

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 12/TT/2021

Coram:

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

Date of order: 29.08.2022

In the matter of:

Approval for under sub-section(4) of Section 28 and under Section 79(1)(d) of Electricity Act, 2003 and Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for (i) truing up of fees and charges for 2014-19 tariff period and (ii) fees and charges for 2019-24 tariff period in respect of **Asset-1**:17 number of OPGW links(759 km), **Asset-2**: 09 number of OPGW links (490 km), **Asset-3**:10 number of OPGW links (440 km) , **Asset 4**:01 number of OPGW links under WBSETCL-State Sector (78.26 km) under “Fiber Optic Communication System in lieu of existing Unified Load Despatch and Communication (ULDC) Microwave Links” scheme in Eastern Region,
And

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for (i) truing-up of transmission tariff of 2014-19 tariff period and (ii) determination of transmission tariff of 2019-24 tariff period in respect of **Asset-5**:01 number of OPGW link under Central Sector (21.003 km), **Asset-6**: 01 number of OPGW links under WBSETCL - State Sector (17.03 km) ; **Asset-7**:07 number of OPGW links under DVC - State Sector (196.81 km); **Asset-8**:02 number of OPGW links under Central Sector (278.641 km); **Asset-9**:02 number of OPGW links under WBSETCL - State Sector (35.044 km); **Asset-10**:01 number of OPGW link under DVC - State Sector (0.80 km); **Asset-11**:01 number of OPGW links under Central Sector (10.70 km); **Asset 12**:05 number of OPGW links under DVC - State Sector (52.527 km); **Asset-13**:04 number of OPGW links under WBSETCL - State Sector (4.794 km); **Asset-14**:01 number of OPGW links under BSPTCL - State Sector (6.00 km); **Asset-15**:02 Number of OPGW links under OPTCL - State Sector (5.50 km) ; **Asset 16**:01 number of OPGW link under DVC - State Sector (69.182 km) under “Fiber Optic Communication System in lieu of existing Unified Load Despatch and Communication (ULDC) Microwave Links” Scheme in Eastern Region.



And in the matter of:

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

.....Petitioner

Vs.

1. NTPC Limited,
NTPC Bhawan, Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi – 110003.
2. Farakka Super Thermal Power Plant,
NTPC, Farakka.
3. Kahalgaon Super Thermal Power Plant-I,
NTPC, Kahalgaon.
4. Kahalgaon Super Thermal Power Plant-II,
NTPC, Kahalgaon.
5. Talcher Super Thermal Power Plant,
Stage-II, NTPC, Talcher.
6. National Hydro Power Corporation (NHPC) Ltd.
NHPC Office Complex,
Lodhi Road New Delhi.
7. Teesta-V Hydro Electric Project,
NHPC, Singtam, East Sikkim.
8. Rangeet Hydro Electric Project,
NHPC, P.O.Rangit Nagar, South Sikkim.
9. DVC Mejia Thermal Power Station,
DVC, P.O.
MTPS, District Bankura – 722183.
10. Bengal State Electricity Distribution Company, Limited.
West Bidyut Bhawan, 8th floor (A Block),
Block DJ, Salt Lake City,
Calcutta - 700091.
11. Bihar State Electricity Board,
Vidyut Bhawan, Bailey Road,
Patna-800001.
12. Grid Corporation of Orissa Limited,



Vidyut Bhawan, Janpath,
Bhubaneshwar-751007.

13. Power Department,
Government of Sikkim, Gangtok-727102.
14. Jharkhand State Electricity Board,
Engineering Building,
HEC Township,
Dhurwa, Ranchi – 834004.
15. Damodar Valley Corporation,
DVC Tower, VIP Road,
Calcutta - 700054.
16. Powerlinks Transmission Limited,
Vidyut Nagar,
P.O. Satellite Township,
Siliguri-734015.

.....Respondent(s)

ForPetitioner : Shri S.S. Raju,PGCIL
Shri D.K. Biswal, PGCIL
Shri Ved Prakash Rastogi,PGCIL
Shri A.K. Verma, PGCIL

ForRespondents: Ms. Rohini Prasad, Advocate, BSPHCL

ORDER

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL),under sub-section (4) of Section 28 and Section 79(1)(d) of Electricity Act, 2003 and Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of annual fees and charges for 2014-19 periodand for determination of tariff for 2019-24 period in respect of the assets, namely, **Asset-1**:17 numer of OPGW links under State Sector (759 km), **Asset-2**: 09 numer of OPGW links under Central/State Sector(490 km), **Asset-3**:10 numer of OPGW links under Central/State Sector (440 km), **Asset 4**:01 numer of OPGW links under WBSETCL-State Sector (78.26 km) under “Fiber Optic



Communication System in lieu of existing Unified Load Dispatch & Communication (ULDC) Microwave links in Eastern Region” Scheme and for truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of **Asset-5:01** number of OPGW link under Central Sector (21.003 km), **Asset-6: 01** number of OPGW links under WBSETCL - State Sector (17.03 km), **Asset-7:07** number of OPGW links under DVC - State Sector (196.81 km), **Asset-8:02** number of OPGW links under Central Sector (278.641 km); **Asset-9:02** number of OPGW links under WBSETCL-State Sector (35.044 km), **Asset-10:01** number of OPGW link under DVC - State Sector (0.80 km), **Asset-11:01** number of OPGW links under Central Sector (10.70 km), **Asset 12:05** number of OPGW links under DVC - State Sector (52.527 km); **Asset-13:04** number of OPGW links under WBSETCL - State Sector (4.794 km); **Asset-14:01** number of OPGW links under BSPTCL - State Sector (6.00 km); **Asset-15:02** nos OPGW links under OPTCL-State Sector (5.50 km) ; **Asset 16:01** number of OPGW link under DVC-State Sector (69.182 km) (hereinafter referred to as “transmission assets”) under “Fiber Optic Communication System (847.124 km) in lieu of existing Unified Load Dispatch and Communication (ULDC) Microwave Links” (hereinafter referred to as “transmission project”) in Eastern Region.

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



“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9.1 and 10.0 above.

2) Approve the Completion cost and additional capitalization incurred during 2014-19.

3) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before Hon'ble Commission as provided in Tariff Regulations, 2014 and Tariff Regulations, 2019. as per para 9.1 and 10.0 above of 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 beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

6) Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.

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

8) Allow the Petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.6 above.

9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

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



- (a) The Investment Approval(IA) for implementation for the transmission project was accorded by Board of Directors of the Petitioner Company vide letter no. C/CP/Fibre Optic in ER dated 15.2.20211 at an estimated cost of ₹5743 lakh including IDC of ₹331 lakh based on 3rd quarter, 2010 price level. The scheduled completion time of the project was 30 months from the date of IA of 15.2.2011
- (b) Revised Cost Estimate (RCE) for Fibre Optic Communication System in lieu of existing ULDC microwave links in Eastern Region was accorded by Board of Directors of the Petitioner vide Memorandum No. C/CP/PA1920-02-0C-RCE-002 dated 9.5.2019 at estimated cost of ₹6410 lakh including IDC of ₹332 lakh (at June, 2018 price level) in its 364th meeting held on 27.3.2019.
- (c) The broad scope of work covered under the project is as follows:
- (i) Installation of OPGW fiber optic cable on the existing EHV transmission line of Powergrid and constituents, the estimated length of such cable is approximately 2325 km.
 - (ii) Installation of approximately 34 km underground fiber optic to provide last mile connectivity to the control room where transmission line connectivity is not available. It is also envisaged that portion of the network which involves installation of the underground cable would be provided with radio-based communication which operates in free band to back up the underground cable link of the network. Four number of radio links are proposed. Further, in some portions of the proposed network around 14 km of aerial cable is also required.



- (iii) The terminal equipment for communication based upon Synchronous Digital Hierarchy (SDH) technology shall be installed in the sub-stations of constituents and Powergrid.
- (iv) The project would also involve installation of primary multiplexers at the new wide band nodes. To monitor the Network, Network Management System (NMS) would also be required.
- (d) Entire scope of work under the IA is covered in the instant petition. The details of the transmission assets under the subject transmission project are as follows:

Asset nomenclature in previous order	Name of Asset	Asset Nomenclature in current Petition	Previous order details	COD
Asset-I	17 number of OPGW links under State Sector (759 km; 09 number under DVC, 03 number under OPTCL & 05 number under BSPHCL)	Asset-1	Order dated 5.2.2020 in Petition No. 262/TT/2019 for tariff block 2014-19 and order dated 15.9.2016 in Petition No. 57/TT/2014 for tariff block 2009-14	1.10.2012
Asset-II	09 number of OPGW links under Central/State Sector (490 km; 02 number under Central Sector, 02 number of under OPTCL, 01 number under DVC, & 04 number under WBSETCL)	Asset-2		1.4.2013
Asset-III	10 number of OPGW links under Central/ State Sector (440 km; 01 number of under Central Sector, 01 number under OPTCL, 02 number under BSPHCL, & 06 number under WBSETCL)	Asset-3		1.11.2013
Asset-IV	01 number OPGW links under WBSETCL - State Sector (78.26 km)	Asset-4		Order dated 5.2.2020 in Petition No. 262/TT/2019 for 2014-19tariff period



Asset-1	01 number of OPGW link under Central Sector (21.003 km)	Asset-5	Order dated 5.12.2016 in Petition No. 48/TT/2016 for 2014-19tariff period	1.10.2014
Asset-2	01 number of OPGW link under WBSETCL - State Sector (17.03 km)	Asset-6		1.10.2014
Asset-3	07 number of OPGW links under DVC - State Sector (196.81 km)	Asset-7		1.10.2014
Asset-4	02 number of OPGW links under Central Sector (278.641 km)	Asset-8		20.4.2015
Asset-5	02 number of OPGW links under WBSETCL - State Sector (35.044 km)	Asset-9		20.4.2015
Asset-6	01 number of OPGW links under DVC - State Sector (0.80 km)	Asset-10		20.4.2015
Asset-I	01 number of OPGW link under Central Sector (10.70 km)	Asset-11	Order dated 4.7.2019 in Petition No. 239/TT/2018 for 2014-19 tariff period	1.7.2017
Asset-II	05 number of OPGW links under DVC - State Sector (52.527 km)	Asset-12		1.7.2017
Asset-III	04 number of OPGW link under WBSETCL - State Sector (4.794 km)	Asset-13		1.7.2017
Asset-IV	01 number of OPGW link under BSPTCL - State Sector (6.00 km)	Asset-14		1.7.2017
Asset-V	02 number of OPGW links under OPTCL - State Sector (5.50 km)	Asset-15		1.7.2017
Asset-VI	01 number of OPGW links under DVC - State Sector (69.182 km)	Asset-16		1.2.2019

(e) As per the IA dated 15.2.2011, the transmission project was scheduled to be executed within 30 months i.e. by 14.8.2013.

(f) The tariff for Asset-1 to Asset-3 was determined vide order dated 15.9.2016 in Petition No. 57/TT/2014 for 2009-14 tariff period. Further, truing up of 2009-14 and tariff for 2014-19 for Asset-1 to Asset-4 was approved vide order dated 5.2.2020 in Petition No. 262/TT/2019.



- (g) The tariff for Asset-5 to Asset-10 was determined vide order dated 5.12.2016 in Petition No. 48/TT/2016 and for Asset-11 to Asset-16 was determined vide order dated 4.7.2019 in Petition No. 239/TT/2018.
- (h) As per the directives of Government of India vide order dated 4.7.2008, Power System Operation Corporation Limited (POSOCO), a wholly owned subsidiary of Power Grid Corporation of India Limited was created and POSOCO is responsible for System Operation of National Load Despatch Centre (NLDC) and Regional Load Despatch Centres (RLDCs). Pursuant to Satnam Singh Committee's Report, the assets pertaining to System Operations have been transferred to POSOCO for which separate tariff orders had been issued by the Commission.
- (i) The Petitioner filed a Miscellaneous Petition No. 68/2010 under sub-section (4) of Section 28 of Electricity Act, 2003 and Regulation 44 "Power to Relax" of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 for fixation of tariff norms for recovery of cost for the assets ("Communication System" and "Sub-Load Dispatch Centre System") to be retained/to be installed by the Petitioner after formation of POSOCO for the 2009-14 period.
- (j) The Commission in Petition No. 68/2010 vide order dated 8.12.2011 observed as follows:

"9.....Since the communication system and SLDC system form part of the assets of the CTU, there is a requirement to specify regulations for determination of tariff of these assets. We direct the staff of the Commission to undertake the exercise separately and include these assets of CTU in the tariff regulations applicable for the next tariff period i.e. 2014-19. As regards the tariff of these assets for the period 2009-14, we are not inclined to determine the tariff of these assets by exercising



our power to relaxation under Regulation 44 of the 2009 regulations since there is no provision for determination of tariff for the assets covered under the communication system and ULDC system. We are of the view that the tariff of these assets shall be determined under our general power of determination of tariff for inter-State transmission system under section 79(1)(d) of the Act.....”

“.....It clearly emerges from the above judgment that the Central Commission can specify the terms and conditions of tariff even in the absence of the regulations. Since no regulation was specified for determination of tariff of the communication system and the ULDC system, the Commission determined the tariff of these assets during the period 2004-09 on levelised basis by adopting some of the parameters of 2004 tariff regulations. We have decided to continue with the levelised tariff for the existing assets in the absence of any provision in 2009 regulations regarding determination of tariff of communication system and ULDC system of the petitioner. For the new assets, the tariff will be decided as per the regulations for communication systems to be framed. Accordingly, we direct the staff of the Commission to take necessary action to prepare draft regulations for determination of tariff for the communication system and ULDC system of the petitioner.”

“21. We have considered the submission of the Petitioner and the respondents. We are of the view that replacement of microwave links with fibre optic links should be implemented as agreed by the beneficiaries to ensure safe and reliable operation of the power system. Moreover, the petitioner has submitted that surrender of the microwave frequencies would save substantial cost and the fibre optic system would be beneficial in the long run as the fibre optic communication network is required for implementation of new technologies like Wide Area Measurement System (WAMS), Special Protection Schemes (SPS) etc. in view of fast development and complexity of the power system in the country. As regards the regulatory approval, we are of the view that since the project has been agreed to be implemented by the constituents of each of the regions, regulatory approval is not considered necessary. The petitioner is granted liberty to approach the Commission for determination of tariff for the fibre optic network being installed in lieu of microwave links for each of the region separately. As regards the submission of UPPTCL, it is clarified that if the state portion is not being implemented by it separately as proposed earlier, the same shall be implemented by the petitioner and UPPTCL would be required to share the tariff in proportion to the assets being utilised by it. It is however made clear that the timeline for replacement of the digital microwave by optical fibre should be strictly complied with.”

- (k) The Commission vide order dated 8.12.2011 in Petition No. 68/2010 observed that in the absence of any provision in the 2009 Tariff Regulations regarding determination of tariff of Communication System and ULDC System of the Petitioner, preferred to continue with levelised tariff for Asset-1, Asset-2, Asset-3 and Asset-4. Accordingly, the annual fees and charges of Communication



System and SLDC System retained for Asset-1, Asset-2, Asset-3, and Asset-4 was determined vide order dated 5.2.2020 in Petition No. 262/TT/2019 as per the principles approved by the Commission vide order dated 8.12.2011 in Petition No 68/2010.

- (l) Taking into consideration the aforesaid facts, the truing up of fees and charges from COD to 31.3.2014 as well as determination of fees and charges for 2014-19 tariff period was worked out for Asset-1, Asset-2, Asset-3, and Asset-4 vide order dated 5.2.2020 in Petition No. 262/TT/2019. As per the provisions of the 2014 Tariff Regulations, tariff of the existing Communication System forming part of transmission system shall be as per the methodology followed by the Commission prior to 1.4.2014. Therefore, fees and charges in the present petition have been worked out applying the Capital Recovery Factor (CRF) concept. However, provision for determining tariff of Communication System and ULDC system of the Petitioner have been specified in the 2014 Tariff Regulations as an element of a transmission system. Accordingly, annual transmission charges of Fibre Optic Communication System for Asset-5, Asset-6, Asset-7, Asset-8, Asset-9, Asset-10, Asset-11, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16 put into commercial operation on or after 1.4.2014 has been determined as per the provisions of the 2014 Tariff Regulations in this order.
- (m) The present petition has been filed for truing up of fees and charges of ULDC Scheme in Eastern Region for 2014-19 period which was earlier approved in Petition No. 262/TT/2019 for Asset-1, Asset-2, Asset-3 and Asset-4 as well as



determination of fees and charges for 2019-24 period for Communication System portion and SLDC system retained by the Petitioner after formation of POSOCO.

- (n) Net capital cost as on 31.3.2014 of the transmission assets as approved vide order dated 5.2.2020 in Petition No. 262/TT2019 in respect of Asset-1, Asset-2, Asset-3 and Asset-4; vide order dated 5.12.2016 in Petition No. 48/TT/2016 in case of Asset-5, Asset-6, Asset-7, Asset-8, Asset-9 and Asset-10 and vide order dated 4.7.2019 in Petition No. 239/TT/2018 in case of Asset-11, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16. The details of the capital cost of the transmission assets is as follows:

(₹ in lakh)

Asset 1	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	39.17	746.45
	Equity	16.79	319.91
	Total	55.95	1066.36
Capital Cost Recovered up to 31.3.2014	Loan	1.14	20.73
	Equity	0.29	5.09
	Total	1.43	25.82
Net Capital Cost as on 1.4.2014	Loan	38.03	725.72
	Equity	16.50	314.82
	Total	54.52	1040.54

(₹ in lakh)

Asset 2	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	41.19	418.94
	Equity	17.65	179.54
	Total	58.84	598.48
Capital Cost Recovered up to 31.3.2014	Loan	0.80	9.01
	Equity	0.19	2.15
	Total	0.99	11.16
Net Capital Cost as on 1.4.2014	Loan	40.39	409.93
	Equity	17.46	177.39
	Total	57.85	587.32



(₹ in lakh)

Asset 3	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	224.50	189.14
	Equity	96.21	81.06
	Total	320.71	270.19
Capital Cost Recovered up to 31.3.2014	Loan	2.92	2.35
	Equity	0.69	0.56
	Total	3.61	2.91
Net Capital Cost as on 1.4.2014	Loan	221.58	186.78
	Equity	95.52	80.50
	Total	317.10	267.28

(₹ in lakh)

Asset 4	Capital	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	61.04
	Equity	26.16
	Total	87.19
Capital Cost Recovered up to 31.3.2014	Loan	0.16
	Equity	0.04
	Total	0.20
Net Capital Cost as on 1.4.2014	Loan	60.87
	Equity	26.12
	Total	87.00

(₹ in lakh)

Assets	FR Apportioned cost	Sector	Admitted capital cost as on COD or 1.4.2014	ACE					Admitted capital cost as on 31.3.2019
				14-15	15-16	16-17	17-18	18-19	
Asset-5	57.34	Central	24.18	17.81	15.35	-	-	-	57.34
		State	-	-	-	-	-	-	-
Asset-6	45.37	Central	-	-	-	-	-	-	-
		State	19.59	14.03	11.75	-	-	-	45.37
Asset-7	451.39	Central	-	-	-	-	-	-	-
		State	219.50	147.57	84.32	-	-	-	451.39
Asset-8	745.01	Central	402.70	-	135.96	100.00	-	-	638.66
		State	-	-	-	-	-	-	-
Asset-9	93.37	Central	-	-	-	-	-	-	-
		State	69.10	-	23.80	0.47	-	-	93.37
Asset-10	17.51	Central	-	-	-	-	-	-	-
		State	15.38	-	0.61	0.50	-	-	16.49
Total	1409.99	Central	426.88	17.81	151.31	100.00	-	-	696.00
		State	323.57	161.60	120.48	0.97	-	-	606.62
Asset-11	190.93	Central	190.93	-	-	-	-	-	190.93
		State	-	-	-	-	-	-	-
Asset-12	149.37	Central	-	-	-	-	-	-	-
		State	149.37	-	-	-	-	-	149.37



Assets	FR Apportioned cost	Sector	Admitted capital cost as on COD or 1.4.2014	ACE					Admitted capital cost as on 31.3.2019
				14-15	15-16	16-17	17-18	18-19	
Asset-13	87.38	Central	-	-	-	-	-	-	-
		State	87.38	-	-	-	-	-	87.38
Asset-14	55.94	Central	-	-	-	-	-	-	-
		State	55.94	-	-	-	-	-	55.94
Asset-15	36.37	Central	-	-	-	-	-	-	-
		State	36.37	-	-	-	-	-	36.37
Asset-16	126.91	Central	-	-	-	-	-	-	-
		State	126.91	-	-	-	-	-	126.91
Total	646.9	Central	190.93	-	-	-	-	-	190.93
		State	455.97	-	-	-	-	-	455.97

(o) Annual fees and charges for 2014-19 period as approved vide order dated 5.2.2020 in Petition No. 262/TT2019 in respect of Asset-1, Asset-2, Asset-3 and Asset-4; vide order dated 5.12.2016 in Petition No. 48/TT/2016 in respect of Asset-5, Asset-6, Asset-7, Asset-8, Asset-9 and Asset-10 and vide order dated 4.7.2019 in Petition No. 239/TT/2018 in respect of Asset-11, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16 for both Central Portion and State Portion, respectively are as follows:

Asset-1	Central Portion					(₹ in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19	
Annual Capital Recovery Charge-Loan	4.87	6.44	6.76	7.27	7.34	
Annual Capital Recovery Charge-Equity	2.92	3.86	4.05	4.36	4.40	
Annual Capital Recovery Charge-Total	7.80	10.29	10.80	11.62	11.74	
O&M Expenses	34.98	36.57	40.21	47.66	49.27	
Interest on Working Capital	2.11	2.26	2.47	2.90	2.99	
Total Fee & Charges	44.89	49.12	53.48	62.18	64.00	
	State Portion					
Annual Capital Recovery Charge-Loan	92.81	129.45	137.38	149.05	149.49	
Annual Capital Recovery Charge-Equity	55.77	77.65	82.33	89.41	89.70	



Annual Capital Recovery Charge-Total	148.58	207.10	219.71	238.46	239.19
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.42	4.77	5.06	5.49	5.51
Total Fee & Charges	152.00	211.87	224.77	243.95	244.69

(₹ in lakh)

Asset-2	Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge-Loan	4.97	7.46	8.14	8.45	8.54
Annual Capital Recovery Charge-Equity	3.06	4.58	4.99	5.18	5.23
Annual Capital Recovery Charge-Total	8.03	12.04	13.14	13.64	13.77
O&M Expenses	19.38	20.45	22.18	24.57	25.39
Interest on Working Capital	1.26	1.41	1.53	1.67	1.72
Total Fee & Charges	28.67	33.90	36.84	39.88	40.88
	State Portion				
Annual Capital Recovery Charge-Loan	50.65	68.12	72.66	76.98	77.24
Annual Capital Recovery Charge-Equity	31.10	41.79	44.49	47.14	47.29
Annual Capital Recovery Charge-Total	81.74	109.91	117.16	124.12	124.54
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.88	2.53	2.70	2.86	2.87
Total Fee & Charges	83.62	112.44	119.85	126.98	127.40

(₹ in lakh)

Asset-3	Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge-Loan	27.64	36.19	38.02	39.57	39.75
Annual Capital Recovery Charge-Equity	16.58	21.57	22.67	23.64	23.75
Annual Capital Recovery Charge-Total	44.22	57.77	60.68	63.22	63.50
O&M Expenses	16.23	16.97	18.51	20.44	21.12
Interest on Working Capital	1.91	2.27	2.42	2.58	2.63
Total Fee & Charges	62.36	77.00	81.61	86.24	87.25
	State Portion				
Annual Capital Recovery Charge-Loan	23.27	33.56	35.77	37.32	37.50
Annual Capital Recovery Charge-Equity	13.98	19.97	21.30	22.27	22.38
Annual Capital Recovery Charge-Total	37.25	53.54	57.06	59.59	59.88
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.86	1.23	1.31	1.37	1.38



Asset-3	Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	38.11	54.77	58.37	60.96	61.26

(₹ in lakh)

Asset-4	State Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge-Loan	7.33	8.59	9.00	9.72	9.96
Annual Capital Recovery Charge-Equity	4.50	5.23	5.47	5.92	6.07
Annual Capital Recovery Charge-Total	11.84	13.82	14.47	15.65	16.03
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.27	0.32	0.33	0.36	0.37
Total Fee & Charges	12.11	14.14	14.80	16.01	16.40

(₹ in lakh)

Project/Asset	Tariff	2014-15	2015 - 16	2016-17	2017-18	2018-19
Asset-5	AFC approved vide order dated 5.2.2016 in Petition No. 48/TT/2016	4.15	11.20	12.26	12.03	11.80
	AFC claimed in the instant petition	3.15	6.71	5.60	4.40	5.49
Asset-6	AFC approved vide order dated 5.12.2016 in Petition No. 48/TT/2016	2.45	7.15	8.01	7.76	7.52
	AFC claimed in the instant petition	1.98	4.40	4.49	4.51	5.33
Asset-7	AFC approved vide order dated 5.12.2016 in Petition No. 48/TT/2016	26.75	73.32	78.77	76.37	73.99
	AFC claimed in the instant petition	21.13	44.21	43.46	42.68	54.92
Asset-8	AFC approved vide order dated 5.12.2016 in Petition No. 48/TT/2016	-	107.72	132.50	139.11	136.03
	AFC claimed in the instant petition	-	44.80	36.94	36.30	52.20
Asset-9	AFC approved vide order dated 5.12.2016 in Petition No. 48/TT/2016	-	14.05	16.61	16.15	15.65
	AFC claimed in the instant petition	-	11.94	12.46	12.38	12.89



Project/ Asset	Tariff	2014-15	2015 - 16	2016-17	2017-18	2018-19
Asset-10	AFC approved vide order dated 5.12.2016 in Petition No. 48/TT/2016	-	2.67	2.83	2.80	2.71
	AFC claimed in the instant petition	-	2.77	2.85	2.79	2.89
Asset-11	AFC approved vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	54.53	63.16
	AFC claimed in the instant petition	-	-	-	36.17	48.67
Asset-12	AFC approved vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	20.14	26.18
	AFC claimed in the instant petition	-	-	-	26.24	36.21
Asset-13	AFC approved vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	11.79	15.31
	AFC claimed in the instant petition	-	-	-	15.02	20.42
Asset-14	AFC approved vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	7.54	9.79
	AFC claimed in the instant petition	-	-	-	9.66	13.29
Asset-15	AFC approved vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	4.90	6.36
	AFC claimed in the instant petition	-	-	-	6.36	8.91
Asset-16	AFC approved vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	-	3.80
	AFC claimed in the instant petition	-	-	-	-	7.96

(p) Asset-1, Asset-2, Asset-3 and Asset-4 were put under commercial operation before 1.4.2014 i.e. on 1.10.2012, 1.4.2013, 1.11.2013 and 1.3.2014 respectively. These assets shall complete 15 years of service on 30.9.2027,



31.3.2028, 31.10.2028 and 28.2.2029 respectively. In line with Commission's order dated 8.12.2011 in Petition No. 68/2010, total capital cost in respect of Asset-1 to Asset-4 shall be recovered upto 30.9.2027, 31.3.2028, 31.10.2028 and 28.2.2029, respectively, i.e. during 2027-28 and 2028-29 periods.

4. The Respondents are the distribution companies, electricity departments and transmission licensees, which are procuring transmission services (communication) from the Petitioner and are mainly beneficiaries of the Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice of this petition has also been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No suggestions or objections have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Bihar State Power Holding Company Limited (BSPHCL) i.e. Respondent No. 1 has filed its reply vide affidavit dated 1.10.2021. In response, the Petitioner has filed rejoinder to the reply of BSPHCL vide affidavit dated 13.10.2021.

6. Hearing in this matter was held on 24.9.2021 through video conference and order was reserved. However, the order could not be issued before Shri P.K. Pujari, former Chairperson, demitted office. Therefore, the matter was heard again on 23.6.2022 and order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition dated 29.6.2020, BSPHCL's reply filed vide affidavit dated 1.10.2021 and Petitioner's rejoinder affidavit dated 13.10.2021.



8. Having heard the representatives of the Petitioner, learned counsel for BSPHCL and having perused the material on record, we proceed to dispose of the petition.

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

9. As per the directions of the Commission in order dated 8.12.2011 in Petition No.68/2010, scope of the 2014 Tariff Regulations has been widened to include the Communication System used for inter-State transmission of electricity. However, as per Clause (iii) of Regulation 6(1) of the 2014 Tariff Regulations, tariff of the existing Communication System forming part of the transmission system is to be determined as per the methodology followed prior to 1.4.2014. The said Regulation provides as follows:

“(iii) the tariff of the existing communication system forming part of transmission system shall be as per the methodology followed by the Commission prior to 1.4.2014.”

10. Asset-1 to Asset-4 were put into commercial operation before 1.4.2014. In view of above provision in the 2014 Tariff Regulations, for the purpose of tariff of the Communication System and ULDC System of the Petitioner, we continue to allow annual fees and charges for Asset-1 to Asset-4 as per the principles approved by the Commission vide order dated 8.12.2011 in Petition No 68/2010. Asset-5 to Asset-16 were executed after 1.4.2014. With regard to Asset-5 to Asset-16, principles of the 2014 Tariff Regulations are applicable and fees and charges shall accordingly be determined for them in accordance with the 2014 Tariff Regulations.

11. The details of the trued-up fees and charges in respect of Asset-1 to Asset-4 and trued-up tariff for Asset-5 to Asset-16 as claimed by the Petitioner are as follows:

						(₹ in lakh)
Particulars	Portion	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Central	9.15	11.41	12.03	12.89	13.89
	State	151.97	211.81	224.71	243.85	244.64
Asset-2	Central	9.22	13.06	12.75	10.21	11.08



Particulars	Portion	2014-15	2015-16	2016-17	2017-18	2018-19
	State	83.61	112.41	119.82	126.91	127.32
Asset-3	Central	50.77	39.35	42.77	44.32	47.73
	State	39.56	55.79	59.51	60.79	61.09
Asset-4	Central	-	-	-	-	-
	State	13.65	15.20	15.97	15.86	16.24

(₹ in lakh)

Particulars	Asset-5				
	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	0.92	2.21	1.85	1.46	1.76
Interest on Loan	0.85	1.94	1.51	1.08	1.22
Return on Equity	0.85	2.06	1.72	1.36	1.64
O&M Expenses	0.08	0.16	0.14	0.11	0.15
Interest on Working Capital	0.45	0.34	0.38	0.39	0.72
Total	3.15	6.71	5.60	4.40	5.49

(₹ in lakh)

Particulars	Asset - 6				
	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	0.68	1.53	1.61	1.67	2.00
Interest on Loan	0.63	1.34	1.27	1.18	1.33
Return on Equity	0.63	1.43	1.51	1.56	1.88
O&M Expenses	0.04	0.10	0.10	0.10	0.12
Interest on Working Capital	0.00	0.00	0.00	0.00	0.00
Total	1.98	4.40	4.49	4.51	5.33

(₹ in lakh)

Particulars	Asset - 7				
	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	7.32	15.59	15.79	15.99	20.71
Interest on Loan	6.54	13.07	11.94	10.80	13.58
Return on Equity	6.80	14.56	14.75	14.93	19.39
O&M Expenses	0.47	0.99	0.98	0.96	1.24
Interest on Working Capital	0.00	0.00	0.00	0.00	0.00
Total	21.13	44.21	43.46	42.68	54.92



(₹ in lakh)

Particulars	Asset - 8			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
Depreciation	13.98	11.67	11.87	16.47
Interest on Loan	12.96	9.35	8.17	11.05
Return on Equity	13.06	10.90	11.08	15.43
O&M Expenses	1.13	0.96	0.95	1.42
Interest on Working Capital	3.67	4.06	4.23	7.83
Total	44.80	36.94	36.30	52.20

(₹ in lakh)

Particulars	Asset - 9			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
Depreciation	4.19	4.50	4.60	4.91
Interest on Loan	3.56	3.48	3.20	3.09
Return on Equity	3.92	4.20	4.30	4.60
O&M Expenses	0.27	0.28	0.28	0.29
Interest on Working Capital	0.00	0.00	0.00	0.00
Total	11.94	12.46	12.38	12.89

(₹ in lakh)

Particulars	Asset - 10			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
Depreciation	0.93	0.99	1.00	1.07
Interest on Loan	0.91	0.88	0.80	0.76
Return on Equity	0.86	0.92	0.93	1.00
O&M Expenses	0.07	0.06	0.06	0.06
Interest on Working Capital	0.00	0.00	0.00	0.00
Total	2.77	2.85	2.79	2.89

(₹ in lakh)

Particulars	Asset - 11	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	11.66	15.57
Interest on Loan	10.10	12.39
Return on Equity	10.89	14.58
O&M Expenses	0.70	0.91
Interest on Working Capital	2.82	5.22
Total	36.17	48.67



(₹ in lakh)

Particulars	Asset - 12	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	9.23	13.03
Interest on Loan	7.85	10.22
Return on Equity	8.61	12.20
O&M Expenses	0.55	0.76
Interest on Working Capital	0.00	0.00
Total	26.24	36.21

(₹ in lakh)

Particulars	Asset - 13	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	5.28	7.35
Interest on Loan	4.49	5.76
Return on Equity	4.93	6.88
O&M Expenses	0.32	0.43
Interest on Working Capital	0.00	0.00
Total	15.02	20.42

(₹ in lakh)

Particulars	Asset - 14	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	3.40	4.79
Interest on Loan	2.88	3.73
Return on Equity	3.18	4.49
O&M Expenses	0.20	0.28
Interest on Working Capital	0.00	0.00
Total	9.66	13.29

(₹ in lakh)

Particulars	Asset - 15	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	2.24	3.21
Interest on Loan	1.89	2.50
Return on Equity	2.09	3.01
O&M Expenses	0.14	0.19
Interest on Working Capital	0.00	0.00
Total	6.36	8.91



(₹ in lakh)

Particulars	Asset - 16
	2018-19 (Pro-rata for 59 days)
Depreciation	2.72
Interest on Loan	2.54
Return on Equity	2.54
O&M Expenses	0.16
Interest on Working Capital	0.00
Total	7.96

12. The details of the trued-up Interest on Working Capital(IWC) claimed by the Petitioner in respect of the Asset-5 to Asset-16 are as follows:

(₹ in lakh)

Particulars	Asset - 5				
	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.08	0.03	0.03	0.03	0.06
Maintenance Spares	0.14	0.05	0.06	0.06	0.11
Receivables	1.05	1.12	0.93	0.73	0.91
Total	1.27	1.20	1.02	0.82	1.08
Rate of Interest (in%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.08	0.16	0.14	0.11	0.15

(₹ in lakh)

Particulars	Asset - 6				
	2014-15 (Pro-rata for 182days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	0.66	0.73	0.75	0.75	0.89
Total	0.66	0.73	0.75	0.75	0.89
Rate of Interest (in%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.04	0.10	0.10	0.10	0.12



(₹ in lakh)

Particulars	Asset - 7				
	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	7.07	7.37	7.24	7.11	9.15
Total	7.07	7.37	7.24	7.11	9.15
Rate of Interest (in%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.47	0.99	0.98	0.96	1.24

(₹ in lakh)

Particulars	Asset - 8			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
O&M Expenses	0.32	0.34	0.35	0.65
Maintenance Spares	0.58	0.61	0.63	1.17
Receivables	7.88	6.16	6.05	8.70
Total	8.78	7.11	7.03	10.52
Rate of Interest (in%)	13.50	13.50	13.50	13.50
Interest on Working Capital	1.13	0.96	0.95	1.42

(₹ in lakh)

Particulars	Asset - 9			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	2.10	2.08	2.06	2.15
Total	2.10	2.08	2.06	2.15
Rate of Interest (in%)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.27	0.28	0.28	0.29

(₹ in lakh)

Particulars	Asset - 10			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	0.49	0.48	0.47	0.48
Total	0.49	0.48	0.47	0.48
Rate of Interest (in%)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.07	0.06	0.06	0.06



(₹ in lakh)

Particulars	Asset - 11	
	2017-18(Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00
Maintenance Spares	0.00	0.00
Receivables	7.40	7.24
Total	7.40	7.24
Rate of Interest (in%)	12.60	12.60
Interest on Working Capital	0.70	0.91

(₹ in lakh)

Particulars	Asset - 12	
	2017-18(Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00
Maintenance Spares	0.00	0.00
Receivables	5.83	6.04
Total	5.83	6.04
Rate of Interest (in%)	12.60	12.60
Interest on Working Capital	0.55	0.76

(₹ in lakh)

Particulars	Asset - 13	
	2017-18(Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00
Maintenance Spares	0.00	0.00
Receivables	3.33	3.40
Total	3.33	3.40
Rate of Interest (in%)	12.60	12.60
Interest on Working Capital	0.32	0.43

(₹ in lakh)

Particulars	Asset - 14	
	2017-18(Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00
Maintenance Spares	0.00	0.00
Receivables	2.15	2.22
Total	2.15	2.22
Rate of Interest (in%)	12.60	12.60
Interest on Working Capital	0.20	0.28



(₹ in lakh)

Particulars	Asset - 15	
	2017-18(Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00
Maintenance Spares	0.00	0.00
Receivables	1.41	1.49
Total	1.41	1.49
Rate of Interest (in%)	12.60	12.60
Interest on Working Capital	0.14	0.19

(₹ in lakh)

Particulars	Asset - 16	
	2018-19(Pro-rata for 59 days)	
O&M Expenses		0.00
Maintenance Spares		0.00
Receivables		8.21
Total		8.21
Rate of Interest (in%)		12.20
Interest on Working Capital		0.16

Capital Cost

13. The Commission vide order dated 5.2.2020 in Petition No. 262/TT/2019 in case of Asset-1 to Asset-4, vide order dated 5.12.2016 in Petition No.48/TT/2016 in case of Asset-5 to Asset-10 and vide order dated 4.7.2019 in Petition No.239/TT/2018 in case of Asset-11 to Asset-16 approved the following capital cost and ACE:

(₹ in lakh)

Assets	FR Apportioned cost	Sector	Admitted capital cost as on COD or 1.4.2014	ACE					Admitted capital cost as on 31.3.2019
				14-15	15-16	16-17	17-18	18-19	
Asset-1	1931.80	Central	55.95	17.16	3.37	5.34	0.70	12.39	94.91
		State	1066.36	401.96	83.44	122.10	4.68	237.61	1916.15
Asset-2	1078.97	Central	58.84	28.33	7.42	3.34	0.83	12.3	111.06
		State	598.48	198.94	48.98	46.49	2.56	129.70	1025.15
Asset-3	949.39	Central	320.71	93.95	20.12	17.43	1.91	69.00	523.12
		State	270.19	112.84	24.29	17.36	1.95	156.00	482.63
Asset-4	159.08	Central	-	-	-	-	-	-	-
		State	87.19	13.88	4.38	8.24	2.47	62.00	178.16
Sub-Total	4119.24		2457.72	867.06	192.00	220.30	15.10	679.00	4276.60
Asset-5	57.34	Central	24.18	17.81	15.35	-	-	-	57.34



Assets	FR Apportioned cost	Sector	Admitted capital cost as on COD or 1.4.2014	ACE					Admitted capital cost as on 31.3.2019
				14-15	15-16	16-17	17-18	18-19	
		State	-	-	-	-	-	-	-
Asset-6	45.37	Central	-	-	-	-	-	-	-
		State	19.59	14.03	11.75	-	-	-	45.37
Asset-7	451.39	Central	-	-	-	-	-	-	-
		State	219.50	147.57	84.32	-	-	-	451.39
Asset-8	745.01	Central	402.70	-	135.96	100.00	-	-	638.66
		State	-	-	-	-	-	-	-
Asset-9	93.37	Central	-	-	-	-	-	-	-
		State	69.10	-	23.80	0.47	-	-	93.37
Asset-10	17.51	Central	-	-	-	-	-	-	-
		State	15.38	-	0.61	0.50	-	-	16.49
Sub-Total	1409.99	Central	426.88	17.81	151.31	100.00	-	-	696.00
		State	323.57	161.60	120.48	0.97	-	-	606.62
Asset-11	190.93	Central	190.93	-	-	-	-	-	190.93
		State	-	-	-	-	-	-	-
Asset-12	149.37	Central	-	-	-	-	-	-	-
		State	149.37	-	-	-	-	-	149.37
Asset-13	87.38	Central	-	-	-	-	-	-	-
		State	87.38	-	-	-	-	-	87.38
Asset-14	55.94	Central	-	-	-	-	-	-	-
		State	55.94	-	-	-	-	-	55.94
Asset-15	36.37	Central	-	-	-	-	-	-	-
		State	36.37	-	-	-	-	-	36.37
Asset-16	126.91	Central	-	-	-	-	-	-	-
		State	126.91	-	-	-	-	-	126.91
Total	646.9	Central	190.93	-	-	-	-	-	190.93
		State	455.97	-	-	-	-	-	455.97

14. The Petitioner in the instant true up petition has submitted capital cost as on COD, and actual ACE incurred in respect of the transmission assets as per Auditor's Certificates dated 14.7.2019, the details of the same are as follows:

(₹ in lakh)

Assets	FR Apportioned cost	RCE Apportioned cost	Sector	Cost as on 1.4.2014 / COD	Additional Capital Expenditure					Total cost as on 31.3.2019
					14-15	15-16	16-17	17-18	18-19	
Asset-1	2094.63	1931.80	Central	55.95	17.16	3.37	5.34	0.70	-	82.52
			State	1066.36	401.96	83.44	122.10	4.68	-	1678.54
			Total	1122.31	419.12	86.81	127.44	5.38	-	1761.06
Asset-2	1292.84		Central	58.84	28.33	7.42	3.34	0.83	0.92	99.68



Assets	FR AppORTIONED cost	RCE AppORTIONED cost	Sector	Cost as on 1.4.2014 / COD	Additional Capital Expenditure					Total cost as on 31.3.2019
					14-15	15-16	16-17	17-18	18-19	
			Less telecom	-	-	10.05	19.66	-	-	29.71
			Net Central	58.84	28.33	-2.63	-16.10	0.83	0.92	70.19
			State	598.48	198.94	48.98	46.49	2.56	9.70	905.15
		1078.97	Total	657.32	227.27	46.35	30.39	3.39	10.62	975.34
Asset-3	1054.57		Central	322.59	93.95	20.12	17.43	1.91	1.91	457.91
			Less telecom	162.60	-	-	-	-	-	162.60
			Net Central	159.99	93.95	20.12	17.43	1.91	1.91	295.31
			State	271.71	112.84	24.29	17.36	1.95	1.54	429.69
		949.39	Total	431.70	206.79	44.41	34.79	3.86	3.45	725.00
Asset-4	208.52/		Central	-	-	-	-	-	-	-
			State	89.37	13.88	4.38	8.24	2.47	29.81	148.15
		159.08	Total	89.37	13.88	4.38	8.24	2.47	29.81	148.15
Total for Assets 1 to 4	4650.56	4119.24	Central	274.78	139.44	20.86	6.67	3.44	2.83	448.02
			State	1936.55	713.74	156.71	185.95	9.19	11.24	3013.38
			Total	2211.33	853.18	177.57	192.62	12.63	14.07	3461.40
Asset-5	57.34 (FR)		Central	25.79	9.65	2.11	0.05	1.26	8.17	47.03
			Less telecom	-	-	-	13.61	-	-	13.61
			Net Central	25.79	9.65	2.11	-13.56	1.26	8.17	33.42
			State	-	-	-	-	-	-	-
		48.77	Total	25.79	9.65	2.11	-13.56	1.26	8.17	33.42
Asset-6	45.37 (FR)		Central	-	-	-	-	-	-	-
			State	20.87	3.96	1.32	1.16	0.81	9.51	37.63
		39.03	Total	20.87	3.96	1.32	1.16	0.81	9.51	37.63
Asset-7	451.39 (FR)		Central	-	-	-	-	-	-	-
			State	233.85	24.78	4.07	2.23	3.97	145.39	414.29
		428.92	Total	233.85	24.78	4.07	2.23	3.97	145.39	414.29



Assets	FR AppORTIONED cost	RCE AppORTIONED cost	Sector	Cost as on 1.4.2014 / COD	Additional Capital Expenditure					Total cost as on 31.3.2019
					14-15	15-16	16-17	17-18	18-19	
Asset-8	745.01 (FR)	596.32	Central	433.48	-	4.90	2.22	3.95	141.57	586.12
			Less telecom	119.88	-	104.46	-	-	-	224.34
			Net Central	313.60	-	-99.56	2.22	3.95	141.57	361.78
			State	-	-	-	-	-	-	-
			Total	313.60	-	99.56	2.22	3.95	141.57	361.78
Asset-9	93.37 (FR)	87.28	Central	-	-	-	-	-	-	
			State	73.85	-	1.39	1.08	2.24	7.47	86.03
			Total	73.85	-	1.39	1.08	2.24	7.47	86.03
Asset-10	17.51 (FR)	19.62	Central	-	-	-	-	-	-	
			State	17.22	-	0.15	0.12	0.29	1.84	19.62
			Total	17.22	-	0.15	0.12	0.29	1.84	19.62
Total for Assets 5 to 10	1409.99 (FR)	1219.94	Central	339.39	9.65	-97.45	-11.34	5.21	149.74	395.20
			State	345.79	28.74	6.93	4.59	7.31	164.21	557.57
			Total	685.18	38.39	-90.52	-6.75	12.52	313.95	952.77
Assets earlier under Petition no. 239/TT/2018										
Asset-11	190.93 (FR)	272.41	Central	245.91	-	-	-	4.82	2.96	253.69
			Less telecom	-	-	-	-	-	12.47	12.47
			Net Central	245.91	-	-	-	4.82	-9.51	241.22
			State	-	-	-	-	-	-	-
			Total	245.91	-	-	-	4.82	-9.51	241.22
Asset-12	149.37 (FR)	221.03	Central	-	-	-	-	-	-	
			State	192.37	-	-	-	13.47	-	205.84
			Total	192.37	-	-	-	13.47	-	205.84
Asset-13	87.38 (FR)	125.44	Central	-	-	-	-	-	-	
			State	112.55	-	-	-	2.94	1.33	116.82
			Total	112.55	-	-	-	2.94	1.33	116.82
Asset-14	55.94 (FR)	82.19	Central	-	-	-	-	-	-	
			State	72.05	-	-	-	2.82	1.67	76.54
			Total	72.05	-	-	-	2.82	1.67	76.54
Asset-15	36.37 (FR)	55.30	Central	-	-	-	-	-	-	
			State	46.46	-	-	-	3.51	1.53	51.50
			Total	46.46	-	-	-	3.51	1.53	51.50
	126.91 (FR)		Central	-	-	-	-	-	-	



Assets	FR Apportioned cost	RCE Apportioned cost	Sector	Cost as on 1.4.2014 / COD	Additional Capital Expenditure					Total cost as on 31.3.2019
					14-15	15-16	16-17	17-18	18-19	
Asset-16		314.46	State	272.85	-	-	-	-	-	272.85
			Total	272.85	-	-	-	-	-	272.85
			Net Central	245.91	-	-	-	4.82	-9.51	241.22
Total for Assets 11 to 16	646.90 (FR)	1070.83	State	696.28	-	-	-	22.74	4.53	723.55
			Total	942.19	-	-	-	27.56	-4.98	964.77

Cost Over-run

15. The total estimated completion cost of Asset-1 to Asset-4 is ₹3461.40 lakh against the apportioned approved cost of ₹4119.24 lakh. Thus, there is no cost over-run in case of Asset-1 to Asset-4. The Commission vide order dated 5.12.2016 in Petition No 48/TT/2016 restricted the capital cost of Asset-5, Asset-6, Asset-7, Asset-9 and Asset-10 to the FR cost and capital cost of Asset-8 is within FR cost and not restricted the capital cost of Asset-8. Further, vide order dated 4.7.2019 in Petition No. 239/TT/2018 had restricted the capital cost of Asset-11, Asset-12, Asset-13, Asset-14 and Asset-15 and Asset-16 to the FR cost.

16. The Petitioner has submitted the Revised Cost Estimate (RCE) for Fibre Optic Communication System in lieu of existing ULDC microwave links in Eastern Region was accorded by Board of Directors of the Petitioner vide Memorandum No. C/CP/PA1920-02-0C-RCE-002 dated 9.5.2019 at the estimated cost of ₹6410 lakh including IDC of ₹332 lakh (at June, 2018 price level) in its 364th meeting held on 27.3.2019.

17. BSPHCL has submitted that in the order dated 5.12.2016 in Petition No. 48/TT/2016, restriction of completion cost of the transmission assets in the said petition



to FR apportioned cost was not due to absence of Revised Cost Estimate (RCE) and the same is apparent from paragraph 22 of the order dated 5.12.2016 in Petition No. 48/TT/2016. The delay in execution of the transmission assets covered in Petition No. 48/TT/2016 was not condoned, hence no benefit of revision ought to be permitted on account of time over-run for the period of time over-run.

18. In the order dated 4.7.2019 in Petition No. 239/TT/2018 the Petitioner was, however, granted liberty to submit RCE. BSPHCL has submitted that no revision ought to be permitted on account of swelling up of IDC and IEDC owing to delayed execution due to various unforeseen reasons as time over-run with respect to Asset- I, Asset- II, Asset-III, Asset-IV and Asset- V of the said petition (now Asset-11 to Asset-15) was not condoned and in respect of Asset-VI (now Asset-16) time over-run was partly condoned. Hence, no benefit of RCE should be given on account of and for the period of time over run.

19. In response, the Petitioner has submitted that the Commission vide order dated 5.12.2016 in Petition No. 48/TT/2016 with reference to subject Asset-5 to Asset-10, vide order dated 4.7.2019 in Petition No. 239/TT/2018 with regard to Asset-11 to Asset-16 concerning capital cost restriction cited one of the reasons for restriction of cost was excess claim of capital cost over and above the individual FR apportioned cost. The Petitioner has also submitted that it was granted liberty by the Commission to submit RCE and the same has been submitted by the Petitioner in the present petition. The Petitioner has submitted that there is no cost over-run now with reference to Asset-1 to Asset-4 and Asset-5 to Asset-16 vis-à-vis RCE. The Petitioner further submitted that it did not contest time over-run with respect to transmission assets i.e. Asset-5 to Asset-16 as covered in Petition No. 48/TT/2016 and Petition No. 239/TT/2018 and as such restriction based on



time over-run not condoned by the Commission has not been claimed by the Petitioner in respect of the said transmission assets. The Petitioner has submitted that the contention of BSPHCL with regard to cost against time over-run not condoned is without any merit.

20. We have considered the submissions of Petitioner and BSPHCL. The estimated completion cost of the transmission assets exceed the approved apportioned cost as per FR in respect of Asset-10 to Asset-16. Estimated completion cost as on 31.3.2019 in respect of Asset-10, Asset-11, Asset-12, Asset-13, Asset-14, Asset-15, and Asset-16 has varied about ₹0.27 lakh, ₹50.29 lakh, ₹56.47, ₹29.44 lakh, ₹20.6 lakh, ₹15.13 lakh and ₹145.94 lakh respectively. The Petitioner has submitted RCE estimate duly approved by the Board of Directors and revised the apportioned approved cost as per RCE.

21. Details of FR apportioned cost, apportioned RCE cost and capital cost as on 31.3.2019 claimed in respect of Asset-5 to Asset-16 are as follows:

Asset	Apportioned cost as per FR	Apportioned cost as per RCE	Capital cost claimed by the Petitioner as on 31.3.2019	
			(₹ in lakh)	
Asset-5	57.34	48.77		31.81
Asset-6	45.37	39.03		36.35
Asset-7	451.39	428.92		399.94
Asset-8	745.01	596.32		331.00
Asset-9	93.37	87.28		81.28
Asset-10	17.51	19.62		17.78
Asset-11	190.93	272.41		241.22
Asset-12	149.37	221.03		205.84
Asset-13	87.38	125.44		116.82
Asset-14	55.94	82.19		76.54
Asset-15	36.37	55.30		51.50
Asset-16	126.91	314.46		272.85
Total	2056.89	2290.76		1862.93



22. As compared with apportioned approved cost, the estimated completion cost of Asset-5 to Asset-16 is within RCE cost and it is allowed.

Time Over-run

23. As per the IA dated 15.2.2011, the transmission assets were to be put into commercial operation within 30 months from the date of IA i.e. by 14.8.2013. The date of achieving commercial operation of the transmission assets covered in the present petition is as follows:

Particulars	SCOD	Actual COD	Time Over-run	Condoned/ Not condoned
Asset-1:	14.8.2013	1.10.2012	-	No time over-run
Asset-2:	14.8.2013	1.4.2013	-	No time over-run
Asset-3:	14.8.2013	1.11.2013	61 days	Not condoned
Asset-4:	14.8.2013	1.3.2014	181 days	Not condoned
Asset-5:	14.8.2013	1.10.2014	413 days	Not condoned
Asset-6:	14.8.2013	1.10.2014	413 days	Not condoned
Asset-7:	14.8.2013	1.10.2014	413 days	Not condoned
Asset-8:	14.8.2013	20.4.2015	614 days	Not condoned
Asset-9:	14.8.2013	20.4.2015	614 days	Not condoned
Asset-10:	14.8.2013	20.4.2015	614 days	Not condoned
Asset-11:	14.8.2013	1.7.2017	1417 days	Not condoned
Asset-12:	14.8.2013	1.7.2017	1417 days	Not condoned
Asset-13:	14.8.2013	1.7.2017	1417 days	Not condoned
Asset-14:	14.8.2013	1.7.2017	1417 days	Not condoned
Asset-15:	14.8.2013	1.7.2017	1417 days	Not condoned
Asset-16:	14.8.2013	1.2.2019	1997 days	1685 days condoned

24. The Commission vide its order dated 5.2.2020 in Petition No. 262/TT/2019, vide order dated 5.12.2016 in Petition No. 48/TT/2016 and vide order dated 4.7.2019 in Petition No. 239/TT/2018 has already dealt with the issue of time over-run and the same is not being dealt with in the present order.



Treatment of IDC and IEDC

25. The treatment of IDC and IEDC in case of Asset-1 to Asset-4 has already been considered by the Commission vide its order dated 5.2.2020 in Petition No. 262/TT/2019 while truing up of tariff from COD to 31.3.2014. Further, IDC and IEDC allowed has been included in opening capital cost considered as on 1.4.2014.

26. BSPHCL has submitted that the Petitioner's claim of IDC has to be in accordance with Regulation 11 of the 2014 Tariff Regulations especially when time over-run for several assets was not condoned. BSPHCL has further submitted that Commission's orders dated 5.2.2020 in Petition No. 262/TT/2019, dated 5.12.2016 in Petition No. 48/TT/2016 and dated 4.7.2019 in Petition No. 239/TT/2018 with reference to IDC of the transmission assets as contained in the said petition should be taken into consideration. In response, the Petitioner has furnished the IDC discharge statements for Asset- 5 to Asser-16 alongwith requisite Forms and justification.

27. We have considered the submissions of the Petitioner and BSPHCL. The allowable IDC has been worked out considering the information submitted by the Petitioner in respect of Asset-5 to Asset-16, separately, on cash basis. The loan details submitted in Form-9C for 2014-19 tariff period and IDC computation sheets have been considered for the purpose of IDC calculation on cash basis and on accrued basis. The IDC corresponding to the period of time over-run not being condoned in declaring COD of the transmission assets is not allowed.

28. Accordingly, based on the information furnished by the Petitioner, IDC considered, in respect of the transmission assets is as follows:



(₹ in lakh)

Particulars	IDC as per Auditor's Certificate	IDC Admissible	IDC disallowed due to computational difference/ time over-run not condoned	IDC Discharged as on COD	IDC Undischarged as on COD
	A	B	C=A-B	D	E=B-D
Asset-5	2.18	0.48	1.70	0.48	0.00
Asset-6	1.77	0.42	1.35	0.42	0.00
Asset-7	19.8	4.68	15.12	4.68	0.00
Asset-8	27.47	2.02	25.45	2.02	0.00
Asset-9	5.43	0.62	4.82	0.62	0.00
Asset-10	2.01	1.09	0.92	1.09	0.00
Asset-11	12.80	0.00	12.80	0.00	0.00
Asset-12	10.01	0.00	10.01	0.00	0.00
Asset-13	5.86	0.00	5.86	0.00	0.00
Asset-14	3.75	0.00	3.75	0.00	0.00
Asset-15	2.42	0.00	2.42	0.00	0.00
Asset-16	69.99	55.30	14.69	54.59	0.72

29. The Petitioner has claimed IEDC for the transmission assets and has submitted Auditor's Certificate in support of the same. Accordingly, IEDC is allowed as claimed subject to adjustment as per condonation of time over-run. The details of claimed and allowed IEDC in respect of the transmission assets are as follows:

(₹ in lakh)

Asset	IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run	IEDC allowed as on COD
	1	2	3=(1-2)
Asset-5	0.29	0.09	0.20
Asset-6	0.24	0.07	0.17
Asset-7	2.67	0.83	1.84
Asset-8	0.12	0.05	0.07
Asset-9	0.03	0.01	0.02
Asset-10	0.01	0.004	0.006
Asset-11	4.57	2.78	1.79
Asset-12	3.58	2.18	1.40
Asset-13	2.09	1.27	0.82
Asset-14	1.34	0.82	0.52
Asset-15	0.86	0.52	0.34
Asset-16	19.51	2.09	17.42



Initial Spares

30. The Petitioner has claimed the following Initial Spares for the transmission assets and prayed to revise the Initial Spares allowed earlier in light of the judgement of the Appellate Tribunal for Electricity (APTEL) dated 14.9.2019 in Appeal No.74 of 2017:

(₹ in lakh)

Asset name	Plant and Machinery cost (A)	Spare's limit (B) (in%)	Spares claimed (C)	Spares permissible $D = [(A-C)*B/(100-B)]$
Asset-1	1799.06	3.50	71.57	62.66
Asset-2	1004.83	3.50	23.30	35.60
Asset-3	887.6	3.50	13.24	31.71
Asset-4	148.15	3.50	0	5.37
Asset-5	45.3	3.50	0.87	1.61
Asset-6	35.62	3.50	0.65	1.27
Asset-7	391.82	3.50	7.61	13.94
Asset-8	557.95	3.50	10.25	19.86
Asset-9	80.57	3.50	1.67	2.86
Asset-10	17.6	3.50	0.31	0.63
Asset-11	240.61	3.50	8	8.44
Asset-12	192.25	3.50	8	6.68
Asset-13	108.87	3.50	4.5	3.79
Asset-14	71.45	3.50	2.5	2.50
Asset-15	48.22	3.50	0	1.75
Asset-16	203.35	3.50	0	7.38
Total	5824.24	-	152.47	206.04

31. BSPHCL has submitted that the claim of Initial Spares should be dealt as per the provision of Regulation 13 of the 2014 Tariff Regulations. However, insofar as the transmission assets as covered in Petition No. 262/TT/2019 are considered, no claim of Initial Spares was considered and raised in the said petition and as such the Petitioner should explain the claim in the present petition.

32. In response, the Petitioner has submitted that the Initial Spares are claimed on project basis and are within the norms specified in the applicable regulations.



33. We have considered the submissions of the Petitioner and BSPHCL. As per APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed on the basis of the capital cost of the individual asset initially and as per the ceiling limits on the cost of the overall project. The relevant portion of the APTEL's judgement dated 14.9.2019 is as follows:

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

34. It is observed that Asset-1 to Asset-4 were put into commercial operation in the 2009-14 tariff period and the petitioner had not claimed any initial spares during 2009-14 tariff period. The Petitioner has claimed the initial spares on project basis at the stage of truing up of 2014-19 tariff period for the first time in the instant petition. As the Commission has already determined the Fees and Charges for 2009-14 tariff period in respect of Asset-1 to Asset-4 based on the CRF methodology wherein capital cost as a whole is being recovered including the cost of initial spares. Thus, we are of the view that allowing initial spares as claimed by the Petitioner may not be an appropriate at this stage. Accordingly we are not allowing initial spares separately for Asset-1 to 4.

35. Asset-5 to Asset-16 were put into commercial operation during 2014-19 tariff period. Therefore, 2014 Tariff Regulations are applicable for Asset-5 to Asset-16. The entire transmission project was completed during 2014-19 tariff period, the overall project cost of the transmission assets is arrived at only when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual assets in the 2014-19 tariff



period and the Initial Spares are allowed on the basis of the overall project cost in the 2019- 24 tariff period. Asset-5, 8 and 11 are pertaining to Central sector, Asset-6, 7, 9, 10, 12, 13, 14, 15, 16 are pertaining to State Sector. The initial spares claimed towards central sector Assets (Asset-5, 8 and 11) are within ceiling limit of 3.5% and state sector assets (Asset-6,7,9,10,14,15,16) is within ceiling limit of @ 3.5% under Regulation 13 of the 2014 Tariff Regulations. The Excess initial spares in case of Assset-12 and Asset-13 is restricted to ceiling limit of 3.5%. The Initial spares allowed for the central sector assets (Assets-5,8,11) and state sector assets (Assets-6,7,9,10,12,13,14,15,16) are as follows:

(₹ in lakh)

Asset name	Plant and Machinery cost upto cut-off date (excluding IDC and IEDC as per auditor's certificate) (A)	Spare's limit (B) (in %)	Spares claimed (C)	Spares permissible $D = [(A-C)*B/(100-B)]$	Spares allowed	Excess Initial spares
Asset-5	35.13	3.50	0.87	1.24	0.87	0.00
Asset-8	554.01	3.50	10.25	19.72	10.25	0.00
Asset-11	236.32	3.50	8.00	8.28	8.00	0.00
Asset-6	25.30	3.50	0.65	0.89	0.65	0.00
Asset-7	242.46	3.50	7.61	8.52	7.61	0.00
Asset-9	73.10	3.50	1.67	2.59	1.67	0.00
Asset-10	15.76	3.50	0.31	0.56	0.31	0.00
Asset-12	192.25	3.50	8.00	6.68	6.68	1.32
Asset-13	108.87	3.50	4.50	3.79	3.79	0.71
Asset-14	71.45	3.50	2.50	2.50	2.5	0.00
Asset-15	48.22	3.50	0.00	1.75	0.00	0.00
Asset-16	203.35	3.50	0.00	7.38	0.00	0.00

Telecom sharing

36. The Petitioner has submitted that there is telecom link sharing on some of the links pertaining to Asset-2, Asset-3, Asset-5, Asset-8 and Asset-11. Therefore, the Petitioner



has submitted that de-capitalisation against telecom sharing has been accounted for while computing the true-up tariff for the concerned transmission assets and proportionate adjustment is done under the capital cost claimed by the Petitioner. The details of the corresponding capital cost being shared by Telecom Department as per Auditor's certificate are as follows:

Asset	Sharing of telecom links						(₹ in lakh)
	As on 1.4.2014/ COD	2014-15	2015-16	2016-17	2017-18	2018-19	Total cost of sharing of Telecom links
Asset-2 (Sharing of Telecom link of Durgapur-Bidhanagar link from 12.2.2016 and MTPS(Kati)-Muzaffarpur link from 28.5.2016)	0.00	0.00	-10.05	-19.44	0.00	0.00	-29.49
Asset-3 (Sharing of Telecom link of Ranchi(Old)-Maithon link from 6.2.2014)	-162.60	0.00	0.00	0.00	0.00	0.00	-162.60
Asset-5 (Sharing of Telecom link of Hatia-Ranchi link from 7.3.2017)	0.00	0.00	0.00	-13.61	0.00	0.00	-13.61
Asset-8 Sharing of Telecom link of Sasaram-Gaya link from 20.4.2015, Sharing of Telecom link of Muzaffarpur-Bihashariff link from 21.5.2015)	-119.88	0.00	-104.46	0.00	0.00	0.00	-224.34
Asset-11 Sharing of Telecom link of ERLDC-Kasba(UG) link)	0.00	0.00	0.00	0.00	0.00	-12.47	-12.47

37. Accordingly, the Petitioner has submitted Form 10B for de-capitalisation in respect of Asset-5, Asset-8 and Asset-11 only and details of the same are as follows:



(₹ in lakh)

Asset	Equipment proposed to be de-capitalised	Year of capitalisation of asset	Date of decapitalisation	Original book value of asset being decapitalised	Debt: Equity ratio at the time of capitalisation	Cumulative depreciation corresponding to decapitalisation	Cumulative repayment of loan corresponding to de-capitalisation
Asset-5	PLCC	2014-15	7.3.2017	13.61	70:30	2.09	2.09
Asset-8	PLCC	2015-16	20.4.2015	119.88	70:30	0.00	0.00
	PLCC	2015-16	21.5.2015	104.46	70:30	0.56	0.56
	Total			224.34		0.56	0.56
Asset-11	PLCC	2017-18	1.4.2018	12.47	70:30	0.59	0.59

38. We have considered the submissions of the Petitioner. The cost recovered through sharing of telecom links of Asset-2, Asset-3, Asset-5, Asset-8 and Asset-11 is reduced from the capital cost. Accordingly, the cost considered towards telecom sharing allowed/reduced for 2014-19 tariff period is as follows:

(₹ in lakh)

Asset	Sharing of telecom links						Total cost of sharing of Telecom links
	As on 1.4.2014/ COD	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-2	0.00	0.00	-10.05	-19.44	0.00	0.00	-29.49
Asset-3	-162.6	0.00	0.00	0.00	0.00	0.00	-162.60
Asset-5	0.00	0.00	0.00	13.61	0.00	0.00	-13.61
Asset-8	-119.88	0.00	-104.46	0.00	0.00	0.00	-224.34
Asset-11	0.00	0.00	0.00	0.00	0.00	-12.47	-12.47

Capital Cost as on 1.4.2014 / COD

39. The trued-up capital cost as considered by the Commission vide its order dated 5.2.2020 in Petition No. 262/TT/2019 for Asset-1 to Asset-4 has been considered as opening capital cost as on 31.3.2014. The Petitioner has also submitted Auditor's certificate dated 14.7.2019 in respect of the capital cost and additional capital expenditure based on actual COD and the same has been allowed in this order as follows:



(₹ in lakh)

Capital Cost as on 31.3.2014 as approved vide order dated 5.2.2020 in Petition No. 262/TT/2019		
Particulars	Central	State
Asset – 1	55.95	1066.36
Asset – 2	58.84	598.48
Asset – 3	320.71	270.19
Asset - 4	-	87.19

40. Keeping in view the opening capital cost and its recovery during 2009-14 period, the following capital cost is being considered as on 1.4.2014 for working out fees and charges for the period 2014-19 for Central Portion as well as State Portion for Asset 1 to Asset-4:

(₹ in lakh)

Asset -1	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	39.17	746.45
	Equity	16.79	319.91
	Total	55.95	1066.36
Capital Cost Recovered up to 31.3.2014	Loan	1.14	20.73
	Equity	0.29	5.09
	Total	1.43	25.82
Net Capital Cost as on 1.4.2014	Loan	38.03	725.72
	Equity	16.50	314.82
	Total	54.52	1040.54

(₹ in lakh)

Asset 2	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	41.19	418.94
	Equity	17.65	179.54
	Total	58.84	598.48
Capital Cost Recovered up to 31.3.2014	Loan	0.80	9.01
	Equity	0.19	2.15
	Total	0.99	11.16
Net Capital Cost as on 1.4.2014	Loan	40.39	409.93
	Equity	17.46	177.39
	Total	57.85	587.32

(₹ in lakh)

Asset 3	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	224.50	189.14
	Equity	96.21	81.06
	Total	320.71	270.19
Capital Cost Recovered up to 31.3.2014	Loan	2.92	2.35
	Equity	0.69	0.56



Asset 3	Capital	Central Portion	State Portion
	Total	3.61	2.91
Net Capital Cost as on 1.4.2014	Loan	221.58	186.78
	Equity	95.52	80.50
	Total	317.10	267.28

(₹ in lakh)

Asset 4	Capital	State Portion
Retained Gross Capital Cost as on 31.3.2014	Loan	61.04
	Equity	26.16
	Total	87.19
Capital Cost Recovered up to 31.3.2014	Loan	0.16
	Equity	0.04
	Total	0.20
Net Capital Cost as on 1.4.2014	Loan	60.87
	Equity	26.12
	Total	87.00

41. The details of the capital cost allowed for the transmission assets as on COD after adjustment of IDC, IEDC and sharing towards telecom are as follows:

(₹ in lakh)

Assets	Capital cost as on 1.4.2014 or COD as per auditor's certificate	Less: Decapitalised with respect to cost of asset shared by Telecom Deptt. as on 1.4.2014/ COD	Less: IDC disallowed as on COD due to		Less: IEDC disallowed as on COD	Less: Excess Initial spares	Capital cost considered as on 1.4.2014 / COD
			Time over-run/ Computational difference	Un-discharged			
Asset-5	25.79	0.00	1.70	0.00	0.09	0.00	24.00
Asset-6	20.87	0.00	1.35	0.00	0.07	0.00	19.457
Asset-7	233.85	0.00	15.12	0.00	0.83	0.00	217.89
Asset-8	433.48	119.88	25.45	0.00	0.05	0.00	288.10
Asset-9	73.85	0.00	4.82	0.00	0.01	0.00	69.03
Asset-10	17.22	0.00	0.92	0.00	0.004	0.00	16.296
Asset-11	245.91	0.00	12.80	0.00	2.78	0.00	230.33
Asset-12	192.37	0.00	10.01	0.00	2.18	1.32	178.86
Asset-13	112.55	0.00	5.86	0.00	1.27	0.71	104.71
Asset-14	72.05	0.00	3.75	0.00	0.82	0.00	67.48
Asset-15	46.46	0.00	2.42	0.00	0.52	0.00	43.52
Asset-16	272.85	0.00	14.69	0.72	2.09	0.00	255.35



Additional Capital Expenditure (“ACE”)

42. The Commission vide order dated 5.2.2020 in Petition No. 262/TT/2019 allowed following ACE in respect of Asset-1 to Asset-4 for 2014-19 tariff period:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1 – Central Portion	17.16	3.37	5.34	0.70	12.39
Asset-1 – State Portion	401.96	83.44	122.10	4.68	237.61
Asset-2 – Central Portion	28.33	7.42	3.34	0.83	12.30
Asset-2 – State Portion	198.94	48.98	46.49	2.56	129.70
Asset-3 – Central Portion	93.85	20.12	17.43	1.91	69.00
Asset-3 – State Portion	112.84	24.29	17.36	1.95	56.00
Asset-4– State Portion	13.88	4.38	8.24	2.47	62.00

43. The Petitioner has claimed the following ACE after adjustment of IDC and IEDC and liability in respect of Asset-1 to Asset-4 covered in the instant petition:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1 – Central Portion	17.16	3.37	5.34	0.70	0.00
Asset-1 – State Portion	401.96	83.44	122.10	4.68	0.00
Asset-2 – Central Portion	28.33	-2.63	-16.10	0.83	0.92
Asset-2 – State Portion	198.94	48.98	46.49	2.56	9.70
Asset-3 – Central Portion	-68.65	20.12	17.43	1.91	1.88
Asset-3 – State Portion	112.84	24.29	17.36	1.95	1.52
Asset-4– State Portion	13.88	4.38	8.24	2.47	29.81

44. The Petitioner has submitted that ACE during 2014-19 has been claimed under Regulations 14(1)(i) and Regulation 14(3)(v) of the 2014 Tariff Regulations. The Petitioner has submitted Auditor’s Certificate in support of the same.

45. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner towards balance and retention payments and liability of works executed prior to cut-off date has been allowed under Regulation 14(1)(i) and Regulation 14 (3)(v) of the 2014 Tariff Regulations.



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total ACE in 2014-19
Asset-1-Central Portion	17.16	3.37	5.34	0.70	0.00	26.57
Asset-1 – State Portion	401.96	83.44	122.10	4.68	0.00	612.18
Asset-2 Central Portion	28.33	7.42	3.34	0.83	0.92	40.84
Asset-2-Less telecom	0.00	(10.05)	(19.44)	0.00	0.00	(29.49)
Asset-2-NetCentralPortion	28.33	-2.63	-16.10	0.83	0.92	11.35
Asset-2-State Portion	198.94	48.98	46.49	2.56	9.70	306.67
Asset-3-Central Portion	93.95	20.12	17.43	1.91	1.88	135.29
Asset-3-Less telecom	162.60*	0.00	0.00	0.00	0.00	162.60
Asset-3–NetCentral Portion	-68.65	20.12	17.43	1.91	1.88	(-)27.31
Asset-3 – State Portion	112.84	24.29	17.36	1.95	1.52	157.96
Asset-4– State Portion	13.88	4.38	8.24	2.47	29.81	58.78

*De-capitalization against telecom sharing considered in 2014-15 instead of 2013-14.

46. The Petitioner has submitted that the Petitioner has recovered LD amount of ₹1.61 lakh from the contractor in respect of Asset-5, ₹1.28 lakh in respect of Asset-6, ₹14.35 lakh in respect of Asset-7, ₹30.78 lakh in respect of Asset-8, ₹4.75 lakh in respect of Asset-9 and ₹1.84 lakh in respect of Asset-10 during 2018-19 period. Accordingly, IDC and IEDC dis-allowed to the extent of LD amount recovered is added back to the capital cost in year 2018-19.

47. We have considered the submissions of Petitioner. IDC and IEDC amounting to ₹1.79 lakh for Asset-5, ₹1.42 lakh for Asset-6, ₹15.96 lakh for Asset-7, ₹25.50 lakh for Asset-8, ₹4.83 lakh for Asset-9 and ₹0.92 lakh for Asset-10 have been disallowed as on COD owing to non-condonation of time over-run. In the instant case, the amount of LD recovered in respect of Asset-5, Asset-6, Asset-7 and Asset-9 is less than the IDC and IEDC disallowed and the same is allowed to be retained. Further, in respect of Asset-8 and Asset-10, the amount of IDC and IEDC deducted is less than the amount of LD recovered. Hence, in respect of Asset-8 and Asset-10, the difference of the amount recovered as LD and IDC and IEDC disallowed is being reduced from the ACE during 2018-19.



48. The Petitioner has claimed ACE in respect of Asset-5 to Asset-16 and has submitted Auditor's Certificate in support of its claim, the details of which are as follows:

(₹ in lakh)

Asset	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-5	9.65	2.11	(13.56)	1.26	8.17
Asset-6	3.96	1.32	1.16	0.81	9.51
Asset-7	24.78	4.07	2.23	3.97	145.39
Asset-8	-	(99.56)	2.22	3.95	141.57
Asset-9	-	1.39	1.08	2.24	7.47
Asset-10	-	0.15	0.12	0.29	1.84
Asset-11	-	-	-	10.73	(9.51)
Asset-12	-	-	-	23.48	-
Asset-13	-	-	-	8.8	1.33
Asset-14	-	-	-	6.57	1.67
Asset-15	-	-	-	5.93	1.53
Asset-16	-	-	-	-	14.62
Total	38.39	(90.52)	(6.75)	68.03	323.59

49. We have considered the submission of the Petitioner. The ACE claimed towards undischarged liability towards final payment/withheld payment due to contractual exigencies balance and retention payments is allowed under Regulation 14(1)(i) and Regulation 14(3) (v) of the 2014 Tariff Regulations. The details of ACE allowed in respect of Asset-5 to Asset-16 are as follows:

(₹ in lakh)

Asset-5	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	9.65	2.11	0.05	1.26	8.17
IDC Discharged	-	-	-	-	-
Less: Excess Initial Spares	-	-	-	-	-
Less: Decapitalization with respect to cost of asset shared by telecom	-	-	(13.61)	-	-
Total ACE allowed	9.65	2.11	(13.56)	1.26	8.17



(₹ in lakh)

Asset-6	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	3.96	1.32	1.16	0.81	9.51
IDC Discharged	-	-	-	-	-
Less: Excess Initial Spares	-	-	-	-	-
Less: Decapitalization	-	-	-	-	-
Total ACE allowed	3.96	1.32	1.16	0.81	9.51

(₹ in lakh)

Asset-7	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	24.78	4.07	2.23	3.97	145.39
IDC Discharged	-	-	-	-	-
Less: Excess Initial Spares	-	-	-	-	-
Less: Decapitalization	-	-	-	-	-
Total ACE allowed	24.78	4.07	2.23	3.97	145.39

(₹ in lakh)

Asset-8	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	4.90	2.22	3.95	136.29*
IDC Discharged	-	-	-	-
Less: Excess Initial Spares	-	-	-	-
Less: Decapitalization with respect to cost of asset shared by telecom	(104.46)	-	-	-
Total ACE allowed	(99.56)	2.22	3.95	136.29

* Difference of the amount recovered as LD and IDC/IEDC disallowed is being reduced from the ACE during 2018-19

(₹ in lakh)

Asset-9	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	1.39	1.08	2.24	7.47
IDC Discharged	-	-	-	-
Less: Excess Initial Spares	-	-	-	-
Less: Decapitalization	-	-	-	-
Total ACE allowed	1.39	1.08	2.24	7.47



(₹ in lakh)

Asset-10	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	0.15	0.12	0.29	0.01*
IDC Discharged	-	-	-	-
Less: Excess Initial Spares	-	-	-	-
Less: Decapitalization	-	-	-	-
Total ACE allowed	0.15	0.12	0.29	0.01

* Difference of the amount recovered as LD and IDC/IEDC disallowed is being reduced from the ACE during 2018-19

(₹ in lakh)

Asset-11	ACE	
	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	4.82	2.96
IDC Discharged	-	-
Less: Excess Initial Spares	-	-
Less: Decapitalization with respect to cost of asset shared by telecom	-	(12.47)
Total ACE allowed	4.82	(9.51)

(₹ in lakh)

Asset-12	ACE	
	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	13.47	-
IDC Discharged	-	-
Less: Excess Initial Spares	-	-
Less: Decapitalization	-	-
Total ACE allowed	13.47	0.00

(₹ in lakh)

Asset-13	ACE	
	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	2.94	1.33
IDC Discharged	-	-
Less: Excess Initial Spares	-	-
Less: Decapitalization	-	-
Total ACE allowed	2.94	1.33

(₹ in lakh)

Asset-14	ACE	
	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	2.82	1.67



IDC Discharged	-	-
Less: Excess Initial Spares	-	-
Less: Decapitalization	-	-
Total ACE allowed	2.82	1.67

(₹ in lakh)

Asset-15	ACE	
	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	3.51	1.53
IDC Discharged	-	-
Less: Excess Initial Spares	-	-
Less: Decapitalization	-	-
Total ACE allowed	3.51	1.53

(₹ in lakh)

Asset-16	ACE
	2018-19
ACE to the extent of Balance and Retention Payments	0.72
IDC Discharged	-
Less: Excess Initial Spares	-
Less: Decapitalization	-
Total ACE allowed	0.72

Capital cost allowed as on 31.3.2019

50. Capital cost as on 31.3.2019 for Asset-1 to Asset-4 is as follows:

(₹ in lakh)

Assets	Sector	Capital cost allowed as on 1.4.2014	Additional Expenditure	Capital	Total capital cost as on 31.3.2019
			2014-19		
Asset-1	Central Portion	55.95		26.57	82.52
	State Portion	1066.36		612.18	1678.54
Asset-2	Central Portion	58.84		11.35	70.19
	State Portion	598.48		306.67	905.15
Asset-3	Central Portion	320.71		(-)27.31	293.40
	State Portion	270.19		157.96	428.15
Asset 4	State Portion	87.19		58.78	145.97

51. Accordingly, the capital cost of Asset-5 to Asset-16 considered for 2014-19 tariff period is as follows:



(₹ in lakh)

Particulars	Approved Capital Cost (RCE)	Capital Cost as on COD on cash basis	ACE					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-5	48.77	24.00	9.65	2.11	(13.56)	1.26	8.17	31.63
Asset-6	39.03	19.457	3.96	1.32	1.16	0.81	9.51	36.21
Asset-7	428.92	217.89	24.78	4.07	2.23	3.97	145.39	398.33
Asset-8	596.32	288.10	0.00	(99.56)	2.22	3.95	136.29	331.00
Asset-9	87.28	69.03	0.00	1.39	1.08	2.24	7.47	81.21
Asset-10	19.62	16.296	0.00	0.15	0.12	0.29	0.01	16.86
Asset-11	272.41	230.33	0.00	0.00	0.00	4.82	(9.51)	225.64
Asset-12	221.03	178.86	0.00	0.00	0.00	13.47	0.00	192.33
Asset-13	125.44	104.71	0.00	0.00	0.00	2.94	1.33	108.98
Asset-14	82.19	67.48	0.00	0.00	0.00	2.82	1.67	71.97
Asset-15	55.30	43.52	0.00	0.00	0.00	3.51	1.53	48.56
Asset-16	314.46	255.35	0.00	0.00	0.00	0.00	0.72	256.07
Total	2290.76	1515.03	38.39	(90.52)	(6.75)	40.08	302.57	1798.79

Debt-Equity Ratio

52. The following debt-equity ratio has been considered as on 1.4.2014 for Central Portion as well as State Portion for Asset-1 to Asset-4:

Asset-1 - Central	As on 1.4.2014		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	39.17	70.00	44.26	70.00
Equity	16.79	30.00	20.71	30.00
Total	55.95	100.00	64.97	100.00
Asset-1 - State	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	746.45	70.00	903.94	70.00
Equity	319.91	30.00	422.40	30.00
Total	1066.36	100.00	1326.34	100.00

Asset-2 - Central	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	41.19	70.00	36.96	70.00
Equity	17.65	30.00	17.55	30.00
Total	58.84	100.00	54.51	100.00



Asset-2 - State	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	418.94	70.00	495.94	70.00
Equity	179.54	30.00	231.74	30.00
Total	598.48	100.00	727.67	100.00

Asset-3- Central	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	224.50	70.00	161.16	70.00
Equity	96.21	30.00	75.52	30.00
Total	320.71	100.00	236.68	100.00

Asset-3- State	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	189.14	70.00	239.85	70.00
Equity	81.06	30.00	111.42	30.00
Total	270.19	100.00	351.27	100.00

Asset-4- State	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	61.04	70.00	86.66	70.00
Equity	26.16	30.00	39.58	30.00
Total	87.19	100.00	126.24	100.00

53. As regards Asset-5 to Asset-16, the Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of the debt-equity ratio as on COD and as on 31.3.2019 in respect of Asset-5 to Asset-16 are as follows:

Asset-5	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	16.81	70.00	22.16	70.00
Equity	7.20	30.00	9.48	30.00
Total	24.00	100.00	31.63	100.00
Asset-6	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)



	(₹ in lakh)		(₹ in lakh)	
Debt	13.61	70.00	25.35	70.00
Equity	5.83	30.00	10.86	30.00
Total	19.45	100.00	36.21	100.00
Asset-7	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	152.54	70.00	278.86	70.00
Equity	65.36	30.00	119.48	30.00
Total	217.89	100.00	398.33	100.00
Asset-8	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	201.67	70.00	231.71	70.00
Equity	86.43	30.00	99.29	30.00
Total	288.10	100.00	331.00	100.00
Asset-9	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	48.32	70.00	56.86	70.00
Equity	20.71	30.00	24.36	30.00
Total	69.03	100.00	81.21	100.00
Asset-10	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	11.41	70.00	11.82	70.10
Equity	4.89	30.00	5.04	29.90
Total	16.30	100.00	16.86	100.00
Asset-11	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	161.23	70.00	157.94	70.00
Equity	69.10	30.00	67.69	30.00
Total	230.33	100.00	225.64	100.00
Asset-12	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	125.20	70.00	134.64	70.00
Equity	53.66	30.00	57.70	30.00
Total	178.86	100.00	192.33	100.00
Asset-13	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	73.30	70.00	76.30	70.00



Equity	31.40	30.00	32.68	30.00
Total	104.71	100.00	108.98	100.00
Asset-14	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	47.25	70.00	50.39	70.00
Equity	20.24	30.00	21.58	30.00
Total	67.48	100.00	71.97	100.00
Asset-15	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	30.46	70.00	33.99	70.00
Equity	13.05	30.00	14.56	30.00
Total	43.52	100.00	48.56	100.00
Asset-16	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	178.76	70.00	179.26	70.00
Equity	76.60	30.00	76.81	30.00
Total	255.35	100.00	256.07	100.00

Rates for Recovery of Loan and Equity

Capital Recovery for Loan

54. Year-wise Weighted Average Rate of Interest has been calculated on the basis of impact due to change in floating rate of interest of loan which has been applied for calculating the Capital Recovery Factor (CRF) for loan. The details of Weighted Average Rate of Interest are given in Annexure-I.

55. The Capital Recovery Factor for loan in respect of transmission assets has been calculated by applying Weighted Average Rate of Interest on the basis of the impact due to change in floating rate of interest of loan. Thus, the rates considered on annual basis have been converted into monthly rates. Thus, monthly recovery factors for loan for Central Portion and State Portion for the transmission assets are as follows:



CRF for loan to be considered for Fees& Charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1 – Central Portion	0.010844	0.011284	0.011810	0.012446	0.013227
Asset-1 – State Portion	0.010845	0.011285	0.011811	0.012447	0.013227
Asset-2 – Central Portion	0.010523	0.010930	0.011411	0.011987	0.012689
Asset-2 – State Portion	0.010523	0.010930	0.011411	0.011987	0.012689
Asset-3 – Central Portion	0.010398	0.010772	0.011211	0.011734	0.012367
Asset-3 – State Portion	0.010398	0.010772	0.011211	0.011734	0.012367
Asset-4– State Portion	0.010023	0.010363	0.010763	0.011234	0.011825

56. Capital Recovery Factor for equity approved vide order dated 5.2.2020 in Petition No. 262/TT/2019 on post - tax return on equity of 15.50% is considered in this order as well. Thus, monthly recovery factors for equity for Central Portion and State Portion for Asset-1 to Asset-4 are as follows:

CRF for equity to be considered for Fee & Charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1 – Central Portion	0.014763	0.015122	0.015565	0.016115	0.016808
Asset-1 – State Portion	0.014763	0.015122	0.015565	0.016115	0.016808
Asset-2 – Central Portion	0.014608	0.014933	0.015332	0.015825	0.016441
Asset-2 – State Portion	0.014608	0.014933	0.015332	0.015825	0.016441
Asset-3 – Central Portion	0.014468	0.014763	0.015122	0.015565	0.016115
Asset-3 – State Portion	0.014468	0.014763	0.015122	0.015565	0.016115
Asset-4– State Portion	0.014360	0.014633	0.014964	0.015369	0.015871

57. In view of the above, the amount of monthly capital recovery charges for loan and equity both for Central Portion and State Portion for Asset-1 to Asset-4 have been considered by using respective Capital Recovery Factors and the same are as follows:

(₹ in lakh)

Monthly Capital Recovery Charges for Loan					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1 – Central Portion	0.41	0.55	0.58	0.62	0.63
Asset-1 – State Portion	7.87	11.05	11.74	12.80	12.84
Asset-2 – Central Portion	0.43	0.64	0.62	0.49	0.49
Asset-2 – State Portion	4.31	5.84	6.23	6.61	6.63
Asset-3 – Central Portion	2.30	1.79	1.94	2.09	2.10
Asset-3 – State Portion	1.94	2.79	2.98	3.12	3.14
Asset-4– State Portion	0.61	0.71	0.74	0.81	0.83

(₹ in lakh)

Monthly Capital Recovery Charges for Equity					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1 – Central Portion	0.24	0.32	0.34	0.36	0.37



Asset-1 – State Portion	4.65	6.47	6.86	7.45	7.47
Asset-2 – Central Portion	0.26	0.38	0.37	0.29	0.30
Asset-2 – State Portion	2.59	3.48	3.71	3.93	3.94
Asset-3 – Central Portion	1.38	1.08	1.17	1.25	1.26
Asset-3 – State Portion	1.16	1.66	1.77	1.86	1.87
Asset-4– State Portion	0.38	0.44	0.46	0.49	0.51

58. Accordingly, the recovery of capital during 2014-19 tariff period has been worked out in respect of Asset-1 to Asset-4 and the details of the same are as follows:

(₹ in lakh)			
Asset-1	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 1.4.2014	Loan	39.17	746.45
	Equity	16.79	319.91
	Total	55.95	1066.36
Additional Capital Expenditure	Loan	18.60	428.53
	Equity	7.97	183.65
	Total	26.57	612.18
Capital Cost Recovered up to 31.3.2019	Loan	13.51	271.04
	Equity	4.05	81.16
	Total	17.55	352.20
Net Capital Cost as on 31.3.2019	Loan	44.26	903.94
	Equity	20.71	422.40
	Total	64.97	1326.34

(₹ in lakh)			
Asset-2	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 1.4.2014	Loan	41.19	418.94
	Equity	17.65	179.54
	Total	58.84	598.48
Additional Capital Expenditure	Loan	7.95	214.67
	Equity	3.41	92.00
	Total	11.35	306.67
Capital Cost Recovered up to 31.3.2019	Loan	12.18	137.67
	Equity	3.51	39.81
	Total	15.68	177.48
Net Capital Cost as on 31.4.2019	Loan	36.96	495.94
	Equity	17.55	231.74
	Total	54.51	727.67

(₹ in lakh)			
Asset-3	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 1.4.2014	Loan	224.50	189.14
	Equity	96.21	81.06
	Total	320.71	270.19
Additional Capital Expenditure	Loan	-19.12	110.57



Asset-3	Capital	Central Portion	State Portion
	Equity	-8.19	47.39
	Total	-27.31	157.96
Capital Cost Recovered up to 31.3.2019	Loan	44.22	59.85
	Equity	12.50	17.03
	Total	56.72	76.88
Net Capital Cost as on 31.4.2019	Loan	161.16	239.85
	Equity	75.52	111.42
	Total	236.68	351.27

(₹ in lakh)

Asset-4	Capital	State Portion
Retained Gross Capital Cost as on 1.4.2014	Loan	61.04
	Equity	26.16
	Total	87.19
Additional Capital Expenditure	Loan	41.15
	Equity	17.63
	Total	58.78
Capital Cost Recovered up to 31.3.2019	Loan	15.52
	Equity	4.21
	Total	19.74
Net Capital Cost as on 31.4.2019	Loan	86.66
	Equity	39.58
	Total	126.24

Assets 5 to 16 : Calculation of Annual Transmission Charges

59. Asset-5 to Asset-16 were put into commercial operation after 1.4.2014. Therefore, annual transmission charges are determined in accordance with the 2014 Tariff Regulations.

Depreciation

60. Depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given at Annexure-I to Annexure-XII. WAROD has been worked out after taking into account the depreciation



rates of asset as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 tariff period in respect of Asset-5 to Asset-16 is as follows:

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	24.00	33.65	35.76	22.20	23.46
B	ACE	9.65	2.11	0.05	1.26	8.17
C	De-capitalisation	0.00	0.00	(13.61)	0.00	0.00
D	Closing Gross Block (A+B-C)	33.65	35.76	22.20	23.46	31.63
E	Average Gross Block (A+D)/2	28.83	34.71	28.98	22.83	27.55
F	Average Gross Block (90% depreciable assets)	28.83	34.71	28.98	22.83	27.55
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	25.94	31.24	26.08	20.55	24.79
I	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	25.94	31.24	26.08	20.55	24.79
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00	14.00	13.00	12.00
N	Depreciation during the year (E*K)	0.91	2.20	1.83	1.45	1.74
O	Adjustment of cumulative depreciation pertaining to decapitalized Asset	0.00	0.00	2.09	0.00	0.00
P	Aggregate Cumulative Depreciation at the end of the year	0.91	3.11	2.85	4.30	6.04
Q	Remaining Aggregate Depreciable Value at the end of the year(J-P)	25.03	28.13	21.14	16.25	18.75



(₹ in lakh)

Asset-6						
	Particulars	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	19.45	23.41	24.73	25.89	26.70
B	ACE	3.96	1.32	1.16	0.81	9.51
C	De-capitalisation	0.00	0.00	0.00	0.00	0.00
D	Closing Gross Block (A+B-C)	23.41	24.73	25.89	26.70	36.21
E	Average Gross Block (A+D)/2	21.43	24.07	25.31	26.29	31.45
F	Average Gross Block (90% depreciable assets)	21.43	24.07	25.31	26.29	31.45
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	19.28	21.66	22.78	23.66	28.31
I	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	19.28	21.66	22.78	23.66	28.31
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00	14.00	13.00	12.00
N	Depreciation during the year (E*K)	0.68	1.52	1.60	1.66	1.99
O	Aggregate Cumulative Depreciation at the end of the year	0.68	2.20	3.80	5.47	7.46
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	18.61	19.46	18.97	18.20	20.85

(₹ in lakh)

Asset-7						
	Particulars	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	217.89	242.67	246.74	248.97	252.94
B	ACE	24.78	4.07	2.23	3.97	145.39
C	De-capitalisation	0.00	0.00	0.00	0.00	0.00
D	Closing Gross Block (A+B-C)	242.67	246.74	248.97	252.94	398.33
E	Average Gross Block (A+D)/2	230.28	244.71	247.86	250.96	325.64
F	Average Gross Block (90% depreciable assets)	230.28	244.71	247.86	250.96	325.64



Asset-7						
	Particulars	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	207.26	220.24	223.07	225.86	293.08
I	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	207.26	220.24	223.07	225.86	293.08
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00	14.00	13.00	12.00
N	Depreciation during the year (E*K)	7.27	15.49	15.69	15.89	20.61
O	Aggregate Cumulative Depreciation at the end of the year	7.27	22.76	38.45	54.33	74.95
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	199.99	197.48	184.63	171.53	218.13

(₹ in lakh)

Asset-8					
	Particulars	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	288.10	188.54	190.76	194.71
B	ACE	4.90	2.22	3.95	136.29
C	De-capitalisation	(104.46)	0.00	0.00	0.00
D	Closing Gross Block (A+B-C)	188.54	190.76	194.71	331.00
E	Average Gross Block (A+D)/2	238.32	189.65	192.73	262.85
F	Average Gross Block (90% depreciable assets)	238.32	189.65	192.73	262.85
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	214.49	170.68	173.46	236.57
I	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	214.49	170.68	173.46	236.57



Asset-8					
	Particulars	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00	14.00	13.00
N	Depreciation during the year (E*K)	14.30	12.00	12.20	16.64
O	Adjustment of cumulative depreciation pertaining to decapitalized Asset	0.00	0.56	0.00	0.00
P	Aggregate Cumulative Depreciation at the end of the year	13.74	25.75	37.95	54.59
Q	Remaining Aggregate Depreciable Value at the end of the year(J-P)	200.19	144.94	135.51	181.98

(₹ in lakh)

Asset-9					
	Particulars	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	69.03	70.42	71.50	73.74
B	ACE	1.39	1.08	2.24	7.47
C	De-capitalisation	0.00	0.00	0.00	0.00
D	Closing Gross Block (A+B-C)	70.42	71.50	73.74	81.21
E	Average Gross Block (A+D)/2	69.73	70.96	72.62	77.48
F	Average Gross Block (90% depreciable assets)	69.73	70.96	72.62	77.48
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	62.75	63.87	65.36	69.73
I	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	62.75	63.87	65.36	69.73
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00	14.00	13.00



Asset-9					
	Particulars	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
N	Depreciation during the year (E*K)	4.18	4.49	4.60	4.90
O	Aggregate Cumulative Depreciation at the end of the year	4.18	8.68	13.27	18.18
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	58.57	55.19	52.09	51.55

(₹ in lakh)

Asset-10					
	Particulars	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	16.30	16.45	16.57	16.86
B	ACE	0.15	0.12	0.29	0.006
C	De-capitalisation	0.00	0.00	0.00	0.00
D	Closing Gross Block (A+B-C)	16.45	16.57	16.86	16.86
E	Average Gross Block (A+D)/2	16.37	16.51	16.71	16.86
F	Average Gross Block (90% depreciable assets)	16.37	16.51	16.71	16.86
G	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	14.74	14.86	15.04	15.17
I	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	14.74	14.86	15.04	15.17
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00	14.00	13.00
N	Depreciation during the year (E*K)	0.98	1.04	1.06	1.07
O	Aggregate Cumulative Depreciation at the end of the year	0.98	2.03	3.09	4.15
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	13.75	12.83	11.96	11.02



(₹ in lakh)

Asset-11			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
A	Opening Gross Block	230.33	235.15
B	ACE	4.82	2.96
C	De-capitalisation	0.00	(12.47)
D	Closing Gross Block (A+B-C)	235.15	225.64
E	Average Gross Block (A+D)/2	232.74	230.39
F	Average Gross Block (90% depreciable assets)	232.74	230.39
G	Average Gross Block (100% depreciable assets)	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	209.46	207.35
I	Depreciable value of IT equipment and software	0.00	0.00
J	Total Depreciable Value (H+I)	209.46	207.35
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00
N	Depreciation during the year (E*K)	11.06	14.58
O	Adjustment of cumulative depreciation pertaining to decapitalized Asset	0.00	1.38
P	Aggregate Cumulative Depreciation at the end of the year	11.06	24.26
Q	Remaining Aggregate Depreciable Value at the end of the year(J-P)	198.41	181.71

(₹ in lakh)

Asset-12			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
A	Opening Gross Block	178.86	192.33
B	ACE	13.47	0.00
C	De-capitalisation	0.00	0.00
D	Closing Gross Block (A+B-C)	192.33	192.33
E	Average Gross Block (A+D)/2	185.60	192.33
F	Average Gross Block (90% depreciable assets)	185.60	192.33



Asset-12			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
G	Average Gross Block (100% depreciable assets)	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	167.04	173.10
I	Depreciable value of IT equipment and software	0.00	0.00
J	Total Depreciable Value (H+I)	167.04	173.10
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00
N	Depreciation during the year (E*K)	8.82	12.17
O	Aggregate Cumulative Depreciation at the end of the year	8.82	20.99
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	158.22	152.11

(₹ in lakh)

Asset-13			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
A	Opening Gross Block	104.71	107.65
B	ACE	2.94	1.33
C	De-capitalisation	0.00	0.00
D	Closing Gross Block (A+B-C)	107.65	108.98
E	Average Gross Block (A+D)/2	106.18	108.31
F	Average Gross Block (90% depreciable assets)	106.18	108.31
G	Average Gross Block (100% depreciable assets)	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	95.56	97.48
I	Depreciable value of IT equipment and software	0.00	0.00
J	Total Depreciable Value (H+I)	95.56	97.48
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00



Asset-13			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
M	Balance useful life at the beginning of the year (Year)	15.00	15.00
N	Depreciation during the year (E*K)	5.05	6.86
O	Aggregate Cumulative Depreciation at the end of the year	5.05	11.90
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	90.51	85.58

(₹ in lakh)

Asset-14			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
A	Opening Gross Block	67.48	70.30
B	ACE	2.82	1.67
C	De-capitalisation	0.00	0.00
D	Closing Gross Block (A+B-C)	70.30	71.97
E	Average Gross Block (A+D)/2	68.89	71.14
F	Average Gross Block (90% depreciable assets)	68.89	71.14
G	Average Gross Block (100% depreciable assets)	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	62.00	64.03
I	Depreciable value of IT Equipment and software	0.00	0.00
J	Total Depreciable Value (H+I)	62.00	64.03
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00
N	Depreciation during the year (E*K)	3.27	4.50
O	Aggregate Cumulative Depreciation at the end of the year	3.27	7.78
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	58.73	56.25



(₹ in lakh)

Asset-15			
	Particulars	2017-18(Pro-rata for 274 days)	2018-19
A	Opening Gross Block	43.52	47.03
B	ACE	3.51	1.53
C	De-capitalisation	0.00	0.00
D	Closing Gross Block (A+B-C)	47.03	48.56
E	Average Gross Block (A+D)/2	45.27	47.79
F	Average Gross Block (90% depreciable assets)	45.27	47.79
G	Average Gross Block (100% depreciable assets)	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	40.74	43.01
I	Depreciable value of IT equipment and software	0.00	0.00
J	Total Depreciable Value (H+I)	40.74	43.01
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00	0.00
M	Balance useful life at the beginning of the year (Year)	15.00	15.00
N	Depreciation during the year (E*K)	2.15	3.03
O	Aggregate Cumulative Depreciation at the end of the year	2.15	5.18
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	38.59	37.84

(₹ in lakh)

Asset-16		
	Particulars	2018-19(Pro-rata for 59 days)
A	Opening Gross Block	255.35
B	ACE	0.72
C	De-capitalisation	0.00
D	Closing Gross Block (A+B-C)	256.07
E	Average Gross Block (A+D)/2	255.71
F	Average Gross Block (90% depreciable assets)	255.71
G	Average Gross Block (100% depreciable assets)	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	230.14



Asset-16		
	Particulars	2018-19(Pro-rata for 59 days)
I	Depreciable value of IT equipment and software	0.00
J	Total Depreciable Value (H+I)	230.14
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33
L	Lapsed useful life at the beginning of the year (Year)	0.00
M	Balance useful life at the beginning of the year (Year)	15.00
N	Depreciation during the year (E*K)	2.62
O	Aggregate Cumulative Depreciation at the end of the year	2.62
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	227.52

61. We have considered the submissions of the Petitioner. The Depreciation allowed with respect to Asset-5 to Asset-10 vide order dated 5.12.2016 in Petition No. 48/TT/2016 and for Asset-11 to Asset-16 vide order dated 4.7.2019 in Petition No. 239/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-5	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	1.05	3.14	3.63	3.63	3.63
	As claimed by the Petitioner	0.92	2.21	1.85	1.46	1.76
	Approved after truing up	0.91	2.20	1.83	1.45	1.74
Asset-6	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.84	2.50	2.87	2.87	2.87
	As claimed by the Petitioner	0.68	1.53	1.61	1.67	2.00



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Approved after truing up	0.68	1.52	1.60	1.66	1.99
Asset-7	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	9.28	25.90	28.57	28.57	28.57
	As claimed by the Petitioner	7.32	15.59	15.79	15.99	20.71
	Approved after truing up	7.27	15.49	15.69	15.89	20.61
Asset-8	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	28.25	37.26	40.43	40.43
	As claimed by the Petitioner	-	13.98	11.67	11.87	16.47
	Approved after truing up	-	14.30	12.00	12.20	16.64
Asset-9	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	4.86	5.90	5.91	5.91
	As claimed by the Petitioner	-	4.19	4.50	4.60	4.91
	Approved after truing up	-	4.18	4.49	4.60	4.90
Asset-10	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	0.94	1.03	1.04	1.04
	As claimed by the Petitioner	-	0.93	0.99	1.00	1.07
	Approved after truing up	-	0.98	1.04	1.06	1.07
Asset-11	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	9.05	12.05
	As claimed by the Petitioner	-	-	-	11.66	15.57
	Approved after truing up	-	-	-	11.06	14.58
Asset-12	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	7.09	9.46



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	As claimed by the Petitioner	-	-	-	9.23	13.03
	Approved after truing up	-	-	-	8.82	12.17
Asset-13	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	4.15	5.53
	As claimed by the Petitioner	-	-	-	5.28	7.35
	Approved after truing up	-	-	-	5.05	6.86
Asset-14	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	2.66	3.54
	As claimed by the Petitioner	-	-	-	3.40	4.79
	Approved after truing up	-	-	-	3.27	4.50
Asset-15	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	1.73	2.30
	As claimed by the Petitioner	-	-	-	2.24	3.21
	Approved after truing up	-	-	-	2.15	3.03
Asset-16	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	-	1.30
	As claimed by the Petitioner	-	-	-	-	2.72
	Approved after truing up	-	-	-	-	2.62

Interest on Loan ("IoL")

62. The Petitioner has claimed the Weighted Average Rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of Asset-5 to Asset-16 for 2014-19 tariff period is as follows:



(₹ in lakh)

Particulars		Asset-5				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	16.81	23.57	25.05	15.55	16.44
B	Cumulative Repayments upto Previous Year	0.00	0.91	3.11	2.85	4.30
C	Net Loan-Opening (A-B)	16.81	22.65	21.94	12.70	12.14
D	Addition due to Additional Capitalization	6.76	1.48	(9.49)	0.88	5.72
E	Repayment during the year	0.91	2.20	1.83	1.45	1.74
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	0.00	2.09	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	22.65	21.94	12.70	12.14	16.11
H	Average Loan (A+G)/2	19.73	22.29	17.32	12.42	14.12
I	Weighted Average Rate of Interest on Loan (in %)	8.5438	8.6441	8.6358	8.6343	8.5909
J	Interest on Loan (HxI)	0.84	1.93	1.50	1.07	1.21

(₹ in lakh)

Particulars		Asset-6				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	13.61	16.39	17.31	18.12	18.69
B	Cumulative Repayments upto Previous Year	0.00	0.68	2.20	3.80	5.47
C	Net Loan-Opening (A-B)	13.61	15.71	15.11	14.32	13.22
D	Addition due to Additional Capitalization	2.77	0.92	0.81	0.57	6.66
E	Repayment during the year	0.68	1.52	1.60	1.66	1.99
F	Net Loan-Closing (C+D-E)	0.00	0.00	0.00	0.00	0.00
G	Average Loan (A+F)/2	15.71	15.11	14.32	13.22	17.89
H	Weighted Average Rate of Interest on Loan (in %)	8.575	8.629	8.590	8.559	8.502
I	Interest on Loan (GxH)	0.63	1.33	1.26	1.18	1.32

(₹ in lakh)

Particulars		Asset-7				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	152.54	169.89	172.74	174.30	177.08
B	Cumulative Repayments upto Previous Year	0.00	7.27	22.76	38.45	54.33
C	Net Loan-Opening (A-B)	152.54	162.62	149.98	135.85	122.74



D	Addition due to Additional Capitalization	17.35	2.85	1.56	2.78	101.78
E	Repayment during the year	7.27	15.49	15.69	15.89	20.61
F	Net Loan-Closing (C+D-E)	0.00	0.00	0.00	0.00	0.00
G	Average Loan (A+F)/2	162.62	149.98	135.85	122.74	203.91
H	Weighted Average Rate of Interest on Loan (in %)	8.266	8.307	8.299	8.297	8.276
I	Interest on Loan (GxH)	6.49	12.98	11.86	10.73	13.52

(₹ in lakh)

Particulars		Asset-8			
		2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	201.67	131.98	133.53	136.30
B	Cumulative Repayments upto Previous Year	0.00	13.74	25.75	37.95
C	Net Loan-Opening (A-B)	201.67	118.24	107.78	98.35
D	Addition due to Additional Capitalization	(69.69)	1.55	2.77	95.40
E	Repayment during the year	14.30	12.00	12.20	16.64
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.56	0.00	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	118.24	107.78	98.35	177.12
H	Average Loan (A+G)/2	159.95	113.01	103.07	137.74
I	Weighted Average Rate of Interest on Loan (in %)	8.7884	8.5800	8.1728	8.0567
J	Interest on Loan (HxI)	13.33	9.70	8.42	11.10

(₹ in lakh)

Particulars		Asset-9			
		2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	48.32	49.30	50.06	51.63
B	Cumulative Repayments upto Previous Year	0.00	4.18	8.68	13.27
C	Net Loan-Opening (A-B)	48.32	45.11	41.38	38.35
D	Addition due to Additional Capitalization	0.97	0.76	1.57	5.23
E	Repayment during the year	4.18	4.49	4.60	4.90
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	0.00	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	45.11	41.38	38.35	38.68
H	Average Loan (A+G)/2	46.72	43.24	39.87	38.51



I	Weighted Average Rate of Interest on Loan (in %)	8.031	8.033	8.010	8.017
J	Interest on Loan (Hxl)	3.56	3.47	3.19	3.09

(₹ in lakh)

Particulars		Asset-10			
		2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	11.41	11.52	11.61	11.82
B	Cumulative Repayments upto Previous Year	0.00	0.98	2.03	3.09
C	Net Loan-Opening (A-B)	11.41	10.54	9.58	8.73
D	Addition due to Additional Capitalization	0.11	0.08	0.21	0.004
E	Repayment during the year	0.98	1.04	1.06	1.07
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	0.00	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	10.54	9.58	8.73	7.67
H	Average Loan (A+G)/2	10.98	10.06	9.16	8.20
I	Weighted Average Rate of Interest on Loan (in %)	9.258	9.245	9.218	9.128
J	Interest on Loan (Hxl)	0.96	0.93	0.84	0.75

(₹ in lakh)

Particulars		Asset-11	
		2017-18(Pro-rata for 71 days)	2018-19
A	Gross Normative Loan	161.23	164.60
B	Cumulative Repayments upto Previous Year	0.00	11.06
C	Net Loan-Opening (A-B)	161.23	153.54
D	Addition due to Additional Capitalization	3.37	(6.66)
E	Repayment during the year	11.06	14.58
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	1.38
G	Net Loan-Closing (C+D-E+F)	153.54	133.68
H	Average Loan (A+G)/2	157.39	143.61
I	Weighted Average Rate of Interest on Loan (in %)	8.1033	8.0788
J	Interest on Loan (Hxl)	9.57	11.60



(₹ in lakh)

Particulars		Asset-12	
		2017-18(Pro-rata for 71 days)	2018-19
A	Gross Normative Loan	125.20	134.64
B	Cumulative Repayments upto Previous Year	0.00	8.82
C	Net Loan-Opening (A-B)	125.20	125.82
D	Addition due to Additional Capitalization	9.43	0.00
E	Repayment during the year	8.82	12.17
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	125.82	113.64
H	Average Loan (A+G)/2	125.51	119.73
I	Weighted Average Rate of Interest on Loan (in %)	7.967	7.963
J	Interest on Loan (HxI)	7.51	9.53

(₹ in lakh)

Particulars		Asset-13	
		2017-18 (Pro-rata for 71 days)	2018-19
A	Gross Normative Loan	73.30	75.36
B	Cumulative Repayments upto Previous Year	0.00	5.05
C	Net Loan-Opening (A-B)	73.30	70.31
D	Addition due to Additional Capitalization	2.06	0.94
E	Repayment during the year	5.05	6.86
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	70.31	64.40
H	Average Loan (A+G)/2	71.81	67.36
I	Weighted Average Rate of Interest on Loan (in %)	7.963	7.958
J	Interest on Loan (HxI)	4.29	5.36

(₹ in lakh)

Particulars		Asset-14	
		2017-18 (Pro-rata for 71 days)	2018-19
A	Gross Normative Loan	47.25	49.22
B	Cumulative Repayments upto Previous Year	0.00	3.27
C	Net Loan-Opening (A-B)	47.25	45.95



D	Addition due to Additional Capitalization	1.97	1.17
E	Repayment during the year	3.27	4.50
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00	0.00
G	Net Loan-Closing (C+D-E+F)	45.95	42.62
H	Average Loan (A+G)/2	46.60	44.28
I	Weighted Average Rate of Interest on Loan (in %)	7.924	7.908
J	Interest on Loan (HxI)	2.77	3.50

(₹ in lakh)

Particulars		Asset-15	
		2017-18 (Pro-rata for 71 days)	2018-19
A	Gross Normative Loan	30.46	32.92
B	Cumulative Repayments upto Previous Year	0.00	2.15
C	Net Loan-Opening (A-B)	30.46	30.77
D	Addition due to Additional Capitalization	2.46	1.07
E	Repayment during the year	2.15	3.03
F	Net Loan-Closing (C+D-E)	30.77	28.82
G	Average Loan (A+F)/2	30.62	29.79
H	Weighted Average Rate of Interest on Loan (in %)	7.914	7.893
I	Interest on Loan (GxH)	1.82	2.35

(₹ in lakh)

Particulars		Asset-16
		2018-19 (Pro-rata for 71 days)
A	Gross Normative Loan	178.76
B	Cumulative Repayments upto Previous Year	0.00
C	Net Loan-Opening (A-B)	178.76
D	Addition due to Additional Capitalization	0.50
E	Repayment during the year	2.62
F	Adjustment of cumulative repayment pertaining to the de-capitalised asset	0.00
G	Net Loan-Closing (C+D-E+F)	176.64
H	Average Loan (A+G)/2	177.70
I	Weighted Average Rate of Interest on Loan (in %)	8.509
J	Interest on Loan (HxI)	2.44



63. IoL allowed for Asset-5 to Asset-10 vide order dated 5.12.2016 in Petition No. 48/TT/2016, and for Asset-11 to Asset-16 vide order dated 4.7.2019 in Petition No. 239/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-5	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.95	2.69	2.86	2.56	2.26
	As claimed by the Petitioner	0.85	1.94	1.51	1.08	1.22
	Approved after truing up	0.84	1.93	1.50	1.07	1.21
Asset-6	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.77	2.17	2.29	2.05	1.81
	As claimed by the Petitioner	0.63	1.34	1.27	1.18	1.33
	Approved after 5ruing up	0.63	1.33	1.26	1.18	1.32
Asset-7	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	8.24	21.69	21.87	19.52	17.20
	As claimed by the Petitioner	6.54	13.07	11.94	10.80	13.58
	Approved after truing up	6.49	12.98	11.86	10.73	13.52
Asset-8	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	28.11	34.19	33.77	29.97
	As claimed by the Petitioner	-	12.96	9.35	8.17	11.05
	Approved after truing up	-	13.33	9.70	8.42	11.10
Asset-9	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	4.36	4.86	4.38	3.89



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	As claimed by the Petitioner	-	3.56	3.48	3.20	3.09
	Approved after truing up	-	3.56	3.47	3.19	3.09
Asset-10	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	0.79	0.79	0.72	0.64
	As claimed by the Petitioner	-	0.91	0.88	0.80	0.76
	Approved after truing up	-	0.96	0.93	0.84	0.75
Asset-11	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	7.84	9.56
	As claimed by the Petitioner	-	-	-	10.10	12.39
	Approved after truing up	-	-	-	9.57	11.60
Asset-12	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	6.04	7.39
	As claimed by the Petitioner	-	-	-	7.85	10.22
	Approved after truing up	-	-	-	7.51	9.53
Asset-13	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	3.53	4.32
	As claimed by the Petitioner	-	-	-	4.49	5.76
	Approved after truing up	-	-	-	4.29	5.36
Asset-14	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	2.25	2.75
	As claimed by the Petitioner	-	-	-	2.88	3.73
	Approved after truing up	-	-	-	2.77	3.50
Asset-15	Allowed vide order dated 4.7.2019 in	-	-	-	1.46	1.79



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Petition No. 239/TT/2018					
	As claimed by the Petitioner	-	-	-	1.89	2.50
	Approved after truing up	-	-	-	1.82	2.35
Asset-16	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	-	1.21
	As claimed by the Petitioner	-	-	-	-	2.54
	Approved after truing up	-	-	-	-	2.44

Return on Equity (“RoE”)

64. The Petitioner has claimed RoE in respect of Asset-5 to Asset-16 in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed the following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)] (in %)
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

65. BSPHCL has submitted that as provided under Regulation 25(3) of the 2014 Tariff Regulations, penalty, if any, arising on account of delay in deposit or short deposit of tax amount cannot be permitted to be claimed and actual tax paid has to be duly adjusted for any refund of tax including interest received from the income tax authorities. The instant petition is silent on whether the tax and interest paid by the Petitioner is indeed after such



adjustment and exclusive of the impermissible claims. BSPHCL has further submitted that grossed-up rate of RoE has to be trued up every financial year based on actual tax paid as stated in Regulations 25 (3) of the 2014 Tariff Regulations. BSPHCL has also submitted that Regulation do not contemplate claim of differential tariff on this account directly from the beneficiaries. Thus, differential tariff on this account should not be permitted to be claimed directly from the beneficiaries. There is no observation in terms of this Regulation in the order dated 5.2.2020 in Petition No. 262/TT/2019 pertaining to Asset 1 to Asset-4 herein that were executed in 2009-2014 tariff period.

66. In response, the Petitioner has submitted that it has been granted trued up tariff of 2014-19 period by the Commission vide order dated 18.4.2020 in Petition No. 247/TT/2019, dated 27.4.2020 in Petition No. 274/TT/2019, dated 23.4.2020 in Petition No. 245/TT/2019, dated 16.4.2020 in Petition No. 307/TT/2019 and many others. The Petitioner has further submitted that the following effective tax rate for 2014-19 tariff period based on notified MAT rates are considered for grossing up of rate of return on equity:

Year	Notified MAT rates (inclusive of surcharge & cess)	Effective tax (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	20.961	19.611
2015-16	21.342	21.342	19.706
2016-17	21.342	21.342	19.706
2017-18	21.342	21.342	19.706
2018-19	21.549	21.549	19.758

67. The Petitioner has submitted that it may be allowed to claim the differential tariff on account of trued up RoE based on effective tax rate calculated as above and income tax assessment/re-assement for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of respective assessment orders directly from the beneficiaries on year to year



basis as provided in regulation. The Petitioner has further submitted that income tax assessment for the year 2017-18 and 2018-19 has not yet been completed.

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

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

69. The Petitioner has claimed RoE for 2014-19 tariff period after grossing up the RoE @15.50% with Effective Tax rates (based on MAT rates) each year as per Regulation 25(3) of the 2014 Tariff Regulations. RoE is trued-up on the basis of MAT rates applicable in the respective years and is allowed in respect of Asset-5 to Asset-16 which is as follows:



(₹ in lakh)

Particulars		Asset-5				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	7.20	10.09	10.72	6.65	7.03
B	Additions	2.89	0.63	(4.07)	0.38	2.45
C	Closing Equity (A-B)	10.09	10.72	6.65	7.03	9.48
D	Average Equity (A+B)/2	8.64	10.40	8.68	6.84	8.20
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	0.84	2.05	1.71	1.35	1.63

(₹ in lakh)

Particulars		Asset-6				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	5.83	7.02	7.42	7.77	8.01
B	Additions	1.19	0.40	0.35	0.24	2.85
C	Closing Equity (A-B)	7.02	7.42	7.77	8.01	10.86
D	Average Equity (A+B)/2	6.43	7.22	7.59	7.89	9.44
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	0.63	1.42	1.50	1.55	1.86



(₹ in lakh)

Particulars		Asset-7				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	65.36	72.79	74.01	74.68	75.87
B	Additions	7.43	1.22	0.67	1.19	43.61
C	Closing Equity (A-B)	72.79	74.01	74.68	75.87	119.48
D	Average Equity (A+B)/2	69.07	73.40	74.34	75.27	97.67
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	6.75	14.46	14.65	14.83	19.30

(₹ in lakh)

Particulars		Asset-8			
		2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Opening Equity	86.43	56.56	57.23	58.41
B	Additions	(29.87)	0.67	1.18	40.89
C	Closing Equity (A-B)	56.56	57.23	58.41	99.29
D	Average Equity (A+B)/2	71.50	56.89	57.82	78.85
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	13.36	11.21	11.39	15.58



(₹ in lakh)

Particulars		Asset-9			
		2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Opening Equity	20.71	21.13	21.45	22.12
B	Additions	0.42	0.32	0.67	2.24
C	Closing Equity (A-B)	21.13	21.45	22.12	24.36
D	Average Equity (A+B)/2	20.92	21.29	21.78	23.24
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	3.91	4.19	4.29	4.59

(₹ in lakh)

Particulars		Asset-10			
		2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Opening Equity	4.89	4.93	4.96	5.04
B	Additions	0.04	0.04	0.08	0.002
C	Closing Equity (A-B)	4.93	4.96	5.04	5.04
D	Average Equity (A+B)/2	4.91	4.95	5.00	5.04
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	0.92	0.97	0.99	1.00



(₹ in lakh)

Particulars		Asset-11	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	69.10	70.54
B	Additions	1.45	(2.85)
C	Closing Equity (A-B)	70.54	67.69
D	Average Equity (A+B)/2	69.82	69.12
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity	19.705	19.758
H	Return on Equity (DxG)	10.33	13.66

(₹ in lakh)

Particulars		Asset-12	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	53.66	57.70
B	Additions	4.04	0.00
C	Closing Equity (A-B)	57.70	57.70
D	Average Equity (A+B)/2	55.68	57.70
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity	19.705	19.758
H	Return on Equity (DxG)	8.24	11.40



(₹ in lakh)

Particulars		Asset-13	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	31.40	32.29
B	Additions	0.88	0.39
C	Closing Equity (A-B)	32.29	32.68
D	Average Equity (A+B)/2	31.85	32.48
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity	19.705	19.758
H	Return on Equity (DxG)	4.71	6.42

(₹ in lakh)

Particulars		Asset-14	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	20.24	21.08
B	Additions	0.85	0.50
C	Closing Equity (A-B)	21.08	21.58
D	Average Equity (A+B)/2	20.66	21.33
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity	19.705	19.758
H	Return on Equity (DxG)	3.06	4.21



(₹ in lakh)

Particulars		Asset-15	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	13.05	14.11
B	Additions	1.05	0.46
C	Closing Equity (A-B)	14.11	14.56
D	Average Equity (A+B)/2	13.58	14.34
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity	19.705	19.758
H	Return on Equity (DxG)	2.01	2.83

(₹ in lakh)

Particulars		Asset-16
		2018-19 (Pro-rata for 59 days)
A	Opening Equity	76.60
B	Additions	0.22
C	Closing Equity (A-B)	76.81
D	Average Equity (A+B)/2	76.70
E	Return on Equity (Base Rate) (in %)	15.500
F	MAT Rate for respective year (in %)	21.342
G	Rate of Return on Equity	19.705
H	Return on Equity (DxG)	2.45

70. RoE allowed for Asset-5 to Asset-10 vide order dated 5.12.2016 in Petition No. 48/TT/2016, and for Asset-11 to Asset-16 vide order dated 4.7.2019 in Petition No. 239/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-5	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.97	2.92	3.37	3.37	3.37
	As claimed by the Petitioner	0.85	2.06	1.72	1.36	1.64
	Approved after Truing Up	0.84	2.05	1.71	1.35	1.63
Asset-6	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.78	2.32	2.67	2.67	2.67
	As claimed by the Petitioner	0.63	1.34	1.27	1.18	1.33
	Approved after Truing Up	0.63	1.42	1.50	1.55	1.86
Asset-7	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	8.63	24.07	26.56	26.56	26.56
	As claimed by the Petitioner	6.80	14.56	14.75	14.93	19.39
	Approved after Truing Up	6.75	14.46	14.65	14.83	19.30
Asset-8	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	26.25	34.63	37.57	37.57
	As claimed by the Petitioner	-	13.06	10.90	11.08	15.43
	Approved after Truing Up	-	13.36	11.21	11.39	15.58
Asset-9	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	4.52	5.48	5.49	5.49
	As claimed by the Petitioner	-	3.92	4.20	4.30	4.60
	Approved after Truing Up	-	3.91	4.19	4.29	4.59
Asset-10	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	0.87	0.96	0.97	0.97
	As claimed by the Petitioner	-	0.86	0.92	0.93	1.00



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Approved after Truing Up	-	0.92	0.97	0.99	1.00
Asset-11	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	8.41	11.20
	As claimed by the Petitioner	-	-	-	10.89	14.58
	Approved after Truing Up	-	-	-	10.33	13.66
Asset-12	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	6.59	8.79
	As claimed by the Petitioner	-	-	-	8.61	12.20
	Approved after Truing Up	-	-	-	8.24	11.40
Asset-13	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	3.86	5.14
	As claimed by the Petitioner	-	-	-	4.93	6.88
	Approved after Truing Up	-	-	-	4.71	6.42
Asset-14	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	2.47	3.29
	As claimed by the Petitioner	-	-	-	3.18	4.49
	Approved after Truing Up	-	-	-	3.06	4.21
Asset-15	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	1.61	2.14
	As claimed by the Petitioner	-	-	-	2.09	3.01
	Approved after Truing Up	-	-	-	2.01	2.83
Asset-16	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	-	1.21



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	As claimed by the Petitioner	-	-	-	-	2.54
	Approved after Truing Up	-	-	-	-	2.45

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

71. The Commission vide order dated 5.2.2020 in Petition No. 262/TT/2019, vide order dated 5.12.2016 in Petition No. 48/TT/2016 and vide order dated 4.7.2019 in Petition No. 239/TT/2018 has allowed the following O&M Expenses in respect of Asset-1, Asset-2, Asset-3, Asset-5, Asset-8 and Asset-11 :

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset - 1	34.98	36.57	40.21	47.66	49.27
Asset - 2	19.38	20.45	22.18	24.57	25.39
Asset - 3	16.23	16.97	18.51	20.44	21.12
Asset - 5	1.06	2.12	2.06	2.13	2.20
Asset- 8	-	21.99	22.72	23.47	24.24
Asset-11	-	-	-	27.29	27.29

72. The Petitioner has not claimed any O&M expenses for state Sector Assets. The Petitioner has claimed actual O&M Expenses for Asset-1, Asset-2, Asset-3, Asset-5, Asset-8 and Asset-11 of Central Portion and the same is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset - 1	1.12	0.84	0.93	0.96	1.79
Asset - 2	0.95	0.71	0.79	0.82	1.52
Asset - 3	4.00	3.00	3.32	3.45	6.39
Asset - 5	0.45	0.34	0.38	0.39	0.72
Asset -8	-	3.67	4.06	4.23	7.83
Asset - 11	-	-	-	2.82	5.22

73. The Petitioner has submitted Auditor’s certificate dated 7.11.2019 and has submitted the actual O&M Expenses wherein the Petitioner has claimed self-insurance, petition filing charges, advertisement and publicity charges as part of the O&M Expenses.



74. As regards self-insurance, the Commission vide order dated 29.7.2016 in Petition No. 275/TT/2015, considered the Petitioner's claim towards self-insurance and disallowed the same. The relevant portion of the said order is as follows:

“45. The Petitioner was directed vide RoP dated 22.3.2016, to submit the actual O&M Expenses year wise along with details. In response, the Petitioner vide affidavit dated 29.6.2016 has submitted that actual O&M Expenses for 2014-15 towards Asset-I and II are ₹5.75 lakh and ₹4.46 lakh, respectively. Break up of O&M Expenses has also been provided vide Auditor's Certificate dated 15.6.2016. The Petitioner has claimed self-insurance reserved as expenses under O&M Expenses which is not allowable as expenses.”

Therefore, the Petitioner's claim towards self-insurance is disallowed.

75. Further, the Petitioner has also claimed the petition filing charges as part of O&M Expenses. We have considered the submission of the Petitioner and we are of the view that petition filing charges are to be claimed directly by the Petitioner from the beneficiaries and as such the same are not allowable under O&M Expenses. We, therefore, disallow the petition filing charges as part of O&M Expenses.

76. The Petitioner has also claimed Advertisement and Publicity charges as part of the O&M Expenses which is not allowable as O&M Expenses and, therefore, the same is disallowed.

77. Accordingly, the following O&M Expenses are allowed for 2014-19 tariff period in respect of Asset-1, Asset-2, Asset-3, Asset-5, Asset-8 and Asset-11 under central sector after deducting self-insurance portion, petition filing fees, advertisement and publicity expenses and fibre leasing charges (pro-rata reduction) from the total cost:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset - 1	1.08	0.81	0.90	0.91	1.77
Asset - 2	0.91	0.68	0.76	0.78	1.50
Asset - 3	3.84	2.89	3.21	3.27	6.32
Asset – 5	0.45	0.34	0.38	0.39	0.72



Asset – 8	-	3.67	4.06	4.23	7.83
Asset -11	-	-	-	2.82	5.22

Interest on Working Capital (“IWC”)

78. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner’s entitlement to interest thereon are discussed as follows:

(i) **Working Capital for Maintenance spares:**

Regulation 28 of the 2014 Tariff Regulations provides for working capital towards maintenance spares @ 15% per annum of the O&M Expenses. The value of maintenance spares has accordingly been worked out.

(ii) **Working Capital for O & M Expenses:**

Operation and maintenance expenses have been considered for one month as a component of working capital. The Petitioner has claimed O&M Expenses for onemonth of the respective year as claimed in the petition. This has been considered in the working capital.

(iii) **Working Capital for Receivables:**

Receivables as a component of working capital will be equivalent to two months fixed cost. The Petitioner has claimed the receivables on the basis of two months annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of two months transmission charges.

(iv) **Rate of interest on working capital:**

As per proviso 3 to Regulation 28 of the 2014 Tariff Regulations, SBI Base rate 10.00% as on 1.4.2014 plus 350 Bps i.e. 13.50% has been considered for the asset, as the rate of interest on working capital.



79. The Petitioner has claimed O&M Expenses in the case of Central Portion and accordingly O&M Expenses for one month, maintenance spares @15% of O&M Expenses, receivables for two months and SBI base rate as on 1.4.2014 i.e. 10.00% plus 350 bps (13.50%) have been considered as the rate of interest on working capital for the Central Portion only.

80. The necessary computations of Interest on Working Capital (annualized) for Central Portion and State Portion for Asset-1 to Asset-4 are as follows:

(₹ in lakh)

Asset 1	Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M)	0.16	0.12	0.13	0.14	0.27
O&M Expenses (Onemonth)	0.09	0.07	0.07	0.08	0.15
Receivables (Two months)	1.53	1.92	2.03	2.18	2.35
Total Working Capital	1.78	2.11	2.24	2.39	2.76
Rate of Interest on Working Capital (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	0.24	0.28	0.30	0.32	0.37
Particulars	State Portion				
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (One month)	0.00	0.00	0.00	0.00	0.00
Receivables (Two months)	25.61	35.84	38.05	41.43	41.57
Total Working Capital	25.61	35.84	38.05	41.43	41.57
Rate of Interest on Working Capital (in%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	3.46	4.84	5.14	5.59	5.61

(₹ in lakh)

Asset 2	Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M)	0.14	0.10	0.11	0.12	0.23
O&M Expenses (One month)	0.08	0.06	0.06	0.06	0.13
Receivables (Two months)	1.55	2.21	2.16	1.73	1.88
Total Working Capital	1.76	2.37	2.34	1.91	2.23



Rate of Interest on Working Capital (in%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	0.24	0.32	0.32	0.26	0.30
Particulars	State Portion				
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (One month)	0.00	0.00	0.00	0.00	0.00
Receivables (Two months)	14.13	19.07	20.33	21.57	21.64
Total Working Capital	14.13	19.07	20.33	21.57	21.64
Rate of Interest on Working Capital (in%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	1.91	2.57	2.74	2.91	2.92

(₹ in lakh)

Asset 3	Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M)	0.58	0.43	0.48	0.49	0.95
O&M Expenses (One Month)	0.32	0.24	0.27	0.27	0.53
Receivables (Two months)	8.22	6.37	6.93	7.40	7.99
Total Working Capital	9.11	7.04	7.68	8.17	9.46
Rate of Interest on Working Capital (in%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	1.23	0.95	1.04	1.10	1.28
Particulars	State Portion				
Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (One month)	0.00	0.00	0.00	0.00	0.00
Receivables (Two months)	6.36	9.12	9.73	10.19	10.24
Total Working Capital	6.36	9.12	9.73	10.19	10.24
Rate of Interest on Working Capital (in%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	0.86	1.23	1.31	1.38	1.38

(₹ in lakh)

Asset 4	State Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Particulars					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (One month)	0.00	0.00	0.00	0.00	0.00



Receivables (Two months)	2.02	2.34	2.45	2.66	2.72
Total Working Capital	2.02	2.34	2.45	2.66	2.72
Rate of Interest on Working Capital (in%)	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	0.27	0.32	0.33	0.36	0.37

81. The trued-up IWC allowed for Asset-5 to Asset-16 for 2014-19 tariff period are as follows:

Particulars		Asset-5				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.08	0.03	0.03	0.03	0.06
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.14	0.05	0.06	0.06	0.11
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	1.04	1.11	0.93	0.73	0.91
D	Total Working Capital (A+B+C)	1.25	1.19	1.02	0.82	1.08
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.08	0.16	0.14	0.11	0.15

Particulars		Asset-6				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	0.66	0.73	0.74	0.75	0.88



D	Total Working Capital (A+B+C)	0.66	0.73	0.74	0.75	0.88
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.04	0.10	0.10	0.10	0.12

(₹ in lakh)

Particulars		Asset-7				
		2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	7.02	7.32	7.20	7.07	9.11
D	Total Working Capital (A+B+C)	7.02	7.32	7.20	7.07	9.11
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.47	0.99	0.97	0.95	1.23

(₹ in lakh)

Particulars		Asset-8			
		2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.32	0.34	0.35	0.65
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.58	0.61	0.63	1.17
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	8.05	6.33	6.20	8.76
D	Total Working Capital (A+B+C)	8.96	7.27	7.19	10.59
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	1.15	0.98	0.97	1.43



(₹ in lakh)

Particulars		Asset-9			
		2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	2.10	2.07	2.06	2.15
D	Total Working Capital (A+B+C)	2.10	2.07	2.06	2.15
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.27	0.28	0.28	0.29

(₹ in lakh)

Particulars		Asset-10			
		2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	0.51	0.5	0.49	0.48
D	Total Working Capital (A+B+C)	0.51	0.5	0.49	0.48
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.07	0.07	0.07	0.06



(₹ in lakh)

Particulars		Asset-11	
		2017-18(Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.31	0.44
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.56	0.78
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	7.68	7.70
D	Total Working Capital (A+B+C)	8.56	8.91
E	Rate of Interest (in %)	12.60	12.60
F	Interest on Working Capital (DxE)	0.81	1.12

(₹ in lakh)

Particulars		Asset-12	
		2017-18(Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	5.57	5.64
D	Total Working Capital (A+B+C)	5.57	5.64
E	Rate of Interest (in %)	12.60	12.60
F	Interest on Working Capital (DxE)	0.53	0.71

(₹ in lakh)

Particulars		Asset-13	
		2017-18(Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	3.19	3.17
D	Total Working Capital (A+B+C)	3.19	3.17
E	Rate of Interest (in %)	12.60	12.60
F	Interest on Working Capital (DxE)	0.30	0.40



(₹ in lakh)

Particulars		Asset-14	
		2017-18(Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	2.06	2.08
D	Total Working Capital (A+B+C)	2.06	2.08
E	Rate of Interest (in %)	12.60	12.60
F	Interest on Working Capital (DxE)	0.20	0.26

(₹ in lakh)

Particulars		Asset-15	
		2017-18(Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	1.36	1.40
D	Total Working Capital (A+B+C)	1.36	1.40
E	Rate of Interest (in %)	12.60	12.60
F	Interest on Working Capital (DxE)	0.13	0.18

(₹ in lakh)

Particulars		Asset-16
		2018-19(Pro-rata for 59 days)
A	Working Capital for O&M Expenses (One month of O&M Expenses)	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	7.9
D	Total Working Capital (A+B+C)	7.9
E	Rate of Interest (in %)	12.20
F	Interest on Working Capital (DxE)	0.16



82. IWC allowed for Asset-5 to Asset-10 vide order dated 5.12.2016 in Petition No. 48/TT/2016, for Asset-11 to Asset-16 vide order dated 4.7.2019 in Petition No. 239/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-5	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.13	0.32	0.34	0.34	0.33
	As claimed by the Petitioner	0.08	0.16	0.14	0.11	0.15
	Approved after truing up	0.08	0.16	0.14	0.11	0.15
Asset-6	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.06	0.16	0.18	0.17	0.17
	As claimed by the Petitioner	0.04	0.10	0.10	0.10	0.12
	Approved after truing up	0.04	0.10	0.10	0.10	0.12
Asset-7	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	0.60	1.65	1.77	1.72	1.66
	As claimed by the Petitioner	0.47	0.99	0.98	0.96	1.24
	Approved after truing up	0.48	1.00	0.98	0.96	1.24
Asset-8	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	3.12	3.70	3.87	3.82
	As claimed by the Petitioner	-	1.13	0.96	0.95	1.42
	Approved after truing up	-	1.15	0.98	0.97	1.43
Asset-9	Allowed vide order dated 5.2.2016 in	-	0.32	0.37	0.36	0.35



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Petition No. 48/TT/2016					
	As claimed by the Petitioner	-	0.27	0.28	0.28	0.29
	Approved after truing up	-	0.27	0.28	0.28	0.29
Asset-10	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	0.06	0.06	0.06	0.06
	As claimed by the Petitioner	-	0.07	0.06	0.06	0.06
	Approved after truing up	-	0.07	0.07	0.07	0.06
Asset-11	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	1.95	2.16
	As claimed by the Petitioner	-	-	-	0.70	0.91
	Approved after truing up	-	-	-	0.81	1.12
Asset-12	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	0.42	0.55
	As claimed by the Petitioner	-	-	-	0.55	0.76
	Approved after truing up	-	-	-	0.53	0.71
Asset-13	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	0.25	0.32
	As claimed by the Petitioner	-	-	-	0.32	0.43
	Approved after truing up	-	-	-	0.30	0.40
Asset-14	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	0.16	0.21
	As claimed by the Petitioner	-	-	-	0.20	0.28
	Approved after truing up	-	-	-	0.20	0.26



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-15	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	0.10	0.13
	As claimed by the Petitioner	-	-	-	0.14	0.19
	Approved after truing up	-	-	-	0.13	0.18
Asset-16	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	-	0.08
	As claimed by the Petitioner	-	-	-	-	0.16
	Approved after truing up	-	-	-	-	0.16

Annual Fee and Charges

83. The computation of various components of the trued up annual fee and charges for Asset-1 to Asset-4 for 2014-19 tariff period are as follows:

(₹ in lakh)

Asset -1- Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	55.95	73.11	76.48	81.82	82.52
Opening Gross Notional Loan	39.17	51.18	53.54	57.27	57.76
Opening Gross Equity	16.79	21.93	22.94	24.55	24.76
Recovered Gross Capital Cost (As on 1st April)	1.43	3.30	6.07	9.30	13.18
Recovered Gross Notional Loan	1.14	2.62	4.78	7.28	10.23
Recovered Gross Equity	0.29	0.68	1.29	2.02	2.95
Opening Net Capital Cost	54.52	69.81	70.41	72.52	69.34
Opening Net Notional Loan	38.03	48.55	48.75	50.00	47.53
Opening Net Equity	16.50	21.25	21.66	22.52	21.80
Recovered Capital Cost (During the Year)	1.88	2.77	3.23	3.88	4.37
Recovered Notional Loan	1.48	2.16	2.49	2.95	3.27
Recovered Equity	0.39	0.60	0.74	0.93	1.09
Closing Net Capital Cost	52.65	67.04	67.18	68.64	64.97



Asset -1- Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Closing Net Notional Loan	36.54	46.39	46.26	47.04	44.26
Closing Net Equity	16.10	20.65	20.92	21.59	20.71
Additional Capital Cost	17.16	3.37	5.34	0.70	0.00
Additional Notional Loan	12.01	2.36	3.74	0.49	0.00
Additional Equity	5.15	1.01	1.60	0.21	0.00
Years (Capital to be recovered up to 1.4.2027)	13.50	12.50	11.50	10.50	9.50
Months	162.00	150.00	138.00	126.00	114.00
Weighted Average Rate of Interest p.a.	9.2742%	9.2742%	9.2737%	9.2726%	9.2714%
Weighted Average Rate of Interest p.m.	0.7729%	0.7729%	0.7728%	0.7727%	0.7726%
Monthly Recovery Factors -Loan	0.010844	0.011284	0.011810	0.012446	0.013227
Monthly Capital Recovery Charge - Loan	0.41	0.55	0.58	0.62	0.63
Annual Capital Recovery Charge - Loan	4.95	6.57	6.91	7.47	7.54
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014763	0.015122	0.015565	0.016115	0.016808
Monthly Capital Recovery Charge - Equity	0.24	0.32	0.34	0.36	0.37
Annual Capital Recovery Charge - Equity	2.92	3.86	4.05	4.36	4.40
Monthly Capital Recovery Charge - Total	0.66	0.87	0.91	0.99	1.00
Annual Capital Recovery Charge - Total	7.87	10.43	10.95	11.82	11.94
Fee & Charges (2014-19) (Annualized)	Central Portion - Charges				
Annual Capital Recovery Charge - Loan	4.95	6.57	6.91	7.47	7.54
Annual Capital Recovery Charge - Equity	2.92	3.86	4.05	4.36	4.40
Annual Capital Recovery Charge - Total	7.87	10.43	10.95	11.82	11.94
O&M Expenses	1.08	0.81	0.90	0.91	1.77
Interest on Working Capital	0.24	0.28	0.30	0.32	0.37
Total Fee & Charges (Annualized)	9.19	11.53	12.15	13.06	14.08
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.16	0.12	0.13	0.14	0.27
O&M Expenses (1 Month)	0.09	0.07	0.07	0.08	0.15
Receivables (2 months)	1.53	1.92	2.03	2.18	2.35
Total	1.78	2.11	2.24	2.39	2.76
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	0.24	0.28	0.30	0.32	0.37



Asset -1- Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Fee & Charges (2014-19) (Applicable)	Central Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	4.95	6.57	6.91	7.47	7.54
Annual Capital Recovery Charge - Equity	2.92	3.86	4.05	4.36	4.40
Annual Capital Recovery Charge - Total	7.87	10.43	10.95	11.82	11.94
O&M Expenses	1.08	0.81	0.90	0.91	1.77
Interest on Working Capital	0.24	0.28	0.30	0.32	0.37
Total Fee & Charges (Applicable)	9.19	11.53	12.15	13.06	14.08

(₹ in lakh)

Asset -1 - State Portion- Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	1066.36	1468.32	1551.76	1673.86	1678.54
Opening Gross Notional Loan	746.45	1027.82	1086.23	1171.70	1174.98
Opening Gross Equity	319.91	440.50	465.53	502.16	503.56
Recovered Gross Capital Cost (As on 1st April)	25.82	61.62	117.37	183.21	263.03
Recovered Gross Notional Loan	20.73	49.04	92.63	143.41	204.17
Recovered Gross Equity	5.09	12.58	24.74	39.79	58.86
Opening Net Capital Cost	1040.54	1406.70	1434.39	1490.65	1415.51
Opening Net Notional Loan	725.72	978.78	993.61	1028.29	970.81
Opening Net Equity	314.82	427.92	440.78	462.37	444.71
Recovered Capital Cost (During the Year)	35.80	55.75	65.84	79.82	89.18
Recovered Notional Loan	28.31	43.58	50.79	60.76	66.87
Recovered Equity	7.49	12.17	15.05	19.06	22.31
Closing Net Capital Cost	1004.74	1350.95	1368.55	1410.83	1326.34
Closing Net Notional Loan	697.41	935.20	942.82	967.53	903.94
Closing Net Equity	307.33	415.75	425.74	443.30	422.40
Additional Capital Cost	401.96	83.44	122.10	4.68	0.00
Additional Notional Loan	281.37	58.41	85.47	3.28	0.00
Additional Equity	120.59	25.03	36.63	1.40	0.00
Years (Capital to be recovered up to 1.4.2027)	13.50	12.50	11.50	10.50	9.50
Months	162.00	150.00	138.00	126.00	114.00
Weighted Average Rate of Interest p.a.	9.2758%	9.2758%	9.2753%	9.2742%	9.2729%



Asset -1 - State Portion- Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Weighted Average Rate of Interest p.m.	0.7730%	0.7730%	0.7729%	0.7728%	0.7727%
Monthly Recovery Factors -Loan	0.010845	0.011285	0.011811	0.012447	0.013227
Monthly Capital Recovery Charge - Loan	7.87	11.05	11.74	12.80	12.84
Annual Capital Recovery Charge - Loan	94.45	132.55	140.82	153.58	154.10
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014763	0.015122	0.015565	0.016115	0.016808
Monthly Capital Recovery Charge - Equity	4.65	6.47	6.86	7.45	7.47
Annual Capital Recovery Charge - Equity	55.77	77.65	82.33	89.41	89.70
Monthly Capital Recovery Charge - Total	12.52	17.52	18.60	20.25	20.32
Annual Capital Recovery Charge - Total	150.22	210.20	223.15	243.00	243.79
Fee & Charges (2014-19) (Annualized)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	94.45	132.55	140.82	153.58	154.10
Annual Capital Recovery Charge - Equity	55.77	77.65	82.33	89.41	89.70
Annual Capital Recovery Charge - Total	150.22	210.20	223.15	243.00	243.79
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.46	4.84	5.14	5.59	5.61
Total Fee & Charges (Annualized)	153.67	215.04	228.29	248.59	249.40
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	25.61	35.84	38.05	41.43	41.57
Total	25.61	35.84	38.05	41.43	41.57
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	3.46	4.84	5.14	5.59	5.61
Fee & Charges (2014-19) (Applicable)	State Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	94.45	132.55	140.82	153.58	154.10
Annual Capital Recovery Charge - Equity	55.77	77.65	82.33	89.41	89.70
Annual Capital Recovery Charge - Total	150.22	210.20	223.15	243.00	243.79
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.46	4.84	5.14	5.59	5.61
Total Fee & Charges (Applicable)	153.67	215.04	228.29	248.59	249.40



(₹ in lakh)

Asset -2 - Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	58.84	87.17	84.54	68.44	69.27
Opening Gross Notional Loan	41.19	61.02	59.18	47.91	48.49
Opening Gross Equity	17.65	26.15	25.36	20.53	20.78
Recovered Gross Capital Cost (As on 1st April)	0.99	2.88	6.03	9.41	12.36
Recovered Gross Notional Loan	0.80	2.30	4.79	7.42	9.67
Recovered Gross Equity	0.19	0.57	1.24	1.99	2.68
Opening Net Capital Cost	57.85	84.29	78.51	59.03	56.91
Opening Net Notional Loan	40.39	58.71	54.39	40.49	38.82
Opening Net Equity	17.46	25.58	24.12	18.54	18.10
Recovered Capital Cost (During the Year)	1.88	3.15	3.38	2.95	3.33
Recovered Notional Loan	1.50	2.48	2.63	2.25	2.50
Recovered Equity	0.38	0.66	0.75	0.70	0.82
Closing Net Capital Cost	55.96	81.14	75.13	56.08	53.59
Closing Net Notional Loan	38.88	56.23	51.76	38.24	36.31
Closing Net Equity	17.08	24.91	23.37	17.85	17.28
Additional Capital Cost	28.33	-2.63	-16.10	0.83	0.92
Additional Notional Loan	19.83	-1.84	-11.27	0.58	0.64
Additional Equity	8.50	-0.79	-4.83	0.25	0.28
Years (Capital to be recovered up to 1.1.2028)	14.00	13.00	12.00	11.00	10.00
Months	168.00	156.00	144.00	132.00	120.00
Weighted Average Rate of Interest p.a.	9.0581%	9.0581%	9.0547%	9.0475%	9.0399%
Weighted Average Rate of Interest p.m.	0.7548%	0.7548%	0.7546%	0.7540%	0.7533%
Monthly Recovery Factors -Loan	0.010523	0.010930	0.011411	0.011987	0.012689
Monthly Capital Recovery Charge - Loan	0.43	0.64	0.62	0.49	0.49
Annual Capital Recovery Charge - Loan	5.10	7.70	7.45	5.82	5.91
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014608	0.014933	0.015332	0.015825	0.016441
Monthly Capital Recovery Charge - Equity	0.26	0.38	0.37	0.29	0.30
Annual Capital Recovery Charge - Equity	3.06	4.58	4.44	3.52	3.57
Monthly Capital Recovery Charge - Total	0.68	1.02	0.99	0.78	0.79



Asset -2 - Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Total	8.16	12.28	11.89	9.35	9.48
Fee & Charges (2014-19) (Annualized)	Central Portion - Charges				
Annual Capital Recovery Charge - Loan	5.10	7.70	7.45	5.82	5.91
Annual Capital Recovery Charge - Equity	3.06	4.58	4.44	3.52	3.57
Annual Capital Recovery Charge - Total	8.16	12.28	11.89	9.35	9.48
O&M Expenses	0.91	0.68	0.76	0.78	1.50
Interest on Working Capital	0.24	0.32	0.32	0.26	0.30
Total Fee & Charges (Annualized)	9.31	13.29	12.97	10.38	11.29
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.14	0.10	0.11	0.12	0.23
O&M Expenses (1 Month)	0.08	0.06	0.06	0.06	0.13
Receivables (2 months)	1.55	2.21	2.16	1.73	1.88
Total	1.76	2.37	2.34	1.91	2.23
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	0.24	0.32	0.32	0.26	0.30
Fee & Charges (2014-19) (Applicable)	Central Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	5.10	7.70	7.45	5.82	5.91
Annual Capital Recovery Charge - Equity	3.06	4.58	4.44	3.52	3.57
Annual Capital Recovery Charge - Total	8.16	12.28	11.89	9.35	9.48
O&M Expenses	0.91	0.68	0.76	0.78	1.50
Interest on Working Capital	0.24	0.32	0.32	0.26	0.30
Total Fee & Charges (Applicable)	9.31	13.29	12.97	10.38	11.29

(₹ in lakh)

Asset -2 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	598.48	797.42	846.40	892.89	895.45
Opening Gross Notional Loan	418.94	558.19	592.48	625.02	626.82
Opening Gross Equity	179.54	239.23	253.92	267.87	268.64
Recovered Gross Capital Cost (As on 1st April)	11.16	30.28	58.94	92.85	132.86
Recovered Gross Notional Loan	9.01	24.26	46.85	73.24	103.94
Recovered Gross Equity	2.15	6.02	12.08	19.61	28.92
Opening Net Capital Cost	587.32	767.14	787.46	800.04	762.59
Opening Net Notional Loan	409.93	533.93	545.63	551.78	522.87
Opening Net Equity	177.39	233.21	241.84	248.25	239.72



Asset -2 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Recovered Capital Cost (During the Year)	19.12	28.65	33.92	40.01	44.62
Recovered Notional Loan	15.26	22.59	26.39	30.70	33.73
Recovered Equity	3.87	6.06	7.53	9.31	10.89
Closing Net Capital Cost	568.20	738.48	753.55	760.03	717.97
Closing Net Notional Loan	394.67	511.34	519.24	521.08	489.15
Closing Net Equity	173.52	227.14	234.31	238.95	228.83
Additional Capital Cost	198.94	48.98	46.49	2.56	9.70
Additional Notional Loan	139.26	34.29	32.54	1.79	6.79
Additional Equity	59.68	14.69	13.95	0.77	2.91
Years (Capital to be recovered up to 1.1.2028)	14.00	13.00	12.00	11.00	10.00
Months	168.00	156.00	144.00	132.00	120.00
Weighted Average Rate of Interest p.a.	9.0582%	9.0582%	9.0548%	9.0476%	9.0400%
Weighted Average Rate of Interest p.m.	0.7549%	0.7549%	0.7546%	0.7540%	0.7533%
Monthly Recovery Factors -Loan	0.010523	0.010930	0.011411	0.011987	0.012689
Monthly Capital Recovery Charge - Loan	4.31	5.84	6.23	6.61	6.63
Annual Capital Recovery Charge - Loan	51.77	70.03	74.71	79.37	79.62
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014608	0.014933	0.015332	0.015825	0.016441
Monthly Capital Recovery Charge - Equity	2.59	3.48	3.71	3.93	3.94
Annual Capital Recovery Charge - Equity	31.10	41.79	44.49	47.14	47.29
Monthly Capital Recovery Charge - Total	6.91	9.32	9.93	10.54	10.58
Annual Capital Recovery Charge - Total	82.86	111.82	119.21	126.51	126.91
Fee & Charges (2014-19) (Annualized)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	51.77	70.03	74.71	79.37	79.62
Annual Capital Recovery Charge - Equity	31.10	41.79	44.49	47.14	47.29
Annual Capital Recovery Charge - Total	82.86	111.82	119.21	126.51	126.91
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.91	2.57	2.74	2.91	2.92
Total Fee & Charges (Annualized)	84.77	114.40	121.95	129.43	129.83
Interest on Working Capital					



Asset -2 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	14.13	19.07	20.33	21.57	21.64
Total	14.13	19.07	20.33	21.57	21.64
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	1.91	2.57	2.74	2.91	2.92
Fee & Charges (2014-19) (Applicable)	State Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	51.77	70.03	74.71	79.37	79.62
Annual Capital Recovery Charge - Equity	31.10	41.79	44.49	47.14	47.29
Annual Capital Recovery Charge - Total	82.86	111.82	119.21	126.51	126.91
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.91	2.57	2.74	2.91	2.92
Total Fee & Charges (Applicable)	84.77	114.40	121.95	129.43	129.83

(₹ in lakh)

Asset -3 - Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	320.71	252.06	272.18	289.61	291.52
Opening Gross Notional Loan	224.50	176.44	190.53	202.73	204.06
Opening Gross Equity	96.21	75.62	81.65	86.88	87.46
Recovered Gross Capital Cost (As on 1st April)	3.61	13.21	21.48	31.47	43.37
Recovered Gross Notional Loan	2.92	10.61	17.14	24.93	34.10
Recovered Gross Equity	0.69	2.60	4.34	6.54	9.28
Opening Net Capital Cost	317.10	238.85	250.70	258.14	248.15
Opening Net Notional Loan	221.58	165.83	173.38	177.80	169.97
Opening Net Equity	95.52	73.02	77.32	80.35	78.18
Recovered Capital Cost (During the Year)	9.60	8.27	9.99	11.91	13.35
Recovered Notional Loan	7.69	6.53	7.79	9.17	10.12
Recovered Equity	1.91	1.74	2.20	2.74	3.22
Closing Net Capital Cost	307.50	230.58	240.71	246.24	234.80
Closing Net Notional Loan	213.89	159.30	165.60	168.63	159.84
Closing Net Equity	93.61	71.28	75.12	77.60	74.95
Additional Capital Cost	-68.65	20.12	17.43	1.91	1.88
Additional Notional Loan	-48.06	14.08	12.20	1.34	1.32



Asset -3 - Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Additional Equity	-20.60	6.04	5.23	0.57	0.56
Years (Capital to be recovered up to 1.4.2028)	14.50	13.50	12.50	11.50	10.50
Months	174.00	162.00	150.00	138.00	126.00
Weighted Average Rate of Interest p.a.	9.1505%	9.1505%	9.1466%	9.1381%	9.1287%
Weighted Average Rate of Interest p.m.	0.7625%	0.7625%	0.7622%	0.7615%	0.7607%
Monthly Recovery Factors -Loan	0.010398	0.010772	0.011211	0.011734	0.012367
Monthly Capital Recovery Charge - Loan	2.30	1.79	1.94	2.09	2.10
Annual Capital Recovery Charge - Loan	27.65	21.44	23.33	25.04	25.22
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014468	0.014763	0.015122	0.015565	0.016115
Monthly Capital Recovery Charge - Equity	1.38	1.08	1.17	1.25	1.26
Annual Capital Recovery Charge - Equity	16.58	12.94	14.03	15.01	15.12
Monthly Capital Recovery Charge - Total	3.69	2.86	3.11	3.34	3.36
Annual Capital Recovery Charge - Total	44.23	34.37	37.36	40.04	40.34
Fee & Charges (2014-19) (Annualized)	Central Portion - Charges				
Annual Capital Recovery Charge - Loan	27.65	21.44	23.33	25.04	25.22
Annual Capital Recovery Charge - Equity	16.58	12.94	14.03	15.01	15.12
Annual Capital Recovery Charge - Total	44.23	34.37	37.36	40.04	40.34
O&M Expenses	3.84	2.89	3.21	3.27	6.32
Interest on Working Capital	1.23	0.95	1.04	1.10	1.28
Total Fee & Charges (Annualized)	49.31	38.21	41.60	44.42	47.94
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.58	0.43	0.48	0.49	0.95
O&M Expenses (1 Month)	0.32	0.24	0.27	0.27	0.53
Receivables (2 months)	8.22	6.37	6.93	7.40	7.99
Total	9.11	7.04	7.68	8.17	9.46
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	1.23	0.95	1.04	1.10	1.28
Fee & Charges (2014-19) (Applicable)	Central Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	27.65	21.44	23.33	25.04	25.22
Annual Capital Recovery Charge - Equity	16.58	12.94	14.03	15.01	15.12



Asset -3 - Central Portion-Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Total	44.23	34.37	37.36	40.04	40.34
O&M Expenses	3.84	2.89	3.21	3.27	6.32
Interest on Working Capital	1.23	0.95	1.04	1.10	1.28
Total Fee & Charges (Applicable)	49.31	38.21	41.60	44.42	47.94

(₹ in lakh)

Asset -3 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	270.19	383.03	407.32	424.68	426.63
Opening Gross Notional Loan	189.14	268.12	285.13	297.28	298.64
Opening Gross Equity	81.06	114.91	122.20	127.41	127.99
Recovered Gross Capital Cost (As on 1st April)	2.91	11.00	23.90	39.19	56.98
Recovered Gross Notional Loan	2.35	8.84	19.05	31.00	44.73
Recovered Gross Equity	0.56	2.17	4.85	8.19	12.26
Opening Net Capital Cost	267.28	372.03	383.43	385.50	369.65
Opening Net Notional Loan	186.78	259.29	266.08	266.28	253.92
Opening Net Equity	80.50	112.74	117.35	119.22	115.73
Recovered Capital Cost (During the Year)	8.09	12.89	15.29	17.80	19.90
Recovered Notional Loan	6.48	10.21	11.95	13.73	15.12
Recovered Equity	1.61	2.68	3.34	4.07	4.77
Closing Net Capital Cost	259.19	359.14	368.14	367.70	349.75
Closing Net Notional Loan	180.30	249.07	254.12	252.55	238.79
Closing Net Equity	78.89	110.06	114.01	115.15	110.96
Additional Capital Cost	112.84	24.29	17.36	1.95	1.52
Additional Notional Loan	78.99	17.00	12.15	1.37	1.06
Additional Equity	33.85	7.29	5.21	0.59	0.46
Years (Capital to be recovered up to 1.4.2028)	14.50	13.50	12.50	11.50	10.50
Months	174.00	162.00	150.00	138.00	126.00
Weighted Average Rate of Interest p.a.	9.1505%	9.1505%	9.1466%	9.1381%	9.1287%
Weighted Average Rate of Interest p.m.	0.7625%	0.7625%	0.7622%	0.7615%	0.7607%
Monthly Recovery Factors -Loan	0.010398	0.010772	0.011211	0.011734	0.012367
Monthly Capital Recovery Charge - Loan	1.94	2.79	2.98	3.12	3.14
Annual Capital Recovery Charge - Loan	23.31	33.52	35.80	37.49	37.68



Asset -3 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014468	0.014763	0.015122	0.015565	0.016115
Monthly Capital Recovery Charge - Equity	1.16	1.66	1.77	1.86	1.87
Annual Capital Recovery Charge - Equity	13.98	19.97	21.30	22.27	22.38
Monthly Capital Recovery Charge - Total	3.11	4.46	4.76	4.98	5.01
Annual Capital Recovery Charge - Total	37.28	53.49	57.09	59.76	60.06
Fee & Charges (2014-19) (Annualized)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	23.31	33.52	35.80	37.49	37.68
Annual Capital Recovery Charge - Equity	13.98	19.97	21.30	22.27	22.38
Annual Capital Recovery Charge - Total	37.28	53.49	57.09	59.76	60.06
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.86	1.23	1.31	1.38	1.38
Total Fee & Charges (Annualized)	38.14	54.72	58.41	61.14	61.44
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	6.36	9.12	9.73	10.19	10.24
Total	6.36	9.12	9.73	10.19	10.24
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	0.86	1.23	1.31	1.38	1.38
Fee & Charges (2014-19) (Applicable)	State Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	23.31	33.52	35.80	37.49	37.68
Annual Capital Recovery Charge - Equity	13.98	19.97	21.30	22.27	22.38
Annual Capital Recovery Charge - Total	37.28	53.49	57.09	59.76	60.06
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.86	1.23	1.31	1.38	1.38
Total Fee & Charges (Applicable)	38.14	54.72	58.41	61.14	61.44

(₹ in lakh)

Asset -4 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Capital Cost	87.19	101.07	105.45	113.69	116.16
Opening Gross Notional Loan	61.04	70.75	73.82	79.59	81.31
Opening Gross Equity	26.16	30.32	31.64	34.11	34.85



Asset -4 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Recovered Gross Capital Cost (As on 1st April)	0.20	2.76	6.06	9.89	14.50
Recovered Gross Notional Loan	0.16	2.24	4.88	7.91	11.50
Recovered Gross Equity	0.04	0.52	1.18	1.99	3.00
Opening Net Capital Cost	87.00	98.31	99.39	103.80	101.66
Opening Net Notional Loan	60.87	68.51	68.94	71.68	69.81
Opening Net Equity	26.12	29.80	30.45	32.12	31.85
Recovered Capital Cost (During the Year)	2.56	3.30	3.83	4.61	5.23
Recovered Notional Loan	2.08	2.64	3.02	3.60	4.02
Recovered Equity	0.49	0.66	0.80	1.02	1.21
Closing Net Capital Cost	84.43	95.01	95.56	99.19	96.43
Closing Net Notional Loan	58.80	65.87	65.91	68.08	65.79
Closing Net Equity	25.64	29.14	29.65	31.11	30.64
Additional Capital Cost	13.88	4.38	8.24	2.47	29.81
Additional Notional Loan	9.72	3.07	5.77	1.73	20.87
Additional Equity	4.16	1.31	2.47	0.74	8.94
Years (Capital to be recovered up to 1.10.2028)	14.92	13.92	12.92	11.92	10.92
Months	179.00	167.00	155.00	143.00	131.00
Weighted Average Rate of Interest p.a.	8.7517%	8.7282%	8.7008%	8.6598%	8.6558%
Weighted Average Rate of Interest p.m.	0.7293%	0.7273%	0.7251%	0.7216%	0.7213%
Monthly Recovery Factors -Loan	0.010023	0.010363	0.010763	0.011234	0.011825
Monthly Capital Recovery Charge - Loan	0.61	0.71	0.74	0.81	0.83
Annual Capital Recovery Charge - Loan	7.32	8.52	8.90	9.66	9.91
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014360	0.014633	0.014964	0.015369	0.015871
Monthly Capital Recovery Charge - Equity	0.38	0.44	0.46	0.49	0.51
Annual Capital Recovery Charge - Equity	4.50	5.23	5.47	5.92	6.07
Monthly Capital Recovery Charge - Total	0.99	1.15	1.20	1.30	1.33
Annual Capital Recovery Charge - Total	11.82	13.75	14.37	15.59	15.97
Fee & Charges (2014-19) (Annualized)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	7.32	8.52	8.90	9.66	9.91



Asset -4 - State Portion - Fees and charges					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Equity	4.50	5.23	5.47	5.92	6.07
Annual Capital Recovery Charge - Total	11.82	13.75	14.37	15.59	15.97
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.27	0.32	0.33	0.36	0.37
Total Fee & Charges (Annualized)	12.09	14.07	14.70	15.95	16.34
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	2.02	2.34	2.45	2.66	2.72
Total	2.02	2.34	2.45	2.66	2.72
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	0.27	0.32	0.33	0.36	0.37
Fee & Charges (2014-19) (Applicable)	State Portion - Charges				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Capital Recovery Charge - Loan	7.32	8.52	8.90	9.66	9.91
Annual Capital Recovery Charge - Equity	4.50	5.23	5.47	5.92	6.07
Annual Capital Recovery Charge - Total	11.82	13.75	14.37	15.59	15.97
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.27	0.32	0.33	0.36	0.37
Total Fee & Charges (Applicable)	12.09	14.07	14.70	15.95	16.34

Approved annual fixed charges for the 2014-19 tariff period

84. The trued-up Annual Fixed Charges (AFC) approved for Asset-5 to Asset-16 for 2014-19 tariff period are as follows:

Particulars	Asset - 5				
	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	0.91	2.20	1.83	1.45	1.74
Interest on Loan	0.84	1.93	1.50	1.07	1.21
Return on Equity	0.84	2.05	1.71	1.35	1.63
O & M Expenses	0.45	0.34	0.38	0.39	0.72
Interest on Working Capital	0.08	0.16	0.14	0.11	0.15
Total	3.12	6.68	5.56	4.37	5.45



(₹ in lakh)

Particulars	Asset - 6				
	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	0.68	1.52	1.60	1.66	1.99
Interest on Loan	0.63	1.33	1.26	1.18	1.32
Return on Equity	0.63	1.42	1.50	1.55	1.86
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.04	0.10	0.10	0.10	0.12
Total	1.98	4.37	4.46	4.49	5.29

(₹ in lakh)

Particulars	Asset - 7				
	2014-15(Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	7.27	15.49	15.69	15.89	20.61
Interest on Loan	6.49	12.98	11.86	10.73	13.52
Return on Equity	6.75	14.46	14.65	14.83	19.30
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.47	0.99	0.97	0.95	1.23
Total	20.98	43.92	43.17	42.40	54.66

(₹ in lakh)

Particulars	Asset - 8			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
Depreciation	14.30	12.00	12.20	16.64
Interest on Loan	13.33	9.70	8.42	11.10
Return on Equity	13.36	11.21	11.39	15.58
O & M Expenses	3.67	4.06	4.23	7.83
Interest on Working Capital	1.15	0.98	0.97	1.43
Total	45.81	37.95	37.21	52.58

(₹ in lakh)

Particulars	Asset - 9			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
Depreciation	4.18	4.49	4.60	4.90
Interest on Loan	3.56	3.47	3.19	3.09
Return on Equity	3.91	4.19	4.29	4.59
O & M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.27	0.28	0.28	0.29



Total	11.92	12.43	12.36	12.87
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(₹ in lakh)

Particulars	Asset - 10			
	2015-16 (Pro-rata for 347 days)	2016-17	2017-18	2018-19
Depreciation	0.98	1.05	1.06	1.07
Interest on Loan	0.96	0.93	0.84	0.75
Return on Equity	0.92	0.97	0.99	1.00
O & M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.07	0.07	0.07	0.06
Total	2.93	3.01	2.96	2.88

(₹ in lakh)

Particulars	Asset - 11	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	11.06	14.58
Interest on Loan	9.57	11.60
Return on Equity	10.33	13.66
O & M Expenses	2.82	5.22
Interest on Working Capital	0.81	1.12
Total	34.59	46.18

(₹ in lakh)

Particulars	Asset - 12	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	8.82	12.17
Interest on Loan	7.51	9.53
Return on Equity	8.24	11.40
O & M Expenses	0.00	0.00
Interest on Working Capital	0.53	0.71
Total	25.10	33.81

(₹ in lakh)

Particulars	Asset - 13	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	5.05	6.86
Interest on Loan	4.29	5.36
Return on Equity	4.71	6.42
O & M Expenses	0.00	0.00
Interest on Working Capital	0.30	0.40



Total	14.35	19.04
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(₹ in lakh)

Particulars	Asset - 14	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	3.27	4.50
Interest on Loan	2.77	3.50
Return on Equity	3.06	4.21
O & M Expenses	0.00	0.00
Interest on Working Capital	0.20	0.26
Total	9.30	12.47

(₹ in lakh)

Particulars	Asset - 15	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	2.15	3.03
Interest on Loan	1.82	2.35
Return on Equity	2.01	2.83
O & M Expenses	0.00	0.00
Interest on Working Capital	0.13	0.18
Total	6.11	8.39

(₹ in lakh)

Particulars	Asset - 16
	2018-19 (Pro-rata for 59 days)
Depreciation	2.62
Interest on Loan	2.44
Return on Equity	2.45
O & M Expenses	0.00
Interest on Working Capital	0.16
Total	7.67

85. The details of AFC allowed for 2014-19 tariff period for Asset-5 to Asset-10 vide order dated 5.12.2016 in Petition No. 48/TT/2016, for Asset-11 to Asset-16 vide order dated 4.7.2019 in Petition No. 239/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-5	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	4.16	11.19	12.26	12.03	11.79
	As claimed by the Petitioner	3.15	6.71	5.60	4.40	5.49
	Approved after truing up	3.12	6.68	5.56	4.37	5.45
Asset-6	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	2.45	7.15	8.02	7.76	7.52
	As claimed by the Petitioner	1.98	4.40	4.49	4.51	5.33
	Approved after truing up	1.98	4.37	4.46	4.49	5.29
Asset-7	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	26.75	73.31	78.77	76.37	74.00
	As claimed by the Petitioner	21.13	44.21	43.46	42.68	54.92
	Approved after truing up	20.98	43.92	43.17	42.40	54.66
Asset-8	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	107.72	132.50	139.11	136.03
	As claimed by the Petitioner	-	44.80	36.94	36.30	52.20
	Approved after truing up	-	45.81	37.95	37.21	52.58
Asset-9	Allowed vide order dated 5.2.2016 in Petition No. 48/TT/2016	-	14.06	16.61	16.14	15.64
	As claimed by the Petitioner	-	11.94	12.46	12.38	12.89
	Approved after truing up	-	11.92	12.43	12.36	12.87
Asset-10	Allowed vide order dated 5.2.2016 in	-	2.66	2.84	2.79	2.71



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Petition No. 48/TT/2016					
	As claimed by the Petitioner	-	2.77	2.85	2.79	2.89
	Approved after truing up	-	2.93	3.01	2.95	2.88
Asset-11	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	54.54	63.16
	As claimed by the Petitioner	-	-	-	36.17	48.67
	Approved after truing up	-	-	-	34.59	46.18
Asset-12	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	20.14	26.19
	As claimed by the Petitioner	-	-	-	26.24	36.21
	Approved after truing up	-	-	-	25.10	33.81
Asset-13	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	11.79	15.31
	As claimed by the Petitioner	-	-	-	15.02	20.42
	Approved after truing up	-	-	-	14.35	19.04
Asset-14	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	7.54	9.79
	As claimed by the Petitioner	-	-	-	9.66	13.29
	Approved after truing up	-	-	-	9.30	12.47
Asset-15	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	4.90	6.36
	As claimed by the Petitioner	-	-	-	6.36	8.91
	Approved after truing up	-	-	-	6.11	8.39



Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-16	Allowed vide order dated 4.7.2019 in Petition No. 239/TT/2018	-	-	-	-	3.80
	As claimed by the Petitioner	-	-	-	-	7.96
	Approved after truing up	-	-	-	-	7.67

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

86. As per the directions of the Commission in order dated 8.12.2011 in Petition No.68/2010, the scope of the 2019 Tariff Regulations has been widened to include the Communication System used for inter-State transmission of electricity. However, as per clause (iii) of Regulation 8(1) of the 2019 Tariff Regulations, the tariff of the existing Communication System forming part of the transmission system is to be determined as per the methodology followed prior to 1.4.2014. The said Regulation provides as follows:

“(iii) Tariff of the associated communication system forming part of transmission system which has achieved commercial operation prior to 1.4.2014 shall be as per the methodology approved by the Commission prior to 1.4.2014.”

87. Asset-1 to Asset-4 were declared under commercial operation during 2009-14 tariff period and Asset-5 to Asset-16 during 2014-19 tariff period. In view of the above provision of 2019 Tariff Regulations, we are of the view that tariff of the Communication System and ULDC Non-Microwave System of the Petitioner claimed in respect of Asset-1 to Asset-4 should be continued and allowed on levelised tariff basis as per the principles approved by the Commission vide order dated 8.12.2011 in Petition No 68/2010. Accordingly, the annual fees and charges of Non-Microwave System is determined in this order.

88. The Petitioner has submitted that Asset-1 to Asset-4 have not been combined since their tariff/fees and charges are claimed as per levelised tariff mechanism. Hence, tariff



stream in respect of Asset-1 to Asset-4 is kept separate for the purpose of claim of transmission tariff for 2019-24 tariff period.

89. It has also been submitted by the Petitioner that among Asset- 5 to Asset-16, which were executed in 2014-19 tariff period, Asset- 5, Asset-8 and Asset-11 are under Central Sector which have been combined here to form a single asset for the purpose of claim of transmission tariff for 2019-24 tariff period. Similarly, the balance transmission assets, namely, Asset-6, Asset-7, Asset-9, Asset-10, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16 under State Sector are combined to form another single asset for the purpose of claim of transmission tariff for 2019-24 tariff period.

90. The Petitioner has claimed the following transmission charges in respect of Asset-1 to Asset-4 for 2019-24 tariff period and the same are as follows:

(₹ in lakh)

Asset –1	Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	114.04	114.04	114.04	114.04	114.04
O&M Expenses	16.66	16.66	16.66	16.66	16.66
Interest on Working Capital	2.44	2.45	2.45	2.45	2.45
Total Fees& Charges	133.14	133.14	133.14	133.14	133.14

(₹ in lakh)

Asset –1	State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	290.67	290.67	290.67	290.67	290.67
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.37	4.38	4.38	4.38	4.37
Total Fees& Charges	295.04	295.05	295.05	295.05	295.04

(₹ in lakh)

Asset –2	Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	76.89	76.89	76.89	76.89	76.89
O&M Expenses	11.22	11.22	11.22	11.22	11.22
Interest on Working Capital	1.65	1.65	1.65	1.65	1.65



Total Fees& Charges	89.76	89.76	89.76	89.76	89.76
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(₹ in lakh)

Asset –2	State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	426.30	426.30	426.30	426.30	426.30
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	6.41	6.43	6.43	6.43	6.43
Total Fees& Charges	432.71	432.73	432.73	432.73	432.73

(₹ in lakh)

Asset –3	Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	68.52	68.52	68.52	68.52	68.52
O&M Expenses	10.05	10.05	10.05	10.05	10.05
Interest on Working Capital	1.47	1.47	1.47	1.47	1.47
Total Fees& Charges	80.03	80.03	80.03	80.03	80.03

(₹ in lakh)

Asset –3	State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	217.47	217.47	217.47	217.47	217.47
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.27	3.27	3.27	3.27	3.27
Total Fees& Charges	220.74	220.74	220.74	220.74	220.74

(₹ in lakh)

Asset –4	State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge-Total	143.80	143.80	143.80	143.80	143.80
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.16	2.16	2.16	2.16	2.16
Total Fees& Charges	145.96	145.96	145.96	145.96	145.96

91. The Petitioner has claimed the following transmission charges in respect of the Combined Asset-Central Portion and Combined Asset-State Portion for 2019-24 tariff period and the same are as follows:

(₹ in lakh)

Particulars	Combined Asset - Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	38.24	38.24	38.24	38.24	38.24
Interest on Loan	25.92	22.78	19.65	16.51	13.37



Particulars	Combined Asset - Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity	34.03	34.03	34.03	34.03	34.03
O&M Expenses	12.08	12.08	12.08	12.08	12.08
Interest on Working Capital	2.00	1.96	1.91	1.87	1.81
Total	112.27	109.09	105.91	102.73	99.53

(₹ in lakh)

Particulars	Combined Asset – State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	80.32	80.95	80.95	80.95	80.95
Interest on Loan	56.83	50.77	44.22	37.59	30.86
Return on Equity	71.48	72.05	72.05	72.05	72.05
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.14	3.07	2.97	2.87	2.77
Total	211.77	206.84	200.19	193.46	186.63

92. The details of the IWC claimed by the Petitioner in respect of Combined Asset-Central Portion and Combined Asset-State Portion for 2019-24 tariff period and the same are as follows:

(₹ in lakh)

Particulars	Combined Asset - Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	1.01	1.01	1.01	1.01	1.01
Maintenance Spares	1.81	1.81	1.81	1.81	1.81
Receivables	13.80	13.45	13.06	12.67	12.24
Total	16.62	16.27	15.88	15.49	15.06
Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.00	1.96	1.91	1.87	1.81

(₹ in lakh)

Particulars	Combined Asset – State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	26.04	25.50	24.68	23.85	22.95
Total	26.04	25.50	24.68	23.85	22.95
Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	3.14	3.07	2.97	2.87	2.77



Effective Date of Commercial Operation (“E-COD”)

93. The Petitioner has claimed E-COD of Combined Asset–Central Sector as 24.2.2016 and E-COD of Combined Asset-State Sector as 18.9.2016 based on the trued-up admitted capital cost and actual COD of the respective assets. Accordingly, the following E-COD of Combined Asset–Central Sector and Combined Asset-State Sector has been worked out:

Computation of Effective COD of the Combined Asset – Central Sector						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (in %)	No. of days from last COD	Weighted days	Effective COD (Latest COD – Total weighted Days)
Asset-5	1.10.2014	31.63	5.38	1004.00	53.99	11.2.2016
Asset-8	20.4.2015	331.00	56.27	803.00	451.82	
Asset-11	1.7.2017	225.647	38.36	0.00	0.00	
Total		588.27	100.00		505.81	
Computation of Effective COD of the Combined Asset–State Sector						
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (in%)	No. of days from last COD	Weighted days	Effective COD (Latest COD – Total weighted Days)
Asset-6	1.10.2014	36.21	2.99	1584.00	47.38	1.9.2016
Asset-7	1.10.2014	398.33	32.91	1584.00	521.23	
Asset-9	20.4.2015	81.21	6.71	1383.00	92.78	
Asset-10	20.4.2015	16.86	1.39	1383.00	19.27	
Asset-12	1.7.2017	192.33	15.89	580.00	92.15	
Asset-13	1.7.2017	108.98	9.00	580.00	52.21	
Asset-14	1.7.2017	71.97	5.95	580.00	34.49	
Asset-15	1.7.2017	48.56	4.01	580.00	23.26	
Asset-16	1.2.2019	256.07	21.15	0.00	0.00	
Total		1210.53	100.00		883.00	

94. The E-COD is used to determine the lapsed life of the project as a whole which works out as (3) years of the Combined Asset-Central Sector and (2) years of the Combined Asset - State Sector as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).



Weighted Average Life (“WAL”) of the Project

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

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

97. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset-Central Sector and Combined Asset-State Sector has been worked out as 15 years and the same is as follows:

Admitted Capital Cost as on 31.3.2019								
Particulars	Central sector				State sector			
	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019 Regulation (Years) (2)	Weighted Cost (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) = (3)/(1)	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019 Regulation (Years) (2)	Weighted Cost (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) = (3)/(1)
Building	0.00	25	0.00		0.00	25	0.00	
Transmission Line	0.00	35	0.00		0.00	35	0.00	
Sub-station	0.00	25	0.00		0.00	25	0.00	
PLCC	588.27	15	8824.05		1210.53	15	18157.93	
Leasehold Land	0.00	25	0.00		0.00	25	0.00	
IT Equipment and Software	0.00	7	0.00		0.00	7	0.00	



Admitted Capital Cost as on 31.3.2019								
Particulars	Central sector				State sector			
	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019 Regulation (Years) (2)	Weighted Cost (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) = (3)/(1)	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019 Regulation (Years) (2)	Weighted Cost (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) = (3)/(1)
Total	588.27		8824.05	(15 years)	1210.53		18157.93	(15 years)

98. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for the 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done.

99. As discussed in the preceding paragraphs, E-COD of the Combined Asset – Central Sector is 11.2.2016 and lapsed life of the project as a whole works out as three (3) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 12 years.

100. As discussed in the preceding paragraphs, E-COD of Combined Asset – State Sector is 1.9.2016 and lapsed life of the project as a whole, works out as two (2) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E- COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 13 years.

Capital cost

101. The Petitioner vide Auditor's certificate dated 14.7.2019 has submitted capital cost (cost on COD and ACE) based on actual from COD to 31.3.2019 for fees and charges for 2019-24 tariff period. The Petitioner has claimed no ACE for 2019-24 tariff period.



Keeping in view the opening capital cost and its recovery during 2014-19 tariff period, the closing capital cost as on 1.4.2019 is being considered for working out the fees and charges for 2019-24 tariff period for Central Portion as well as State Portion for Asset-1 to Asset-4.

102. The opening capital cost considered as on 31.3.2019 for Asset 1 to 4 is shown as follows:

(₹ in lakh)		
Assets	Sector	Capital cost considered as on 31.3.2019
Asset-1	Central Portion	64.97
	State Portion	1326.34
Asset-2	Central Portion	39.17
	State Portion	723.83
Asset-3	Central Portion	236.68
	State Portion	351.27
Asset 4	State Portion	126.24

Additional Capital Expenditure

103. The Petitioner has claimed ACE of ₹38.00 lakh under Regulation 25(1)(d) of the 2019 Regulations for 2019-24 tariff period for Asset-1.

104. We have considered the submissions of the Petitioner. ACE claimed towards Asset-1 is allowed. However, the Petitioner is directed to submit details of ACE at the time of truing-up.

105. 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 trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.



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

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

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

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
 (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment.

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

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

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

(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”

106. The Petitioner has claimed the following capital cost of Combined Asset-Central Portion and Combined Asset-State Portion for 2019-24 tariff period:

Sector	Apportioned Approved Cost as per RCE	Capital Cost as on 31.3.2019	Add Capital Expenditure (ACE)					Total cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Central (Asset-5, Asset-8 and Asset-11)	917.50	604.03	0.00	0.00	0.00	0.00	0.00	604.03
State (Asset-6, Asset-7, Asset-9, Asset-10, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16)	1373.27	1258.90	0.00	0.00	0.00	0.00	0.00	1258.90



Sector	Apportioned Approved Cost as per RCE	Capital Cost as on 31.3.2019	Add Capital Expenditure (ACE)					Total cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Total	2290.77	1862.93	0.00	0.00	0.00	0.00	0.00	1862.93

107. The Petitioner has claimed capital cost of ₹604.03 lakh and ₹1258.90 lakh as on 31.3.2019 as total cost for Combined Asset-Central Portion and Combined Asset-State Portion respectively. However, the capital cost of ₹588.27 lakh and ₹1210.53 lakh has been approved by the Commission as on 31.3.2019. and is considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

108. The Petitioner has not claimed any ACE for Combined Asset-Central Sector (Asset-5, Asset-8 and Asset-11) and Combined Asset-State Sector (Asset-6, Asset-7, Asset-9, Asset-10, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16) for 2019-24 tariff period.

Initial Spares

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

110. Accordingly, Initial Spares allowed for the 2019-24 tariff period are as follows:

(₹ in lakh)						
Asset name	Plant and Machinery cost upto cut-off date	Initial Spares limit (in %)	Initial Spares claimed	Initial Spares allowable as per 2014 regulations	Spares allowed during 2014-19	Initial spares allowed for the combined asset
Asset-6	25.30	3.50	0.65	0.89	0.65	



Asset name	Plant and Machinery cost upto cut-off date	Initial Spares limit (in %)	Initial Spares claimed	Initial Spares allowable as per 2014 regulations	Spares allowed during 2014-19	Initial spares allowed for the combined asset
Asset-7	242.46	3.50	7.61	8.52	7.61	2.03
Asset-9	73.10	3.50	1.67	2.59	1.67	
Asset-10	15.76	3.50	0.31	0.56	0.31	
Asset-12	192.25	3.50	8.00	6.68	6.68	
Asset-13	108.87	3.50	4.50	3.79	3.79	
Asset-14	71.45	3.50	2.50	2.50	2.50	
Asset-15	48.22	3.50	0.00	1.75	0.00	
Asset-16	203.35	3.50	0.00	7.38	0.00	
Total			25.24	34.66	23.21	

111. Thus, in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹2.03 lakh for combined state sector are considered as follows:

Asset	Total Capital Cost (as on 31.3.2019)	Additional Initial Spares (as per the APTEL's Judgment dated 14.09.2019)	Total Capital Cost (as on 1.4.2019)
Combined Central sector	588.27	0.00	588.27
Combined state sector	1210.53	2.03	1212.56

Capital cost for the 2019-24 tariff period

112. Accordingly, capital cost of Combined Asset-Central Portion and Combined Asset-State Portion considered for 2019- 24 tariff period are as follows:

Asset	Capital Cost (as on 1.4.2019)	ACE (2019-24)	Total Estimated Completion Cost (up to 31.3.2024)
Combined Asset - Central Portion (Asset-5, Asset-8, Asset-11)-	588.27	0.00	588.27
Combined Asset - State Portion (Asset-	1212.56	0.00	1212.56



6, Asset-7, Asset-9, Asset-10, Asset-12, Asset-13, Asset-14, Asset-15 and Asset-16)			
Total	1800.83	0.00	1800.83

Debt-Equity ratio

113. The debt: equity ratio as on 1.4.2019, as approved in the instant order has been considered for the purpose of tariff in respect of Asset-1 to Asset-4 is as follows:

(₹ in lakh)

Particulars	Asset-1		Asset-2		Asset-3		Asset 4
	Central Portion	State Portion	Central Portion	State Portion	Central Portion	State Portion	State Portion
Loan	44.26	903.94	36.96	495.94	161.16	239.85	86.66
Equity	20.71	422.40	17.55	231.74	75.52	111.42	39.58
Total	64.97	1326.34	54.51	727.67	236.68	351.27	126.24
Debt	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
Equity	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

114. The debt: equity ratio considered for the purpose of computation of tariff for Combined Asset-Central Portion and Combined Asset-State Portion of 2019-24 tariff period is as follows:

(₹ in lakh)

Combined Asset (Central Portion and State Portion)	Capital Cost (as on 1.4.2019)				Capital Cost (as on 31.3.2024)			
	Central Portion		State Portion		Central Portion		State Portion	
	Amount	In %	Amount	In %	Amount	In%	Amount	In%
Debt	411.80	70.00	848.88	70.01	411.80	70.00	848.88	70.01
Equity	176.47	30.00	363.68	29.99	176.47	30.00	363.68	29.99
Total	588.27	100.00	1212.56	100.00	588.27	100.00	1212.56	100.00

Rates for Recovery of Loan and Equity



115. The Capital Recovery Factor for loan in respect of Asset-1 to Asset-4 has been calculated by applying Weighted Average Rate of interest and details of which is attached as Annexure-II in case of the instant asset. Thus, the rates considered on annual basis have been converted into monthly rates and the same are as follows:

(₹ in lakh)

CRF for loan to be considered for Fees& Charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1 – Central Portion	0.013914	0.015175	0.016839	0.019126	0.022454
Asset-1 – State Portion	0.013885	0.015146	0.016811	0.019099	0.022427
Asset-2 – Central Portion	0.013230	0.014344	0.015789	0.017732	0.020471
Asset-2– State Portion	0.013257	0.014370	0.015815	0.017758	0.020496
Asset-3 – Central Portion	0.013063	0.014045	0.015303	0.016964	0.019249
Asset-3 – State Portion	0.013094	0.014075	0.015332	0.016993	0.019277
Asset-4– State Portion	0.009806	0.010163	0.010583	0.011080	0.011676

116. The Capital Recovery Factor for equity has been considered on the same basis as approved vide order dated 5.2.2020 in Petition No. 262/TT/2019 and on post-tax return on equity at 15.50%. Thus, monthly recovery factors for equity for Asset-1 to Asset-4 Central Portion and State Portion are as follows:

(₹ in lakh)

CRF for equity to be considered for Fees& Charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1 – Central Portion	0.017696	0.018858	0.020421	0.022609	0.025836
Asset-1 – State Portion	0.017696	0.018858	0.020421	0.022609	0.025836
Asset-2 – Central Portion	0.017224	0.018236	0.019578	0.021417	0.024053
Asset-2– State Portion	0.017224	0.018236	0.019578	0.021417	0.024053
Asset-3 – Central Portion	0.016808	0.017696	0.018858	0.020421	0.022609
Asset-3 – State Portion	0.016808	0.017696	0.018858	0.020421	0.022609
Asset-4– State Portion	0.014360	0.014633	0.014964	0.015369	0.015871

117. In view of above, the amount of monthly capital recovery charges for loan and equity for Asset-1 to Asset-4 both Central and State Portions has been considered by using respective Capital Recovery Factors and the same is as follows:

(₹ in lakh)

Monthly capital recovery charges for loan					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1 – Central Portion	0.62	0.62	0.62	0.62	0.62
Asset-1 – State Portion	12.55	12.95	12.95	12.95	12.95



Asset-2 – Central Portion	0.38	0.38	0.38	0.38	0.38
Asset-2– State Portion	6.57	6.57	6.57	6.57	6.57
Asset-3 – Central Portion	2.11	2.11	2.11	2.11	2.11
Asset-3 – State Portion	3.14	3.14	3.14	3.14	3.14
Asset-4– State Portion	0.85	0.95	0.98	1.04	1.07

(₹ in lakh)

Monthly capital recovery charges for equity					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1 – Central Portion	0.37	0.37	0.37	0.37	0.37
Asset-1 – State Portion	7.47	7.69	7.69	7.69	7.69
Asset-2 – Central Portion	0.24	0.24	0.24	0.24	0.24
Asset-2– State Portion	3.99	3.99	3.99	3.99	3.99
Asset-3 – Central Portion	1.27	1.27	1.27	1.27	1.27
Asset-3 – State Portion	1.87	1.87	1.87	1.87	1.87
Asset-4– State Portion	0.57	0.63	0.65	0.69	0.70

118. Accordingly, recovery of capital cost in respect of Asset-1 to Asset-4 during 2019-24 tariff period has been worked out and the same is as follows:

Particulars	Capital	(₹ in lakh)	
		Central Portion	State Portion
Asset-1: Capital Cost Recovered during 2019-24	Loan	22.04	462.63
	Equity	8.89	185.73
	Total	30.92	648.37
Asset-2: Capital Cost Recovered during 2019-24	Loan	13.41	228.98
	Equity	5.47	89.62
	Total	18.88	318.60
Asset-3: Capital Cost Recovered during 2019-24	Loan	67.90	100.90
	Equity	26.39	38.93
	Total	94.29	139.83
Asset-4: Capital Cost Recovered during 2019-24	Loan	-	21.06
	Equity	-	5.92
	Total	-	26.98

Depreciation

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

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



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

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

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

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

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

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

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

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

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

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

(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 capitalexpenditure.

(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 usefulservices.

(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.”

120. We have considered the submissions of the Petitioner. WAROD has been worked out and after taking into account the depreciation rates as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed for the Combined Asset-Central Portion and Combined Asset-State Portionis as follows:

(₹ in lakh)

Combined Asset- Central Portion						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	588.27	588.27	588.27	588.27	588.27
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	588.27	588.27	588.27	588.27	588.27



Combined Asset- Central Portion						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
D	Average Gross Block (A+C)/2	588.27	588.27	588.27	588.27	588.27
E	Average Gross Block (90% depreciable assets)	588.27	588.27	588.27	588.27	588.27
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	529.44	529.44	529.44	529.44	529.44
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	529.44	529.44	529.44	529.44	529.44
J	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
K	Lapsed useful life at the beginning of the year (Year)	3.00	4.00	5.00	6.00	7.00
L	Balance useful life at the beginning of the year (Year)	12.00	11.00	10.00	9.00	8.00
M	Depreciation during the year (D*J)	37.24	37.24	37.24	37.24	37.24
N	Aggregate Cumulative Depreciation at the end of the year	126.16	163.40	200.63	237.87	275.11
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	403.28	366.05	328.81	291.57	254.33

(₹ in lakh)

Combined Asset- State Portion						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	1212.56	1212.56	1212.56	1212.56	1212.56
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	1212.56	1212.56	1212.56	1212.56	1212.56
D	Average Gross Block (A+C)/2	1212.56	1212.56	1212.56	1212.56	1212.56
E	Average Gross Block (90% depreciable assets)	1212.56	1212.56	1212.56	1212.56	1212.56
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	1091.30	1091.30	1091.30	1091.30	1091.30
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	1091.30	1091.30	1091.30	1091.30	1091.30
J	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
K	Lapsed useful life at the beginning of the year (Year)	2.00	3.00	4.00	5.00	6.00



Combined Asset- State Portion						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
L	Balance useful life at the beginning of the year (Year)	13.00	12.00	11.00	10.00	9.00
M	Depreciation during the year (D*J)	76.75	76.75	76.75	76.75	76.75
N	Aggregate Cumulative Depreciation at the end of the year	229.95	306.71	383.46	460.22	536.97
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	861.35	784.59	707.84	631.08	554.33

Interest on Loan (“IoL”)

121. 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 asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of suchasset.*

(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 theyear.*

(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 interestcapitalized:*

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”.

122. BSPHCL has submitted that Interest on Loan may be calculated as per the provisions of Regulation 32 of the 2019 Regulations. Nothing in the 2019 Regulations permit change in interest rate due to floating rate of interest applicable, if any, to be adjusted/claimed over the tariff block of 5 years directly from/with the beneficiaries.

123. In response, the Petitioner has submitted that tariff calculation for 2019-24 tariff period, Interest on Loan has been calculated on the basis of interest rates prevailing as on 1.4.2019 for respective loans. Change in interest rate due to floating rate of interest applicable, if any, for the projects need to be to be adjusted/claimed over the tariff block of 5 years directly from/with the beneficiaries.

124. We have considered the submissions of the Petitioner and BSPHCL. The Weighted Average Rate of interest of IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing-up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the Combined Asset-Central Portion and Combined Asset-State Portion are as follows:

(₹ in lakh)
Combined Asset- Central Portion



Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	411.80	411.80	411.80	411.80	411.80
B	Cumulative Repayments upto Previous Year	88.92	126.16	163.40	200.63	237.87
C	Net Loan-Opening (A-B)	322.88	285.65	248.41	211.17	173.93
D	Additions	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	37.24	37.24	37.24	37.24	37.24
F	Net Loan-Closing (C+D-E)	285.65	248.41	211.17	173.93	136.70
G	Average Loan (A+F)/2	304.26	267.03	229.79	192.55	155.31
H	Weighted Average Rate of Interest on Loan (in %)	8.164	8.155	8.151	8.142	8.125
I	Interest on Loan (GxH)	24.84	21.78	18.73	15.68	12.62

(₹ in lakh)

Combined Asset- State Portion						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	848.88	848.88	848.88	848.88	848.88
B	Cumulative Repayments upto Previous Year	153.20	229.95	306.71	383.46	460.22
C	Net Loan-Opening (A-B)	695.68	618.92	542.17	465.41	388.66
D	Additions	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	76.75	76.75	76.75	76.75	76.75
F	Net Loan-Closing (C+D-E)	618.92	542.17	465.41	388.66	311.90
G	Average Loan (A+F)/2	657.30	580.55	503.79	427.04	350.28
H	Weighted Average Rate of Interest on Loan (in %)	8.214	8.213	8.231	8.238	8.223
I	Interest on Loan (GxH)	53.99	47.68	41.47	35.18	28.80

Return on Equity (“RoE”)

125. Regulation 30 and Regulation 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 withpondage:

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:

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

Where “t” is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the



estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

Illustration-

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

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

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

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

(b) Estimated Advance Tax for the year on above is Rs 240crore;

(c) EffectiveTaxRatefortheyear2019-20=Rs240Crore/Rs1000Crore = 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-yearbasis."

126. The Petitioner has submitted that it is liable to pay Income Tax at MAT rates prescribed under the Taxation Laws (Amendment) Ordinance, 2019. The Petitioner has further submitted that RoE has been calculated @18.782% after grossing up of RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given under Regulation 31(2) of the 2019 Tariff Regulations for 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 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 submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/adjustable during 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

127. We have considered the submissions of the Petitioner. RoE allowed in respect of Combined Asset-Central Portion and Combined Asset-State Portion under Regulation 30 of the 2019 Tariff Regulations are as follows:

(₹ in lakh)

Combined Asset - Central Portion						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	176.47	176.47	176.47	176.47	176.47
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	176.47	176.47	176.47	176.47	176.47
D	Average Equity (A+B)/2	176.47	176.47	176.47	176.47	176.47
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (DxG)	33.14	33.14	33.14	33.14	33.14

(₹ in lakh)

Combined Asset - State portion						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	363.68	363.68	363.68	363.68	363.68
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	363.68	363.68	363.68	363.68	363.68
D	Average Equity (A+B)/2	363.68	363.68	363.68	363.68	363.68



Combined Asset - State portion						
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (DxG)	68.31	68.31	68.31	68.31	68.31

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

128. The Petitioner has not claimed any O&M Expenses for State Portion. The Petitioner has claimed O&M Expenses for Central Portion as 2% of the capital cost subject to actual expenditure at the time of truing-up.

129. BSPHCL has submitted that the submitted that only relief as is admissible under Regulation 35(3)(c) of the 2019 Tariff Regulation may be considered.

130. In response, the Petitioner has submitted that the Commission may determine O&M Expenses as per the Regulations. For Central Sector transmission assets, O&M Expenses for 2014-19 tariff period have been claimed as per actual O&M Expenses and audited certificate with detailed break-up is enclosed in the petition. For State Sector transmission assets, no O&M Expenses have been claimed as the same is undertaken by the respective State.

131. We have considered the submissions of the Petitioner and BSPHCL. The capital cost allowed for Combined Asset-Central Sector is ₹584.08 lakh as on 31.3.2019. Accordingly, O&M Expenses are allowed in this order in respect of Asset-1 to



Asset-3 and Combined Asset-Central Sector (Asset-8, Asset-5 and Asset-11) which shall be subject to review at the time of truing-upare as follows:

(₹ in lakh)

Asset 1	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed by the Petitioner in the instant Petition	1.65	1.65	1.65	1.65	1.65
Allowed in the instant Petition	1.65	1.65	1.65	1.65	1.65

(₹ in lakh)

Asset 2	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed by the Petitioner in the instant Petition	1.18	1.18	1.18	1.18	1.18
Allowed in the instant Petition	1.18	1.18	1.18	1.18	1.18

(₹ in lakh)

Asset 3	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed by the Petitioner in the instant Petition	5.87	5.87	5.87	5.87	5.87
Allowed in the instant Petition	5.87	5.87	5.87	5.87	5.87

(₹ in lakh)

Combined Asset - Central Sector (Asset-5, Asset-8 and Asset-11).	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed by the Petitioner in the instant Petition	12.08	12.08	12.08	12.08	12.08
Allowed in the instant Petition	11.77	11.77	11.77	11.77	11.77

Interest on Working Capital (“IWC”)

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

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

.....



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

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

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

(iii) *Operation and maintenance expenses, including security expenses for one month."*

(3) *Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:*

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

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

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

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

129. The Petitioner has submitted that it has computed IWC for 2019-24 tariff period considering 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, for 2020-21 has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points), for 2021-22 has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) whereas 2022-23 onwards has



been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points).

130. The necessary computations of Interest on Working Capital (annualized) for Non-Microwave System-Central Portion and State Portion i.e. Asset-1 to Asset-4 and Combined Asset-Central Portion and Combined Asset-State Portion are as follows:

(₹ in lakh)

Asset -1 Central Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	0.25	0.25	0.25	0.25	0.25
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.14	0.14	0.14	0.14	0.14
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	1.68	1.69	1.68	1.68	1.68
Total Working Capital	2.07	2.07	2.07	2.07	2.07
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	0.25	0.23	0.22	0.22	0.22

(₹ in lakh)

Asset -1 State Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
Working capital for receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	29.99	30.97	30.94	30.95	30.95
Total Working Capital	29.99	30.97	30.94	30.95	30.95
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	3.61	3.48	3.25	3.28	3.28



(₹ in lakh)

Asset -2 Central Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.18	0.18	0.18	0.18	0.18
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.10	0.10	0.10	0.10	0.10
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	1.09	1.09	1.09	1.09	1.09
Total Working Capital	1.37	1.37	1.37	1.37	1.37
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	0.16	0.15	0.14	0.14	0.14

(₹ in lakh)

Asset -2 State Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	15.87	15.81	15.79	15.80	15.80
Total Working Capital	15.87	15.81	15.79	15.80	15.80
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	1.91	1.78	1.66	1.67	1.67

(₹ in lakh)

Asset -3 Central Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	0.88	0.88	0.88	0.88	0.88
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.49	0.49	0.49	0.49	0.49
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	5.81	5.82	5.81	5.81	5.81
Total Working Capital	7.18	7.18	7.18	7.18	7.18
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	0.86	0.81	0.75	0.76	0.76



(₹ in lakh)

Asset -3 State Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	7.51	7.52	7.51	7.52	7.52
Total Working Capital	7.51	7.52	7.51	7.52	7.52
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	0.90	0.85	0.79	0.80	0.80

(₹ in lakh)

Asset -4 State Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	2.12	2.37	2.44	2.60	2.64
Total Working Capital	2.12	2.37	2.44	2.60	2.64
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	0.26	0.27	0.26	0.28	0.28

(₹ in lakh)

Combined Asset - Central Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.98	0.98	0.98	0.98	0.98
Working Capital for Maintenance Spares (15% of O&M Expenses)	1.76	1.76	1.76	1.76	1.76
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	13.39	13.03	12.64	12.26	11.84
Total Working Capital	16.14	15.78	15.38	15.00	14.59
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	1.94	1.77	1.62	1.59	1.55



(₹ in lakh)

Combined Asset - State Portion					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	24.84	24.09	23.30	22.51	21.65
Total Working Capital	24.84	24.09	23.30	22.51	21.65
Rate of Interest on Working Capital (in%)	12.05	11.25	10.50	10.50	10.50
Interest on working capital	2.99	2.71	2.45	2.36	2.27

Annual Fixed Charges for 2019-24 Tariff Period

131. The detailed calculations of fees and charges being allowed for Asset-1 to Asset-4 Central Portion and State Portion, Combined Asset-Central Portion and Combined Asset-State Portion are as follows:

(₹ in lakh)

Asset-1 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	82.52	82.52	82.52	82.52	82.52
Opening Gross Notional Loan	57.76	57.76	57.76	57.76	57.76
Opening Gross Equity	24.76	24.76	24.76	24.76	24.76
Recovered Gross Capital Cost (As on 1st April)	17.55	22.50	28.00	34.11	40.91
Recovered Gross Notional Loan	13.51	17.18	21.19	25.57	30.34
Recovered Gross Equity	4.05	5.32	6.81	8.55	10.57
Opening Net Capital Cost	64.97	60.02	54.52	48.41	41.61
Opening Net Notional Loan	44.26	40.58	36.57	32.20	27.43
Opening Net Equity	20.71	19.43	17.95	16.21	14.18
Recovered Capital Cost (During the Year)	4.95	5.50	6.11	6.80	7.57
Recovered Notional Loan	3.68	4.01	4.37	4.77	5.20
Recovered Equity	1.28	1.49	1.74	2.03	2.36



Asset-1 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Closing Net Capital Cost	60.02	54.52	48.41	41.61	34.04
Closing Net Notional Loan	40.58	36.57	32.20	27.43	22.22
Closing Net Equity	19.43	17.95	16.21	14.18	11.82
Additional Capital Cost	0.00	0.00	0.00	0.00	0.00
Additional Notional Loan	0.00	0.00	0.00	0.00	0.00
Additional Equity	0.00	0.00	0.00	0.00	0.00
Years (Capital to be recovered up to 1.4.2027)	8.50	7.50	6.50	5.50	4.50
Months	102.00	90.00	78.00	66.00	54.00
Weighted Average Rate of Interest p.a.	8.7166%	8.7166%	8.7166%	8.7166%	8.7166%
Weighted Average Rate of Interest p.m.	0.7264%	0.7264%	0.7264%	0.7264%	0.7264%
Monthly Recovery Factors -Loan					
	0.013914	0.015175	0.016839	0.019126	0.022454
Monthly Capital Recovery Charge - Loan	0.62	0.62	0.62	0.62	0.62
Annual Capital Recovery Charge - Loan	7.39	7.39	7.39	7.39	7.39
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.017696	0.018858	0.020421	0.022609	0.025836
Monthly Capital Recovery Charge - Equity	0.37	0.37	0.37	0.37	0.37
Annual Capital Recovery Charge - Equity	4.40	4.40	4.40	4.40	4.40
Monthly Capital Recovery Charge - Total	0.98	0.98	0.98	0.98	0.98
Annual Capital Recovery Charge - Total	11.79	11.79	11.79	11.79	11.79
Fee & Charges (2019-24) (Pro-rata)	Central Portion - Charges				
Annual Capital Recovery Charge - Loan	7.39	7.39	7.39	7.39	7.39
Annual Capital Recovery Charge - Equity	4.40	4.40	4.40	4.40	4.40
Annual Capital Recovery Charge - Total	11.79	11.79	11.79	11.79	11.79
O&M Expenses	1.65	1.65	1.65	1.65	1.65
Interest on Working Capital	0.25	0.23	0.22	0.22	0.22
Total Fee & Charges (Pro-rata)	13.69	13.67	13.66	13.66	13.66
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.25	0.25	0.25	0.25	0.25
O&M Expenses (1 Month)	0.14	0.14	0.14	0.14	0.14
Receivables (2 months)	1.68	1.69	1.68	1.68	1.68
Total	2.07	2.07	2.07	2.07	2.07
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%
Total Interest on Working Capital (Pro-rata)	0.25	0.23	0.22	0.22	0.22



Asset-1 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Fee & Charges (2019-24) (Applicable)	Central Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	7.39	7.39	7.39	7.39	7.39
Annual Capital Recovery Charge - Equity	4.40	4.40	4.40	4.40	4.40
Annual Capital Recovery Charge - Total	11.79	11.79	11.79	11.79	11.79
O&M Expenses	1.65	1.65	1.65	1.65	1.65
Interest on Working Capital	0.25	0.23	0.22	0.22	0.22
Total Fee & Charges (Applicable)	13.69	13.67	13.66	13.66	13.66

(₹ in lakh)

Asset-1 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	1678.54	1716.54	1716.54	1716.54	1716.54
Opening Gross Notional Loan	1174.98	1201.58	1201.58	1201.58	1201.58
Opening Gross Equity	503.56	514.96	514.96	514.96	514.96
Recovered Gross Capital Cost (As on 1st April)	352.20	453.50	569.41	698.16	841.29
Recovered Gross Notional Loan	271.04	346.31	431.00	523.32	623.96
Recovered Gross Equity	81.16	107.18	138.41	174.84	217.33
Opening Net Capital Cost	1326.34	1263.04	1147.13	1018.38	875.25
Opening Net Notional Loan	903.94	855.27	770.58	678.26	577.61
Opening Net Equity	422.40	407.78	376.55	340.12	297.63
Recovered Capital Cost (During the Year)	101.29	115.92	128.75	143.13	159.28
Recovered Notional Loan	75.27	84.69	92.32	100.64	109.71
Recovered Equity	26.02	31.23	36.43	42.49	49.57
Closing Net Capital Cost	1225.04	1147.13	1018.38	875.25	715.97
Closing Net Notional Loan	828.67	770.58	678.26	577.61	467.90
Closing Net Equity	396.38	376.55	340.12	297.63	248.06
Additional Capital Cost	38.00	0.00	0.00	0.00	0.00
Additional Notional Loan	26.60	0.00	0.00	0.00	0.00
Additional Equity	11.40	0.00	0.00	0.00	0.00
Years (Capital to be recovered up to 1.4.2027)	8.50	7.50	6.50	5.50	4.50
Months	102.00	90.00	78.00	66.00	54.00
Weighted Average Rate of Interest p.a.	8.6601%	8.6601%	8.6601%	8.6601%	8.6601%



Asset-1 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Weighted Average Rate of Interest p.m.	0.7217%	0.7217%	0.7217%	0.7217%	0.7217%
Monthly Recovery Factors -Loan	0.013885	0.015146	0.016811	0.019099	0.022427
Monthly Capital Recovery Charge - Loan	12.55	12.95	12.95	12.95	12.95
Annual Capital Recovery Charge - Loan	150.61	155.45	155.45	155.45	155.45
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.017696	0.018858	0.020421	0.022609	0.025836
Monthly Capital Recovery Charge - Equity	7.47	7.69	7.69	7.69	7.69
Annual Capital Recovery Charge - Equity	89.70	92.28	92.28	92.28	92.28
Monthly Capital Recovery Charge - Total	20.03	20.64	20.64	20.64	20.64
Annual Capital Recovery Charge - Total	240.31	247.72	247.72	247.72	247.72
Fee & Charges (2019-24) (Pro-rata)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	150.61	155.45	155.45	155.45	155.45
Annual Capital Recovery Charge - Equity	89.70	92.28	92.28	92.28	92.28
Annual Capital Recovery Charge - Total	240.31	247.72	247.72	247.72	247.72
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.61	3.48	3.25	3.28	3.28
Total Fee & Charges (Pro-rata)	243.92	251.21	250.97	251.00	251.00
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	29.99	30.97	30.94	30.95	30.95
Total	29.99	30.97	30.94	30.95	30.95
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%
Total Interest on Working Capital (Pro-rata)	3.61	3.48	3.25	3.28	3.28
Fee & Charges (2019-24) (Applicable)	State Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	150.61	155.45	155.45	155.45	155.45
Annual Capital Recovery Charge - Equity	89.70	92.28	92.28	92.28	92.28
Annual Capital Recovery Charge - Total	240.31	247.72	247.72	247.72	247.72
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	3.61	3.48	3.25	3.28	3.28
Total Fee & Charges (Applicable)	243.92	251.21	250.97	251.00	251.00



(₹ in lakh)

Asset-2 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	58.84	58.84	58.84	58.84	58.84
Opening Gross Notional Loan	41.19	41.19	41.19	41.19	41.19
Opening Gross Equity	17.65	17.65	17.65	17.65	17.65
Recovered Gross Capital Cost (As on 1st April)	15.68	18.72	22.09	25.82	29.96
Recovered Gross Notional Loan	12.18	14.43	16.88	19.54	22.44
Recovered Gross Equity	3.51	4.29	5.21	6.28	7.52
Opening Net Capital Cost	43.16	40.12	36.75	33.02	28.88
Opening Net Notional Loan	29.01	26.76	24.31	21.65	18.75
Opening Net Equity	14.15	13.36	12.44	11.38	10.13
Recovered Capital Cost (During the Year)	3.04	3.37	3.73	4.14	4.60
Recovered Notional Loan	2.25	2.45	2.66	2.90	3.15
Recovered Equity	0.79	0.92	1.07	1.25	1.45
Closing Net Capital Cost	40.12	36.75	33.02	28.88	24.28
Closing Net Notional Loan	26.76	24.31	21.65	18.75	15.60
Closing Net Equity	13.36	12.44	11.38	10.13	8.68
Additional Capital Cost	0.00	0.00	0.00	0.00	0.00
Additional Notional Loan	0.00	0.00	0.00	0.00	0.00
Additional Equity	0.00	0.00	0.00	0.00	0.00
Years (Capital to be recovered up to 1.1.2028)	9.00	8.00	7.00	6.00	5.00
Months	108.00	96.00	84.00	72.00	60.00
Weighted Average Rate of Interest p.a.	8.4056%	8.4056%	8.4056%	8.4056%	8.4056%
Weighted Average Rate of Interest p.m.	0.7005%	0.7005%	0.7005%	0.7005%	0.7005%
Monthly Recovery Factors -Loan	0.013230	0.014344	0.015789	0.017732	0.020471
Monthly Capital Recovery Charge - Loan	0.38	0.38	0.38	0.38	0.38
Annual Capital Recovery Charge - Loan	4.61	4.61	4.61	4.61	4.61
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.017224	0.018236	0.019578	0.021417	0.024053
Monthly Capital Recovery Charge - Equity	0.24	0.24	0.24	0.24	0.24



Asset-2 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Equity	2.92	2.92	2.92	2.92	2.92
Monthly Capital Recovery Charge - Total	0.63	0.63	0.63	0.63	0.63
Annual Capital Recovery Charge - Total	7.53	7.53	7.53	7.53	7.53
Fee & Charges (2019-24) (Pro-rata)	Central Portion - Charges				
Annual Capital Recovery Charge - Loan	4.61	4.61	4.61	4.61	4.61
Annual Capital Recovery Charge - Equity	2.92	2.92	2.92	2.92	2.92
Annual Capital Recovery Charge - Total	7.53	7.53	7.53	7.53	7.53
O&M Expenses	1.18	1.18	1.18	1.18	1.18
Interest on Working Capital	0.16	0.15	0.14	0.14	0.14
Total Fee & Charges (Pro-rata)	8.87	8.86	8.85	8.85	8.85
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.18	0.18	0.18	0.18	0.18
O&M Expenses (1 Month)	0.10	0.10	0.10	0.10	0.10
Receivables (2 months)	1.09	1.09	1.09	1.09	1.09
Total	1.37	1.37	1.37	1.37	1.37
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%
Total Interest on Working Capital (Pro-rata)	0.16	0.15	0.14	0.14	0.14
Fee & Charges (2019-24) (Applicable)	Central Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	4.61	4.61	4.61	4.61	4.61
Annual Capital Recovery Charge - Equity	2.92	2.92	2.92	2.92	2.92
Annual Capital Recovery Charge - Total	7.53	7.53	7.53	7.53	7.53
O&M Expenses	1.18	1.18	1.18	1.18	1.18
Interest on Working Capital	0.16	0.15	0.14	0.14	0.14
Total Fee & Charges (Applicable)	8.87	8.86	8.85	8.85	8.85

(₹ in lakh)

Asset-2 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	598.48	598.48	598.48	598.48	598.48
Opening Gross Notional Loan	418.94	418.94	418.94	418.94	418.94
Opening Gross Equity	179.54	179.54	179.54	179.54	179.54
Recovered Gross Capital Cost (As on 1st April)	177.48	228.76	285.56	348.54	418.43
Recovered Gross Notional Loan	137.67	176.08	217.88	263.35	312.83
Recovered Gross Equity	39.81	52.67	67.68	85.19	105.61



Asset-2 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Net Capital Cost	727.67	676.39	619.59	556.61	486.72
Opening Net Notional Loan	495.94	457.52	415.72	370.25	320.78
Opening Net Equity	231.74	218.87	203.86	186.36	165.94
Recovered Capital Cost (During the Year)	51.28	56.80	62.98	69.89	77.64
Recovered Notional Loan	38.42	41.80	45.47	49.47	53.82
Recovered Equity	12.87	15.01	17.51	20.42	23.82
Closing Net Capital Cost	676.39	619.59	556.61	486.72	409.07
Closing Net Notional Loan	457.52	415.72	370.25	320.78	266.96
Closing Net Equity	218.87	203.86	186.36	165.94	142.12
Additional Capital Cost	0.00	0.00	0.00	0.00	0.00
Additional Notional Loan	0.00	0.00	0.00	0.00	0.00
Additional Equity	0.00	0.00	0.00	0.00	0.00
Years (Capital to be recovered up to 1.1.2028)	9.00	8.00	7.00	6.00	5.00
Months	108.00	96.00	84.00	72.00	60.00
Weighted Average Rate of Interest p.a.	8.4576%	8.4576%	8.4576%	8.4576%	8.4576%
Weighted Average Rate of Interest p.m.	0.7048%	0.7048%	0.7048%	0.7048%	0.7048%
Monthly Recovery Factors -Loan	0.013257	0.014370	0.015815	0.017758	0.020496
Monthly Capital Recovery Charge - Loan	6.57	6.57	6.57	6.57	6.57
Annual Capital Recovery Charge - Loan	78.90	78.90	78.90	78.90	78.90
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.017224	0.018236	0.019578	0.021417	0.024053
Monthly Capital Recovery Charge - Equity	3.99	3.99	3.99	3.99	3.99
Annual Capital Recovery Charge - Equity	47.90	47.90	47.90	47.90	47.90
Monthly Capital Recovery Charge - Total	10.57	10.57	10.57	10.57	10.57
Annual Capital Recovery Charge - Total	126.79	126.79	126.79	126.79	126.79
Fee & Charges (2019-24) (Pro-rata)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	78.90	78.90	78.90	78.90	78.90
Annual Capital Recovery Charge - Equity	47.90	47.90	47.90	47.90	47.90



Asset-2 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Total	126.79	126.79	126.79	126.79	126.79
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.91	1.78	1.66	1.67	1.67
Total Fee & Charges (Pro-rata)	128.70	128.57	128.45	128.47	128.47
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	15.87	15.81	15.79	15.80	15.80
Total	15.87	15.81	15.79	15.80	15.80
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%
Total Interest on Working Capital (Pro-rata)	1.91	1.78	1.66	1.67	1.67
Fee & Charges (2019-24) (Applicable)	State Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	78.90	78.90	78.90	78.90	78.90
Annual Capital Recovery Charge - Equity	47.90	47.90	47.90	47.90	47.90
Annual Capital Recovery Charge - Total	126.79	126.79	126.79	126.79	126.79
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.91	1.78	1.66	1.67	1.67
Total Fee & Charges (Applicable)	128.70	128.57	128.45	128.47	128.47

(₹ in lakh)

Asset-3 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	293.40	293.40	293.40	293.40	293.40
Opening Gross Notional Loan	205.38	205.38	205.38	205.38	205.38
Opening Gross Equity	88.02	88.02	88.02	88.02	88.02
Recovered Gross Capital Cost (As on 1st April)	56.72	71.78	88.52	107.14	127.89
Recovered Gross Notional Loan	44.22	55.49	67.81	81.28	96.01
Recovered Gross Equity	12.50	16.29	20.71	25.86	31.88
Opening Net Capital Cost	236.68	221.62	204.88	186.26	165.51
Opening Net Notional Loan	161.16	149.89	137.57	124.10	109.37
Opening Net Equity	75.52	71.73	67.31	62.16	56.14
Recovered Capital Cost (During the Year)	15.06	16.74	18.63	20.74	23.12
Recovered Notional Loan	11.27	12.32	13.47	14.73	16.11
Recovered Equity	3.79	4.42	5.15	6.01	7.01



Asset-3 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Closing Net Capital Cost	221.62	204.88	186.26	165.51	142.39
Closing Net Notional Loan	149.89	137.57	124.10	109.37	93.26
Closing Net Equity	71.73	67.31	62.16	56.14	49.13
Additional Capital Cost	0.00	0.00	0.00	0.00	0.00
Additional Notional Loan	0.00	0.00	0.00	0.00	0.00
Additional Equity	0.00	0.00	0.00	0.00	0.00
Years (Capital to be recovered up to 1.4.2028)	9.50	8.50	7.50	6.50	5.50
Months	114.00	102.00	90.00	78.00	66.00
Weighted Average Rate of Interest p.a.	8.9664%	8.9664%	8.9664%	8.9664%	8.9664%
Weighted Average Rate of Interest p.m.	0.7472%	0.7472%	0.7472%	0.7472%	0.7472%
Monthly Recovery Factors -Loan	0.013063	0.014045	0.015303	0.016964	0.019249
Monthly Capital Recovery Charge - Loan	2.11	2.11	2.11	2.11	2.11
Annual Capital Recovery Charge - Loan	25.26	25.26	25.26	25.26	25.26
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.016808	0.017696	0.018858	0.020421	0.022609
Monthly Capital Recovery Charge - Equity	1.27	1.27	1.27	1.27	1.27
Annual Capital Recovery Charge - Equity	15.23	15.23	15.23	15.23	15.23
Monthly Capital Recovery Charge - Total	3.37	3.37	3.37	3.37	3.37
Annual Capital Recovery Charge - Total	40.49	40.49	40.49	40.49	40.49
Fee & Charges (2019-24) (Pro-rata)	Central Portion - Charges				
Annual Capital Recovery Charge - Loan	25.26	25.26	25.26	25.26	25.26
Annual Capital Recovery Charge - Equity	15.23	15.23	15.23	15.23	15.23
Annual Capital Recovery Charge - Total	40.49	40.49	40.49	40.49	40.49
O&M Expenses	5.87	5.87	5.87	5.87	5.87
Interest on Working Capital	0.86	0.81	0.75	0.76	0.76
Total Fee & Charges (Pro-rata)	47.23	47.17	47.12	47.12	47.12
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.88	0.88	0.88	0.88	0.88
O&M Expenses (1 Month)	0.49	0.49	0.49	0.49	0.49
Receivables (2 months)	5.81	5.82	5.81	5.81	5.81
Total	7.18	7.18	7.18	7.18	7.18
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%



Asset-3 -Central Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total Interest on Working Capital (Pro-rata)	0.86	0.81	0.75	0.76	0.76
Fee & Charges (2019-24) (Applicable)	Central Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	25.26	25.26	25.26	25.26	25.26
Annual Capital Recovery Charge - Equity	15.23	15.23	15.23	15.23	15.23
Annual Capital Recovery Charge - Total	40.49	40.49	40.49	40.49	40.49
O&M Expenses	5.87	5.87	5.87	5.87	5.87
Interest on Working Capital	0.86	0.81	0.75	0.76	0.76
Total Fee & Charges (Applicable)	47.23	47.17	47.12	47.12	47.12

(₹ in lakh)

Asset-3 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	428.15	428.15	428.15	428.15	428.15
Opening Gross Notional Loan	299.71	299.71	299.71	299.71	299.71
Opening Gross Equity	128.45	128.45	128.45	128.45	128.45
Recovered Gross Capital Cost (As on 1st April)	76.88	99.19	124.01	151.63	182.40
Recovered Gross Notional Loan	59.85	76.58	94.87	114.89	136.79
Recovered Gross Equity	17.03	22.62	29.14	36.74	45.61
Opening Net Capital Cost	351.27	328.96	304.15	276.52	245.75
Opening Net Notional Loan	239.85	223.13	204.84	184.82	162.92
Opening Net Equity	111.42	105.83	99.31	91.71	82.83
Recovered Capital Cost (During the Year)	22.31	24.82	27.62	30.77	34.31
Recovered Notional Loan	16.72	18.30	20.02	21.90	23.96
Recovered Equity	5.59	6.52	7.61	8.87	10.35
Closing Net Capital Cost	328.96	304.15	276.52	245.75	211.44
Closing Net Notional Loan	223.13	204.84	184.82	162.92	138.96
Closing Net Equity	105.83	99.31	91.71	82.83	72.49
Additional Capital Cost	0.00	0.00	0.00	0.00	0.00
Additional Notional Loan	0.00	0.00	0.00	0.00	0.00
Additional Equity	0.00	0.00	0.00	0.00	0.00
Years (Capital to be recovered up to 1.4.2028)	9.50	8.50	7.50	6.50	5.50
Months	114.00	102.00	90.00	78.00	66.00



Asset-3 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Weighted Average Rate of Interest p.a.	9.0241%	9.0241%	9.0241%	9.0241%	9.0241%
Weighted Average Rate of Interest p.m.	0.7520%	0.7520%	0.7520%	0.7520%	0.7520%
Monthly Recovery Factors -Loan	0.013094	0.014075	0.015332	0.016993	0.019277
Monthly Capital Recovery Charge - Loan	3.14	3.14	3.14	3.14	3.14
Annual Capital Recovery Charge - Loan	37.69	37.69	37.69	37.69	37.69
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.016808	0.017696	0.018858	0.020421	0.022609
Monthly Capital Recovery Charge - Equity	1.87	1.87	1.87	1.87	1.87
Annual Capital Recovery Charge - Equity	22.47	22.47	22.47	22.47	22.47
Monthly Capital Recovery Charge - Total	5.01	5.01	5.01	5.01	5.01
Annual Capital Recovery Charge - Total	60.16	60.16	60.16	60.16	60.16
Fee & Charges (2019-24) (Pro-rata)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	37.69	37.69	37.69	37.69	37.69
Annual Capital Recovery Charge - Equity	22.47	22.47	22.47	22.47	22.47
Annual Capital Recovery Charge - Total	60.16	60.16	60.16	60.16	60.16
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.90	0.85	0.79	0.80	0.80
Total Fee & Charges (Pro-rata)	61.06	61.01	60.95	60.96	60.96
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	7.51	7.52	7.51	7.52	7.52
Total	7.51	7.52	7.51	7.52	7.52
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%
Total Interest on Working Capital (Pro-rata)	0.90	0.85	0.79	0.80	0.80
Fee & Charges (2019-24) (Applicable)	State Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	37.69	37.69	37.69	37.69	37.69
Annual Capital Recovery Charge - Equity	22.47	22.47	22.47	22.47	22.47
Annual Capital Recovery Charge - Total	60.16	60.16	60.16	60.16	60.16
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.90	0.85	0.79	0.80	0.80



Asset-3 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges (Applicable)	61.06	61.01	60.95	60.96	60.96

(₹ in lakh)

Asset-4 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Capital Cost	145.97	159.85	164.23	172.47	174.94
Opening Gross Notional Loan	102.18	111.90	114.96	120.73	122.46
Opening Gross Equity	43.79	47.96	49.27	51.74	52.48
Recovered Gross Capital Cost (As on 1st April)	19.74	23.52	28.17	33.48	39.71
Recovered Gross Notional Loan	15.52	18.57	22.27	26.43	31.25
Recovered Gross Equity	4.21	4.95	5.90	7.05	8.46
Opening Net Capital Cost	126.24	136.33	136.06	139.00	135.24
Opening Net Notional Loan	86.66	93.33	92.69	94.30	91.21
Opening Net Equity	39.58	43.01	43.37	44.70	44.02
Recovered Capital Cost (During the Year)	3.79	4.65	5.30	6.23	7.01
Recovered Notional Loan	3.05	3.70	4.16	4.82	5.34
Recovered Equity	0.74	0.95	1.14	1.41	1.68
Closing Net Capital Cost	122.45	131.68	130.76	132.77	128.22
Closing Net Notional Loan	83.61	89.63	88.53	89.48	85.88
Closing Net Equity	38.84	42.05	42.22	43.28	42.35
Additional Capital Cost	13.88	4.38	8.24	2.47	29.81
Additional Notional Loan	9.72	3.07	5.77	1.73	20.87
Additional Equity	4.16	1.31	2.47	0.74	8.94
Years (Capital to be recovered up to 1.10.2018)	14.92	13.92	12.92	11.92	10.92
Months	179.00	167.00	155.00	143.00	131.00
Weighted Average Rate of Interest p.a.	8.3816%	8.3816%	8.3816%	8.3816%	8.3816%
Weighted Average Rate of Interest p.m.	0.6985%	0.6985%	0.6985%	0.6985%	0.6985%
Monthly Recovery Factors -Loan	0.009806	0.010163	0.010583	0.011080	0.011676
Monthly Capital Recovery Charge - Loan	0.85	0.95	0.98	1.04	1.07
Annual Capital Recovery Charge - Loan	10.20	11.38	11.77	12.54	12.78
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors -Equity	0.014360	0.014633	0.014964	0.015369	0.015871



Asset-4 -State Portion-Fees and charges					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Monthly Capital Recovery Charge - Equity	0.57	0.63	0.65	0.69	0.70
Annual Capital Recovery Charge - Equity	6.82	7.55	7.79	8.24	8.38
Monthly Capital Recovery Charge - Total	1.42	1.58	1.63	1.73	1.76
Annual Capital Recovery Charge - Total	17.02	18.93	19.56	20.78	21.16
Fee & Charges (2019-24) (Pro-rata)	State Portion - Charges				
Annual Capital Recovery Charge - Loan	10.20	11.38	11.77	12.54	12.78
Annual Capital Recovery Charge - Equity	6.82	7.55	7.79	8.24	8.38
Annual Capital Recovery Charge - Total	17.02	18.93	19.56	20.78	21.16
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.26	0.27	0.26	0.28	0.28
Total Fee & Charges (Pro-rata)	17.27	19.20	19.81	21.06	21.44
Interest on Working Capital					
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00	0.00
Receivables (2 months)	2.12	2.37	2.44	2.60	2.64
Total	2.12	2.37	2.44	2.60	2.64
Rate of Interest on Working Capital	12.05%	11.25%	10.50%	10.60%	10.60%
Total Interest on Working Capital (Pro-rata)	0.26	0.27	0.26	0.28	0.28
Fee & Charges (2019-24) (Applicable)	State Portion - Charges				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Capital Recovery Charge - Loan	10.20	11.38	11.77	12.54	12.78
Annual Capital Recovery Charge - Equity	6.82	7.55	7.79	8.24	8.38
Annual Capital Recovery Charge - Total	17.02	18.93	19.56	20.78	21.16
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.26	0.27	0.26	0.28	0.28
Total Fee & Charges (Applicable)	17.27	19.20	19.81	21.06	21.44

(₹ in lakh)

Combined Asset– Central Portion	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	37.24	37.24	37.24	37.24	37.24
Interest on Loan	24.84	21.78	18.73	15.68	12.62
Return on Equity	33.14	33.14	33.14	33.14	33.14
Operation and Maintenance	11.77	11.77	11.77	11.77	11.77
Interest on Working Capital	1.94	1.77	1.62	1.59	1.55



Combined Asset– Central Portion	2019-20	2020-21	2021-22	2022-23	2023-24
Total	108.93	105.70	102.50	99.42	96.32

(₹ in lakh)

Combined Asset – State Portion	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	76.75	76.75	76.75	76.75	76.75
Interest on Loan	53.99	47.68	41.47	35.18	28.80
Return on Equity	68.31	68.31	68.31	68.31	68.31
Operation and Maintenance	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.99	2.71	2.45	2.36	2.27
Total	202.04	195.45	188.98	182.60	176.13

Filing Fees and Publication Expenses

132. The Petitioner has sought reimbursement of fees paid by it for filing the petition and publication expenses, in terms of Regulation 70(1) of the 2019 Tariff Regulations.

133. BSPHCL has submitted that grant of filing fees and expenses incurred is in the discretion of the Commission and need not necessarily be allowed in all cases. BSPHCL has further submitted that nothing beyond what is contemplated by the 2019 Regulations may be granted.

134. In response, the Petitioner has submitted that the Commission in order dated 28.3.2016 in Petition No.137/TT2015 for determination of tariff for 2014-19 period allowed recovery of petition filing fees and publication of notices from the beneficiaries.

135. We have considered the submissions of the Petitioner and BSPHCL. Regulation 70(1) of the 2019 Tariff Regulations provides for reimbursement of filing fees and publication expenses paid by the Petitioner. Accordingly, 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 Fees and RLDC Fees and Charges

136. The Petitioner has sought reimbursement of licence fees in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The Petitioner has also sought reimbursement of RLDC fees and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for 2019-2024 tariff period. The Petitioner shall be entitled to Licence fees and RLDC fees and charges in terms of 2019 Tariff Regulations.

Goods and Services Tax

137. 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.

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

139. Referring the provision of Regulation 56 of the 2019 Tariff Regulations, BSPHCL has submitted that the said Regulation contemplates recovery of statutory charges by generating company and not by transmission licensee and hence, the said claim is liable to be rejected as the same is premature. No specific response to this submission of BSPHCL is given by the Petitioner.



140. We have considered the above submissions of BSPHCL and are of the view that applicability of Regulation 56 of the 2019 Tariff Regulations is for generating company. We are, therefore of the view that BSPHCL's submission with regard to statutory charges is misplaced. We accordingly reject the above submission of BSPHCL with regard to recovery of statutory charges.

Security Expenses

141. The Petitioner has submitted that security expenses in respect of 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.

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

Sharing of Transmission Charges

143. BSPHCL has submitted that the sharing of the transmission charges should be as per the applicable regulations.

144. We have considered the submissions of BSPHCL in its reply and the Petitioner's submission made in the petition. The true up fees and charges of 2014-19 tariff period



and determined for 2019-24 tariff period for the instant assets in this ordershall be recovered on monthly basis and billing collection and disbursement of transmission charges shall be governed by the provisions of the applicable Sharing Regulations as provided in Regulation 43(2) of the 2014 Tariff Regulations and Regulation 57(2) of the 2019 Tariff Regulations respectively.

145. To summarise:

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

(₹ in lakh)

Particulars	Asset-1-Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	9.19	11.53	12.15	13.06	14.08

(₹ in lakh)

Particulars	Asset-1-State Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	153.67	215.04	228.29	248.59	249.40

(₹ in lakh)

Particulars	Asset-2-Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	9.31	13.29	12.97	10.38	11.29

(₹ in lakh)

Particulars	Asset-2-State Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	84.77	114.40	121.95	129.43	129.83

(₹ in lakh)

Particulars	Asset-3-Central Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	49.31	38.21	41.60	44.42	47.94



(₹ in lakh)

Particulars	Asset-3-State Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	38.14	54.72	58.41	61.14	61.44

(₹ in lakh)

Particulars	Asset-4-State Portion				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total Fee & Charges	12.09	14.07	14.70	15.95	16.34

(₹ in lakh)

Particulars	Asset-5				
	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	3.12	6.68	5.56	4.37	5.45

(₹ in lakh)

Particulars	Asset-6				
	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	1.98	4.37	4.46	4.49	5.29

(₹ in lakh)

Particulars	Asset-7				
	2014-15 (Pro-rata for 182 days)	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	20.98	43.92	43.17	42.40	54.66

(₹ in lakh)

Particulars	Asset-8			
	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
Annual Fixed Charges	45.81	37.95	37.21	52.58



(₹ in lakh)

Particulars	Asset-9			
	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
Annual Fixed Charges	11.92	12.43	12.36	12.87

(₹ in lakh)

Particulars	Asset-10			
	2015-16(Pro-rata for 347 days)	2016-17	2017-18	2018-19
Annual Fixed Charges	2.93	3.01	2.96	2.88

(₹ in lakh)

Particulars	Asset-11	
	2017-18 (Pro-rata for 274 days)	2018-19
Annual Fixed Charges	34.59	46.18

(₹ in lakh)

Particulars	Asset-12	
	2017-18 (Pro-rata for 274 days)	2018-19
Annual Fixed Charges	25.10	33.81

(₹ in lakh)

Particulars	Asset-13	
	2017-18 (Pro-rata for 274 days)	2018-19
Annual Fixed Charges	14.35	19.04

(₹ in lakh)

Particulars	Asset-14	
	2017-18 (Pro-rata for 274 days)	2018-19
Annual Fixed Charges	9.30	12.47

(₹ in lakh)

Particulars	Asset-15	
	2017-18 (Pro-rata for 274 days)	2018-19
Annual Fixed Charges	6.11	8.39



(₹ in lakh)

Particulars	Asset-16
	2018-19 (Pro-rata for 59 days)
Annual Fixed Charges	7.67

- b. The Annual Fixed Charges allowed for Asset-1 to Asset-5 Central Portion and State Portion and Combined Asset-Central Portion and Combined Asset-State Portion for 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-1-Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	13.69	13.67	13.66	13.66	13.66

(₹ in lakh)

Particulars	Asset-1-State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	243.92	251.21	250.97	251.00	251.00

(₹ in lakh)

Particulars	Asset-2-Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	8.87	8.86	8.85	8.85	8.85

(₹ in lakh)

Particulars	Asset-2-State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	128.70	128.57	128.45	128.47	128.47

(₹ in lakh)

Particulars	Asset-3-Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	47.23	47.17	47.12	47.12	47.12

(₹ in lakh)

Particulars	Asset-3-State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	61.06	61.01	60.95	60.96	60.96



(₹ in lakh)

Particulars	Asset-4-State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Total Fee & Charges	17.27	19.20	19.81	21.06	21.44

(₹ in lakh)

Particulars	Combined Asset – Central Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	108.93	105.70	102.50	99.42	96.32

(₹ in lakh)

Particulars	Combined Asset – State Portion				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	202.04	195.45	188.98	182.60	176.13

146. Annexure-I to Annexure-XVI given hereinafter form part of the order which provide details of annual depreciation during 2014-19 and 2019-24 tariff periods.

147. This order disposes of Petition No.12/TT/2021 in terms of the above discussions and findings.

sd/-
(P.K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member



Annexure I

Asset-1	2014-15 (₹ in lakh)						
Loan	Opening (Net O/S as on 01.04.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	8.31	0.00	8.31	8.31	9.3000%	0.77	
Bond XXXVIII	8.83	0.00	8.83	8.83	9.2500%	0.82	
Total Loan	17.14	0.00	17.14	17.14		1.59	9.2742%

	2015-16						
Loan	Opening (Net O/S as on 01.04.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	8.31	0.00	8.31	8.31	9.3000%	0.77	
Bond XXXVIII	8.83	0.00	8.83	8.83	9.2500%	0.82	
Total Loan	17.14	0.00	17.14	17.14		1.59	9.2742%

	2016-17						
Loan	Opening (Net O/S as on 01.04.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	8.31	0.69	7.62	7.97	9.3000%	0.74	
Bond XXXVIII	8.83	0.00	8.83	8.83	9.2500%	0.82	
Total Loan	17.14	0.69	16.45	16.80		1.56	9.2737%



	2017-18						
Loan	Opening (Net O/S as on 1.4.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	7.62	0.69	6.93	7.27	9.3000%	0.68	
Bond XXXVIII	8.83	0.00	8.83	8.83	9.2500%	0.82	
Total Loan	16.45	0.69	15.76	16.10		1.49	9.2726%

	2018-19						
Loan	Opening (Net O/S as on 1.4.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	6.93	0.69	6.23	6.58	9.3000%	0.61	
Bond XXXVIII	8.83	0.00	8.83	8.83	9.2500%	0.82	
Total Loan	15.76	0.69	15.06	15.41		1.43	9.2714%

State Sector

Asset-1	2014-15						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	150.84	0.00	150.84	150.84	9.3000%	14.03	
Bond XXXVIII	141.17	0.00	141.17	141.17	9.2500%	13.06	
Total Loan	292.01	0.00	292.01	292.01		27.09	9.2758%



	2015-16						
Loan	Opening (Net O/S as on 1.4.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	150.84	0.00	150.84	150.84	9.3000%	14.03	
Bond XXXVIII	141.17	0.00	141.17	141.17	9.2500%	13.06	
Total Loan	292.01	0.00	292.01	292.01		27.09	9.2758%

	2016-17						
Loan	Opening (Net O/S as on 1.4.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	150.84	12.57	138.27	144.55	9.3000%	13.44	
Bond XXXVIII	141.17	0.00	141.17	141.17	9.2500%	13.06	
Total Loan	292.01	12.57	279.44	285.72		26.50	9.2753%

	2017-18						
Loan	Opening (Net O/S as on 1.4.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	138.27	12.57	125.70	131.98	9.3000%	12.27	
Bond XXXVIII	141.17	0.00	141.17	141.17	9.2500%	13.06	
Total Loan	279.44	12.57	266.87	273.15		25.33	9.2742%



	2018-19						
Loan	Opening (Net O/S as on 1.4.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	125.70	12.57	113.13	119.41	9.3000%	11.11	
Bond XXXVIII	141.17	0.00	141.17	141.17	9.2500%	13.06	
Total Loan	266.87	12.57	254.30	260.58		24.16	9.2729%

Asset-2	2014-15 (₹ in lakh)						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	8.17	0.00	8.17	8.17	9.3000%	0.76	
Bond XLII	11.30	0.00	11.30	11.30	8.8000%	0.99	
Bond XXXVIII	4.90	0.00	4.90	4.90	9.2500%	0.45	
Total Loan	24.37	0.00	24.37	24.37		2.21	9.0581%

	2015-16						
Loan	Opening (Net O/S as on 1.4.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	8.17	0.00	8.17	8.17	9.3000%	0.76	
Bond XLII	11.30	0.00	11.30	11.30	8.8000%	0.99	
Bond XXXVIII	4.90	0.00	4.90	4.90	9.2500%	0.45	
Total Loan	24.37	0.00	24.37	24.37		2.21	9.0581%



	2016-17						
Loan	Opening (Net O/S as on 1.4.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	8.17	0.68	7.49	7.83	9.3000%	0.73	
Bond XLII	11.30	0.00	11.30	11.30	8.8000%	0.99	
Bond XXXVIII	4.90	0.00	4.90	4.90	9.2500%	0.45	
Total Loan	24.37	0.68	23.69	24.03		2.18	9.0547%

	2017-18						
Loan	Opening (Net O/S as on 1.4.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	7.49	0.68	6.81	7.15	9.3000%	0.66	
Bond XLII	11.30	0.00	11.30	11.30	8.8000%	0.99	
Bond XXXVIII	4.90	0.00	4.90	4.90	9.2500%	0.45	
Total Loan	23.69	0.68	23.01	23.35		2.11	9.0475%

	2018-19						
Loan	Opening (Net O/S as on 1.4.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	6.81	0.68	6.13	6.47	9.3000%	0.60	
Bond XLII	11.30	0.00	11.30	11.30	8.8000%	0.99	
Bond XXXVIII	4.90	0.00	4.90	4.90	9.2500%	0.45	
Total Loan	23.01	0.68	22.33	22.67		2.05	9.0399%



Asset -2 State Sector	2014-15						
Loan	Opening (Net O/S as on 01.04.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	91.83	0.00	91.83	91.83	9.3000%	8.54	
Bond XLII	126.92	0.00	126.92	126.92	8.8000%	11.17	
Bond XXXVIII	55.10	0.00	55.10	55.10	9.2500%	5.10	
Total Loan	273.85	0.00	273.85	273.85		24.81	9.0582%

	2015-16						
Loan	Opening (Net O/S as on 01.04.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	91.83	0.00	91.83	91.83	9.3000%	8.54	
Bond XLII	126.92	0.00	126.92	126.92	8.8000%	11.17	
Bond XXXVIII	55.10	0.00	55.10	55.10	9.2500%	5.10	
Total Loan	273.85	0.00	273.85	273.85		24.81	9.0582%

	2016-17						
Loan	Opening (Net O/S as on 01.04.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	91.83	0.00	84.18	88.00	9.3000%	8.18	
Bond XLII	126.92	0.00	126.92	126.92	8.8000%	11.17	
Bond XXXVIII	55.10	0.00	55.10	55.10	9.2500%	5.10	
Total Loan	273.85	0.00	266.20	270.02		24.45	9.0548%



2017-18							
Loan	Opening (Net O/S as on 01.04.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	84.18	0.00	76.53	80.35	9.3000%	7.47	
Bond XLII	126.92	0.00	126.92	126.92	8.8000%	11.17	
Bond XXXVIII	55.10	0.00	55.10	55.10	9.2500%	5.10	
Total Loan	266.20	0.00	258.55	262.37		23.74	9.0476%

2018-19							
Loan	Opening (Net O/S as on 01.04.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	76.53	0.00	68.87	72.70	9.3000%	6.76	
Bond XLII	126.92	0.00	126.92	126.92	8.8000%	11.17	
Bond XXXVIII	55.10	0.00	55.10	55.10	9.2500%	5.10	
Total Loan	258.55	0.00	250.89	254.72		23.03	9.0400%

2014-15 (₹in lakh)							
Loan	Opening (Net O/S as on 01.04.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	134.72	0.00	134.72	134.72	9.3000%	12.53	
Bond XLII	63.77	0.00	63.77	63.77	8.8000%	5.61	
Bond XXXVIII	22.14	0.00	22.14	22.14	9.2500%	2.05	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	220.63	0.00	220.63	220.63		20.19	9.1505%



	2015-16						
Loan	Opening (Net O/S as on 01.04.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	134.72	0.00	134.72	134.72	9.3000%	12.53	
Bond XLII	63.77	0.00	63.77	63.77	8.8000%	5.61	
Bond XXXVIII	22.14	0.00	22.14	22.14	9.2500%	2.05	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	220.63	0.00	220.63	220.63		20.19	9.1505%

	2016-17						
Loan	Opening (Net O/S as on 01.04.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	134.72	0.00	123.49	129.11	9.3000%	12.01	
Bond XLII	63.77	0.00	63.77	63.77	8.8000%	5.61	
Bond XXXVIII	22.14	0.00	22.14	22.14	9.2500%	2.05	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	220.63	0.00	209.40	215.02		19.67	9.1466%

	2017-18
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Loan	Opening (Net O/S as on 01.04.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	123.49	0.00	112.27	117.88	9.3000%	10.96	
Bond XLII	63.77	0.00	63.77	63.77	8.8000%	5.61	
Bond XXXVIII	22.14	0.00	22.14	22.14	9.2500%	2.05	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	209.40	0.00	198.18	203.79		18.62	9.1381%

	2018-19						
Loan	Opening (Net O/S as on 01.04.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	112.27	0.00	101.04	106.65	9.3000%	9.92	
Bond XLII	63.77	0.00	63.77	63.77	8.8000%	5.61	
Bond XXXVIII	22.14	0.00	22.14	22.14	9.2500%	2.05	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	198.18	0.00	186.95	192.56		17.58	9.1287%

Asset – 3 – State Sector	2014-15
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Loan	Opening (Net O/S as on 01.04.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	108.64	0.00	108.64	108.64	9.3000%	10.10	
Bond XLII	51.43	0.00	51.43	51.43	8.8000%	4.53	
Bond XXXVIII	17.86	0.00	17.86	17.86	9.2500%	1.65	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	177.93	0.00	177.93	177.93		16.28	9.1505%

2015-16							
Loan	Opening (Net O/S as on 01.04.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	108.64	0.00	108.64	108.64	9.3000%	10.10	
Bond XLII	51.43	0.00	51.43	51.43	8.8000%	4.53	
Bond XXXVIII	17.86	0.00	17.86	17.86	9.2500%	1.65	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	177.93	0.00	177.93	177.93		16.28	9.1505%

2016-17							
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Loan	Opening (Net O/S as on 1.4.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	108.64	0.00	99.59	104.11	9.3000%	9.68	
Bond XLII	51.43	0.00	51.43	51.43	8.8000%	4.53	
Bond XXXVIII	17.86	0.00	17.86	17.86	9.2500%	1.65	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	177.93	0.00	168.88	173.40		15.86	9.1466%

	2017-18						
Loan	Opening (Net O/S as on 1.4.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	99.59	0.00	90.53	95.06	9.3000%	8.84	
Bond XLII	51.43	0.00	51.43	51.43	8.8000%	4.53	
Bond XXXVIII	17.86	0.00	17.86	17.86	9.2500%	1.65	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	168.88	0.00	159.82	164.35		15.02	9.1381%

	2018-19						
Loan	Opening (Net O/S as on 1.4.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	90.53	0.00	81.48	86.01	9.3000%	8.00	
Bond XLII	51.43	0.00	51.43	51.43	8.8000%	4.53	
Bond XXXVIII	17.86	0.00	17.86	17.86	9.2500%	1.65	
Bond XLIV	0.00	0.00	0.00	0.00	8.7000%	0.00	
Total Loan	159.82	0.00	150.77	155.30		14.18	9.1287%



Asset-4 – State Sector	2014-15 (₹ in lakh)						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	6.00	0.00	6.00	6.00	9.3000%	0.56	
Bond XLII	5.00	0.00	5.00	5.00	8.8000%	0.44	
Bond XXXVIII	12.00	0.00	12.00	12.00	9.2500%	1.11	
Bond XLIV	18.00	0.00	18.00	18.00	8.7000%	1.57	
Bond XLIII	16.00	0.00	16.00	16.00	7.9300%	1.27	
SBI (21.03.2012)	3.05	0.00	3.05	3.05	10.2500%	0.31	
Total Loan	60.05	0.00	60.05	60.05		5.26	8.7517%

	2015-16						
Loan	Opening (Net O/S as on 1.4.2015)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	6.00	0.00	6.00	6.00	9.3000%	0.56	
Bond XLII	5.00	0.00	5.00	5.00	8.8000%	0.44	
Bond XXXVIII	12.00	0.00	12.00	12.00	9.2500%	1.11	
Bond XLIV	18.00	0.00	18.00	18.00	8.7000%	1.57	
Bond XLIII	16.00	0.00	16.00	16.00	7.9300%	1.27	



SBI (21.03.2012)	3.05	0.00	3.05	3.05	9.7859%	0.30	
Total Loan	60.05	0.00	60.05	60.05		5.24	8.7282%

2016-17							
Loan	Opening (Net O/S as on 1.4.2016)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	6.00	0.00	5.50	5.75	9.3000%	0.53	
Bond XLII	5.00	0.00	5.00	5.00	8.8000%	0.44	
Bond XXXVIII	12.00	0.00	12.00	12.00	9.2500%	1.11	
Bond XLIV	18.00	0.00	18.00	18.00	8.7000%	1.57	
Bond XLIII	16.00	0.00	16.00	16.00	7.9300%	1.27	
SBI (21.03.2012)	3.05	0.00	2.77	2.91	9.3251%	0.27	
Total Loan	60.05	0.00	59.27	59.66		5.19	8.7008%

2017-18							
Loan	Opening (Net O/S as on 1.4.2017)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	5.50	0.00	5.00	5.25	9.3000%	0.49	
Bond XLII	5.00	0.00	5.00	5.00	8.8000%	0.44	
Bond XXXVIII	12.00	0.00	12.00	12.00	9.2500%	1.11	
Bond XLIV	18.00	0.00	18.00	18.00	8.7000%	1.57	
Bond XLIII	16.00	0.00	14.67	15.33	7.9300%	1.22	
SBI (21.03.2012)	2.77	0.00	2.50	2.63	8.4025%	0.22	
Total Loan	59.27	0.00	57.16	58.22		5.04	8.6598%



Loan	2018-19						
	Opening (Net O/S as on 1.4.2018)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond XL	5.00	0.00	4.50	4.75	9.3000%	0.44	
Bond XLII	5.00	0.00	5.00	5.00	8.8000%	0.44	
Bond XXXVIII	12.00	0.00	12.00	12.00	9.2500%	1.11	
Bond XLIV	18.00	0.00	12.00	15.00	8.7000%	1.31	
Bond XLIII	14.67	0.00	13.33	14.00	7.9300%	1.11	
SBI (21.03.2012)	2.50	0.00	2.22	2.36	8.0570%	0.19	
Total Loan	57.16	0.00	49.05	53.11		4.60	8.6558%

Annexure II



Order in Petition No. 12/TT/2021

Asset-1	2019-24 (₹ in lakh)						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LI	2.36	0.00	2.36	2.36	8.4000%	0.20	
Bond LVII	3.74	0.00	3.74	3.74	7.2000%	0.27	
Bond XL	7.20	0.00	7.20	7.20	9.3000%	0.67	
Bond XLII	7.87	0.00	7.87	7.87	8.8000%	0.69	
Bond XLIV	8.57	0.00	8.57	8.57	8.7000%	0.75	
Bond XLIX	8.43	0.00	8.43	8.43	8.1500%	0.69	
Bond XLVI	3.58	0.00	3.58	3.58	9.3000%	0.33	
Bond XXXVIII	8.83	0.00	8.83	8.83	9.2500%	0.82	
SBI-02 (2017-2018 Q4)	0.49	0.00	0.49	0.49	8.0621%	0.04	
Total Loan	51.08	0.00	51.08	51.08		4.45	8.7166%



Asset-2	2019-24						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LI	3.61	0.00	3.61	3.61	8.4000%	0.30	
Bond LVII	1.82	0.00	1.82	1.82	7.2000%	0.13	
Bond XL	4.13	0.00	4.13	4.13	9.3000%	0.38	
Bond XLII	7.87	0.00	7.87	7.87	8.8000%	0.69	
Bond XLIII	8.90	0.00	8.90	8.90	7.9300%	0.71	
Bond XLVIII	13.80	0.00	13.80	13.80	8.2000%	1.13	
Bond XXXVIII	3.41	0.00	3.41	3.41	9.2500%	0.32	
ICICI	0.27	0.00	0.27	0.27	8.2101%	0.02	
SBI-02 (2017-2018 Q4)	0.58	0.00	0.58	0.58	7.9500%	0.05	
SBI-04 (Q2)	0.38	0.00	0.38	0.38	8.2124%	0.03	
Total Loan	44.76	0.00	44.76	44.76		3.76	8.4056%

Asset-3	2019-24						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LI	14.08	0.00	14.08	14.08	8.4000%	1.18	
Bond LVII	12.20	0.00	12.20	12.20	7.2000%	0.88	
Bond XL	61.60	0.00	61.60	61.60	9.3000%	5.73	
Bond XLII	39.91	0.00	39.91	39.91	8.8000%	3.51	
Bond XLIV	1.41	0.00	1.41	1.41	8.7000%	0.12	
Bond XLVI	40.10	0.00	40.10	40.10	9.3000%	3.73	
Bond XXXVIII	13.50	0.00	13.50	13.50	9.2500%	1.25	



SBI-02 (2017-2018 Q4)	1.34	0.00	1.34	1.34	8.0621%	0.11	
Total Loan	184.14	0.00	184.14	184.14		16.51	8.9664%

Asset-I State Portion

Loan	2019-24						
	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LI	58.41	0.00	58.41	58.41	8.4000%	4.91	
Bond LVII	85.47	0.00	85.47	85.47	7.2000%	6.15	
Bond XL	116.43	0.00	116.43	116.43	9.3000%	10.83	
Bond XLII	171.22	0.00	171.22	171.22	8.8000%	15.07	
Bond XLIV	185.89	0.00	185.89	185.89	8.7000%	16.17	
Bond XLIX	197.57	0.00	197.57	197.57	8.1500%	16.10	
Bond XLVI	83.80	0.00	83.80	83.80	9.3000%	7.79	
Bond XXXVIII	141.17	0.00	141.17	141.17	9.2500%	13.06	
SBI-02 (2017-2018 Q4)	3.28	0.00	3.28	3.28	8.0621%	0.26	
Total Loan	1043.23	0.00	1043.23	1043.23		90.35	8.6601%

Asset-II - State Sector

Loan	2019-24						
	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LI	34.29	0.00	34.29	34.29	8.4000%	2.88	
Bond LVII	32.54	0.00	32.54	32.54	7.2000%	2.34	



Bond XL	68.87	0.00	68.87	68.87	9.3000%	6.41	
Bond XLII	126.92	0.00	126.92	126.92	8.8000%	11.17	
Bond XLIII	120.92	0.00	120.92	120.92	7.9300%	9.59	
Bond XLVIII	139.26	0.00	139.26	139.26	8.2000%	11.42	
Bond XXXVIII	55.10	0.00	55.10	55.10	9.2500%	5.10	
ICICI	2.83	0.00	2.83	2.83	8.2101%	0.23	
SBI-02 (2017-2018 Q4)	1.79	0.00	1.79	1.79	7.9500%	0.14	
SBI-04 (Q2)	3.95	0.00	3.95	3.95	8.2124%	0.32	
Total Loan	586.47	0.00	586.47	586.47		49.60	8.4576%

Asset-III - State Portion

Loan	2019-24						
	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LI	17.01	0.00	17.01	17.01	8.4000%	1.43	
Bond LVII	12.15	0.00	12.15	12.15	7.2000%	0.87	
Bond XL	81.48	0.00	81.48	81.48	9.3000%	7.58	
Bond XLII	56.87	0.00	56.87	56.87	8.8000%	5.00	
Bond XLIV	4.53	0.00	4.53	4.53	8.7000%	0.39	
Bond XLVI	78.98	0.00	78.98	78.98	9.3000%	7.35	
Bond XXXVIII	17.86	0.00	17.86	17.86	9.2500%	1.65	
SBI-02 (2017-2018 Q4)	1.36	0.00	1.36	1.36	8.0621%	0.11	
Total Loan	270.24	0.00	270.24	270.24		24.39	9.0241%



Asset-IV	2019-24						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond LVII	5.77	0.00	5.77	5.77	7.2000%	0.42	
Bond XL	4.50	0.00	4.50	4.50	9.3000%	0.42	
Bond XLII	5.00	0.00	5.00	5.00	8.8000%	0.44	
Bond XLIII	13.33	0.00	13.33	13.33	7.9300%	1.06	
Bond XLIV	12.00	0.00	12.00	12.00	8.7000%	1.04	
Bond XLV	0.12	0.00	0.12	0.12	9.6500%	0.01	
Bond XLVIII	9.72	0.00	9.72	9.72	8.2000%	0.80	
Bond XXXVIII	12.00	0.00	12.00	12.00	9.2500%	1.11	
ICICI	8.70	0.00	8.70	8.70	8.2101%	0.71	
SBI (21.03.2012)	2.85	0.00	2.85	2.85	8.0570%	0.23	
SBI 10000	3.07	0.00	3.07	3.07	8.0621%	0.25	
SBI-02 (2017-2018 Q4)	1.73	0.00	1.73	1.73	8.0621%	0.14	
SBI-04 (Q2)	12.17	0.00	12.17	12.17	8.2124%	1.00	
Total Loan	90.96	0.00	90.96	90.96		7.62	8.3816%



Annexure-III

Asset-5	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	24.00	9.65	2.11	(13.56)	1.26	8.17	31.63	6.33	1.82	2.20	1.83	1.45	1.74
	TOTAL	24.00	9.65	2.11	(13.56)	1.26	8.17	31.63		1.82	2.20	1.83	1.45	1.74
								Average Gross Block (₹ in lakh)		28.83	34.71	28.98	22.83	27.55
								Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33



Annexure-IV

Asset-6	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	19.45	3.96	1.32	1.16	0.81	9.51	36.21	6.33	1.35	1.52	1.60	1.66	1.99
	TOTAL	19.45	3.96	1.32	1.16	0.81	9.51	36.21		1.35	1.52	1.60	1.66	1.99
								Average Gross Block (₹ in lakh)		21.43	24.07	25.31	26.29	31.45
								Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33



Annexure-V

Asset-7	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	217.89	24.78	4.07	2.23	3.97	145.39	398.33	6.33	14.57	15.49	15.69	15.89	20.61
	TOTAL	217.89	24.78	4.07	2.23	3.97	145.39	398.33		14.57	15.49	15.69	15.89	20.61
								Average Gross Block (₹ in lakh)		230.28	244.71	247.86	250.96	325.64
								Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33



Annexure-VI

Asset-8	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	288.10	-	(99.56)	2.22	3.95	136.29	331.00	6.33	-	15.09	12.00	12.20	16.64
	TOTAL	288.10	-	(99.56)	2.22	3.95	136.29	331.00		-	15.09	12.00	12.20	16.64
								Average Gross Block (₹ in lakh)		-	238.32	189.65	192.73	262.85
								Weighted Average Rate of Depreciation (in %)		-	6.33	6.33	6.33	6.33



Annexure-VII

Asset-9	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	69.03	-	1.39	1.08	2.24	7.47	81.21	6.33	-	4.41	4.49	4.60	4.90
	TOTAL	69.03	-	1.39	1.08	2.24	7.47	81.21		-	4.41	4.49	4.60	4.90
								Average Gross Block (₹ in lakh)		-	69.73	70.96	72.62	77.48
								Weighted Average Rate of Depreciation (in %)		-	6.33	6.33	6.33	6.33



Annexure-VIII

Asset-10	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	16.30	-	0.15	0.12	0.29	1.84	18.70	6.33	-	1.03	1.04	1.06	1.07
	TOTAL	16.30	-	0.15	0.12	0.29	1.84	18.70		-	1.03	1.04	1.06	1.07
								Average Gross Block (₹ in lakh)		-	16.37	16.51	16.71	16.86
								Weighted Average Rate of Depreciation (in %)		-	6.33	6.33	6.33	6.33



Annexure-IX

Asset-11	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	230.33	0.00	0.00	0.00	4.82	(9.51)	225.64	6.33	0.00	0.00	0.00	14.73	14.58
	TOTAL	230.33	0.00	0.00	0.00	4.82	(9.51)	225.64		0.00	0.00	0.00	14.73	14.58
								Average Gross Block (₹ in lakh)		0.00	0.00	0.00	232.74	230.39
								Weighted Average Rate of Depreciation (in %)		0.00	0.00	0.00	6.33	6.33



Annexure-X

Asset-12	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	178.86	-	-	-	13.47	-	192.33	6.33	-	-	-	11.74	12.26
	TOTAL	178.86	-	-	-	13.47	-	192.33		-	-	-	11.74	12.26
								Average Gross Block (₹ in lakh)		-	-	-	185.60	192.33
								Weighted Average Rate of Depreciation (in %)		-	-	-	6.33	6.33



Annexure-XI

Asset-13	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	104.71	-	-	-	2.94	1.33	108.98	6.33	-	-	-	6.72	6.90
	TOTAL	104.71	-	-	-	2.94	1.33	108.98		-	-	-	6.72	6.90
								Average Gross Block (₹ in lakh)		-	-	-	106.18	108.31
								Weighted Average Rate of Depreciation (in %)		-	-	-	6.33	6.33



Annexure-XII

Asset-14	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	67.48	-	-	-	2.82	1.67	71.97	6.33	-	-	-	4.36	4.50
	TOTAL	67.48	-	-	-	2.82	1.67	71.97		-	-	-	4.36	4.50
								Average Gross Block (₹ in lakh)		-	-	-	68.89	71.14
								Weighted Average Rate of Depreciation (in %)		-	-	-	6.33	6.33



Annexure-XIII

Asset-15	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	43.52	-	-	-	3.51	1.53	48.56	6.33	-	-	-	2.86	3.03
	TOTAL	43.52	-	-	-	3.51	1.53	48.56		-	-	-	2.86	3.03
								Average Gross Block (₹ in lakh)		-	-	-	45.27	47.79
								Weighted Average Rate of Depreciation (in %)		-	-	-	6.33	6.33



Annexure-XIV

Asset-16	Particulars	Admitted Capital Cost as on COD (₹ in lakh)	ACE 2014-19 (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
			2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
	PLCC	209.47	-	-	-	-	-	209.47	6.33	-	-	-	-	16.19
	TOTAL	209.47	-	-	-	-	-	209.47		-	-	-	-	16.19
								Average Gross Block (₹ in lakh)		-	-	-	-	255.71
								Weighted Average Rate of Depreciation (in %)		-	-	-	-	6.33



Annexure-XV

Combined Asset-Central sector (5,8,11)	Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
						2019-20	2020-21	2021-22	2022-23	2023-24
	PLCC	588.27	0.00	588.27	6.33	37.24	37.24	37.24	37.24	37.24
	TOTAL	588.27	0.00	588.27		37.24	37.24	37.24	37.24	37.24
				Average Gross Block (₹ in lakh)		588.27	588.27	588.27	588.27	588.27
				Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33



Annexure-XVI

Combined Asset-State sector (6,7,9,10,12,13,14,15,16)	Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
						2019-20	2020-21	2021-22	2022-23	2023-24
	PLCC	1212.56	0.00	1212.56	6.33	76.75	76.75	76.75	76.75	76.75
	TOTAL	1212.56	0.00	1212.56		76.75	76.75	76.75	76.75	76.75
				Average Gross Block (₹ in lakh)		1212.56	1212.56	1212.56	1212.56	1212.56
				Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33

