-G	1.9.2012	8.9.2014	24 months	Condoned vide Order in Petition No. 132/TT/2015
Asset-H	1.9.2012	30.12.2014	28 months	Condoned vide Order in Petition No. 132/TT/2015
Asset-I	1.9.2012	28.12.2014	28 months	Condoned vide Order in Petition No. 132/TT/2015

- d) The trued-up tariff of Asset A (comprising of eleven transmission assets) for 2009-14 tariff period and tariff for 2014-19 tariff period was approved vide order dated 7.6.2016 in Petition No. 52/TT/2016. The trued-up tariff of Asset B, Asset C, Asset D and Asset E for 2009-14 tariff period and tariff for 2014-19 tariff period was approved vide order dated 18.4.2016 in Petition No. 27/TT/2015. The trued-up tariff of Asset F for 2009-14 tariff period and tariff for 2014-19 tariff period was allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016. The transmission tariff of Asset G, Asset H and Asset I for 2014-19 tariff period was allowed vide order dated 14.3.2016 in Petition No. 132/TT/2015.
- e) For Asset A: The transmission tariff for the period from COD up to 31.3.2014 was approved vide order dated 22.1.2015 in Petition No. 70/TT/2012, and the same was revised vide order dated 10.2.2015 in Petition No. 200/TT/2012. The above transmission tariff for the 2009-14 period was trued-up and tariff for the 2014-19 period was determined vide order dated 27.6.2016 in Petition No. 52/TT/2016.
- f) For Assets B, C, D & E: The transmission tariff for Asset B from the period from COD up to 31.3.2014 was approved vide order dated 30.12.2011 in Petition No. 149/TT/2011. The transmission tariff for Asset C from the period from COD up to 31.3.2014 was approved vide order dated 25.10.2011 in Petition No. 98/TT/2011. The transmission tariff for Asset D and Asset E from the period from COD up to 31.3.2014 was approved vide order dated 14.11.2011 in Petition No.174/TT/2010. The above transmission tariff for Assets B, C, D and E for the 2009-14 period was trued-up and tariff for the 2014-19 period was determined vide order dated 18.4.2016 in Petition No. 27/TT/2015.
- g) For Asset F: The transmission tariff for the period from COD up to 31.3.2014 was approved vide order dated 15.1.2015 in Petition No. 67/TT/2012. The same was



trued-up and the tariff for the 2014-19 period was determined vide order dated 29.9.2016 in Petition No. 25/TT/2016.

h) For Assets G, H and I: The transmission tariff for the period from COD up to 31.3.2019 was approved vide order dated 30.3.2016 in Petition No. 132/TT/2015.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. Bihar State Power (Holding) Company Limited [BSPHCL], Respondent No. 19 has filed its reply vide affidavit dated 20.7.2021 and has raised the issues of Return on Equity (RoE), GST, change in interest rate due to floating rate of interest, filing fee and expenses and sharing of transmission tariff. The Petitioner has not filed any rejoinder to BSPHCL's reply. The issues raised by BSPHCL have been dealt in the relevant portions of this order.

6. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 22.1.2020, the Petitioner's affidavit dated 27.11.2020 and 5.2.2021 filed in response to the technical validation letters dated 13.11.2020 and 28.1.2021 respectively and BSPHCL's reply filed vide affidavit dated 20.7.2021.

7. The hearing in this matter was held on 6.7.2021 through video conference and order was reserved. Having heard the learned counsel for BSPHCL and representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.



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

8. The details of the trued-up transmission charges claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	6228.25	6313.15	6327.14	6328.74	6330.34
Interest on Loan	6127.33	5659.98	5099.54	4518.59	3946.53
Return on Equity	6937.36	7064.24	7076.31	7078.10	7098.92
Interest on Working Capital	507.23	503.48	493.32	482.28	471.93
O&M Expenses	1143.08	1181.62	1220.34	1261.15	1302.89
Total	20943.25	20722.47	20216.65	19668.86	19150.61

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1291.90	1314.27	1314.34	1314.40	1314.40
Interest on Loan	1221.94	1130.21	1012.39	894.58	776.71
Return on Equity	1439.54	1471.20	1470.53	1470.60	1474.56
Interest on Working Capital	111.65	111.48	109.45	107.48	105.61
O&M Expenses	373.86	386.37	399.15	412.40	426.08
Total	4438.89	4413.53	4305.86	4199.46	4097.36

(₹ in lakh)

Asset-C*					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	450.84	456.04	458.26	458.26	459.38
Interest on Loan	421.26	386.19	347.37	305.38	265.56
Return on Equity	502.34	510.59	513.08	513.08	515.69
Interest on Working Capital	33.95	33.53	32.82	31.94	31.19
O&M Expenses	41.84	43.26	44.68	46.16	47.70
Total	1450.23	1429.61	1396.21	1354.82	1319.52

(*The Petitioner vide affidavit dated 27.11.2020 has revised tariff forms for Asset-C and has accordingly claimed the revised transmission charges)

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2057.58	2084.45	2084.65	2084.65	2084.65
Interest on Loan	1970.28	1819.53	1633.67	1446.75	1261.10
Return on Equity	2244.05	2284.45	2283.50	2283.50	2289.65
Interest on Working Capital	155.01	153.46	149.52	145.60	141.85
O&M Expenses	192.71	199.39	205.75	212.74	219.74
Total	6619.63	6541.28	6357.09	6173.24	5996.99

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	167.60	167.60	167.60	167.60	167.60
Interest on Loan	158.29	143.47	128.63	113.80	98.98
Return on Equity	186.89	187.74	187.65	187.65	188.15
Interest on Working Capital	14.47	14.25	13.99	13.75	13.51



O&M Expenses	48.35	50.02	51.62	53.37	55.13
Total	575.60	563.08	549.49	536.17	523.37

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	481.53	516.62	549.46	551.92	551.92
Interest on Loan	500.84	495.67	483.61	435.68	386.05
Return on Equity	536.93	578.69	615.18	617.93	619.59
Interest on Working Capital	37.96	39.71	41.13	40.26	39.26
O&M Expenses	54.16	55.95	57.78	59.72	61.71
Total	1611.42	1686.64	1747.16	1705.51	1658.53

(₹ in lakh)

Asset-G					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	369.33	662.71	666.05	668.50	669.10
Interest on Loan	431.74	726.67	669.42	607.61	547.40
Return on Equity	411.83	742.34	745.71	748.46	751.15
Interest on Working Capital	28.47	49.07	47.90	46.60	45.29
O&M Expenses	5.53	0.00	0.00	0.00	0.00
Total	1246.90	2180.79	2129.08	2071.17	2012.94

(₹ in lakh)

Asset-H					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	66.69	265.60	268.05	270.51	270.51
Interest on Loan	80.00	302.28	279.30	254.34	229.05
Return on Equity	74.37	297.51	300.11	302.86	303.68
Interest on Working Capital	5.52	21.69	21.34	20.94	20.44
O&M Expenses	7.82	32.06	33.11	34.22	35.36
Total	234.40	919.14	901.91	882.87	859.04

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	206.75	856.59	863.62	868.92	873.35
Interest on Loan	251.59	982.79	901.95	810.25	731.45
Return on Equity	230.54	959.52	966.92	972.85	980.44
Interest on Working Capital	16.86	68.44	67.05	65.33	63.94
O&M Expenses	18.12	72.73	75.12	77.61	80.20
Total	723.86	2940.07	2874.66	2794.96	2729.38

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

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	95.26	98.47	101.70	105.10	108.57
Maintenance Spares	171.46	177.24	183.05	189.17	195.43
Receivables	3490.54	3453.75	3369.44	3278.14	3191.77
Total Working Capital					



Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	507.23	503.48	493.32	482.28	471.93

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	31.16	32.20	33.26	34.37	35.51
Maintenance Spares	56.08	57.96	59.87	61.86	63.91
Receivables	739.82	735.59	717.64	699.91	682.89
Total Working Capital					
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	111.65	111.48	109.45	107.48	105.61

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	3.49	3.61	3.72	3.85	3.98
Maintenance Spares	6.28	6.49	6.70	6.92	7.16
Receivables	241.71	238.27	232.70	225.80	219.92
Total Working Capital					
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	33.95	33.53	32.82	31.94	31.19

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	16.06	16.62	17.15	17.73	18.31
Maintenance Spares	28.91	29.91	30.86	31.91	32.96
Receivables	1103.27	1090.21	1059.51	1028.87	999.50
Total Working Capital	1	1	110	1	1
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	155.01	153.46	149.52	145.60	141.85

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.03	4.17	4.30	4.45	4.59
Maintenance Spares	7.25	7.50	7.74	8.01	8.27
Receivables	95.93	93.85	91.58	89.36	87.23
Total Working Capital	1	1	10	1	1
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	14.47	14.25	13.99	13.75	13.51

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.51	4.66	4.82	4.98	5.14
Maintenance Spares	8.12	8.39	8.67	8.96	9.26
Receivables	268.57	281.11	291.19	284.25	276.42
Total Working Capital	28	2	3	2	2
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	37.96	39.71	41.13	40.26	39.26



(₹ in lakh)

Asset-G					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	1.48	0.00	0.00	0.00	0.00
Maintenance Spares	2.66	0.00	0.00	0.00	0.00
Receivables	371.33	363.47	354.85	345.20	335.49
Total Working Capital	37	3	3	3	3
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	28.47	49.07	47.90	46.60	45.29

(₹ in lakh)

Asset-H					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	2.59	2.67	2.76	2.85	2.95
Maintenance Spares	4.65	4.81	4.97	5.13	5.30
Receivables	154.99	153.19	150.32	147.15	143.17
Total Working Capital	1	1	1	1	1
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	5.52	21.69	21.34	20.94	20.44

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	5.86	6.06	6.26	6.47	6.68
Maintenance Spares	10.55	10.91	11.27	11.64	12.03
Receivables	468.45	490.01	479.11	465.83	454.90
Total Working Capital	4	5	4	48	4
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	16.86	68.44	67.05	65.33	63.94

10. The Commission in order dated 30.3.2016 in Petition No. 132/TT/2015, while approving the COD of the Asset-I (in the instant petition) as 28.12.2014, directed the Petitioner to submit the RLDC certificate at the time of true up. In support of the COD of the instant Asset-I, the Petitioner has submitted RLDC certificate dated 6.3.2016. Taking into consideration the CEA energisation certificate and RLDC charging certificate, COD of the asset-I is approved as 28.12.2014.

Capital Cost

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

12. The Commission vide order dated 27.6.2016 in Petition No. 52/TT/2016 (for Asset-A), order dated 18.4.2016 in Petition No. 27/TT/2015 (for Asset-B, Asset-C,



Asset-D and Asset-E), order dated 29.9.2016 in Petition No. 25/TT/2016 (for Asset-F) and order dated 30.3.2016 in Petition No. 132/TT/2015 (for Asset-G, Asset-H and Asset-I) had allowed the capital cost for the 2014-19 tariff period (including ACE during the 2014-19 period) for the transmission assets and they are as follows:

Asset	Apportioned Approved Cost (as per RCE)	Expenditure up to 1.4.2014/ COD	ACE					Capital Cost (as on 31.3.2019)
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-A(I)	2506.66	1747.62	41.10	43.51	0.00	0.00	0.00	1832.23
Asset-A(II)	2506.66	1747.32	41.10	43.51	0.00	0.00	0.00	1831.93
Asset-A(III)	3783.36	3397.34	12.98	20.10	0.00	0.00	0.00	3430.42
Asset-A(IV)	1604.20	1480.71	22.53	37.53	0.00	0.00	0.00	1540.77
Asset-A(V)	2958.76	2574.10	16.20	20.10	0.00	0.00	0.00	2610.40
Asset-A(VI)	56387.04	53989.13	1916.64	181.60	0.00	0.00	0.00	56087.37
Asset-A(VII)	1512.26	1422.23	20.84	15.64	0.00	0.00	0.00	1458.71
Asset-A(VIII)	1512.26	1458.93	20.84	15.64	0.00	0.00	0.00	1495.41
Asset-A(IX)	2450.52	1654.99	0.00	0.00	0.00	0.00	0.00	1654.99
Asset-A(X)	2450.52	1750.91	47.54	0.00	0.00	0.00	0.00	1798.45
Asset-A(XI)	51093.40	45266.17	545.37	112.54	0.00	0.00	0.00	45924.08
Asset-B	25223.26	24026.98	200.00	0.00	0.00	0.00	0.00	24226.98
Asset-C	9641.84	8482.36	54.21	0.00	0.00	0.00	0.00	8536.57
Asset-D	47174.25	38463.90	91.46	0.00	0.00	0.00	0.00	38555.36
Asset-E	3883.91	3174.31	0.00	0.00	0.00	0.00	0.00	3174.31
Asset-F	10521.36	8957.28	177.87	698.83	0.00	0.00	0.00	9833.98
Asset-G	13133.17	12590.10	191.74	47.93	0.00	0.00	0.00	12829.77
Asset-H	5139.07	4992.59	44.59	12.59	0.00	0.00	0.00	5049.77
Asset-I	16580.97	14014.95	92.33	123.11	92.33	0.00	0.00	14322.72

13. The Petitioner in the instant petition has claimed the following capital cost and actual Additional Capital Expenditure (ACE) during 2014-19 tariff period in respect of the transmission assets:

Asset	Apportioned Approved Cost (as per RCE)	Expenditure up to COD	ACE					Capital Cost (as on 31.3.2019)
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-A(I)	2506.66	1747.62	41.10	11.67	0.00	11.09	0.00	1811.48
Asset-A(II)	2506.66	1747.32	41.10	11.67	0.00	11.09	0.00	1811.18
Asset-A(III)	3783.36	3397.33	12.98	11.20	0.00	7.06	0.00	3428.57
Asset-A(IV)	1604.20	1480.72	22.53	11.20	0.00	7.06	0.00	1521.51
Asset-A(V)	2958.76	2574.10	16.20	12.17	0.00	24.23	0.00	2626.70
Asset-A(VI)	56387.04	53989.14	1916.64	270.37	0.00	0.00	0.00	56176.15
Asset-A(VII)	1512.26	1422.23	20.84	16.87	0.00	0.00	0.00	1459.94
Asset-A(VIII)	1512.26	1458.93	20.84	16.87	0.00	0.00	0.00	1496.64
Asset-A(IX)	2450.52	1654.99	0.00	0.00	0.00	0.00	0.00	1654.99



Asset-A(X)	2450.52	1750.91	47.54	0.00	0.00	0.00	0.00	1798.45
Asset-A(XI)	51093.40	45266.16	545.37	167.55	0.00	0.00	0.00	45979.08
Asset-B	25223.26	24026.98	847.50	0.00	2.50	0.00	0.00	24876.98
Asset-C	9641.84	8482.36	54.21	0.00	0.00	0.00	0.00	8536.57
Asset-D	47174.25	38463.90	1010.70	7.33	0.00	0.00	0.00	39481.93
Asset-E	3883.91	3174.31	0.00	0.00	0.00	0.00	0.00	3174.31
Asset-F	10521.36	9030.92	177.87	1151.17	93.05	0.00	0.00	10453.01
Asset-G	13133.17	12374.07	160.43	33.47	93.05	0.00	22.84	12683.86
Asset-H	5139.07	4992.59	37.63	0.00	93.04	0.00	0.00	5123.26
Asset-I	16580.97	14302.60	1803.86	233.51	33.10	167.67	0.00	16540.74

14. The capital cost claimed by the Petitioner as on 31.3.2019 in respect of the transmission assets is within the RCE apportioned approved cost.

Time over-run

15. The transmission project was scheduled to be commissioned within 48 months from the date of I.A. (29.8.2008). Therefore, the scheduled COD was 1.9.2012. There is no time over-run in case of Asset-A, B, C, D, E. There was time over-run in case of Asset-F, Asset-G, Asset-H and Asset-I of 5 months, 24 months, 28 months and 28 months respectively. The time over-run of 5 months in case of Asset-F was condoned vide order dated 29.9.2016 in Petition No. 25/TT/2016 and the time over-run of 24 months, 24 months and 28 months in case of Asset-G, Asset-H and Asset-I respectively was condoned vide order dated 30.3.2016 in Petition No. 132/TT/2015.

Interest during Construction (IDC) and Incidental Expenditure during Construction (IEDC)

16. Asset-A, Asset-B, Asset-C, Asset-D, Asset-E and Asset-F achieved COD during the 2009-14 tariff period, IDC and IEDC have already been approved in the respective previous orders.

17. The Petitioner has claimed IDC for Asset-G, Asset-H and Asset-I which were put to commercial operation during the 2014-19 tariff period and has submitted the statement showing IDC claim, discharge of IDC liability as on COD and the same has been summarised as follows:

(₹ in lakh)		
Asset	IDC as per Auditor's Certificate	IDC discharged up to COD
Asset-G	1283.67	1283.67
Asset-H	1013.02	1013.02



Asset-I	1928.90	1928.90
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18. The Petitioner has submitted IDC computation statement which contains name of the loan, drawl date, loan amount, interest rate and interest claimed. IDC is worked out based on the details given in IDC statement. Further, the loan amount as on COD mentioned in Forms 6 and 9C has been considered. Accordingly, IDC claimed and allowed are summarised as follows:

(₹ in lakh)		
Asset	IDC as per Auditor's Certificate (A)	IDC allowed as on COD (B)
Asset-G	1283.67	1283.67
Asset-H	1013.02	1013.02
Asset-I	1928.90	1928.90

19. The Petitioner vide Auditor's Certificate has claimed IEDC for Asset-G, Asset-H and Asset-I. The Petitioner has submitted that the entire IEDC mentioned in the Auditor's Certificate is on cash basis. Accordingly, IEDC allowed are as follows:

(₹ in lakh)		
Asset	IEDC claimed as per Auditor's Certificate	IEDC allowed as on COD
Asset-G	274.04	274.04
Asset-H	131.48	131.48
Asset-I	327.66	327.66

Initial Spares

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

“Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto cut-off date, subject to following ceiling norms:

“(d) Transmission system

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

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21. The Initial Spares claimed by the Petitioner are as follows:



Asset	Plant and Machinery Cost excluding IDC, IEDC, Land Expenditure up to 31.3.2019 (₹ in lakh)		Initial Spares claimed (₹ in lakh)	
	Sub-station	Transmission Line	Sub-station	Transmission Line
Asset-A(I)	1811.48	0.00	5.19	0.00
Asset-A(II)	1811.18	0.00	5.19	0.00
Asset-A(III)	594.74	2833.83	1.82	0.00
Asset-A(IV)	945.77	575.74	21.58	0.00
Asset-A(V)	512.88	2113.82	1.82	0.00
Asset-A(VI)	0.00	56176.15	0.00	0.00
Asset-A(VII)	691.82	768.12	14.75	3.75
Asset-A(VIII)	697.11	799.53	14.75	3.75
Asset-A(IX)	1654.99	0.00	17.74	0.00
Asset-A(X)	1798.45	0.00	17.74	0.00
Asset-A(XI)	0.00	45979.08	0.00	0.00
Asset-B	1436.57	23440.41	5.32	145.02
Asset-C	0.00	8536.57	0.00	0.00
Asset-D	0.00	39481.93	0.00	239.00
Asset-E	0.00	3174.31	0.00	0.00
Asset-F	0.00	10453.01	0.00	91.50
Asset-G	0.00	11460.26	0.00	114.00
Asset-H	0.00	3978.76	0.00	39.00
Asset-I	0.00	14284.18	0.00	140.00
Total	11954.99	224055.7	105.90	776.02

22. Asset-A to Asset-F were put under commercial operation during the 2009-14 period while Asset-G, Asset-H and Asset-I were put under commercial operation during the 2014-19 period. Therefore, the Initial Spares are calculated based on the applicable regulations for the transmission assets. The Petitioner has proposed to combine the transmission assets in the 2019-24 tariff period.

23. The Appellate Tribunal for Electricity (APTEL) in its judgment dated 14.9.2019 in Appeal No. 74 of 2017 had observed that the Commission for the purpose of prudence check may restrict the Initial Spares to the cost of the individual asset and later at the time of truing up allow Initial Spares as per the ceiling limits on the overall project cost. The relevant portion of the said judgement is extracted as follows:

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



24. Therefore, Initial Spares are allowed on the basis of the overall project cost in the 2019-24 tariff period when the transmission assets are combined and the overall project cost is arrived at. The initial spares allowed for the 2014-19 tariff period are summarised as follows:

Sub-station (COD in 2009-14 tariff period)						
Asset	Capital Cost as on cut-off date	Initial Spares Claimed (B)	Ceiling Limit (C)	Initial Spares Worked out $D = \frac{[(A-B)*C]}{(100-C)}$	Excess Initial Spares	Initial Spares allowed in the instant order
	(₹ in lakh)	(₹ in lakh)	(in %)	(₹ in lakh)	(₹ in lakh)	(₹ in lakh)
Asset-A(I)	1788.72	5.19	2.50	45.73	Nil	5.19
Asset-A(II)	1788.42	5.19	2.50	45.72	Nil	5.19
Asset-A(III)	576.48	1.82	2.50	14.73	Nil	1.82
Asset-A(IV)	927.51	21.58	2.50	23.23	Nil	21.58
Asset-A(V)	476.48	1.82	2.50	12.17	Nil	1.82
Asset-A(VII)	691.82	14.75	2.50	17.36	Nil	14.75
Asset-A(VIII)	697.11	14.75	2.50	17.50	Nil	14.75
Asset-A(IX)	1654.99	17.74	2.50	41.98	Nil	17.74
Asset-A(X)	1798.45	17.74	2.50	45.66	Nil	17.74
Asset-B	1436.57	5.32	2.50	36.70	Nil	5.32
Transmission Line (COD in 2009-14 tariff period)						
Asset	Capital Cost as on cut-off date	Initial Spares Claimed (B)	Ceiling Limit (C)	Initial Spares Worked out $D = \frac{[(A-B)*C]}{(100-C)}$	Excess Initial Spares	Initial Spares allowed in the instant order
	(₹ in lakh)	(₹ in lakh)	(in %)	(₹ in lakh)	(₹ in lakh)	(₹ in lakh)
Asset-A(VII)	751.25	3.75	0.75	5.65	Nil	3.75
Asset-A(VIII)	782.66	3.75	0.75	5.89	Nil	3.75
Asset-B	23437.91	145.02	0.75	176.02	Nil	145.02
Asset-D	39474.60	239.00	0.75	296.49	Nil	239.00
Asset-F	10359.96	91.50	0.75	77.60	13.90	77.60
Transmission Line (COD in 2014-19 tariff period)						
Asset	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC as per Auditor's Certificates)	Initial Spares Claimed (B)	Ceiling Limit (C)	Initial Spares Worked out $D = \frac{[(A-B)*C]}{(100-C)}$	Excess Initial Spares	Initial Spares allowed in the instant order
	(₹ in lakh)	(₹ in lakh)	(in %)	(₹ in lakh)	(₹ in lakh)	(₹ in lakh)
Asset-G	11460.26	114.00	1.00	114.61	Nil	114.00
Asset-H	3978.76	39.00	1.00	39.80	Nil	39.00
Asset-I	14284.18	140.00	1.00	142.87	Nil	140.00

25. For Asset-F, the Petitioner has claimed capital cost of ₹9030.92 lakh against the capital cost of ₹8957.28 lakh approved vide order dated 29.9.2016 in Petition No. 25/TT/2016. The Petitioner vide affidavit dated 27.11.2020 has submitted reconciliation for the mismatch in the values as follows:



Particulars	Amount (₹ in lakh)	Reason
Expenditure up to 31.3.2014 considered by Petitioner	9030.92	
Expenditure up to 31.3.2014 allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	8957.28	
Difference	73.64	
Break-up of difference as observed above		
IDC disallowed vide order dated 29.9.2016 in Petition No. 25/TT/2016 claimed again by the Petitioner	2.64	This has been claimed again by the Petitioner as IDC worked out at Petitioner's end remains the same
Initial Spares discharged during 2016-17	71	The admitted capital cost up to 31.3.2014 of ₹8957.28 lakh has been arrived at after deduction of the Initial Spares discharge beyond 31.3.2014 i.e. ₹71.00 lakh discharged in 2016-17. However, this deduction is not applicable as this discharge amount of ₹71.00 lakh is part of the corresponding ACE for 2016-17 and was not part of the cost up to 31.3.2014 from where it had been deducted in the order dated 29.9.2016 in Petition No. 25/TT/2016

26. We have considered the submissions of the Petitioner and noted that the Commission vide order dated 29.9.2016 in Petition No. 25/TT/2016 has dis-allowed IDC of ₹2.64 lakh and Initial Spares of ₹71.00 lakh in respect of Asset-F. The relevant extracts of the said order dated 29.9.2016 are as follows:

“Interest During Construction (IDC)”

18. The IDC has been worked out based on submissions made in the petition for the 2009-14 tariff period. IDC for the instant asset has been worked out after condoning time over-run. Following is the details submitted by the petitioner and allowable/worked out IDC as on COD, on cash basis:-

(₹ in lakh)							
Interest During Construction (IDC)							
Claimed as on COD as per the Auditor's Certificate	Total IDC worked out on Accrual basis as on COD	Discharged up to COD (as per claim)	Allowed/ Worked out on Cash Basis as on COD	Accrued IDC discharged during 2012-13 (as per claim)	Accrued IDC allowed during 2012-13	Accrued IDC discharged during 2013-14 (as per claim)	Accrued IDC allowed during 2013-14
1565.73	1563.09	1335.65	1334.50	99.52	99.52	130.55	129.07

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25. The initial spares discharged upto COD is ₹20.50 lakh and these are allowed to be capitalized as on COD. However, the remaining initial spares amounting to ₹71.00 lakh are being discharged by the petitioner in 2016-17, which is beyond the cut-off date of commissioning of the asset. Hence, the actual remaining initial spares of ₹53.66 lakh (i.e. ₹74.16 lakh- ₹20.50 lakh) may be taken up by the petitioner the time of truing-up of 2014-19 tariff period.

26. The capital cost as on COD after considering IDC and IEDC on cash basis and un-discharged initial spares claimed after deducting the cost of the contingency arrangement is worked out as under:-

(₹ in lakh)

Capital cost as on COD	Less: IDC and IEDC claimed	Add: IDC on cash basis allowed	Add: IEDC allowed	Less: Cost of interim arrangement	Less: Un-discharged claimed Initial spares as on COD	Capital cost as on COD considered for tariff
8772.73	1623.88	1334.50	58.15	7.36	71.00	8463.14

”

27. As regards the claim of IDC amount of ₹2.64 lakh in respect of Asset-F, which was earlier dis-allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016, we do not find any merit in Petitioner's claim in this petition when the issue is already settled and has attained finality in the order dated 29.9.2016. Accordingly, the claim of IDC amount of ₹2.64 lakh in respect of Asset-F is dis-allowed.

28. With regard to deduction of Initial Spares of ₹71.00 lakh from the capital cost as on COD of Asset-F, taking into consideration the submission of the Petitioner that the amount of ₹71.00 lakh towards Initial Spares has been actually discharged in 2016-17, we note that Initial Spares of ₹71.00 lakh is required to be added back to the capital cost as on 31.3.2014. Accordingly, the details of the capital cost as on COD now approved after adjustment of IDC, IEDC and Initial Spares is as follows:

(₹ in lakh)

Asset	Capital Cost allowed (as on 1.4.2014)	Initial spares added back	Excess Initial Spares as computed in the instant order	Capital Cost allowed (as on COD)
A	B	C	D	E=B+C-D
Asset-A	116489.45	0.00	0.00	116489.45
Asset-B	24026.98	0.00	0.00	24026.98
Asset-C	8482.36	0.00	0.00	8482.36
Asset-D	38463.90	0.00	0.00	38463.90



Asset-E	3174.31	0.00	0.00	3174.31
Asset-F	8957.28	71.00	13.90	9014.38
Asset-G	12374.06	0.00	0.00	12374.06
Asset-H	4992.59	0.00	0.00	4992.59
Asset-I	14302.60	0.00	0.00	14302.60

Additional Capital Expenditure

29. The Commission had allowed ACE vide order dated 27.6.2016 in Petition No. 52/TT/2016 (for Asset-A), vide order dated 18.4.2016 in Petition No. 27/TT/2015 (for Asset-B, Asset-C, Asset-D and Asset-E); vide order dated 29.9.2016 in Petition No. 25/TT/2016 (for Asset-F), vide order dated 30.3.2016 in Petition No. 132/TT/2015 (for Asset-G, Asset-H and Asset-I) during the 2014-19 period and the same is summarised as follows:

Asset		ACE		
		2014-19		
		2014-15	2015-16	2016-17
Asset-A	Asset-A(I)	41.10	43.51	0.00
	Asset-A(II)	41.10	43.51	0.00
	Asset-A(III)	12.98	20.10	0.00
	Asset-A(IV)	22.53	37.53	0.00
	Asset-A(V)	16.20	20.10	0.00
	Asset-A(VI)	1916.64	181.60	0.00
	Asset-A(VII)	20.84	15.64	0.00
	Asset-A(VIII)	20.84	15.64	0.00
	Asset-A(IX)	0.00	0.00	0.00
	Asset-A(X)	47.54	0.00	0.00
	Asset-A(XI)	545.37	112.54	0.00
Asset-B		200.00	0.00	0.00
Asset-C		54.21	0.00	0.00
Asset-D		91.46	0.00	0.00
Asset-E		0.00	0.00	0.00
Asset-F		177.87	698.83	0.00
Asset-G		191.74	47.93	0.00
Asset-H		44.59	12.59	0.00
Asset-I		92.33	123.11	92.33
Total		3537.34	1372.63	92.33

30. The Petitioner vide Auditor's Certificate has claimed the actual ACE in respect of the transmission assets as follows:



Asset		ACE				
		2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	Asset-A(I)	41.10	11.67	0.00	11.09	0.00
	Asset-A(II)	41.10	11.67	0.00	11.09	0.00
	Asset-A(III)	12.98	11.20	0.00	7.06	0.00
	Asset-A(IV)	22.53	11.20	0.00	7.06	0.00
	Asset-A(V)	16.20	12.17	0.00	24.23	0.00
	Asset-A(VI)	1916.64	270.37	0.00	0.00	0.00
	Asset-A(VII)	20.84	16.87	0.00	0.00	0.00
	Asset-A(VIII)	20.84	16.87	0.00	0.00	0.00
	Asset-A(IX)	0.00	0.00	0.00	0.00	0.00
	Asset-A(X)	47.54	0.00	0.00	0.00	0.00
	Asset-A(XI)	545.37	167.55	0.00	0.00	0.00
Total for Asset-A		2685.14	529.57	0.0	60.53	0.0
Asset-B		847.50	0.00	2.50	0.00	0.00
Asset-C		112.66	84.24	0.00	0.00	42.25
Asset-D		1010.70	7.33	0.00	0.00	0.00
Asset-E		0.00	0.00	0.00	0.00	0.00
Asset-F		177.87	1151.17	93.05	0.00	0.00
Asset-G		160.43	33.47	93.05	0.00	22.84
Asset-H		37.63	0.00	93.04	0.00	0.00
Asset-I		1803.86	233.51	33.10	167.67	0.00
Total		6835.79	2039.29	314.74	228.20	65.09

31. The details of the cut-off date as submitted by the Petitioner are as follows:

Asset	COD	Cut-off date
Asset-A(I)	1.1.2012	31.3.2015
Asset-A(II)	1.1.2012	31.3.2015
Asset-A(III)	1.2.2012	31.3.2015
Asset-A(IV)	1.1.2012	31.3.2015
Asset-A(V)	1.1.2012	31.3.2015
Asset-A(VI)	1.4.2012	31.3.2015
Asset-A(VII)	1.2.2012	31.3.2015
Asset-A(VIII)	1.4.2012	31.3.2015
Asset-A(IX)	1.2.2012	31.3.2015
Asset-A(X)	1.2.2012	31.3.2015
Asset-A(XI)	1.6.2012	31.3.2015
Asset-B	1.1.2012	31.3.2015
Asset-C	1.12.2011	31.3.2014
Asset-D	1.2.2012	31.3.2015
Asset-E	1.3.2012	31.3.2015
Asset-F	1.2.2013	31.3.2016
Asset-G	8.9.2014	31.3.2017
Asset-H	30.12.2014	31.3.2017
Asset-I	28.12.2014	31.3.2017

32. The Petitioner has submitted that ACE is claimed beyond the cut-off date in case of Asset-A, Asset-B, Asset-C, Asset-F and Asset-I under the Regulation 14(2)(iv)



of the 2014 Tariff Regulations. ACE claimed within the cut-off dates is claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations.

33. We have considered the submissions of the Petitioner. We note that ACE claimed by the Petitioner is allowed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and ACE claimed after cut-off date is allowed under Regulation 14(2)(iv) of the 2014 Tariff Regulations as it is towards balance and retention payments and balance work deferred for execution within the original scope.

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

Asset	Capital Cost as on 1.4.2014 / COD	ACE					Capital Cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-A	116489.45	2685.14	529.57	0.00	60.53	0.00	119764.69
Asset-B	24026.98	847.50	0.00	2.50	0.00	0.00	24876.98
Asset-C	8482.36	112.66	84.24	0.00	0.00	42.25	8721.51
Asset-D	38463.90	1010.70	7.33	0.00	0.00	0.00	39481.93
Asset-E	3174.31	0.00	0.00	0.00	0.00	0.00	3174.31
Asset-F	9014.38	177.87	1151.17	93.05	0.00	0.00	10436.47
Asset-G	12374.07	160.43	33.47	93.05	0.00	22.84	12683.86
Asset-H	4992.59	37.63	0.00	93.04	0.00	0.00	5123.26
Asset-I	14302.60	1803.86	233.51	33.10	167.67	0.00	16540.74
Total	231320.64	6835.79	2039.29	314.74	228.20	65.09	240803.75

Debt-Equity Ratio

35. The Petitioner has claimed debt-equity ratio of 70:30 as on 1.4.2014 in respect of Asset-A, Asset-B, Asset-C, Asset-E and Asset-F and debt-equity ratio of 70.67:29.33 in respect of Asset-D. The Petitioner has claimed debt-equity ratio of 70:30 as on COD in respect of Asset-G, Asset-H and Asset-I. Debt-Equity ratio is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio as on COD/ 31.3.2014 and 31.3.2019 for the transmission assets are as follows:



(₹ in lakh)

Asset	As on 1.4.2014			As on 31.3.2019		
	Debt	Equity	Total	Debt	Equity	Total
	70%	30%	100%	70%	30%	100%
Asset-A	81542.62	34946.84	116489.45	83835.29	35929.41	119764.70
Asset-B	16818.89	7208.09	24026.98	17413.89	7,463.09	24876.98
Asset-C	5937.74	2544.62	8482.36	6105.15	2616.37	8721.51
Asset-E	2222.02	952.29	3174.31	2222.02	952.29	3174.31
Asset-F	6310.06	2704.31	9014.38	7305.53	3130.94	10436.47

Asset	As on 1.4.2014			As on 31.3.2019		
	Debt	Equity	Total	Debt	Equity	Total
	70.67%	29.33%	100%	70.67%	29.33%	100%
Asset-D	27180.86	11283.04	38463.90	27893.48	11588.45	39481.93

Asset	As on COD			As on 31.3.2019		
	Debt	Equity	Total	Debt	Equity	Total
	70%	30%	100%	70%	30%	100%
Asset-G	8661.85	3712.22	12374.07	8878.70	3805.16	12683.86
Asset-H	3494.81	1497.78	4992.59	3586.28	1536.98	5123.26
Asset-I	10011.82	4290.78	14302.60	11578.52	4962.22	16540.74

Depreciation

36. The Gross Block during the 2014-19 tariff period for the transmission assets has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I (in colly.) has been worked out considering the depreciation rates specified in the 2014 Tariff Regulations. The details of the trued-up depreciation allowed for the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	116489.45	119174.59	119704.16	119704.16	119764.69
ACE (B)	2685.14	529.57	0.00	60.53	0.00
Closing Gross Block (C=A+B)	119174.59	119704.16	119704.16	119764.69	119764.69
Average Gross Block [D=(A+C)/2]	117832.02	119439.38	119704.16	119734.43	119764.69
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	106048.82	107495.44	107733.74	107760.98	107788.22
Balance useful life of the asset at beginning of the year (Year) (G)	33.00	32.00	31.00	30.00	29.00
Lapsed life at the	1.00	2.00	3.00	4.00	5.00



beginning of the year (Year) (H)					
Depreciation during the year (I=D*E)	6224.04	6308.93	6322.93	6324.53	6326.13
Cumulative Depreciation at the end of the year (J)	17885.55	24194.48	30517.42	36841.95	43168.07
Remaining Depreciable Value at the end of the year (K=F-J)	88163.27	83300.95	77216.33	70919.04	64620.15

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	24026.98	24874.48	24874.48	24876.98	24876.98
ACE (B)	847.50	0.00	2.50	0.00	0.00
Closing Gross Block (C=A+B)	24874.48	24874.48	24876.98	24876.98	24876.98
Average Gross Block [D=(A+C)/2]	24450.73	24874.48	24875.73	24876.98	24876.98
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	22005.66	22387.03	22388.16	22389.28	22389.28
Balance useful life of the asset at beginning of the year (Year) (G)	32.00	31.00	30.00	29.00	28.00
Lapsed life at the beginning of the year (Year) (H)	2.00	3.00	4.00	5.00	6.00
Depreciation during the year (I=D*E)	1291.90	1314.28	1314.34	1314.41	1314.41
Cumulative Depreciation at the end of the year (J)	4120.44	5434.72	6749.06	8063.47	9377.87
Remaining Depreciable Value at the end of the year (K=F-J)	17885.22	16952.31	15639.10	14325.82	13011.41

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	8482.36	8595.02	8679.26	8679.26	8679.26
ACE (B)	112.66	84.24	0.00	0.00	42.25
Closing Gross Block (C=A+B)	8595.02	8679.26	8679.26	8679.26	8721.51
Average Gross Block [D=(A+C)/2]	8538.69	8637.14	8679.26	8679.26	8700.39
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	7684.82	7773.43	7811.33	7811.33	7830.35
Balance useful life of the asset at beginning of the year (Year) (G)	33.00	32.00	31.00	30.00	29.00
Lapsed life at the beginning of the year (Year) (H)	2.00	3.00	4.00	5.00	6.00
Depreciation during the year (I=D*E)	450.84	456.04	458.26	458.26	459.38



Cumulative Depreciation at the end of the year (J)	1470.04	1926.08	2384.35	2842.61	3301.99
Remaining Depreciable Value at the end of the year (K=F-J)	6214.78	5847.34	5426.99	4968.72	4528.35

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	38463.90	39474.60	39481.93	39481.93	39481.93
ACE (B)	1010.70	7.33	0.00	0.00	0.00
Closing Gross Block (C=A+B)	39474.60	39481.93	39481.93	39481.93	39481.93
Average Gross Block [D=(A+C)/2]	38969.25	39478.27	39481.93	39481.93	39481.93
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	35072.33	35530.44	35533.74	35533.74	35533.74
Balance useful life of the asset at beginning of the year (Year) (G)	33.00	32.00	31.00	30.00	29.00
Lapsed life at the beginning of the year (Year) (H)	2.00	3.00	4.00	5.00	6.00
Depreciation during the year (I=D*E)	2057.58	2084.45	2084.65	2084.65	2084.65
Cumulative Depreciation at the end of the year (J)	6398.29	8482.74	10567.38	12652.03	14736.68
Remaining Depreciable Value at the end of the year (K=F-J)	28674.04	27047.70	24966.35	22881.71	20797.06

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	3174.31	3174.31	3174.31	3174.31	3174.31
ACE (B)	0.00	0.00	0.00	0.00	0.00
Closing Gross Block (C=A+B)	3174.31	3174.31	3174.31	3174.31	3174.31
Average Gross Block [D=(A+C)/2]	3174.31	3174.31	3174.31	3174.31	3174.31
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	2856.88	2856.88	2856.88	2856.88	2856.88
Balance useful life of the asset at beginning of the year (Year) (G)	33.00	32.00	31.00	30.00	29.00
Lapsed life at the beginning of the year (Year) (H)	2.00	3.00	4.00	5.00	6.00
Depreciation during the year (I=D*E)	167.60	167.60	167.60	167.60	167.60
Cumulative Depreciation at the end of the year (J)	513.26	680.87	848.47	1016.07	1183.68
Remaining Depreciable Value at the end of the year (K=F-J)	2343.62	2176.01	2008.41	1840.80	1673.20



(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	9014.38	9192.25	10343.42	10436.47	10436.47
ACE (B)	177.87	1151.17	93.05	0.00	0.00
Closing Gross Block (C=A+B)	9192.25	10343.42	10436.47	10436.47	10436.47
Average Gross Block [D=(A+C)/2]	9103.31	9767.83	10389.94	10436.47	10436.47
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	8192.98	8791.05	9350.95	9392.82	9392.82
Balance useful life of the asset at beginning of the year (Year) (G)	34.00	33.00	32.00	31.00	30.00
Lapsed life at the beginning of the year (Year) (H)	1.00	2.00	3.00	4.00	5.00
Depreciation during the year (I=D*E)	480.65	515.74	548.59	551.05	551.05
Cumulative Depreciation at the end of the year (J)	1024.35	1540.10	2088.69	2639.73	3190.78
Remaining Depreciable Value at the end of the year (K=F-J)	7168.62	7250.95	7262.26	6753.09	6202.04

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	12374.07	12534.50	12567.97	12661.02	12661.02
ACE (B)	160.43	33.47	93.05	0.00	22.84
Closing Gross Block (C=A+B)	12534.50	12567.97	12661.02	12661.02	12683.86
Average Gross Block [D=(A+C)/2]	12454.29	12551.24	12614.50	12661.02	12672.44
Weighted Average Rate of Depreciation (in %) (E)	5.28	5.28	5.28	5.28	5.28
Combined Depreciable Value (F=D*90%)	11208.86	11296.11	11353.05	11394.92	11405.20
Balance useful life of the asset at beginning of the year (Year) (G)	35.00	35.00	34.00	33.00	32.00
Lapsed life at the beginning of the year (Year) (H)	0.00	0.00	1.00	2.00	3.00
Depreciation during the year (I=D*E)	369.33	662.71	666.05	668.50	669.10
Cumulative Depreciation at the end of the year (J)	369.33	1032.03	1698.08	2366.58	3035.69
Remaining Depreciable Value at the end of the year (K=F-J)	10839.53	10264.08	9654.97	9028.34	8369.51



(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	4992.59	5030.22	5030.22	5123.26	5123.26
ACE (B)	37.63	0.00	93.04	0.00	0.00
Closing Gross Block (C=A+B)	5030.22	5030.22	5123.26	5123.26	5123.26
Average Gross Block [D=(A+C)/2]	5011.41	5030.22	5076.74	5123.26	5123.26
Weighted Average Rate of Depreciation (in %) (E)	0.05	0.05	0.05	0.05	0.05
Combined Depreciable Value (F=D*90%)	4510.26	4527.20	4569.07	4610.93	4610.93
Balance useful life of the asset at beginning of the year (Year) (G)	35.00	35.00	34.00	33.00	32.00
Lapsed life at the beginning of the year (Year) (H)	0.00	0.00	1.00	2.00	3.00
Depreciation during the year (I=D*E)	66.69	265.60	268.05	270.51	270.51
Cumulative Depreciation at the end of the year (J)	66.69	332.29	600.34	870.85	1141.36
Remaining Depreciable Value at the end of the year (K=F-J)	4443.57	4194.91	3968.72	3740.08	3469.58

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block (A)	14302.60	16106.46	16339.97	16373.07	16540.74
ACE (B)	1803.86	233.51	33.10	167.67	0.00
Closing Gross Block (C=A+B)	16106.46	16339.97	16373.07	16540.74	16540.74
Average Gross Block [D=(A+C)/2]	15204.53	16223.22	16356.52	16456.91	16540.74
Weighted Average Rate of Depreciation (in %) (E)	0.05	0.05	0.05	0.05	0.05
Combined Depreciable Value (F=D*90%)	13684.08	14600.89	14720.87	14811.21	14886.67
Balance useful life of the asset at beginning of the year (Year) (G)	35.00	35.00	34.00	33.00	32.00
Lapsed life at the beginning of the year (Year) (H)	0.00	0.00	1.00	2.00	3.00
Depreciation during the year (I=D*E)	206.75	856.59	863.62	868.92	873.35
Cumulative Depreciation at the end of the year (J)	206.75	1063.33	1926.96	2795.88	3669.23
Remaining Depreciable Value at the end of the year (K=F-J)	13477.33	13537.56	12793.91	12015.33	11217.43



37. Depreciation allowed for Asset-A vide order dated 27.6.2016 in Petition No. 52/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 27.6.2016 in Petition No. 52/TT/2016	6224.04	6307.89	6320.85	6320.85	6320.85
Claimed by the Petitioner in the instant Petition	6228.25	6313.15	6327.14	6328.74	6330.34
Approved after true-up in this order	6224.04	6308.93	6322.93	6324.53	6326.13

38. Depreciation allowed for Asset-B, Asset-C, Asset-D and Asset-E vide order dated 18.4.2016 in Petition No. 27/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	1274.81	1280.09	1280.09	1280.09	1280.09
Claimed by the Petitioner in the instant Petition	1291.90	1314.27	1314.34	1314.40	1314.40
Approved after true-up in this order	1291.90	1314.28	1314.34	1314.41	1314.41

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	449.30	450.73	450.73	450.73	450.73
Claimed by the Petitioner in the instant Petition	450.84	456.04	458.26	458.26	459.38
Approved after true-up in this order	450.84	456.04	458.26	458.26	459.38

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	2033.31	2035.72	2035.72	2035.72	2035.72
Claimed by the Petitioner in the instant Petition	2057.58	2084.45	2084.65	2084.65	2084.65
Approved after true-up in this order	2057.58	2084.45	2084.65	2084.65	2084.65



(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	167.60	167.60	167.60	167.60	167.60
Claimed by the Petitioner in the instant Petition	167.60	167.60	167.60	167.60	167.60
Approved after true-up in this order	167.60	167.60	167.60	167.60	167.60

39. Depreciation allowed for Asset-F vide order dated 29.9.2016 in Petition No. 25/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	477.64	500.79	519.23	519.23	519.23
Claimed by the Petitioner in the instant Petition	481.53	516.62	549.46	551.92	551.92
Approved after true-up in this order	480.65	515.74	548.59	551.05	551.05

40. Depreciation allowed for Asset-G, Asset-H and Asset-I vide order dated 30.3.2016 in Petition No. 132/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	376.20	676.15	677.41	677.41	677.41
Claimed by the Petitioner in the instant Petition	369.33	662.71	666.05	668.50	669.10
Approved after true-up in this order	369.33	662.71	666.05	668.50	669.10

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	66.74	266.30	266.63	266.63	266.63
Claimed by the Petitioner in the	66.69	265.60	268.05	270.51	270.51



instant Petition					
Approved after true-up in this order	66.69	265.60	268.05	270.51	270.51

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	191.22	748.38	754.25	756.77	756.77
Claimed by the Petitioner in the instant Petition	206.75	856.59	863.62	868.92	873.35
Approved after true-up in this order	206.75	856.59	863.62	868.92	873.35

Interest on Loan (IoL)

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

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	81542.62	83422.22	83792.92	83792.92	83835.29
Cumulative Repayments upto Previous Year	11661.51	17885.55	24194.48	30517.42	36841.95
Net Loan-Opening	69881.11	65536.67	59598.43	53275.50	46993.34
Additions due to ACE	1879.60	370.70	0.00	42.37	0.00
Repayment during the year	6224.04	6308.93	6322.93	6324.53	6326.13
Net Loan-Closing	65536.67	59598.43	53275.50	46993.34	40667.21
Average Loan	67708.89	62567.55	56436.97	50134.42	43830.28
Weighted Average Rate of Interest on loan (in %)	9.0498	9.0471	9.0375	9.0156	9.0080
Interest on Loan	6127.50	5660.54	5100.50	4519.94	3948.24

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	16818.89	17412.14	17412.14	17413.89	17413.89
Cumulative Repayments upto Previous Year	2828.54	4120.44	5434.72	6749.06	8063.47
Net Loan-Opening	13990.35	13291.70	11977.42	10664.83	9350.42
Additions due to ACE	593.25	0.00	1.75	0.00	0.00



Repayment during the year	1291.90	1314.28	1314.34	1314.41	1314.41
Net Loan-Closing	13291.70	11977.42	10664.83	9350.42	8036.02
Average Loan	13641.02	12634.56	11321.13	10007.63	8693.22
Weighted Average Rate of Interest on loan (in %)	8.9578	8.9454	8.9425	8.9390	8.9347
Interest on Loan	1221.94	1130.21	1012.39	894.58	776.72

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	5937.74	6016.60	6075.57	6075.57	6075.57
Cumulative Repayments upto Previous Year	1019.20	1470.04	1926.08	2384.35	2842.61
Net Loan-Opening	4918.54	4546.56	4149.49	3691.22	3232.96
Additions due to ACE	78.86	58.97	0.00	0.00	29.58
Repayment during the year	450.84	456.04	458.26	458.26	459.38
Net Loan-Closing	4546.56	4149.49	3691.22	3232.96	2803.15
Average Loan	4732.55	4348.02	3920.35	3462.09	3018.05
Weighted Average Rate of Interest on loan (in %)	8.9013	8.8820	8.8606	8.8208	8.7989
Interest on Loan	421.26	386.19	347.37	305.38	265.56

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	27180.86	27888.35	27893.48	27893.48	27893.48
Cumulative Repayments upto Previous Year	4340.70	6398.28	8482.73	10567.37	12652.02
Net Loan-Opening	22840.16	21490.07	19410.75	17326.11	15241.46
Additions due to ACE	707.49	5.13	0.00	0.00	0.00
Repayment during the year	2057.58	2084.45	2084.65	2084.65	2084.65
Net Loan-Closing	21490.07	19410.75	17326.11	15241.46	13156.81
Average Loan	22165.12	20450.41	18368.43	16283.78	14199.14
Weighted Average Rate of Interest on loan (in %)	8.8891	8.8973	8.8939	8.8846	8.8815
Interest on Loan	1970.27	1819.53	1633.67	1446.75	1261.10

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2222.02	2222.02	2222.02	2222.02	2222.02
Cumulative Repayments upto Previous Year	345.66	513.26	680.87	848.47	1016.07
Net Loan-Opening	1876.36	1708.76	1541.15	1373.55	1205.95
Additions due to ACE	0.00	0.00	0.00	0.00	0.00
Repayment during the year	167.60	167.60	167.60	167.60	167.60
Net Loan-Closing	1708.76	1541.15	1373.55	1205.95	1038.34
Average Loan	1792.56	1624.95	1457.35	1289.75	1122.14
Weighted Average Rate of Interest on loan (in %)	8.8302	8.8290	8.8261	8.8232	8.8203



Interest on Loan	158.29	143.47	128.63	113.80	98.98
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(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	6310.06	6434.57	7240.39	7305.53	7305.53
Cumulative Repayments upto Previous Year	543.70	1024.35	1540.10	2088.69	2639.73
Net Loan-Opening	5766.36	5410.22	5700.29	5216.84	4665.80
Additions due to ACE	124.51	805.82	65.14	0.00	0.00
Repayment during the year	480.65	515.74	548.59	551.05	551.05
Net Loan-Closing	5410.22	5700.29	5216.84	4665.80	4114.75
Average Loan	5588.29	5555.26	5458.57	4941.32	4390.27
Weighted Average Rate of Interest on loan (in %)	8.9445	8.9063	8.8445	8.8018	8.7780
Interest on Loan	499.85	494.77	482.78	434.92	385.38

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	8661.85	8774.15	8797.58	8862.71	8862.71
Cumulative Repayments upto Previous Year	0.00	369.33	1032.03	1698.08	2366.58
Net Loan-Opening	8661.85	8404.82	7765.54	7164.63	6496.13
Additions due to ACE	112.30	23.43	65.14	0.00	15.99
Repayment during the year	369.33	662.71	666.05	668.50	669.10
Net Loan-Closing	8404.82	7765.54	7164.63	6496.13	5843.02
Average Loan	8533.33	8085.18	7465.09	6830.38	6169.57
Weighted Average Rate of Interest on loan (in %)	9.0082	8.9877	8.9673	8.8957	8.8726
Interest on Loan	431.73	726.67	669.41	607.61	547.40

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	3494.81	3521.15	3521.15	3586.28	3586.28
Cumulative Repayments upto Previous Year	0.00	66.69	332.29	600.34	870.85
Net Loan-Opening	3494.81	3454.46	3188.86	2985.94	2715.43
Additions due to ACE	26.34	0.00	65.13	0.00	0.00
Repayment during the year	66.69	265.60	268.05	270.51	270.51
Net Loan-Closing	3454.46	3188.86	2985.94	2715.43	2444.92
Average Loan	3474.64	3321.66	3087.40	2850.69	2580.18
Weighted Average Rate of Interest on loan (in %)	9.13	9.10	9.05	8.92	8.88
Interest on Loan	80.00	302.28	279.29	254.34	229.04



(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	10011.82	11274.52	11437.98	11461.15	11578.52
Cumulative Repayments upto Previous Year	0.00	206.75	1063.33	1926.96	2795.88
Net Loan-Opening	10011.82	11067.77	10374.64	9534.19	8782.64
Additions due to ACE	1262.70	163.46	23.17	117.37	0.00
Repayment during the year	206.75	856.59	863.62	868.92	873.35
Net Loan-Closing	11067.77	10374.64	9534.19	8782.64	7909.28
Average Loan	10539.80	10721.21	9954.42	9158.41	8345.96
Weighted Average Rate of Interest on Loan (in %)	9.27	9.17	9.06	8.85	8.76
Interest on Loan	251.59	982.79	901.95	810.24	731.45

42. IoL allowed for Asset-A vide order dated 27.6.2016 in Petition No. 52/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 27.6.2016 in Petition No. 52/TT/2016	6123.93	5659.85	5105.61	4533.97	3962.75
Claimed by the Petitioner in the instant Petition	6127.33	5659.98	5099.54	4518.59	3946.53
Approved after true-up in this order	6127.50	5660.54	5100.50	4519.94	3948.24

43. IoL allowed for Asset-B, Asset-C, Asset-D and Asset-E vide order dated 18.4.2016 in Petition No. 27/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	1204.36	1096.52	981.66	866.80	751.96
Claimed by the Petitioner in the instant Petition	1221.94	1130.21	1012.39	894.58	776.71
Approved after true-up in this order	1221.94	1130.21	1012.39	894.58	776.72



(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	419.61	381.39	341.32	301.15	260.98
Claimed by the Petitioner in the instant Petition	421.26	386.19	347.37	305.38	265.56
Approved after true-up in this order	421.26	386.19	347.37	305.38	265.56

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	1940.92	1763.60	1582.70	1401.82	1220.99
Claimed by the Petitioner in the instant Petition	1970.28	1819.53	1633.67	1446.75	1261.10
Approved after true-up in this order	1970.27	1819.53	1633.67	1446.75	1261.10

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	158.29	143.47	128.63	113.80	98.98
Claimed by the Petitioner in the instant Petition	158.29	143.47	128.63	113.80	98.98
Approved after true-up in this order	158.29	143.47	128.63	113.80	98.98

44. IoL allowed for Asset-F vide order dated 29.9.2016 in Petition No. 25/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	496.41	480.88	457.13	410.69	364.28
Claimed by the Petitioner in the instant Petition	500.84	495.67	483.61	435.68	386.05
Approved after true-up in this order	499.85	494.77	482.78	434.92	385.38



45. IoL allowed for Asset-G, Asset-H and Asset-I vide order dated 30.3.2016 in Petition No. 132/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	437.90	740.54	681.88	621.50	561.13
Claimed by the Petitioner in the instant Petition	431.74	726.67	669.42	607.61	547.40
Approved after true-up in this order	431.73	726.67	669.41	607.61	547.40

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata for 92 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	79.60	302.58	279.03	255.01	230.93
Claimed by the Petitioner in the instant Petition	80.00	302.28	279.30	254.34	229.05
Approved after true-up in this order	80.00	302.28	279.29	254.34	229.04

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	231.82	864.18	801.84	734.72	664.87
Claimed by the Petitioner in the instant Petition	251.59	982.79	901.95	810.25	731.45
Approved after true-up in this order	251.59	982.79	901.95	810.24	731.45

Return on Equity

46. The Petitioner has claimed RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed effective tax rates for the 2014-19 tariff period as follows:



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

47. BSPHCL has submitted as follows:

- a) In order to adjust yearly impact of MAT for true up exercise, the Petitioner has relied upon Regulation 25(3) of the 2014 Tariff Regulations and Income Tax Return for 2018-19 was not filed with this petition. Based upon the Assessment order for 2014-15 and 2015-16 and actual tax paid for 2016-17 and 2017-18 and by following the formula (MAT 18.50% + surcharge 12.00% + Cess 4%) for 2018-19, the tariff for each year of the 2014-19 tariff period has been true-up to arrive at grossed-up RoE rate.
- b) Regulation 25(3) of the 2014 Tariff Regulations specifically provides that:
 - i. the transmission licensee shall true up the grossed-up rate of RoE 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 2014-19 tariff period on actual gross income of any financial year.
 - ii. Penalty shall not be claimed by the transmission licensee and any under recovery or over recovery of grossed up rate of RoE after true up, shall be recorded or refunded to beneficiaries or the long-term transmission customers on year to year basis.
- c) Perusal of Regulation 25(3) of the 2014 Tariff Regulations makes it apparent that statutory duty is cast upon the Petitioner, being transmission licensee, to carry out the true up exercise on year to year basis strictly in accordance with the said provision and it has to then mandatorily provide all the details while filing the petition for true up before the Commission. However, the petition is totally silent about and it shows that the mandatory exercise has not been done by the Petitioner. Neither any details to that effect have been given in the petition nor proper documents have been annexed with the petition. No Profit and Loss Account duly certified by Chartered Accountant has been placed on record. Further, there is no specific averment in the petition to the effect that



actual tax has been paid only on the income from all business/ sources. It is clear that tariff for each year of the 2014-19 tariff period has not been trued-up in accordance with mandate of Regulation 25(3) of the 2014 Tariff Regulations.

- d) The Petitioner has stated that truing up of transmission tariff for the 2014-19 tariff block is being carried out on account of ACE during the 2014-19 period, change in MAT rate as well as floating rate of interest during the 2014-19 period.

48. We have considered the submissions of the Petitioner and BSPHCL. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rates for the Petitioner based on the notified MAT rates and the same is as follows:

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

49. MAT rates as allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019 for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period, in terms of the provisions of the 2014 Tariff Regulations, are considered in the instant case which are as follows:

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

50. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE @15.50% with Effective Tax rates (based on MAT rates) each year. RoE is trued-up on the basis of MAT rates applicable in the respective years and is approved for the transmission assets for the 2014-19 tariff period as follows:



(₹ in lakh)

Asset-A						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	34946.84	35752.38	35911.25	35911.25	35929.41
Additions due to ACE	B	805.54	158.87	0.00	18.16	0.00
Closing Equity	C=A+B	35752.38	35911.25	35911.25	35929.41	35929.41
Average Equity	D= (A+C)/2	35349.61	35831.82	35911.25	35920.33	35929.41
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100-F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	6932.06	7060.66	7076.31	7078.10	7098.93

(₹ in lakh)

Asset-B						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	7208.09	7462.34	7462.34	7463.09	7463.09
Additions due to ACE	B	254.25	0.00	0.75	0.00	0.00
Closing Equity	C=A+B	7462.34	7462.34	7463.09	7463.09	7463.09
Average Equity	D= (A+C)/2	7335.22	7462.34	7462.72	7463.09	7463.09
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100-F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	1438.44	1470.45	1470.53	1470.60	1474.56

(₹ in lakh)

Asset-C						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	2544.62	2578.42	2603.69	2603.69	2603.69
Additions due to ACE	B	33.80	25.27	0.00	0.00	12.68
Closing Equity	C=A+B	2578.42	2603.69	2603.69	2603.69	2616.37
Average Equity	D= (A+C)/2	2561.52	2591.05	2603.69	2603.69	2610.03
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100-F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	502.31	510.57	513.06	513.06	515.69



(₹ in lakh)

Asset-D						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	11283.04	11586.25	11588.45	11588.45	11588.45
Additions due to ACE	B	303.21	2.20	0.00	0.00	0.00
Closing Equity	C=A+B	11586.25	11588.45	11588.45	11588.45	11588.45
Average Equity	D= (A+C)/2	11434.65	11587.35	11588.45	11588.45	11588.45
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	G= (E/(100- F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	2242.33	2283.29	2283.50	2283.50	2289.65

(₹ in lakh)

Asset-E						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	952.29	952.29	952.29	952.29	952.29
Additions due to ACE	B	0.00	0.00	0.00	0.00	0.00
Closing Equity	C=A+B	952.29	952.29	952.29	952.29	952.29
Average Equity	D= (A+C)/2	952.29	952.29	952.29	952.29	952.29
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100- F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	186.74	187.65	187.65	187.65	188.15

(₹ in lakh)

Asset-F						
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	2704.31	2757.67	3103.02	3130.94	3130.94
Additions due to ACE	B	53.36	345.35	27.92	0.00	0.00
Closing Equity	C=A+B	2757.67	3103.02	3130.94	3130.94	3130.94
Average Equity	D= (A+C)/2	2730.99	2930.35	3116.98	3130.94	3130.94
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100- F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	535.55	577.43	614.20	616.95	618.61



(₹ in lakh)

Asset-G						
Particulars		2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	3712.22	3760.35	3770.39	3798.31	3798.31
Additions due to ACE	B	48.13	10.04	27.92	0.00	6.85
Closing Equity	C=A+B	3760.35	3770.39	3798.31	3798.31	3805.16
Average Equity	D= (A+C)/2	3736.29	3765.37	3784.35	3798.31	3801.73
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100- F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	411.51	741.97	745.71	748.46	751.15

(₹ in lakh)

Asset-H						
Particulars		2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	1497.78	1509.07	1509.07	1536.98	1536.98
Additions due to ACE	B	11.29	0.00	27.91	0.00	0.00
Closing Equity	C=A+B	1509.07	1509.07	1536.98	1536.98	1536.98
Average Equity	D= (A+C)/2	1503.42	1509.07	1523.02	1536.98	1536.98
Return on Equity (Base Rate) (%)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	G= (E/(100- F))	19.610	19.705	19.705	19.705	19.758
Return on Equity	H=D*G	74.31	297.36	300.11	302.86	303.68

(₹ in lakh)

Asset-I						
Particulars		2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	A	4290.78	4831.94	4901.99	4911.92	4962.22
Additions due to ACE	B	541.16	70.05	9.93	50.30	0.00
Closing Equity	C=A+B	4831.94	4901.99	4911.92	4962.22	4962.22
Average Equity	D= (A+C)/2	4561.36	4866.96	4906.96	4937.07	4962.22
Return on Equity (Base Rate) (in %)	E	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	F	20.961	21.342	21.342	21.342	21.549
Rate of Return on	G=	19.610	19.705	19.705	19.705	19.758



Equity (in %)	(E/(100-F))					
Return on Equity	H=D*G	230.36	959.04	966.92	972.85	980.44

51. RoE allowed for Asset-A vide order dated 27.6.2016 in Petition No. 52/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-A						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed vide order dated 27.6.2016 in Petition No. 52/TT/2016	6932.06	7025.46	7039.88	7039.88	7039.88	
Claimed by the Petitioner in the instant Petition	6937.36	7064.24	7076.31	7078.10	7098.92	
Approved after true-up in this order	6932.06	7060.66	7076.31	7078.10	7098.93	

52. RoE allowed for Asset-B, Asset-C, Asset-D and Asset-E vide order dated 18.4.2016 in Petition No. 27/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Particulars	Asset-B				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	1419.39	1425.27	1425.27	1425.27	1425.27
Claimed by the Petitioner in the instant Petition	1439.54	1471.20	1470.53	1470.60	1474.56
Approved after true-up in this order	1438.44	1470.45	1470.53	1470.60	1474.56

(₹ in lakh)

Asset-C						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	500.59	502.19	502.19	502.19	502.19	
Claimed by the Petitioner in the instant Petition	502.34	510.59	513.08	513.08	515.69	
Approved after true-up in this order	502.31	510.57	513.06	513.06	515.69	

(₹ in lakh)

Asset-D						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	2215.30	2217.99	2217.99	2217.99	2217.99	
Claimed by the Petitioner in the instant Petition	2244.05	2284.45	2283.50	2283.50	2289.65	



Approved after true-up in this order	2242.33	2283.29	2283.50	2283.50	2289.65
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(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	186.74	186.74	186.74	186.74	186.74
Claimed by the Petitioner in the instant Petition	186.89	187.74	187.65	187.65	188.15
Approved after true-up in this order	186.74	187.65	187.65	187.65	188.15

53. RoE allowed for Asset-F vide order dated 29.9.2016 in Petition No. 25/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	532.19	557.98	578.53	578.53	578.53
Claimed by the Petitioner in the instant Petition	536.93	578.69	615.18	617.93	619.59
Approved after true-up in this order	535.55	577.43	614.20	616.95	618.61

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	419.17	753.38	754.79	754.79	754.79
Claimed by the Petitioner in the instant Petition	411.83	742.34	745.71	748.46	751.15
Approved after true-up in this order	411.51	741.97	745.71	748.46	751.15

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	74.36	296.71	297.08	297.08	297.08
Claimed by the Petitioner in the instant Petition	74.37	297.51	300.11	302.86	303.68
Approved after true-up in this order	74.31	297.36	300.11	302.86	303.68



(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	213.04	833.57	839.91	842.62	842.62
Claimed by the Petitioner in the instant Petition	230.54	959.52	966.92	972.85	980.44
Approved after true-up in this order	230.36	959.04	966.92	972.85	980.44

Operation & Maintenance Expenses (O&M Expenses)

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

Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-A	1143.08	1181.62	1220.34	1261.15	1302.89
Asset-B	373.86	386.37	399.15	412.40	426.08
Asset-C	41.84	43.26	44.68	46.16	47.70
Asset-D	192.71	199.39	205.75	212.74	219.74
Asset-E	48.35	50.02	51.62	53.37	55.13
Asset-F	54.16	55.95	57.78	59.72	61.71
Asset-G	5.53	0.00	0.00	0.00	0.00
Asset-H	7.82	32.06	33.11	34.22	35.36
Asset-I	18.12	72.73	75.12	77.61	80.20

55. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission project.

56. We have considered the submission of the Petitioner. The O&M Expenses approved for the various elements covered under the transmission assets under the norms specified in the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Double Circuit (twin conductor)					
(a) LILO of 400 kV S/C Allahabad Kanpur Transmission Line at Fatehpur at Fatehpur, (b) LILO of 400 kV Singrauli Kanpur Transmission Line at Fatehpur (km)	34.753	34.753	34.753	34.753	34.753
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
Double Circuit (Single conductor)					



(a) LILO of Fatehpur (UPPCL)-Kanpur Transmission Line at Fatehpur at Fatehpur, (b) LILO of Ckt. I of 220 kV D/C Dehri-Bodhygaya at Gaya, (c) LILO of Ckt. II of 220 kV D/C Dehri-Bodhygaya Transmission Line along with associated bays at Gaya (km)	35.143	35.143	35.143	35.143	35.143
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
Double circuit bundled conductor					
(a) 765 kV S/C Fatehpur-Agra Transmission Line (D/C Portion near Agra), (b) 765 kV Sasaram-Fatehpur S/C Transmission Line (km)	0.689	0.689	0.689	0.689	0.689
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.21
Single Circuit (twin conductor)					
(a) LILO of 400 kV S/C Allahabad Kanpur Transmission Line at Fatehpur at Fatehpur, (b) LILO of 400 kV Singrauli Kanpur Transmission Line at Fatehpur (km)	2.862	2.862	2.862	2.862	2.862
Norms (₹ lakh/km)	0.404	0.418	0.432	0.446	0.461
Single circuit (bundled conductor)					
765 kV S/C Fatehpur-Agra Transmission Line (km)	670.80	670.80	670.80	670.80	670.80
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
O&M Expenses (Transmission Line)	443.61	458.95	473.65	489.69	505.85
Sub-station					
220 kV					
(a) Gaya: 400/220 kV 315 MVA ICT -II at Gaya Sub-station, (b) Gaya: Dehri I Bay, (c) Gaya: Bodhgaya I Bay, (d) Gaya: 400/220 kV, 315 MVA, ICT-I at Gaya Sub-station, (e) Gaya: Dehri II Bay, (f) Gaya: Bodhgaya II Bay, (g) Fatehpur:400/220 kV ICT-1 Bay at Fatehpur, (h) Fatehpur:400/220 kV ICT-II Bay at Fatehpur Extension (Numbers)	8	8	8	8	8
Norms (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.1
400 kV					
(a) Gaya: 400/220 kV 315 MVA ICT -II at Gaya Sub-station, (b) Gaya: 400/220 kV, 315 MVA, ICT-I at Gaya Sub-station, (c) Fatehpur: LILO of Singrauli-Kanpur Singrauli-Kanpur Transmission Line at Fatehpur-Kanpur Bay, (d) Fatehpur: LILO of 400 kV S/C Singrauli-Kanpur Transmission Line at Fatehpur-Singrauli Bay, (e) Fatehpur: 400/220 kV ICT I Bay at Fatehpur (Numbers)	6	6	6	6	6
Norms (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71



O&M Expenses (Sub-station)	699.48	722.68	746.70	771.46	797.06
Total O&M Expenses (₹ in lakh)	1143.09	1181.63	1220.35	1261.15	1302.91

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Double Circuit (twin conductor)					
Maithon RB - Ranchi Line (km)	187.642	187.642	187.642	187.642	187.642
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
O&M Expenses (Transmission Line)	132.66	137.17	141.67	146.36	151.24
Sub-station					
400 kV					
(a) Ranchi: Maithon RB I Bay, (b) Ranchi: Maithon RB II Bay, (c) Ranchi:Maithon RB I Line Reactor Bay, (d) Ranchi: Maithon RB II Line Reactor Bay (Numbers)	4	4	4	4	4
Norms (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
O&M Expenses (Sub-station)	241.20	249.20	257.48	266.04	274.84
Total O&M Expenses (₹ in lakh)	373.86	386.37	399.15	412.40	426.08

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Double Circuit (twin conductor)					
Maithon-Mejia Transmission Line (km)	59.182	59.182	59.182	59.182	59.182
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
O&M Expenses (Transmission Line)	41.84	43.26	44.68	46.16	47.70
Total O&M Expenses (₹ in lakh)	41.84	43.26	44.68	46.16	47.70

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Single Circuit (Bundled Conductor 4-sub conductors)					
400 kV Biharsharif-Sasaram Ckt. III Line (km)	318.00	318.00	318.00	318.00	318.00
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
O&M Expenses (Transmission Line)	192.71	199.39	205.75	212.74	219.74
Total O&M Expenses (₹ in lakh)	192.71	199.39	205.75	212.74	219.74



(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Single Circuit (Bundled Conductor 4-sub conductors)					
400 kV Biharsharif-Sasaram transmission line Ckt.-II (Sasaram - Balia line) (km)	79.78	79.78	79.78	79.78	79.78
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
O&M Expenses (Transmission Line)	48.35	50.02	51.62	53.37	55.13
Total O&M Expenses (₹ in lakh)	48.35	50.02	51.62	53.37	55.13

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
Double Circuit (Bundled Conductor)					
400 kV D/C (Quad) Maithon-Koderma Line (Part of Koderma-Gaya) under contingency (km)	51.00	51.00	51.00	51.00	51.00
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.210
O&M Expenses (Transmission Line)	54.16	55.95	57.78	59.72	61.71
Total O&M Expenses (₹ in lakh)	54.16	55.95	57.78	59.72	61.71

(₹ in lakh)

Asset-G					
Particulars	2014-15 *	2015-16	2016-17	2017-18	2018-19
Transmission Line					
S/C (Bundle Conductor- 4 sub-conductors)					
Balance portion of Ckt. II of 400 kV D/C Koderma-Gaya Line (km)	29.22	0.00	0.00	0.00	0.00
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
O&M Expenses (Transmission Line)	5.53	0.00	0.00	0.00	0.00
Total O&M Expenses (₹ in lakh)	5.53	0.00	0.00	0.00	0.00

*O&M Expenses for Asset-G are from COD i.e. 8.9.2014 (COD of Asset-G) to 30.12.2014 i.e. up to COD of Asset-H. The O&M Expenses for Asset-G for subsequent period has been included in O&M Expenses of Asset-H.



(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Transmission Line					
D/C Bundled (4 or more sub-conductors)					
Balance portion of 400 kV D/C Koderma-Gaya Line (km)	29.22	29.22	29.22	29.22	29.22
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.210
O&M Expenses (Transmission Line)	7.82	32.06	33.11	34.22	35.36
Total O&M Expenses (₹ in lakh)	7.82	32.06	33.11	34.22	35.36

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Transmission Line					
D/C Twin/Triple Conductor					
400 kV D/C Bokaro TPS-Kodarma TPS Transmission Line & PLCC Equipment for Bakaro Extension-Kodarma TPS (km)	99.50	99.50	99.50	99.50	99.50
Norms (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806
O&M Expenses (Transmission Line)	18.12	72.73	75.12	77.61	80.20
Total O&M Expenses (₹ in lakh)	18.12	72.73	75.12	77.61	80.20

57. O&M Expenses allowed for Asset-A vide order dated 27.6.2016 in Petition No. 52/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 27.6.2016 in Petition No. 52/TT/2016	1143.09	1181.63	1220.35	1261.15	1302.91
Claimed by the Petitioner in the instant Petition	1143.08	1181.62	1220.34	1261.15	1302.89
Approved after true-up in this order	1143.09	1181.63	1220.35	1261.15	1302.91



58. O&M Expenses allowed for Asset-B, Asset-C, Asset-D and Asset-E vide order dated 18.4.2016 in Petition No. 27/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	373.86	386.37	399.15	412.40	426.08
Claimed by the Petitioner in the instant Petition	373.86	386.37	399.15	412.40	426.08
Approved after true-up in this order	373.86	386.37	399.15	412.40	426.08

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	41.84	43.26	44.68	46.16	47.70
Claimed by the Petitioner in the instant Petition	41.84	43.26	44.68	46.16	47.70
Approved after true-up in this order	41.84	43.26	44.68	46.16	47.70

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	192.71	199.39	205.75	212.74	219.74
Claimed by the Petitioner in the instant Petition	192.71	199.39	205.75	212.74	219.74
Approved after true-up in this order	192.71	199.39	205.75	212.74	219.74

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	48.35	50.02	51.62	53.37	55.13
Claimed by the Petitioner in the instant Petition	48.35	50.02	51.62	53.37	55.13
Approved after true-up in this order	48.35	50.02	51.62	53.37	55.13



59. O&M Expenses allowed for Asset-F vide order dated 29.9.2016 in Petition No. 25/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	54.16	55.95	57.78	59.72	61.71
Claimed by the Petitioner in the instant Petition	54.16	55.95	57.78	59.72	61.71
Approved after true-up in this order	54.16	55.95	57.78	59.72	61.71

60. O&M Expenses allowed for Asset-G, Asset-H and Asset-I vide order dated 30.3.2016 in Petition No. 132/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-G					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	5.53	0.00	0.00	0.00	0.00
Claimed by the Petitioner in the instant Petition	5.53	0.00	0.00	0.00	0.00
Approved after true-up in this order	5.53	0.00	0.00	0.00	0.00

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	7.82	32.06	33.11	34.22	35.36
Claimed by the Petitioner in the instant Petition	7.82	32.06	33.11	34.22	35.36
Approved after true-up in this order	7.82	32.06	33.11	34.22	35.36

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	18.12	72.73	75.12	77.61	80.20



Claimed by the Petitioner in the instant Petition	18.12	72.73	75.12	77.61	80.20
Approved after true-up in this order	18.12	72.73	75.12	77.61	80.20

Interest on Working Capital

61. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the true-up IWC approved for the transmission assets is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	95.26	98.47	101.70	105.10	108.58
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	171.46	177.24	183.05	189.17	195.44
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	3488.95	3452.51	3368.89	3277.66	3191.35
Total Working Capital	3755.67	3728.22	3653.64	3571.92	3495.36
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	507.02	503.31	493.24	482.21	471.87

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	31.16	32.20	33.26	34.37	35.51
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	56.08	57.95	59.87	61.86	63.91
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	739.63	735.46	717.64	699.91	682.90
Total Working Capital	826.86	825.61	810.78	796.14	782.31
Rate of Interest on Working Capital in (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	111.63	111.46	109.46	107.48	105.61

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for	3.49	3.61	3.72	3.85	3.98



1 month)					
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	6.28	6.49	6.70	6.92	7.16
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	241.70	238.26	232.70	225.80	219.92
Total Working Capital	251.46	248.36	243.12	236.57	231.05
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	33.95	33.53	32.82	31.94	31.19

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	16.06	16.62	17.15	17.73	18.31
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	28.91	29.91	30.86	31.91	32.96
WC for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	1102.98	1090.01	1059.51	1028.87	999.50
Total Working Capital	1147.94	1136.54	1107.52	1078.51	1050.77
Rate of Interest on working capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	154.97	153.43	149.52	145.60	141.85

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	4.03	4.17	4.30	4.45	4.59
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	7.25	7.50	7.74	8.01	8.27
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	95.91	93.83	91.58	89.36	87.23
Total Working Capital	107.19	105.50	103.63	101.81	100.09
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	14.47	14.24	13.99	13.74	13.51

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for	4.51	4.66	4.82	4.98	5.14



1 month)					
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	8.12	8.39	8.67	8.96	9.26
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	268.02	280.59	290.74	283.81	275.99
Total Working Capital	280.65	293.64	304.22	297.74	290.39
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	37.89	39.64	41.07	40.20	39.20

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	1.48	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	2.66	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	371.22	363.40	354.84	345.19	335.49
Total Working Capital	375.36	363.40	354.84	345.19	335.49
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	28.46	49.06	47.90	46.60	45.29

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	0.65	2.67	2.76	2.85	2.95
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	1.17	4.81	4.97	5.13	5.30
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	39.06	153.15	150.31	147.13	143.16
Total Working Capital	40.88	160.63	158.03	155.12	151.42
Rate of Interest on Working Capital (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	5.52	21.69	21.34	20.94	20.44



(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M Expenses (O&M expenses for 1 month)	1.51	6.06	6.26	6.47	6.68
Working Capital for Maintenance Spares (@ 15% of O&M Expenses)	2.72	10.91	11.27	11.64	12.03
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost/ annual transmission charges)	120.61	489.89	479.08	465.79	454.86
Total Working Capital	124.84	506.87	496.60	483.90	473.57
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	16.85	68.43	67.05	65.33	63.94

62. IWC allowed for Asset-A vide order dated 27.6.2016 in Petition No. 52/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 27.6.2016 in Petition No. 52/TT/2016	506.93	502.46	492.47	481.57	470.73
Claimed by the Petitioner in the instant Petition	507.23	503.48	493.32	482.28	471.93
Approved after true-up in this order	507.02	503.31	493.24	482.21	471.87

63. IWC allowed for Asset-B, Asset-C, Asset-D and Asset-E vide order dated 18.4.2016 in Petition No. 27/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	110.39	108.86	106.92	105.01	103.12
Claimed by the Petitioner in the instant Petition	111.65	111.48	109.45	107.48	105.61
Approved after true-up in this order	111.63	111.46	109.46	107.48	105.61



(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	33.83	33.10	32.26	31.42	30.58
Claimed by the Petitioner in the instant Petition	33.95	33.53	32.82	31.94	31.19
Approved after true-up in this order	33.95	33.53	32.82	31.94	31.19

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	153.12	149.52	145.71	141.93	138.16
Claimed by the Petitioner in the instant Petition	155.01	153.46	149.52	145.60	141.85
Approved after true-up in this order	154.97	153.43	149.52	145.60	141.85

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	14.47	14.22	13.97	13.72	13.48
Claimed by the Petitioner in the instant Petition	14.47	14.25	13.99	13.75	13.51
Approved after true-up in this order	14.47	14.24	13.99	13.74	13.51

64. IWC for Asset-F as allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	37.66	38.53	38.98	38.02	37.06
Claimed by the Petitioner in the instant Petition	37.96	39.71	41.13	40.26	39.26
Approved after true-up in this order	37.89	39.64	41.07	40.20	39.20



65. IWC allowed for Asset-G, Asset-H and Asset-I vide order dated 30.3.2016 in Petition No. 132/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	28.84	49.95	48.66	47.27	45.88
Claimed by the Petitioner in the instant Petition	28.47	49.07	47.90	46.60	45.29
Approved after true-up in this order	28.46	49.06	47.90	46.60	45.29

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	5.51	21.69	21.23	20.74	20.24
Claimed by the Petitioner in the instant Petition	5.52	21.69	21.34	20.94	20.44
Approved after true-up in this order	5.52	21.69	21.34	20.94	20.44

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	15.64	60.32	59.30	58.01	56.55
Claimed by the Petitioner in the instant Petition	16.86	68.44	67.05	65.33	63.94
Approved after true-up in this order	16.85	68.43	67.05	65.33	63.94

Approved Annual Fixed Charges for the 2014-19 Tariff Period

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

(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	6224.04	6308.93	6322.93	6324.53	6326.13



Interest on Loan	6127.50	5660.54	5100.50	4519.94	3948.24
Return on Equity	6932.06	7060.66	7076.31	7078.10	7098.93
O&M Expenses	1143.09	1181.63	1220.35	1261.15	1302.91
Interest on Working Capital	507.02	503.31	493.24	482.21	471.87
Total	20933.71	20715.07	20213.34	19665.93	19148.08

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1291.90	1314.28	1314.34	1314.41	1314.41
Interest on Loan	1221.94	1130.21	1012.39	894.58	776.72
Return on Equity	1438.44	1470.45	1470.53	1470.60	1474.56
O&M Expenses	373.86	386.37	399.15	412.40	426.08
Interest on Working Capital	111.63	111.46	109.46	107.48	105.61
Total	4437.76	4412.76	4305.87	4199.47	4097.37

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	450.84	456.04	458.26	458.26	459.38
Interest on Loan	421.26	386.19	347.37	305.38	265.56
Return on Equity	502.31	510.57	513.06	513.06	515.69
O&M Expenses	41.84	43.26	44.68	46.16	47.70
Interest on Working Capital	33.95	33.53	32.82	31.94	31.19
Total	1450.20	1429.59	1396.19	1354.81	1319.52

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2057.58	2084.45	2084.65	2084.65	2084.65
Interest on Loan	1970.27	1819.53	1633.67	1446.75	1261.10
Return on Equity	2242.33	2283.29	2283.50	2283.50	2289.65
O&M Expenses	192.71	199.39	205.75	212.74	219.74
Interest on Working Capital	154.97	153.43	149.52	145.60	141.85
Total	6617.86	6540.09	6357.08	6173.24	5996.98

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	167.60	167.60	167.60	167.60	167.60
Interest on Loan	158.29	143.47	128.63	113.80	98.98
Return on Equity	186.74	187.65	187.65	187.65	188.15
O&M Expenses	48.35	50.02	51.62	53.37	55.13
Interest on Working Capital	14.47	14.24	13.99	13.74	13.51
Total	575.45	562.98	549.49	536.17	523.37



(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	480.65	515.74	548.59	551.05	551.05
Interest on Loan	499.85	494.77	482.78	434.92	385.38
Return on Equity	535.55	577.43	614.20	616.95	618.61
O&M Expenses	54.16	55.95	57.78	59.72	61.71
Interest on Working Capital	37.89	39.64	41.07	40.20	39.20
Total	1608.10	1683.52	1744.43	1702.84	1655.95

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	369.33	662.71	666.05	668.50	669.10
Interest on Loan	431.73	726.67	669.41	607.61	547.40
Return on Equity	411.51	741.97	745.71	748.46	751.15
O&M Expenses	5.53	0.00	0.00	0.00	0.00
Interest on Working Capital	28.46	49.06	47.90	46.60	45.29
Total	1246.56	2180.40	2129.07	2071.17	2012.95

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	66.69	265.60	268.05	270.51	270.51
Interest on Loan	80.00	302.28	279.29	254.34	229.04
Return on Equity	74.31	297.36	300.11	302.86	303.68
O&M Expenses	7.82	32.06	33.11	34.22	35.36
Interest on Working Capital	5.52	21.69	21.34	20.94	20.44
Total	234.35	918.98	901.90	882.87	859.03

(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	206.75	856.59	863.62	868.92	873.35
Interest on Loan	251.59	982.79	901.95	810.24	731.25
Return on Equity	230.36	959.04	966.92	972.85	980.44
O&M Expenses	18.12	72.73	75.12	77.61	80.20
Interest on Working Capital	16.85	68.43	67.05	65.33	63.94
Total	723.67	2939.57	2874.66	2794.96	2729.37

67. Accordingly, the Annual Transmission Charges (ATC) allowed for Asset-A vide order dated 27.6.2016 in Petition No. 52/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 27.6.2016 in Petition No. 52/TT/2016	20930.06	20677.29	20179.16	19637.42	19097.11
Claimed by the Petitioner in the instant Petition	20943.25	20722.47	20216.65	19668.86	19150.61
Approved after true-up in this order	20933.71	20715.07	20213.34	19665.93	19148.08

68. Accordingly, ATC allowed for Asset-B, Asset-C, Asset-D and Asset-E vide order dated 18.4.2016 in Petition No. 27/TT/2015, claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Asset-B					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	4382.81	4297.11	4193.09	4089.57	3986.51
Claimed by the Petitioner in the instant Petition	4438.89	4413.53	4305.86	4199.46	4097.36
Approved after true-up in this order	4437.76	4412.76	4305.87	4199.47	4097.37

(₹ in lakh)

Asset-C					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	1445.18	1410.68	1371.18	1331.65	1292.18
Claimed by the Petitioner in the instant Petition	1450.23	1429.61	1396.21	1354.82	1319.52
Approved after true-up in this order	1450.20	1429.59	1396.19	1354.81	1319.52

(₹ in lakh)

Asset-D					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	6535.35	6366.22	6187.86	6010.20	5832.59
Claimed by the Petitioner in the instant Petition	6619.63	6541.28	6357.09	6173.24	5996.99
Approved after true-up in this order	6617.86	6540.09	6357.08	6173.24	5996.98

(₹ in lakh)

Asset-E					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.4.2016 in Petition No. 27/TT/2015	575.45	562.06	548.56	535.24	521.93
Claimed by the Petitioner in the instant Petition	575.60	563.08	549.49	536.17	523.37



Approved after true-up in this order	575.45	562.98	549.49	536.17	523.37
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69. Accordingly, ATC allowed for Asset-F vide order dated 29.9.2016 in Petition No. 25/TT/2016, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset-F					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2016 in Petition No. 25/TT/2016	1598.06	1634.13	1651.66	1606.20	1560.81
Claimed by the Petitioner in the instant Petition	1611.42	1686.64	1747.16	1705.51	1658.53
Approved after true-up in this order	1608.10	1683.52	1744.43	1702.84	1655.95

70. Accordingly, ATC allowed for Asset-G, Asset-H and Asset-I vide order dated 30.3.2016 in Petition No. 132/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset-G					
Particulars	2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	1267.64	2220.02	2162.74	2100.97	2039.21
Claimed by the Petitioner in the instant Petition	1246.90	2180.79	2129.08	2071.17	2012.94
Approved after true-up in this order	1246.56	2180.40	2129.07	2071.17	2012.95

(₹ in lakh)

Asset-H					
Particulars	2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	234.04	919.34	897.07	873.68	850.25
Claimed by the Petitioner in the instant Petition	234.40	919.14	901.91	882.87	859.04
Approved after true-up in this order	234.35	918.98	901.90	882.87	859.03



(₹ in lakh)

Asset-I					
Particulars	2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 30.3.2016 in Petition No. 132/TT/2015	669.84	2579.18	2530.42	2469.74	2401.00
Claimed by the Petitioner in the instant Petition	723.86	2940.07	2874.66	2794.96	2729.38
Approved after true-up in this order	723.67	2939.57	2874.66	2794.96	2729.37

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

71. The Petitioner has combined Asset-A to Asset-I during the 2019-24 period to form Combined Asset-A. Further, vide affidavit dated 27.11.2020, the Petitioner has submitted revised tariff forms and transmission charges for Combined Asset-A and accordingly, the details of the revised transmission charges claimed by the Petitioner are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	12731.80	12734.14	12734.12	12734.12	12734.12
Interest on Loan	7130.52	6003.19	4866.74	3731.07	2592.78
Return on Equity	13530.54	13539.95	13539.95	13539.95	13539.95
Interest on Working Capital	599.06	587.13	573.53	560.05	545.30
O&M Expenses	2223.40	2301.24	2382.42	2466.01	2551.62
Total	36215.32	35165.65	34096.76	33031.20	31963.77

72. The details of IWC for Combined Asset-A claimed by the Petitioner for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	185.28	191.77	198.54	205.50	212.64
Maintenance Spares	333.51	345.19	357.36	369.90	382.74
Receivables	4452.70	4335.49	4203.71	4072.34	3929.97
Total Working Capital	4971.49	4872.45	4759.61	4647.74	4525.35
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	599.06	587.13	573.53	560.05	545.30

Effective Date of Commercial Operation (E-COD)

73. The Petitioner has claimed E-COD of Combined Asset-A as 20.8.2012. Based on the trued-up capital cost and COD of the individual assets, E-COD has been worked out as follows:



Asset	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	COD	Weightage of cost (in %)	Number of days from last COD	Weighted days	E-COD (Latest COD-Total Weighted Days)
Asset A	119764.69	15.4.2012	49.74	989.00	491.89	12.8.2012
Asset B	24876.98	1.1.2012	10.33	1094.00	113.02	
Asset C	8721.51	1.12.2011	3.62	1125.00	40.75	
Asset D	39481.93	1.2.2012	16.40	1063.00	174.29	
Asset E	3174.31	1.3.2012	1.32	1034.00	13.63	
Asset F	10436.47	1.2.2013	4.33	697.00	30.21	
Asset G	12683.86	8.9.2014	5.27	113.00	5.95	
Asset H	5123.26	30.12.2014	2.13	0.00	-	
Asset I	16540.74	28.12.2014	6.87	2.00	0.14	
	240803.75		100.00		869.86	

74. E-COD is used to determine the lapsed life of the transmission project as a whole, which works out as 6 (six) 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)

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

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

77. 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. Accordingly, WAL of Combined Asset-A has been worked out as 25 years as follows:

Particulars	Life (in years) (1)	Capital Cost as on 1.4.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3) = (1) x (2)	WAL (in years) (4) = (3)/ (2)
Building Civil Works	25	0.00	0.00	34 years (34.48 rounded)
Transmission Line	35	228848.76	8009706.60	



Sub-station	25	11582.55	289563.75	off to 34 years)
PLCC	15	329.08	4936.20	
IT Equipment (Incl. Software)	6.67	43.36	289.21	
Total		240803.75	8304495.76	

78. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of Combined Asset-A is 12.8.2012 and the lapsed life of the transmission project as a whole works out as six (6) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 28 years.

Initial Spares

79. The transmission assets covered in the transmission project have been combined and the overall project cost is arrived at in the 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 judgment dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, Initial Spares allowed in the 2019-24 tariff period are as follows:

Transmission Line						
Asset	Capital Cost/ P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Norms as per the 2009/ 2014 Tariff Regulations (in %)	Initial Spares allowable as per the 2009/ 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed earlier (₹ in lakh)	Initial Spares allowed for Combined Asset-A (₹ in lakh)
Asset-A(III)	2833.83	0.00	0.75	21.41	0.00	13.90**
Asset-A(IV)	575.74	0.00	0.75	4.35	0.00	
Asset-A(V)	2113.82	0.00	0.75	15.97	0.00	
Asset-A(VI)	56176.15	0.00	0.75	424.50	0.00	
Asset-A(VII)	768.12	3.75	0.75	5.78	3.75	
Asset-A(VIII)	799.53	3.75	0.75	6.01	3.75	
Asset-A(XI)	45979.08	0.00	0.75	347.45	0.00	
Asset-B	23437.91	145.02	0.75	176.02	145.02	
Asset-C	8679.26	0.00	0.75	65.59	0.00	
Asset-D	39481.93	239.00	0.75	296.55	239.00	
Asset-E	3133.53	0.00	0.75	23.68	0.00	
Asset-F	10359.96	91.50	0.75	77.60	77.60	
Asset-G	11460.26	114.00	1.00	114.61	114.00	



Asset-H	3978.76	39.00	1.00	39.80	39.00
Asset-I	14284.18	140.00	1.00	142.87	140.00
Total	224062.06	776.02		1762.19	762.12

** Additional Initial Spares of ₹13.90 lakh (₹776.02-₹762.12) are allowed for Transmission Line.

80. In view of the above and in pursuance of compliance with APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹13.90 lakh have been allowed.

Capital Cost

81. Regulation 19 of the 2019 Tariff Regulations provides as follows:

"19. Capital Cost: (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.

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

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional 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 tried 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.”



82. The Petitioner has claimed a capital cost of ₹240820.29 lakh as on 1.4.2019 for Combined Asset-A. The capital cost worked out by the Commission as on 31.3.2019 is ₹240803.75 lakh and the same has been considered as the opening capital cost as on 1.4.2019 for determination of tariff for the 2019-24 tariff period in accordance with Regulation 19 of the 2019 Tariff Regulations. The capital cost as on 1.4.2019 allowed after adding Initial Spares is as follows:

(₹ in lakh)			
RCE	Combined Capital Cost as on 31.3.2019	Additional Initial Spares allowed as per APTEL judgement dated 14.9.2019	Combined Capital Cost as on 1.4.2019
258090.00	240803.75	13.90	240817.65

Additional Capital Expenditure

83. Regulation 25 of the 2019 Tariff Regulations provides as follows:

“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 obsolescence of technology; and*
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”*



84. The Petitioner has submitted projected ACE of ₹334.11 lakh for Asset-G in 2019-20. The cut-off date of Combined Asset-A is 31.3.2015. The said ACE is beyond cut-off date and the same is claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations. Further, ACE incurred is on account of any un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date.

85. The Petitioner vide affidavit dated 27.11.2020 has submitted that ACE of ₹334.11 lakh has been incurred towards package from Jyoti Structures Limited related to the transmission line, and is beyond cut-off date towards balance and retention payments, and the same is claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations. Also, all the works has been completed before cut-off date and the payments were released after submission of bills by the Agency. Further, projected ACE during the 2019-24 period is being claimed as per Auditor's Certificate submitted in this petition. The trued-up ACE along with any spill-over ACE beyond 2023-24 shall be submitted at the time of truing-up of the 2019-24 tariff period.

86. We have considered the submissions of the Petitioner and note that the Petitioner has projected ACE of ₹334.11 lakh in 2019-20 for Asset-G. ACE claimed is beyond cut-off and is claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations. Further, ACE incurred with respect to Asset-G is on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date and accordingly the same is allowed.

87. In view of the above, the capital cost allowed as on 1.4.2019 and 31.3.2024 (including ACE projected during the 2019-24 period) considered for tariff determination for Combined Asset is as follows:



(₹ in lakh)

Admitted Capital Cost (as on 1.4.2019)	ACE (2019-20)	Allowed Capital Cost (as on 31.3.2024)
240817.65	334.11	241151.76

88. We further note that the allowed capital cost as on 31.3.2024 is within RCE apportioned approved cost.

Debt-Equity Ratio

89. 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.”

90. The debt-equity 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 %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	168828.59	70.11	169062.47	70.11
Equity	71989.06	29.89	72089.29	29.89
Total	240817.65	100.00	241151.76	100.00

Depreciation

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

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

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

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

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

Provided that the salvage value for IT equipment and software shall be considered as



NIL and 100% value of the assets shall be considered depreciable;

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

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

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

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

*(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the 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.”

92. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. WAROD at Annexure-II has been worked out as per the rates of depreciation prescribed in the 2019 Tariff Regulations. The depreciation approved for Combined Asset-A for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block (A)	240817.65	241151.76	241151.76	241151.76	241151.76
Addition during the year 2019-24 due to projected ACE (B)	334.11	0.00	0.00	0.00	0.00
Closing Gross Block(C=A+B)	241151.76	241151.76	241151.76	241151.76	241151.76
Average Gross Block [D=(A+C)/2]	240984.71	241151.76	241151.76	241151.76	241151.76
Weighted average rate of Depreciation (WAROD) (in %) (E)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year (Year) (F)	28	27	26	25	24
Lapsed life of the asset at the beginning of the year (Year) (G)	6	7	8	9	10
Depreciable Value (H=D*90%)	216890.57	217040.92	217040.92	217040.92	217040.92
Depreciation during the year (I=D*E%)	12731.66	12740.48	12740.48	12740.48	12740.48
Cumulative Depreciation (J)	95537.01	108277.50	121017.98	133758.46	146498.94
Remaining Depreciable Value (K=H-J)	121353.56	108763.42	96022.94	83282.46	70541.98

Interest on Loan

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

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

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



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

94. The Petitioner has submitted that IoL has been calculated on the basis of interest rates prevailing as on 1.4.2019 for respective loans while claiming tariff for the 2019-24 tariff period. The change in interest rate due to floating rate of interest applicable, if any, for the project needs to be claimed/ adjusted over the tariff period of 5 years directly from/ with the Respondents. The Petitioner has prayed to bill and adjust impact on IoL due to change in Interest rate on account of floating rate of interest applicable during the 2019-24 period, if any, from the Respondents.

95. BSPHCL has submitted that the 2019 Tariff Regulations do not permit change in interest rate due to rate of interest.

96. We have considered the submissions of the Petitioner and BSPHCL. WAROI on loan has been considered on the basis of rate prevailing as on 1.4.2019. The



floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL approved for Combined Asset-A for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	168828.59	169062.47	169062.47	169062.47	169062.47
Cumulative Repayments up to Previous Year	82805.35	95537.01	108277.50	121017.98	133758.46
Net Loan-Opening	86023.24	73525.46	60784.97	48044.49	35304.01
Addition during the 2019-24 period due to projected ACE	233.88	0.00	0.00	0.00	0.00
Repayment during the year	12731.66	12740.48	12740.48	12740.48	12740.48
Net Loan-Closing	73525.46	60784.97	48044.49	35304.01	22563.53
Average Loan	79774.35	67155.22	54414.73	41674.25	28933.77
Weighted Average Rate of Interest on Loan (in %)	8.9410	8.9420	8.9461	8.9546	8.9615
Interest on Loan	7132.61	6005.00	4868.00	3731.77	2592.90

Return on Equity

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

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

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

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

Provided further that:

- i. *In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. *in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period*



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

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

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

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

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

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

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

Illustration-

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

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.”*

98. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate specified under the Taxation laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up RoE with MAT rate of 17.472% based on the rate specified under Regulation 31(2) of the 2019 Tariff Regulations for the 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued-up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the 2019-24 tariff period on actual gross income. However, any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by it. Any under-recovery or over-recovery of grossed-up rate on RoE after truing up shall be recovered or refunded to beneficiaries or the long term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/ adjustable during the 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

99. We have considered the submissions of the Petitioner. 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 Combined Asset-A for the 2019-24 tariff period is as follows:



(₹ in lakh)

Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	71989.06	72089.29	72089.29	72089.29	72089.29
B	Additions due to ACE	100.23	0.00	0.00	0.00	0.00
C=A+B	Closing Equity	72089.29	72089.29	72089.29	72089.29	72089.29
D=(A+C)/2	Average Equity	72039.17	72089.29	72089.29	72089.29	72089.29
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=(E/(100-F))	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H=D*G	Return on Equity	13530.40	13539.81	13539.81	13539.81	13539.81

Operation & Maintenance Expenses

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

“35. Operation and Maintenance Expenses: (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the 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
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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



out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

“35(4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.”

101. O&M Expenses as claimed by the Petitioner for the various elements covered under Combined Asset-A for the 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Lines					
S/C (Twin Conductor)					
(a) LILO of 400 kV S/C Allahabad Kanpur Transmission Line at Fatehpur at Fatehpur	2.862	2.862	2.862	2.862	2.862
(b) LILO of 400 kV Singrauli Kanpur Transmission Line at Fatehpur (km)					
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
S/C (Bundle Conductor-4 sub-conductors)					
(a) 765 kV S/C Fatehpur-Agra Transmission Line	1068.58	1068.58	1068.58	1068.58	1068.58
(b) 765 kV Sasaram-Fatehpur S/C Transmission Line					
(c) 400 kV Biharsharif-Sasaram Ckt-III Line					
(d) 400 kV Biharsharif-Sasaram Ckt.-II (Sasaram-Balia) Line (km)					
Norms (₹ lakh/km)	0.755	0.781	0.809	0.837	0.867
D/C (Twin Conductor)					



(a) LILO of 400 kV S/C Allahabad Kanpur Transmission Line at Fatehpur (b) LILO of 400 kV Singrauli Kanpur Transmission Line at Fatehpur (c) Maithon RB-Ranchi Line (d) Maithon Meija Line (e) 400kV D/C (twin) Bokaro-Koderma Transmission Line & PLCC (km)	381.077	381.077	381.077	381.077	381.077
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
D/C (Single Conductor)					
(a) LILO of Fatehpur (UPPCL)-Kanpur Transmission Line at Fatehpur (b) LILO of Ckt. I of 220 kV D/C Dehri-Bodhgaya at Gaya (c) LILO of Ckt. II of 220 kV D/C Dehri-Bodhgaya Transmission Line along with associated bays at Gaya (km)	35.143	35.143	35.143	35.143	35.143
Norms (₹ lakh/km)	0.377	0.391	0.404	0.419	0.433
D/C (Bundle Conductor- 4 sub conductors)					
(a) 765 kV S/C Fatehpur-Agra Transmission Line (D/C Portion near Agra) (b) 400 kV D/C (Quad) Maithon-Koderma Line (Part of Koderma-Gaya) under contingency (c) Balance portion of 400 kV D/C Koderma-Gaya Line (km)	80.91	80.91	80.91	80.91	80.91
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Total (Transmission Lines)	1264.16	1308.02	1354.53	1401.65	1451.34
Sub-station					
220 kV					
(a) Gaya:400/220 kV 315 MVA ICT-II at Gaya Sub-station (b) Gaya: Dehri I Bay (c) Gaya: Bodhgaya I Bay (d) Gaya: Dehri II Bay (e) Gaya: Bodhgaya II Bay (f) Fatehpur: 400/220 kV ICT-1 Bay at Fatehpur (g) Fatehpur:400/220 kV ICT-II Bay at Fatehpur Extension (h) Gaya:400/220 kV, 315 MVA, ICT-I at Gaya Sub-station (Numbers)	8	8	8	8	8
Norms (₹ lakh/bay)	22.51	23.3	24.12	24.96	25.84
400 kV					



(a) Gaya: 400/220 kV 315 MVA ICT-II at Gaya Sub-station	10	10	10	10	10
(b) Gaya:400/220 kV, 315 MVA, ICT-I at Gaya Sub-station					
(c) Fathepur: LILO of Singhrauli-Kanpur Transmission Line at Fatehpur-Kanpur Bay					
(d) Fathepur: LILO of 400 kV S/C Singhrauli-Kanpur Transmission Line at Fatehpur - Singrauli Bay					
(e) Fathepur:400/220 kV ICT-1 Bay at Fatehpur					
(f) Fathepur:400/220 kV ICT-II Bay at Fatehpur Extension					
(g) Ranchi: Maithon RB I Bay					
(h) Ranchi: Maithon RB II Bay					
(i) Ranchi:Maithon RB I Line Reactor Bay					
(j) Ranchi:Maithon RB II Line Reactor Bay (Nos.)					
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
Total (Substations)	501.58	519.20	537.46	556.28	575.82
Transformers					
(a) 315 MVA ICT-I and ICT-II at 400 kV at Gaya Sub-station	1260	1260	1260	1260	1260
(b) 315 MVA ICT-I and ICT-II at 400 kV at Fatehpur Sub-station (MVA)					
Norms (₹ lakh/MVA)	0.36	0.37	0.38	0.40	0.41
Total (Transformers)	451.08	467.46	483.84	501.48	517.86
PLCC					
2% of Capital Cost (2% of ₹329.08 lakh)	6.58	6.58	6.58	6.58	6.58
Total O&M Expenses (₹ in lakh)	2223.40	2301.24	2382.42	2466.01	2551.62

102. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulation @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even



though PLCC is a communication system. Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

103. The O&M Expenses approved for the various elements covered under Combined Asset-A as per the norms specified in the 2019 Tariff Regulations are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Lines					
Total (Transmission Lines)	1264.16	1308.02	1354.53	1401.65	1451.34
Sub-station					
Total (Sub-stations)	501.58	519.2	537.46	556.28	575.82
Transformers					
Total (Transformers)	451.08	467.46	483.84	501.48	517.86
Total O&M Expenses (₹ in lakh)	2216.82	2294.68	2375.83	2459.41	2545.02

Interest on Working Capital

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

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

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

- (i) *Receivables equivalent to 45 days of annual fixed cost;*
- (ii) *Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- (iii) *Operation and maintenance expenses, including security expenses for one month.”*

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 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

‘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;”

105. 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%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points).

106. We have considered the submissions of the Petitioner. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations and the components of the working capital and interest allowed thereon for Combined Asset for the 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	184.73	191.22	197.99	204.95	212.08
Working Capital for Maintenance Spares (15% of O&M Expenses)	332.52	344.20	356.37	368.91	381.75
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	4452.08	4330.78	4194.59	4063.36	3921.18
Total Working Capital	4969.34	4866.20	4748.95	4637.22	4515.02
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	598.81	547.45	498.64	486.91	474.08

Annual Fixed Charges of the 2019-24 Tariff Period

107. The transmission charges of Combined Asset-A for the 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	12731.66	12740.48	12740.48	12740.48	12740.48
Interest on Loan	7132.61	6005.00	4868.00	3731.77	2592.90
Return on Equity	13530.40	13539.81	13539.81	13539.81	13539.81



O&M Expenses	598.81	547.45	498.64	486.91	474.08
Interest on Working Capital	2216.82	2294.68	2375.83	2459.41	2545.02
Total	36210.29	35127.42	34022.76	32958.38	31892.29

Filing Fee and Publication Expenses

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

109. BSPHCL has submitted that grant of filing fee and expenses incurred is strictly the discretion of the Commission and the same is to be exercised as per the facts and circumstances of each case and need not be allowed in all cases and in this case the it should not be granted.

110. We have noted the submissions of the Petitioner and BSPCHL. 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

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

Goods and Services Tax

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



113. BSPHCL has submitted that to bill and receive GST and Statutory charges on transmission charges separately from the Respondents is premature and deserves to be rejected.

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

Security Expenses

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

116. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The 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

117. 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

118. BSPHCL has submitted that it has been held on different occasions that the present consumers cannot and should not be burdened for the past charges.



119. We have noted the submissions of the Petitioner and BSPHCL. It is observed that BSPHCL has been raising the instant issue in various petitions including Petition No. 469/TT/2019 and the Commission vide order dated 29.5.2021 has given its findings. In terms of the order dated 29.5.2021, we do not find merit in the same submission made by BSPHCL in the instant petition. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of the transmission charges for subsequent period shall be governed in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

120. To summarise:

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

(₹ in lakh)

Asset-A				
2014-15	2015-16	2016-17	2017-18	2018-19
20933.71	20715.07	20213.34	19665.93	19148.08

(₹ in lakh)

Asset-B				
2014-15	2015-16	2016-17	2017-18	2018-19
4437.76	4412.76	4305.87	4199.47	4097.37

(₹ in lakh)

Asset-C				
2014-15	2015-16	2016-17	2017-18	2018-19
1450.20	1429.59	1396.19	1354.81	1319.52



(₹ in lakh)

Asset-D				
2014-15	2015-16	2016-17	2017-18	2018-19
6617.86	6540.09	6357.08	6173.24	5996.98

(₹ in lakh)

Asset-E				
2014-15	2015-16	2016-17	2017-18	2018-19
575.45	562.98	549.49	536.17	523.37

(₹ in lakh)

Asset-F				
2014-15	2015-16	2016-17	2017-18	2018-19
1608.10	1683.52	1744.43	1702.84	1655.95

(₹ in lakh)

Asset-G				
2014-15 (Pro-rata 205 days)	2015-16	2016-17	2017-18	2018-19
1246.56	2180.40	2129.07	2071.17	2012.95

(₹ in lakh)

Asset-H				
2014-15 (Pro-rata 92 days)	2015-16	2016-17	2017-18	2018-19
234.35	918.98	901.90	882.87	859.03

(₹ in lakh)

Asset-I				
2014-15 (Pro-rata 94 days)	2015-16	2016-17	2017-18	2018-19
723.67	2939.57	2874.66	2794.96	2729.37

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

(₹ in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
36210.29	35127.42	34022.76	32958.38	31892.29

121. Annexure-I and Annexure-II given hereinafter form part of the order.

122. This order disposes of Petition No. 355/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



Annexure-I (In Colly.)

Asset-A

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
106263.49	2511.12	471.66	0.00	0.00	0.00	109246.27	5.28%	5677.01	5755.75	5768.20	5768.20	5768.20
9944.66	172.09	54.70	0.00	60.53	0.00	10231.98	5.28%	529.62	535.61	537.05	538.65	540.25
237.94	1.93	3.21	0.00	0.00	0.00	243.08	6.33%	15.12	15.29	15.39	15.39	15.39
43.36	0.00	0.00	0.00	0.00	0.00	43.36	15.00%	2.29	2.29	2.29	2.29	2.29
116489.45	2685.14	529.57	0.00	60.53	0.00	119764.69	Total	6224.04	6308.93	6322.93	6324.53	6326.13
Average Gross Block (₹ in lakh)								117832.02	119439.38	119704.16	119734.43	119764.69
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%

Asset-B

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
22590.41	847.50	0.00	2.50	0.00	0.00	23440.41	5.28%	1215.15	1237.52	1237.59	1237.65	1237.65
1350.57	0.00	0.00	0.00	0.00	0.00	1350.57	5.28%	71.31	71.31	71.31	71.31	71.31
86.00	0.00	0.00	0.00	0.00	0.00	86.00	6.33%	5.44	5.44	5.44	5.44	5.44
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
24026.98	847.50	0.00	2.50	0.00	0.00	24876.98	Total	1291.90	1314.28	1314.34	1314.41	1314.41
Average Gross Block (₹ in lakh)								24450.73	24874.48	24875.73	24876.98	24876.98
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%

Asset-C

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
8482.36	112.66	84.24	0.00	0.00	42.25	8721.51	5.28%	450.84	456.04	458.26	458.26	459.38
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
8482.36	112.66	84.24	0.00	0.00	42.25	8721.51	Total	450.84	456.04	458.26	458.26	459.38
Average Gross Block (₹ in lakh)								8538.69	8637.14	8679.26	8679.26	8700.39
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%



Asset-D

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
38463.90	1010.70	7.33	0.00	0.00	0.00	39481.93	5.28%	2057.58	2084.45	2084.65	2084.65	2084.65
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
38463.90	1010.70	7.33	0.00	0.00	0.00	39481.93	Total	2057.58	2084.45	2084.65	2084.65	2084.65
Average Gross Block (₹ in lakh)								38969.25	39478.27	39481.93	39481.93	39481.93
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%

Asset-E

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
3174.31	0.00	0.00	0.00	0.00	0.00	3174.31	5.28%	167.60	167.60	167.60	167.60	167.60
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
3174.31	0.00	0.00	0.00	0.00	0.00	3174.31	Total	167.60	167.60	167.60	167.60	167.60
Average Gross Block (₹ in lakh)								3174.31	3174.31	3174.31	3174.31	3174.31
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%

Asset-F

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
9014.38	177.87	1151.17	93.05	0.00	0.00	10436.47	5.28%	480.65	515.74	548.59	551.05	551.05
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
9014.38	177.87	1151.17	93.05	0.00	0.00	10436.47	Total	480.65	515.74	548.59	551.05	551.05
Average Gross Block (₹ in lakh)								9103.31	9767.83	10389.94	10436.47	10436.47
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%



Asset-G

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
12374.07	160.43	33.47	93.05	0.00	22.84	12683.86	5.28%	657.59	662.71	666.05	668.50	669.10
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
12374.07	160.43	33.47	93.05	0.00	22.84	12683.86	Total	657.59	662.71	666.05	668.50	669.10
Average Gross Block (₹ in lakh)								12454.29	12551.24	12614.50	12661.02	12672.44
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%

Asset-H

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
4992.59	37.63	0.00	93.04	0.00	0.00	5123.26	5.28%	264.60	265.60	268.05	270.51	270.51
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
4992.59	37.63	0.00	93.04	0.00	0.00	5123.26	Total	264.60	265.60	268.05	270.51	270.51
Average Gross Block (₹ in lakh)								5011.41	5030.22	5076.74	5123.26	5123.26
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%	5.28%

Asset-I

Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
14302.60	1803.86	233.51	33.10	167.67	0.00	16540.74	5.28%	802.80	856.59	863.62	868.92	873.35
0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
14302.60	1803.86	233.51	33.10	167.67	0.00	16540.74	Total	802.80	856.59	863.62	868.92	873.35
Average Gross Block (₹ in lakh)								15204.53	16223.22	16356.52	16456.91	16540.74
Weighted Average Rate of Depreciation								5.28%	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) 2019-20	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
					2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	228862.66	334.11	229196.77	5.28%	12092.77	12101.59	12101.59	12101.59	12101.59
Sub Station	11582.55	0.00	11582.55	5.28%	611.56	611.56	611.56	611.56	611.56
PLCC	329.08	0.00	329.08	6.33%	20.83	20.83	20.83	20.83	20.83
IT Equipment (Incl. Software)	43.36	0.00	43.36	15.00%	6.50	6.50	6.50	6.50	6.50
Total	240817.65	334.11	241151.76		12731.66	12740.48	12740.48	12740.48	12740.48
Average Gross Block (₹ in lakh)					240984.71	241151.76	241151.76	241151.76	241151.76
Weighted Average Rate of Depreciation					5.28%	5.28%	5.28%	5.28%	5.28%

