

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 21/TT/2022

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member**

Date of order: 23.07.2025

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing-up of the transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and for determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for transmission line elements covered under the Transmission Project of Parbati Koldam Transmission Company Limited in the Northern Region.

And in the Matter of:

Parbati Koldam Transmission Company Limited,
5th Floor, JMD Galleria, Sector -48,
Sohna Road, Gurgaon - 122018

.....Petitioner

Versus

- 1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,**
Vidyut Bhawan, Vidyut Marg,
Jaipur – 302 005.
- 2. Ajmer Vidyut Vitran Nigam Limited,**
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
- 3. Jaipur Vidyut Vitran Nigam Limited,**
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
- 4. Jodhpur Vidyut Vitran Nigam Limited,**
400 kV GSS Building (Ground Floor), Ajmer Road,
Heerapura, Jaipur.
- 5. Himachal Pradesh State Electricity Board,**
Vidyut Bhawan, Kumar House Complex Building II,
Shimla – 171 004.



6. **Punjab State Power Corporation Limited,**
Thermal Shed Tia, Near 22 Phatak,
Patiala-147001
7. **Haryana Power Purchase Centre,**
Shakti Bhawan, Sector-6,
Panchkula (Haryana) – 134 109.
8. **Power Development Department,**
Govt. of Jammu and Kashmir,
Mini Secretariat, Jammu.
9. **Uttar Pradesh Power Corporation Limited,**
Shakti Bhawan, 14, Ashok Marg,
Lucknow – 226 001.
10. **Delhi Transco Limited,**
Shakti Sadan, Kotla Road,
New Delhi – 110 002.
11. **BSES Yamuna Power Limited,**
BSES Bhawan, Nehru Place,
New Delhi.
12. **BSES Rajdhani Power Limited,**
BSES Bhawan, Nehru Place,
New Delhi.
13. **Tata Power Delhi Distribution Limited,**
Cennet Building, Adjacent to 66/11 kV Pitampura – 3,
Grid Building, Pitampura,
New Delhi – 110 034.
14. **Chandigarh Administration,**
Sector-9, Chandigarh.
15. **Uttarakhand Power Corporation Limited,**
Urja Bhawan, Kanwali Road,
Dehradun.
16. **North Central Railway,**
Allahabad.
17. **New Delhi Municipal Council,**
Palika Kendra, Sansad Marg,
New Delhi- 110 002.



- 18. Northern Region Electricity Board,**
18-A, Shaheed Jeet Singh Marg,
Katwaria Sarai, New Delhi – 110 016.
- 19. Power Grid Corporation of India Limited,**
Saudamini Plot No.2, Sector-29,
Gurgaon – 122 001.
- 20. National Hydro Power Corporation Limited,**
NHPC Office Complex, Sector 33,
Faridabad, Haryana – 121003.
- 21. General Manager, Sainj (HEP),**
HPPCL, Sarabhai, Bhunter,
Dist. Kullu, Himanchal Pradesh – 175 125.
- 22. National Thermal Power Corporation Limited,**
NTPC Bhavan, Scope Complex,
Institutional Area, Lodhi Road,
New Delhi – 110 003.

...Respondent(s)

Parties Present: Ms. Gayatri Aryan, Advocate, PKTCL

ORDER

The Petitioner, Parbati Koldam Transmission Company Limited, has filed the instant Petition for truing up of transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for the determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the period from 1.4.2019 to 31.3.2024 in respect of following assets (hereinafter referred to as the “transmission assets / Combined Assets”) under Transmission Project of Parbati Koldam Transmission Company Limited (hereinafter referred to as the “transmission project”) in the Northern Region.



Asset-1: Section of 400 kV (Quad) S/C Parbati – Koldam Transmission Line (Ckt-II) starting from LILO Point of Parbati-III HEP to LILO Point of Parbati Pooling Station.

Asset-2: 400 kV D/C Koldam – Ludhiana Transmission Line, Ckt.-I.

Asset-3: 400 kV D/C Koldam – Ludhiana Transmission Line, Ckt.-II.

Asset-4: Section of 400 kV (Quad) S/C Parbati – Koldam Transmission Line (Ckt.-I) starting from LILO Point of Banala Pooling Station to Koldam (connected to Tower 9C of 400 kV D/C Koldam – Nalagarh Transmission Line forming Banala – Nalagarh section) in Northern Region.

Asset-5: Section of 400 kV (Quad) S/C Parbati – Koldam Transmission Line (Ckt.-II) starting from LILO Point of Banala Pooling Station to Koldam (connected to Tower 9E of 400 kV D/C Koldam – Nalagarh Transmission Line forming Banala – Koldam section)

Asset-6: Section of 400 kV (Quad) S/C Parbati – Koldam Transmission Line (Ckt.-I) starting from Parbati-II HEP to LILO Point of Banala Pooling Station.

Asset-7: Section of 400 kV (Quad) S/C Parbati – Koldam Transmission Line (Ckt.-II) starting from Parbati-II HEP to LILO Point of Parbati-III HEP.

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

“a. Admit the Petition;

b. Approve the trued-up Transmission Tariff for FY 2014-15 to FY 2018-19 for individual assets under Tariff Regulations, 2014;

c. Approve the Annual Transmission Charges for FY 2019-20 to FY 2023-24 for combined assets under Tariff Regulations, 2019;

d. Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of true-up for FY 2014-15 to FY 2018-19 and tariff for FY 2019-20 to FY 2023-24;

e. Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, RLDC fees and charges, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission



(Terms and Conditions of Tariff) Regulations, 2014 and Regulation 70 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition;

f. Approve the refinancing of loan undertaken and allow the recovery of benefit under Tariff regulations notified from time to time;

g. Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges along with GST / Service Tax/ any other taxes levied vide Circular No. 192/02/2016-Service Tax dated 13.04.2016 issued by Department of Revenue (Tax Research Unit), Ministry of Finance, Government of India in the matter of "Clarification on issues regarding levy of Service Tax on the services provided by Government or a local authority to business entities – reg, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 70 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019;

h. Allow the Petitioner to bill and recover from the beneficiaries, any taxes payable to the Government (central or state) or Statutory authorities, towards realisation, processing, calculation etc of aforementioned Tariff (Annual Transmission Charges) that are paid by the Petitioner for both Tariff Block of 2014-19 and Tariff Block of 2019-24;

i. Allow the Petitioner to recover the cost of initial spares purchased beyond the limit as specified under the Tariff regulations, 2014;

j. Allow the additional capitalisation for all assets within original scope of the project and incurred beyond cut-off date;

k. Approve additional capitalisation towards Emergency Restoration System (ERS) during the Tariff Block of 2019-24 under Power to Relax under Regulation 76 of Tariff Regulations, 2019;

l. Allow Petitioner to refund the excess tariff recovered to the beneficiaries for the period from 01.11.2019 till date of filing of instant Petition without any interest;

m. Allow carrying cost to the Petitioner for the period of delay in finalization of trued-up tariff for the period 2014-19 and tariff for the period 2019-24 until such tariff is actually recovered by the Petitioner from the beneficiaries;

n. Allow the Petitioner to make additions/alterations/modifications/changes to the Petition if required at a future date;

o. Condone any inadvertent error/ omission in the Petition and provide opportunity to the Petitioner to rectify the same;

p. Pass any such further and other orders as this Commission deems fit in the facts and circumstances of the present case.

Background of the case

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



(a) The construction of the transmission systems associated with three HEPs was approved in the 14th and 15th Meeting of the Standing Committee on Transmission System Planning of the Northern Region held on 30.12.2002 and 30.5.2003, respectively. The transmission system associated with Parbati-III HEP is being constructed by Power Grid Corporation of India Limited (PGCIL). The common 400 kV transmission system associated with Parbati-II HEP and Koldam HEP was planned at the 16th Meeting of the Standing Committee on Transmission System Planning for the Northern Region held on 24.3.2004.

(b) The administrative approval and expenditure sanction to the transmission system (400 kV D/C Koldam-Ludhiana transmission line) was accorded by the Ministry of Power (MoP) vide Order No. 12/19/2003-PG dated 7.9.2005 for ₹30195.00 lakh, including IDC of ₹2048.00 lakh (based on 2nd Quarter, 2005 price level). The project was scheduled to be completed within a 36-month timeframe from the date of Investment Approval (IA), matching the commissioning schedule of the Koldam Generation Project.

(c) The administrative approval and expenditure sanction to the transmission system (2xS/C 400 kV Parbati-Koldam transmission lines) was accorded by the Board of Directors of the PGCIL, the JV partner company, vide Memorandum No. C/CP/Parbati-II dated 26.12.2005 for ₹35842.00 lakh including IDC of ₹2905.00 lakh (based on 2nd Quarter, 2005 price level).

(d) The Cost Estimates of the combined transmission project were submitted for financing purposes and approved by the lenders and also admitted by the Board of Directors of PKTCL in a meeting held on 23.8.2010 for ₹110169.00 lakh, including an IDC of ₹17267.00 lakh. Subsequently, the Revised Cost Estimate (RCE) of the



combined transmission project was approved by the Board of Directors of PKTCL, vide its meeting held on 19.5.2014, for ₹100653.00 lakh, including IDC of ₹14340.00 lakh (based on the November 2013 price level). The details of the project costs are as under:

- i. Transmission system associated with Parbati-Koldam transmission lines - ₹50897.00 lakh, including IDC of ₹7438.00 lakh.
- ii. Transmission system associated with Koldam-Ludhiana transmission line - ₹49756.00 lakh, including IDC of ₹6901.00 lakh.

(e) The scope of work covered under the project is as follows:

Transmission Lines:

- i. Parbati-II-Koldam 400 kV (Quad) S/C transmission line-I: 61km.
- ii. Parbati-II-Koldam 400 kV (Quad) S/C transmission line-II: 68km.
- iii. 400 kV (Quad) D/C portions (envisaged for forest areas, river crossing, etc): 20 km
- iv. Realignment works at Koldam: 3 km of transmission line, i.e. One Ckt. of Koldam-Nalagarh double Circuit (D/C) line (covered under the Transmission system associated with Koldam HEP is to be opened from the Koldam end and connected to one Ckt. Of the Parbati-II-Koldam line, so as to create a direct Single Circuit (S/C) link between Parbati-II and Nalagarh.

(f) Subsequently, Bulk Power Transmission Agreements (BPTA) were executed between PKTCL and Northern Region beneficiaries towards the supply of power from Parbati-II HEP, as the transmission system for the evacuation of power from Parbati-II HEP was entrusted to PKTCL, and that of Parbati-III HEP was entrusted to PGCIL. However, the evacuation system of Parbati-III HEP utilises a small stretch



of the 3.518 km line of the Parbati-II evacuation system. The Petitioner was approached by PGCIL to provide and keep ready this portion of the transmission line, which also connects two LILO points, i.e., the point at which LILO shall touch the transmission line and carry the power to the point where LILO is connected to the Panarsa Pooling Point. Accordingly, the implementation agreement between PGCIL and PKTCL was amended vide Amendment No. 2 dated 27.8.2009.

(g) The Petitioner was granted a transmission licence vide Order dated 18.08.2008 in Petition No. 32/2008 for construction, operation, and maintenance of the following transmission lines:

S.No.	Transmission lines	Approximate line length (KMs)
1.	400 kV S/C Parbati-Koldam transmission line-I (Quad Moose conductor)	75
2.	400 kV S/C Parbati-Koldam transmission line-II (Quad Moose conductor)	75
3.	400 kV D/C Parbati-Koldam transmission line (Quad Moose conductor)	3.5
4.	400 kV D/C Koldam-Ludhiana transmission line (Triple Snowbird conductor)	150

(h) At the 26th Meeting of the Standing Committee on Power System Planning of Northern Region held on 23.10.2008, it was *inter alia* decided that the date of commercial operation of 400 kV D/C Koldam-Ludhiana transmission line should be nine months after the commissioning of Koldam HEP, but not later than the commissioning of Parbati-II HEP. For finalizing the date of commercial operation of Koldam-Ludhiana line, NTPC was called upon to inform the realistic scheduled date for commissioning of Koldam HEP and in case NTPC confirmed March 2011 as the commissioning date, the date of commercial operation of Koldam-Ludhiana



transmission line could be December 2011, without any need for indemnification by NTPC. It was also decided that NHPC would inform the Petitioner of the possible date of commissioning of Parbati-II HEP. On 18.12.2008, NHPC signed an Indemnification Agreement with the Petitioner with a commissioning date of Parbati-II HEP as December 2011, with the right to review the date by 31.3.2009. A supplementary Indemnification Agreement was signed on 15.6.2009, with the revised date of commissioning of Parbati-II HEP as 31.12.2012.

(i) The entire scope of work under the transmission project has been completed and is covered under the instant Petition.

(j) The transmission assets were scheduled to be commissioned within 36 months from the date of I.A., which is 26.12.2005. Accordingly, the project was scheduled to be commissioned by 1.1.2009. The details of the scheduled commercial operation date (SCOD), date of commercial operation (COD) and time over-run are as follows:

Assets	SCOD	COD	Time over-run	Condoned / not condoned#
Asset-1	1.1.2009	1.8.2013	55 months	Fully condoned
Asset-2		7.8.2014*	71 months	Fully condoned
Asset-3		14.8.2014*	71 months	Fully condoned
Asset-4		10.10.2014	69 months 15 days	Fully condoned
Asset-5		4.10.2014*	69 months 8 days	Fully condoned
Asset-6		3.11.2015	78 months	Condoned up to 29.6.2015 and not condoned for the period from 30.6.2015 to 3.11.2015
Asset-7		3.11.2015	78 months	

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

#Time overrun condoned/not condoned is as per the Commission's Orders mentioned in subsequent paras.

(k) The transmission tariff for Asset-1 (referred to as "asset" in Petition No. 71/TT/2016) from COD to 31.3.2014 was determined by the Commission vide order dated 15.1.2016 in Petition No. 297/TT/2013. Further, the tariff was trued up for the



period from COD to 31.3.2014, and the determination of the tariff for the 2014-19 period was approved by the Commission vide order dated 23.12.2016 in Petition No. 71/TT/2016.

(l) The transmission tariff for Asset - 2 and Asset – 3 (referred to as “Asset-I and Asset-II” in Petition No. 312/TT/2014) from COD to 31.3.2019 was determined by the Commission vide order dated 19.12.2016 in Petition No. 312/TT/2014. The Petitioner filed Review Petition No. 9/RP/2017 seeking review of the Commission order dated 19.12.2016 in Petition No. 312/TT/2014. NTPC filed Review Petition No. 8/RP/2017 seeking review of the Commission order dated 19.12.2016 in Petition No. 312/TT/2014. The Commission issued a joint order dated 24.7.2019, in both Review Petitions No. 8/RP/2017 and 9/RP/2017.

(m) The transmission tariff for Asset - 4 and Asset – 5 (referred to as “Asset-I and Asset-II ” in Petition No. 384/TT/2014) from COD to 31.3.2019 was determined by the Commission vide order dated 16.1.2017 in Petition No. 384/TT/2014. The Petitioner has filed Review Petition No. 10/RP/2017 seeking review of the Commission order dated 16.1.2017 in Petition No. 384/TT/2014. NTPC has filed Review Petition No. 16/RP/2017 seeking review of the Commission order dated 16.1.2017 in Petition No. 384/TT/2014. The Commission had issued a joint order dated 19.8.2019, in both Review Petitions No. 10/RP/2017 and 16/RP/2017.

(n) The transmission tariff for Asset - 6 and Asset – 7 (referred to as “Asset-1 and Asset-2 ” in Petition No. 156/TT/2015) from COD to 31.3.2019 was determined by the Commission vide order dated 29.12.2016 in Petition No. 156/TT/2015. The Petitioner has filed Review Petition No. 4/RP/2017 seeking review of the Commission order dated 29.12.2016 in Petition No. 156/TT/2015. NTPC has filed



Review Petition No. 15/RP/2017 seeking review of the Commission order dated 29.12.2016 in Petition No. 156/TT/2015. The Commission issued a joint order dated 12.12.2018, in both Review Petitions No. 4/RP/2017 and 15/RP/2017. The Commission, vide order dated 29.12.2016, disposed of Petition No. 156/TT/2015 as stated above. However, this Petition is reopened in terms of the Commission's common order dated 12.12.2018 in Review Petition Nos. 4/RP/2017 and 15/RP/2017, in view of the observations of the APTEL vide judgment dated 16.7.2018 in Appeal Nos. 281 of 2016 and 81 of 2017. The Petitioner had filed Review Petition No. 3/RP/2022, challenging the COD approved by the Commission vide order dated 9.2.2021 in Petition No. 156/TT/2015. The Commission, vide order dated 7.9.2022, had disposed of the said review Petition and stated that the reasons given by PKTCL for review of the order dated 9.2.2021 in Petition No. 156/TT/2015 do not show any 'sufficient cause' requiring this Commission to review the order dated 9.2.2021.

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

5. The Petitioner has served the Petition on the Respondents, and notice regarding the filing of this Petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. None of the respondent(s) filed any reply in the Petition.



6. This order is issued considering the submissions in the Petition vide affidavit dated 30.9.2021 and subsequent affidavits dated 7.5.2022 and 20.1.2023. The I.A., namely, 6/IA/2022, filed by the Petitioner in the matter, stands disposed vide RoP for the hearing dated 20.12.2022

7. The hearing in this matter was held on 6.2.2024, and the order was reserved. However, the order could not be passed before the former Member, Shri P. K. Singh, demitted office. Therefore, the matter was heard again on 16.7.2024.

8. During the hearing on 16.7.2024, the representative of the Petitioner submitted that pleadings have been completed in the matter and arguments were heard. None appeared on behalf of the Respondents despite notice. Therefore, the Commission directed the Respondents to file their respective written submissions, if any, within a week and reserved the order in the matter.

9. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the Petition.

Truing up of Annual Fixed Charges for the 2014-19 Tariff Period

10. The details of the true up transmission charges claimed by the Petitioner are as follows:

(₹ in lakh)

Asset-1					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	70.92	73.25	75.04	75.04	75.04
Interest on Loan	111.98	105.99	85.70	63.37	55.51
Return on Equity	79.02	82.01	84.02	84.02	84.24
Interest on working capital	6.15	6.14	5.76	5.25	5.08
O&M Expenses	2.13	2.21	2.28	2.35	2.43
Total	270.19	269.58	252.80	230.04	222.30



(₹ in lakh)

Asset-2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	720.23	1155.46	1184.19	1205.07	1219.67
Interest on Loan	1214.85	1825.69	1488.87	1137.78	1027.68
Return on Equity	803.91	1300.86	1335.96	1360.79	1382.22
Interest on working capital	64.96	101.60	95.42	88.50	86.90
O&M Expenses	34.58	55.06	56.87	58.75	60.71
Total	2838.52	4438.68	4161.32	3850.89	3777.18

(₹ in lakh)

Asset-3					
Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	699.61	1157.44	1186.18	1207.06	1221.65
Interest on Loan	1180.94	1831.64	1493.77	1141.61	1031.27
Return on Equity	780.89	1303.08	1338.18	1363.01	1384.44
Interest on working capital	63.11	101.84	95.63	88.68	87.08
O&M Expenses	33.56	55.06	56.87	58.75	60.71
Total	2758.10	4449.06	4170.63	3859.11	3785.15

(₹ in lakh)

Asset-4					
Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	417.82	930.84	962.62	978.61	983.26
Interest on Loan	710.46	1490.95	1228.79	938.78	840.72
Return on Equity	466.97	1047.42	1085.13	1104.09	1113.28
Interest on working capital	37.72	82.04	77.68	71.88	70.02
O&M Expenses	18.15	39.59	40.86	42.24	43.64
Total	1651.12	3590.83	3395.08	3135.60	3050.92

(₹ in lakh)

Asset-5					
Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	409.23	880.14	910.13	925.22	929.60
Interest on Loan	695.40	1407.90	1160.19	886.23	793.54
Return on Equity	457.36	990.36	1025.95	1043.84	1052.52
Interest on working capital	36.93	77.52	73.39	67.92	66.16
O&M Expenses	17.66	37.24	38.44	39.74	41.05
Total	1616.58	3393.16	3208.10	2962.95	2882.87



(₹ in lakh)

Asset-6				
Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
Depreciation	90.20	234.56	245.78	248.44
Interest on Loan	153.11	325.78	258.85	235.49
Return on Equity	101.46	264.24	277.02	280.97
Interest on working capital	8.12	19.44	18.47	18.10
O&M Expenses	3.30	8.31	8.59	8.87
Total	356.19	852.33	808.70	791.86

(₹ in lakh)

Asset-7				
Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
Depreciation	79.16	205.85	215.69	218.03
Interest on Loan	134.37	285.90	227.17	206.67
Return on Equity	89.04	231.90	243.12	246.58
Interest on working capital	7.12	17.05	16.19	15.87
O&M Expenses	2.80	7.05	7.29	7.53
Total	312.49	747.75	709.46	694.67

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

(₹ in lakh)

Asset-1					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.18	0.18	0.19	0.20	0.20
Maintenance Spares	0.32	0.33	0.34	0.35	0.36
Receivables	45.03	44.93	42.13	38.34	37.05
Total	45.53	45.45	42.66	38.89	37.62
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	6.15	6.14	5.76	5.25	5.08

(₹ in lakh)

Asset-2					
Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.44	4.59	4.74	4.90	5.06
Maintenance Spares	7.99	8.26	8.53	8.81	9.11
Receivables	728.59	739.78	693.55	641.81	629.53
Total	741.02	752.63	706.82	655.52	643.69
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	64.96	101.60	95.42	88.50	86.90



(₹ in lakh)

Asset-3					
Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.44	4.59	4.74	4.90	5.06
Maintenance Spares	7.99	8.26	8.53	8.81	9.11
Receivables	729.50	741.51	695.10	643.18	630.86
Total	741.92	754.36	708.37	656.89	645.02
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	63.11	101.84	95.63	88.68	87.08

(₹ in lakh)

Asset-4					
Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	3.19	3.30	3.41	3.52	3.64
Maintenance Spares	5.74	5.94	6.13	6.34	6.55
Receivables	580.60	598.47	565.85	522.60	508.49
Total	589.53	607.71	575.38	532.46	518.67
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	37.72	82.04	77.68	71.88	70.02

(₹ in lakh)

Asset-5					
Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	3.00	3.10	3.20	3.31	3.42
Maintenance Spares	5.40	5.59	5.77	5.96	6.16
Receivables	549.40	565.53	534.68	493.82	480.48
Total	557.80	574.22	543.65	503.10	490.06
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	36.93	77.52	73.39	67.92	66.16

(₹ in lakh)

Asset-6				
Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
O&M Expenses	0.67	0.69	0.72	0.74
Maintenance Spares	1.21	1.25	1.29	1.33
Receivables	144.85	142.05	134.78	131.98
Total	146.73	143.99	136.79	134.05
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	8.12	19.44	18.47	18.10



(₹ in lakh)

Asset-7				
Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
O&M Expenses	0.57	0.59	0.61	0.63
Maintenance Spares	1.02	1.06	1.09	1.13
Receivables	127.08	124.62	118.24	115.78
Total	128.67	126.27	119.94	117.54
Rate of Interest (%)	13.50	13.50	13.50	13.50
Interest on Working Capital	7.12	17.05	16.19	15.87

Capital Cost

12. The Commission, vide order dated 23.12.2016 in Petition No 71/TT/2016 for Asset-1, vide order dated 19.12.2016 in Petition No. 312/TT/2014 read with order dated 24.7.2019 in Review Petitions No. 8/RP/2017 and 9/RP/2017 for Assets – 2 and 3 and vide order dated 16.1.2017 in Petition No. 384/TT/2014 read with order dated 19.8.2019 in Review Petitions No. 10/RP/2017 and 16/RP/2017 for Assets – 4 and 5 had approved the capital cost as on COD and ACE up to 31.3.2019. The details of the capital cost are as follows:

(₹ in lakh)

Assets	Apportioned Approved Cost as per RCE	Capital Cost allowed as on 1.4.2014 / COD	ACE				Total Capital Cost as on 31.3. 2019
			2014-15	2015-16	2016-17	2017-18	
Asset – 1	1504.24	1333.06	20.19	67.98	0.00	0.00	1421.23
Asset – 2	24878.18	20527.94	2241.26	582.66	0.00	0.00	23351.86
Asset – 3	24878.18	20527.55	2278.44	582.66	0.00	0.00	23388.65
Asset – 4	20651.12	16353.13	800.00	1000.00	1312.85	0.00	19465.98
Asset – 5	19485.99	15430.54	800.00	1000.00	1137.23	0.00	18367.77

13. The Commission, vide orders dated 29.12.2016 and 9.2.2021 in Petition No. 156/TT/2015, had approved the capital cost as on COD and ACE up to 31.3.2019 for Assets 6 and 7 as under:



(₹ in lakh)

Asset	Pro-Rata Capital Cost as on Tariff approved COD (03.11.2015) (Cash Basis)	Pro-Rata ACE from approved COD (03.11.2015) to 31.03.2016	ACE during FY 2016-17	ACE during FY 2017-18	Total Completion Cost
Asset-6 *	4067.27	231.95	323.83	108.58	4731.63
Asset-7 *	3569.94	203.59	284.23	95.30	4153.06

* Name mentioned as Asset-I and Asset-II in Petition No. 156/TT/2015.

14. The Petitioner in the instant true up Petition has claimed the capital cost as on COD / 1.4.2014 and ACE incurred for Assets 1, 2, 3, 4, 5, 6, and 7 and submitted the Auditor's Certificates in support of the same. The details of the capital cost claimed are as under:

(₹ in lakh)

Assets	Apportioned Approved Cost as per RCE	Capital Cost allowed as on 1.4.2014 / COD	ACE					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset – 1	1504.24	1333.05	20.19	67.98	0.00	0.00	0.00	1421.22
Asset – 2	24878.18	20557.86	973.64	947.09	240.45	599.45	2.44	23320.93
Asset – 3	24878.18	20559.41	1009.64	947.09	240.45	599.45	2.44	23358.48
Asset – 4	20651.12	16197.39	1098.17	844.62	431.35	210.06	1.65	18783.24
Asset – 5	19485.99	15349.86	1004.40	796.97	407.02	198.21	1.56	17758.02
Asset – 6	4943.01	4067.78	0.00	240.08	323.90	108.58	0.00	4740.34
Asset – 7	4338.60	3569.83	0.00	210.72	284.29	95.30	0.00	4160.14
Total	100679.3	81635.18	4106.04	4054.55	1927.46	1811.05	8.09	93542.37

Cost Overrun

15. The total completion cost including ACE as on 31.3.2019 in respect of Assets- 1, 2, 3, 4, 5, 6 and 7 claimed by the Petitioner in the instant trued-up Petition is ₹93,542.37 lakh and the apportioned approved RCE cost is ₹100679.30 lakh for Assets- 1, 2, 3, 4, 5, 6 and 7. Since the completion cost claimed by the Petitioner as on 31.3.2019 in respect of the transmission assets is within the apportioned approved RCE cost, there is no cost overrun with respect to RCE cost.



Time Overrun

16. As per the IA, the instant transmission assets were scheduled to be put under commercial operation within 36 months from the date of I.A., which is 26.12.2005. Accordingly, the project was scheduled to be commissioned by 1.1.2009. The details of COD and time overrun in case of Assets 1, 2, 3, 4, 5, 6 and 7 are as follows:

Assets	SCOD	COD	Time overrun	Condoned/not condoned
Asset-1	1.1.2009	1.8.2013	55 months	Fully condoned
Asset-2		7.8.2014	71 months	Fully condoned
Asset-3		14.8.2014	71 months	Fully condoned
Asset-4		10.10.2014	69 months 15 days	Fully condoned
Asset-5		4.10.2014	69 months 8 days	Fully condoned
Asset-6		3.11.2015	78 months	Condoned up to 29.6.2015 and not condoned for the period from 30.6.2015 to 3.11.2015
Asset-7		3.11.2015	78 months	

17. The Commission, vide order 15.1.2016 in Petition No 297/TT/2013 had condoned the time overrun of 55 months for Asset-1, the Commission vide order 19.12.2016 in Petition No. 312/TT/2014 had condoned the time overrun of 71 months for Assets 2 and 3, the Commission, vide order 16.1.2017 in Petition No. 384/TT/2014 had condoned the time overrun of 69 months 15 days and 69 months 8 days for Assets 4 and 5 and the Commission vide order 29.12.2016 in Petition No. 156/TT/2015 had condoned the time overrun for 78 months up to 29.6.2015 for Assets 6 and 7. Since the time overruns have already been examined, decided upon and attained finality in the various tariff petitions, we are not dealing with the issue of time overruns afresh.



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

18. The Petitioner has claimed Interest During Construction (IDC) for the transmission assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted a computation of IDC along with the year-wise details of the IDC discharged.

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

20. Asset-1 was put under commercial operation in the 2009-14 tariff period. Therefore, the IDC has already been computed in the previous orders.

21. Accordingly, based on the information furnished by the Petitioner, IDC considered for Assets 2 to 7, is as follows:

(₹ in lakh)						
Assets	IDC Claimed (as per Auditor's Certificate)	Total IDC Disallowed	IDC Considered	IDC Disch arged as on COD/ 1.4.20 14	IDC Undischarged as on COD	IDC Discharged During 2014-15
	A	B	C=A-B	D	E=C-D	
Asset-2	3238.87	0.89	3237.98	3087.52	150.46	150.46
Asset-3	3276.43	0.90	3275.53	3089.08	186.46	186.46
Asset-4	2783.73	23.00	2760.73	2539.67	221.06	221.06
Asset-5	2661.15	21.90	2639.25	2462.21	177.05	177.05
Asset-6	899.96	6.89	893.07	893.07	0.00	0.00
Asset-7	789.35	6.05	783.3	783.30	0.00	0.00



22. The IEDC allowed for Assets -1 to 7 are as follows:

Assets	IEDC Claimed (as per Auditor's Certificate)	Total IEDC Disallowed	IEDC Considered	IEDC Discharged as on COD/ 1.4.2014	(₹ in lakh) IEDC discharged during		
					2014-15	2015-16	2016-17
Asset-1	43.67	0.00	43.67	43.42	0.25	0.00	0.00
Asset-2	1742.92	0.47	1742.45	1714.04	17.68	10.73	0.00
Asset-3	1742.92	0.47	1742.45	1714.04	17.68	10.73	0.00
Asset-4	1212.36	9.94	1202.42	1091.03	96.06	15.33	0.00
Asset-5	1143.97	9.33	1134.64	1029.52	90.65	14.47	0.00
Asset-6	373.71	2.81	370.90	322.94	0.00	31.06	16.90
Asset-7	328.02	2.47	325.55	283.45	0.00	27.27	14.83

Initial Spares

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

“(d) Transmission system

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

.....”

24. The Petitioner in the instant Petition has claimed the following initial spares and submitted that the initial spares on an overall project basis are within the norms:

Transmission Line:

Assets	Plant & machinery cost up to the cut-off date (excluding IDC and IEDC (₹in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (in %)
Asset-2	17416.89	289.97	1.00
Asset-3	17416.89	289.97	1.00
Asset-4	14342.11	175.28	1.00
Asset-5	13532.98	165.39	1.00
Asset-6	3394.24	36.83	1.00
Asset-7	2979.21	32.32	1.00



25. We have considered the submissions of the Petitioner. The details of the Initial Spares allowed in respect of the transmission assets for the 2014-19 tariff period are as follows:

Assets	Plant & machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh) (A)	Initial Spares Claimed (₹ in lakh) (B)	Ceiling Limit (in %) (C)	Initial Spares worked out (₹ in lakh) $D=(A-B)*C/(100-C)$	Initial Spares allowed (₹ in lakh)	Excess Initial Spares (₹ in lakh) $E=B-D$
Transmission Line						
Asset-2	17416.89	289.97	1.00	173.00	173.00	116.97
Asset-3	17416.89	289.97	1.00	173.00	173.00	116.97
Asset-4	14342.11	175.28	1.00	143.10	143.10	32.18
Asset-5	13532.98	165.39	1.00	135.03	135.03	30.36
Asset-6	3394.24	36.83	1.00	33.91	33.91	2.92
Asset-7	2979.21	32.32	1.00	29.77	29.77	2.55

Capital Cost considered as on COD/1.4.2014

26. Since Asset-1 was commissioned before 1.4.2014, the trued-up capital cost of ₹1333.06 as on 31.3.2014 has been considered as capital cost as on 1.4.2014.

27. For Assets 2 to 7, the Petitioner has claimed the capital cost on a cash basis. Further, as per respective Auditor Certificates submitted by the Petitioner, it is observed that the Petitioner has also considered the expenditure against “Land and Building” under Capital Cost up to COD.

28. In compliance with RoP dated 20.12.2022, the Petitioner has submitted that no provision for land and building was kept in the Investment Approval accorded for the instant transmission assets. The Petitioner has further submitted that during the process of preparing the RCE, a need to establish Corporate Office, Site Offices and Store yard was identified and was captured in the RCE and submitted for the approval of the Board of the Company. The Board vide its resolution dated 19.05.2014 approved the RCE, along with the provision for Land and Building.



Accordingly, the provision for Land and Building was included as a part of the Original Scope of the project.

29. We have considered the submission of the Petitioner. The issue is discussed along with Additional Capitalisation towards the discharge of liability against the Land and Building covered under the original project scope as approved in RCE.

30. Therefore, the details of capital cost considered as on COD are as follows:

Assets	Capital cost as on COD (on cash basis)	Less: Disallowed			Capital cost allowed as on COD (on cash basis)
		*IDC	IEDC	Hard cost of Land and Building	
Asset-2	20557.86	0.84	0.47	4.31	20552.24
Asset-3	20559.41	0.84	0.47	4.31	20553.79
Asset-4	16197.39	21.16	9.09	103.60	16063.54
Asset-5	15349.86	20.43	8.54	97.33	15223.56
Asset-6	4067.78	6.89	2.49	21.77	4036.62
Asset-7	3569.83	6.05	2.19	19.11	3542.48

(*Remaining disallowed IDC in case of Asset 2 to Asset 5 has been deducted from the ACE claimed during 2014-15 when the same was discharged.)

Additional Capital Expenditure (ACE)

31. The Petitioner has claimed the following ACE as per Auditor Certificates in respect of the transmission assets covered in the instant Petition:

Assets	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset – 1	20.19	67.98	0.00	0.00	0.00
Asset – 2	973.64	947.09	240.45	599.45	2.44
Asset – 3	1009.64	947.09	240.45	599.45	2.44
Asset – 4	1098.17	844.62	431.35	210.06	1.65
Asset – 5	1004.40	796.97	407.02	198.21	1.56
Asset – 6	0.00	240.08	323.90	108.58	0.00
Asset – 7	0.00	210.72	284.29	95.30	0.00



32. The Petitioner has submitted that ACE has been claimed under Regulations 14(1)(i) of the 2014 Tariff Regulations, and the same is within the cut-off date. The Petitioner has submitted an Auditor's Certificate in support of the same.

33. The Petitioner in the instant true-up Petition has submitted that the ACE of the 2014-19 tariff period is claimed towards the expenditure incurred on the following:

- (a) Discharge of Contractor Payments.
- (b) Discharge of Initial Spares.
- (c) Discharge of Interest During Construction ('IDC') and Incidental Expenditure During Construction ('IEDC') pertaining to the period prior to COD
- (d) Discharge of Liability against Land and building covered under the original project scope as approved in RCE; and
- (e) Other Additional Capitalisation under Regulation 14(2) of Tariff Regulations, 2014 for the tariff period of 2014-19

34. The detailed reasons with respect to Additional Capitalisation submitted by the Petitioner are as follows:

A. Additional Capitalisation towards payment made to Contractors.

35. The Petitioner has claimed Rs. 8902.63 lakh towards discharge of payment to the contractors. The year-wise details of discharge of payment to the contractors are as follows:

Asset	Discharge of Contractor Payments					
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Asset 1	121.71	19.94	67.97	-	-	-



Asset	Discharge of Contractor Payments					
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Asset 2	-	537.05	749.88	213.25	466.21	-
Asset 3	-	537.05	749.88	213.25	466.21	-
Asset 4	-	608.89	633.28	431.35	113.02	-
Asset 5	-	574.54	597.56	407.02	106.65	-
Asset 6	-	-	315.76	282.83	87.31	-
Asset 7	-	-	277.15	248.24	76.63	-

36. The Petitioner has submitted that approximately 87% of the total project cost was incurred by the Petitioner at the time of commissioning of the transmission assets. However, there were certain undischarged liabilities of the Petitioner towards its Contractors for services/goods provided during and after the commissioning of the Assets. These undischarged liabilities were towards retention amounts to be paid to the contractors. There were certain activities and correction work pending on the part of the EPC contractors for the project. Despite the Petitioner's rigorous follow-up, it took time for the EPC contractors to complete these pending activities. These delays were also due to various constraints such as Right of Way (RoW) issues caused by local villagers and landowners obstructing the route of transmission lines. It is pertinent to mention that approximately 100 cases pertaining to RoW and compensation issues were pending en route to the transmission line project, which caused hindrances in the completion of these pending activities.

37. The Petitioner has further submitted that to ensure the quality and reliability of work, the Petitioner ensured that the pending work is completed by the EPC contractors of the project, and the Petitioner had no other option but to withhold the payments towards the retention amount as per the provisions of Supply and Erection contracts placed on the EPC Contractors. The Petitioner has further

submitted that this withholding of the amount does not result in any increase in capital cost.

B. Additional Capitalisation towards procurement of Initial Spares

38. The Petitioner has submitted that the ACE claimed during the 2014-19 period includes the capital expenditure towards the procurement of initial spares for the project. The Petitioner has submitted that the capitalization of initial spares has occurred after the COD of the Project, in view of the following reasons:

(a) The initial spares of the project were finalized at the time of commissioning of the project whereas the actual quantity of initial spares to be procured were finalized after completion of the project, as the exact quantity of initial spares to be procured could be arrived at, only after including the quantity that had become extra quantity to the intermittent changes that were encountered during the construction period of the project which were beyond the control of Petitioner.

(b) Based on this list of extra material reconciled at the time of completion of the project, the extra material was compared with the list of total initial spares required for the project and the balance material was then ordered from the respective contractors as per the project specification/transmission line element specification. As the guidelines for procuring initial spares are very stringent for transmission projects under the 2014 Tariff Regulations, assessing the right quantity and proportion of spares was of utmost importance.

(c) A substantial part of the transmission line elements of the project traverse through extremely hilly terrain, and the transmission elements in



Quad Bundle configuration (2 X 400 kV Parbati-II – Koldam Transmission Line sections) comprise only Angle Towers. Similarly, in the triple bundle (400 kV D/C Koldam – Ludhiana Transmission Line) configuration, almost 50 kms of transmission line traverses through extremely hilly terrain, with all the locations in hilly terrain comprising Angle Towers only. Overall, with more than 100 combinations of towers, choosing the right combination with the right quantum of spares was an extremely difficult task. Further, as per the 2014 Tariff Regulations, the provisions kept for transmission line spares were far too few compared to the actual requirement under the PKTCL Transmission Line project, considering the number of combinations that have been used in the project with two different sets of configurations in the same project. The Petitioner has submitted that the project features both Single Circuit and Double Circuit Towers for the Parbati – Koldam Transmission Line section with a Quad bundle conductor configuration with MOOSE Conductor, and has Double Circuit Towers for Koldam – Ludhiana Transmission Line section with a Triple bundle conductor configuration with SNOWBIRD Conductor. As such, there are no common spares that can be used interchangeably amongst the two transmission line sections of PKTCL apart from the Earth wire and its accessories, which makes it difficult to limit the spares within the maximum limit of initial spares provided in Regulation 13 of the 2014 Tariff Regulations.

(d) Even though the Petitioner procured less than the required quantum of spares, there is still an increase in the spare cost of the project.



(e) These transmission lines form a backbone network for the evacuation of power from HEPs present in the Parbati Basin (Parbati-II, Parbati-III, Sainj, Koldam HEPs and Banala Pooling Station). The Transmission Lines form a consolidated scheme for power evacuation of 2200 MW from these HEPs, and in case of any untoward incident/eventuality, the ready availability of spares for a transmission project like that of the Petitioner is of utmost importance. The transmission line requires more initial spares, as the design of the project is unique. The hilly terrain is prone to cloud bursts and landslides. Hence, the ready availability of these spares is a must in order to cater to any such untoward incident in an accelerated manner. Manufacturing the desired spare (specifically in the case of towers/tower parts) of a specific type that is not available as part of the initial spares due to this restriction/cap on the procurement of initial spares, would also require substantial time and adherence to a detailed process of procurement. The manufacturing cycle of tower parts is lengthy, and the subsequent erection activity required is also time-consuming. This, in turn, will further delay the restoration of the line. It is further submitted that in view of the inflation in the prices of commodities associated with transmission lines, procurement of these spares in the future will further increase the cost, which would burden the beneficiaries. Hence, in the interest of the project's seamless operation, as well as considering the quantum of power being evacuated through this transmission line system, it was decided to procure the bare minimum number of spares required for the project.

(f) Regulation 14(1)(iii) of the 2014 Tariff Regulations specifically allows capitalisation of procurement of spares as additional capitalisation after COD. Accordingly, the Petitioner carried out the additional capitalisation towards the initial spares after COD as well.

(g) As per Regulation 13 of the 2014 Tariff Regulations, the capitalisation of initial spares is allowed up to 1% of the Plant and Machinery Cost up to the cut-off date. However, the cost components of initial spares in Asset 2 to 7 are higher than the notified value of 1%.

(h) The deviation is due to the fact that the Petitioner's project is a standalone project and the Petitioner does not have any other transmission projects anywhere else in the country from which it may share the spares for this transmission project, as is the case with other transmission utilities like PGCIL. It may be noted that the norms in the 2014 Tariff Regulations are based on the transmission network that was commissioned in 2009-14 tariff period and as it largely comprises PGCIL projects, which has multiple transmission line elements and can share the spares from its multifaceted transmission line portfolio, they might fit into the regulations issued by the CERC from time to time. Whereas in the case of the Petitioner's transmission project, the same being a stand-alone project, is dependent upon its own resources. Accordingly, it is not possible for the Petitioner to limit the initial spares based on the normative capitalisation allowed in Regulation 13 of the 2014 Tariff Regulations.

(i) The Petitioner has prudently incurred this cost on initial spares (and incurring the said cost could not have been avoided in the interest of the

Project) and the same is certified by the Statutory Auditors while issuing certificates to the Petitioner. Accordingly, this Commission may kindly allow capitalization of the additional cost incurred by the Petitioner towards procurement of these initial spares, invoking its power conferred under Proviso 54 'Power to Relax' of Tariff Regulations, 2014.

C. Additional Capitalisation towards IDC and IEDC

39. The Petitioner has submitted that the ACE claimed by the Petitioner during the 2014-19 tariff period includes a cost component towards IDC and IEDC, discharged after the COD. The actual IDC discharged as additional capitalization for each of the assets after the COD is as follows:

(₹ in lakh)

Asset	IDC as on COD	IDC Discharged after COD						Total IDC
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset 1	127.67	6.44	-	-	-	-	-	134.11
Asset 2	3,088.37	-	150.51	-	-	-	-	3,238.87
Asset 3	3,089.92	-	186.51	-	-	-	-	3,276.43
Asset 4	2,560.83	-	222.90	-	-	-	-	2,783.73
Asset 5	2,482.64	-	178.52	-	-	-	-	2,661.15
Asset 6	899.96	-	-	-	-	-	-	899.96
Asset 7	789.35	-	-	-	-	-	-	789.35

40. Similarly, the Petitioner has claimed the IEDC cost towards discharge of the outstanding payments, performance-linked incentives and some other minor administrative expenditure incurred for the period before the COD, which were discharged after COD of respective transmission assets. The details of the actual IEDC discharged as additional capitalization for each of the assets after the COD, submitted by the Petitioner, are as follows:

(₹ in lakh)

Asset	IEDC as on COD	IEDC Discharged after COD						Total IEDC
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset 1	41.67	1.75	0.25	-	-	-	-	43.67



Asset	IEDC as on COD	IEDC Discharged after COD						Total IEDC
		2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset 2	1714.5	-	17.68	10.73	-	-	-	1,742.92
Asset 3	1714.5	-	17.68	10.73	-	-	-	1,742.92
Asset 4	1,100.12	-	96.79	15.45	-	-	-	1,212.36
Asset 5	1,038.06	-	91.33	14.58	-	-	-	1,143.97
Asset 6	325.43	-	-	31.38	16.90	-	-	373.71
Asset 7	285.64	-	-	27.55	14.83	-	-	328.02

D. Additional Capitalisation towards discharge of liability against Land and Building covered under the original project scope as approved in RCE

41. The Petitioner has submitted that the additional expenditure was incurred towards establishing different site offices for line monitoring. For the said purpose, the Petitioner was granted approval by its Board for the purchase of land for the construction of stores/buildings for the establishment of a corporate office, site offices (depending upon the distance and terrain of the transmission line) in the RCE prepared for the project. The Petitioner has submitted that the office locations of the Petitioner have been decided based on the geographical locations and terrain of transmission lines, which span across 280 kms (approx.) with 180 kms traversing through an extremely hilly terrain. Considering these factors, it was felt prudent to establish the offices at (a) Two (2) offices in Himachal Pradesh and (b) One (1) office in Punjab, along with the project stores for line patrolling, operation and maintenance of the project. A corporate office has also been established in Gurgaon, Haryana, for meeting the techno-legal, regulatory, commercial, secretarial, financial and other day-to-day operational requirements of the Project as per the approvals received.

42. The detail of ACE claimed by the Petitioner towards Land and Building in the instant true-up Petition is as follows:

Particu	Asset-2	Asset-3	Asset-4	Asset-5	Asset-6	Asset-7
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lars	Land	Building	Land	Buildin g	Land	Buildin g	Land	Buildin g	Land	Buildin g	Land	Buildin g
As on COD	0.00	5.62	0.00	5.62	0.00	133.85	0.00	126.30	0.00	31.16	0.00	27.35
2014- 15	0.00	189.55	0.00	189.55	0.00	8.30	0.00	7.83	0.00	0.00	0.00	0.00
2015- 16	84.12	41.05	84.12	41.05	61.27	29.90	57.81	28.21	13.43	6.56	11.79	5.75
2016- 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017- 18	0.00	133.24	0.00	133.24	0.00	97.04	0.00	91.57	0.00	21.27	0.00	18.67
2018- 19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	84.12	369.46	84.12	369.46	61.27	269.09	57.81	253.91	13.43	58.99	11.79	51.77

43. The Petitioner has also submitted that most of the additional expenditure has been incurred within the cut-off date of the respective Assets. However, due to reasons beyond control, certain expenditure has been discharged beyond the cut-off date, which may be considered by this Commission for the purposes of true-up. A portion of the additional expenditure that had to be discharged beyond the cut-off date is towards the procurement of land/building for the Project. The process of getting the necessary approval under Section 118 of the Himachal Pradesh Tenancy and Land Reforms Act, 1972 got delayed and was beyond the control of the Petitioner. Due to this, the Petitioner could not purchase the land/building/property until FY 2017-18. Further, as the procurement process of these offices cascaded beyond the cut-off date, the subsequent renovation/repair activities at these properties identified for the establishment of the office also shifted beyond the cut-off date. As these activities were to be performed by the respective previous owner (before handing over the property to the Petitioner), the cost of renovation could not be finalised before the receipt of approval under Section 118 of the Himachal Pradesh Tenancy and Land Reforms Act, 1972. As these activities/repairs were to be completed before handing over the property to the Petitioner, they were taken up



only after the receipt of approval under Section 118 of the Himachal Pradesh Tenancy and Land Reforms Act, 1972 (i.e. after June 2017). Subsequently, the properties were purchased after the completion of these renovations/repairs in September 2017 and December 2017 for Bhunter and Sundernagar properties, respectively.

44. The Commission, vide RoP for hearing dated 20.12.2022, directed the Petitioner to submit the following:

(a) Proof of Land and Buildings covered under the original scope and details of ACE towards Land and Buildings;

(b) Purpose of construction of stores, site offices and corporate offices;

45. In response, the Petitioner vide affidavit dated 20.01.2023 has submitted the following:

(a) **Proof of Land and Buildings covered under the original scope and details of ACE towards Land and Buildings:** The cost towards Land and Building has been submitted before this Commission as a part of the initial tariff Petitions filed for Asset-2&3 (Tariff Petition 312/TT/2014), Asset-4&5 (Tariff Petition 384/TT/2014) and Asset-6&7 (Tariff Petition 156/TT/2015). Subsequently, this cost towards Land and Building was approved by the Commission through its orders issued in 312/TT/2014 (vide order dated 19.12.2016), 384/TT/2014 (vide order dated 16.01.2017) and 156/TT/2014 (vide order dated 29.12.2016). Accordingly, information sought by this Commission is as follows:

(i) **Provision of Land and Building in Original Cost approval granted for the project:**

1. Initially, the project that was being awarded to the Petitioner Company was divided into two projects: evacuation scheme associated with Koldam Hydro Electric Plant (HEP) of National Thermal Power Corporation (NTPC) (**Koldam HEP**) and the evacuation scheme associated with Parbati-II HEP of National Hydro Power Corporation



(NHPC) and both these projects were granted separate investment approvals.

2. Evolution of Transmission Scheme under JV Scope:

a. The Transmission Scheme developed for evacuation of power from Koldam HEP was: This scheme was approved in the 14th and 15th Standing Committee of Transmission System Planning of Northern Region held on 30.12.2002 and 30.05.2003, respectively. Under the scheme, the following was agreed :

(i) **Under Power Grid scope of Work:** 400 kV D/C (Quad Bundle) Koldam (NTPC) to Nalagarh (Power Grid Corporation of India Limited; PGCIL) Transmission Line, 400 kV Substations at Nalagarh and Ludhiana, and

(ii) **Under Joint Venture (JV) Scope of Work:** 400 kV D/C (Triple Bundle) Koldam (NTPC) to Ludhiana (PGCIL) Transmission Line.

b. **The Transmission Scheme covered under the evacuation scheme Parbati – II HEP:**

This scheme was approved in the 14th and 15th Standing Committee of Transmission System Planning of Northern Region held on 30.12.2002 and 30.05.2003, respectively, and the following scope was approved:

2 X 400 kV S/C Transmission Lines from Parbati-II to Koldam, along with D/C portion in forest stretches and terrain which allows the construction of the Transmission Line on D/C. No Substation was made part of this scheme, and accordingly, **no provision for land and building was made in the Investment Approval.**

3. **Investment Approval Koldam HEP Evacuation:** The project was granted investment approval by the Ministry of Power (**MOP**) vide its order dated 07.09.2005, capturing two scopes, one that was to be developed by Power Grid and the other scope that was to be developed under the JV Scope of work. It was identified that the JV Scope (400 kV D/C Koldam – Ludhiana Transmission Line) did not

have any substation, and accordingly, no provision was made for land and building.

4. Investment Approval Parbati-II HEP Evacuation: The Transmission scheme was granted investment approval in the 175th Board Meeting of Power Grid Corporation of India Limited (**PGCIL**) under which only the following scope was approved: 2 X 400 kV S/C Transmission Lines from Parbati-II to Koldam along with D/C portion in forest stretches and terrain which allows construction of Transmission Line on D/C. No Substation was made part of this scheme, and accordingly, no provision for land and building was made in the Investment Approval.

5. RCE with provision of Land and Building: Subsequently, the JV came into existence in September 2007, and thereafter, the Parbati Koldam Transmission Company Limited was incorporated for executing these Projects under a combined scope. Post formation of the JV and achievement of financial closure, during the construction phase of the project, a need to revise the project cost arose in November 2013. Accordingly, the RCE was prepared at the November 2013 price level. During the process of preparation of RCE, a need to establish Corporate Office, Site Offices and Store Yard was identified and captured in the RCE, which was then submitted for the approval of the Board of the Company. The Board vide its Resolution dated 19.05.2014 approved the RCE along with the provision for Land and Building. Accordingly, the provision for Land and Building was included as part of the Original Scope of the project.

(b) Purpose of construction of stores, site offices, and corporate offices:

During the course of project execution, it was identified that the project requires Corporate Office, Site Office, and Stores for the life of the project to meet the Operation and Maintenance requirement, accordingly a provision for establishing corporate center, site offices and Store Yard was captured under the Original Scope of the project as a part of the RCE. As no provision was



there towards initially made, in such a scenario, the JV did not have leverage to use the infrastructure of PGCIL and a necessity to create its own setup, such as Stores & Site Offices, for the smooth functioning of the Transmission System was identified.

- **Corporate Centre:** As per the cost provided in the RCE and in the earlier Tariff Petitions (corresponding to each line element), which were approved by this Commission in the respective tariff orders, the Petitioner had proactively purchased space for a corporate office in September 2014, which subsequently became operational from August 2015. As per the requirement of the Company's Act, the Petitioner was required to have a Managing Director, Chief Financial Officer and Company Secretary for the organization. Apart from these key roles, other important functions such as Finance, Commercial, Regulatory, and Engineering were also required for the smooth operation of the company throughout its life. Accordingly, the Petitioner established a small corporate office in Gurgaon (Gurugram), Haryana, to meet the techno-legal, regulatory, commercial, secretarial, financial, and other day-to-day operational requirements of the Project, as per the approvals received under the RCE through the Board of the Company.
- **Store Yard:** Similarly, the Petitioner has also purchased land for establishing Store-cum-Site Office in Ropar (Punjab) in January 2016. The site office established in this store facility caters to line monitoring of a 100 km of stretch of 400 kV D/C Koldam-Ludhiana Transmission Line whereas the store is being used for storing spares, other tools and machinery for the entire transmission project. The store is geographically located in such a manner that the desired line material for both the Parbati-Koldam sections and the Koldam – Ludhiana section of the project can be easily transported overnight.
- **Site Offices:** As per the cost provided in the RCE and in the earlier Tariff Petitions (corresponding to each line element) which was approved by this Commission in the respective tariff orders, for smooth Operation and Maintenance of Transmission Line System under the Project, the Petitioner

has purchased Land and established 2 site offices at Bhunter, Sundernagar in Himachal Pradesh and 1 site office at Ropar Store-yard. Bhunter Office takes care of the Operation and Maintenance Activities 50% of the 2 single circuit sections of 400 kV Parbati-II to Koldam Transmission Line (approx.. 70 kms of line length in extreme hilly terrain). Similarly, Sundernagar Office has been geographically placed to cater to the balance section of 400 kV Parbati-II to Koldam Transmission Line as well as some part of (50 Kms) 400 kV Koldam – Ludhiana Transmission (Line section falling in the hilly terrain of Himachal Pradesh). Ropar Site Office, which been established in the Store Yard, is there to cater to the Operation & Maintenance of 100 km of 400 kV Koldam – Ludhiana Transmission Line. This is an industry-wide practice that has been adopted from the experience of the JV partner and promoter of the project, i.e., PGCIL.

(ii) Inclusion of Cost towards Land and Building in the RCE for the project and its approval in Tariff Petitions: Cost towards land and building was introduced in the RCE for the project, prepared at the November 2013 price level. This RCE was approved by the Board of the Petitioner at its meeting held on 19.05.2014, and subsequently, the offices and store yard were purchased. The cost of Land Building was further allocated to various assets under the Project and was submitted to this Commission as a part of the respective Tariff Petitions filed. The details of which have been provided above. The same was subsequently approved by this Commission vide orders issued in respective tariff Petitions as detailed below:

- **Asset-1:** Asset-1 comprises a section of 400 kV (Quad) S/C Parbati-II Koldam Transmission Line (CKT-II) starting from LILO Point of Parbati-III HEP to LILO Point of Parbati Pooling Station. This section covers a small portion of 3.518 km,. Moreover, Asset-1 was commissioned on 01.08.2013, i.e. before the RCE admitted by the Board of Directors of the Petitioner through its meeting held on 19.5.2014. Therefore, the cost of land and building has not been considered and claimed in Asset-1 (PK-1 section) as it was commissioned before the preparation of the approved RCE (under

which the cost towards land and building was approved). Also, the PK-1 section comprises only 1.50% of the total project cost.

- **Assets-2 to 7:** The Assets-2 to Asset-7 have been commissioned during the 2014-19 period as detailed in this Petition submitted by the Petitioner.
- The Auditor Certificates provided for respective assets in the original Petition Nos. 312/TT/2014, 384/TT/2014 & 156/TT/2015, the Petitioner during the 2014-19 period had earlier submitted the details of land & buildings along with a copy of RCE with a brief on RCE of variations from the FR cost estimate. Based on the Petitioner's submissions and documents placed on record, including RCE, this Commission had approved the Project Cost for respective transmission line assets under respective tariff Petitions, along with the cost towards Land and Building and observed that there is no cost overrun in the initial tariff Petitions submitted for the project. This was also discussed in the 63rd Board meeting of PKTCL held on 19.5.2014. Further, the Commission, when issuing orders in these Petitions, has already considered the RCE for comparison while approving the project cost for respective assets.

46. The Petitioner has submitted that the RCE was prepared with the provisions of Land and Building to be included as part of the original scope of the project. The Petitioner's Board has approved the RCE along with the provisions for Land and Buildings. The Petitioner has submitted that during the course of project execution it was identified that project requires Corporate Office, Site Office and Stores for the life of project to meet the Operation and Maintenance requirement, accordingly a provision for establishing corporate centre, site offices and Store Yard was captured under the Original Scope of the project as a part of the RCE. As no provision was initially made, in such a scenario, the JV did not have leverage to use the

infrastructure of PGCIL and had a necessity to create its own setup up such as Stores & Site Offices, for the smooth functioning of the Transmission System.

47. The Petitioner has further submitted that a small corporate office was set up in Gurgaon (Gurugram), Haryana, for meeting the techno-legal, regulatory, commercial, secretarial, financial and other day-to-day operational requirements of the Project as per the approvals received under the RCE through the Board of the Company.

48. Further, the Petitioner has purchased land for establishing Store-cum-Site Office in Ropar (Punjab) in January 2016. The site office established in this store facility caters to the line monitoring of a 100 km stretch of the 400 kV D/C Koldam - Ludhiana Transmission Line, whereas the store is being used for storing spares, other tools, and machinery for the entire transmission project. The store is geographically located in such a manner that the desired line material for both the Parbati - Koldam sections and the Koldam - Ludhiana section of the project can be easily transported overnight.

E. Other Additional Capitalisation under Regulation 14(2) of 2014 Tariff Regulations for the 2014-19 tariff period

49. The Petitioner has submitted that after the commissioning of the transmission lines, there were approximately 100 Nos. of outstanding litigations pertaining to RoW and compensation. These RoW and compensation cases were related to construction period and were pending at various courts / judicial forums in the States of Himachal Pradesh and Punjab (at various levels, viz., Court of Sub-Divisional Magistrate, District Magistrate, Court of Chief Judicial Magistrate, District Court, the Hon'ble High Court of Himachal Pradesh and the Hon'ble High Court of Punjab and



Haryana). Some of these matters have now attained finality after the issuance of final orders in the respective matters. The expenditure corresponding to the matters which have attained finality by 31.03.2019 has been accounted for in the Project Cost till 31.03.2019.

50. Regulation 14 of the 2014 Tariff Regulations provides as follows:

“14. Additional Capitalisation and De-capitalisation:

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

- (i) Undischarged liabilities recognized to be payable at a future date;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and*
- (v) Change in law or compliance of any existing law:*

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work after the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*
- (ii) Change in law or compliance of any existing law;*
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and*
- (iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.”*

51. The transmission assets 1 to 7 considered under instant true up Petition were put into commercial operation on 1.8.2013, 7.8.2014, 14.8.2014, 10.10.2014, 4.10.2014, 3.11.2015 & 3.11.2015, respectively.



52. Regulation 13 of 2014 Tariff Regulation provides as follows:

(13) “Cut-off Date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cutoff date shall be 31st March of the year closing after three years of the year of commercial operation:

53. Therefore, as per 2014 Tariff Regulation, the cut-off date for Asset-1, Asset-2 to 5, and Asset 6 to 7 is 31.3.2016, 31.3.2017 and 31.3.2018, respectively.

54. We have considered the submissions of the Petitioner. It is observed that the Petitioner has claimed the ACE for instant transmission assets on account of the following heads.

- (a) Discharge of Contractor Payments;
- (b) Discharge of Initial Spares;
- (c) Discharge of Interest During Construction ('IDC') and Incidental Expenditure During Construction ('IEDC') pertaining to the period prior to COD
- (d) Discharge of Liability against Land and building covered under the original project scope as approved in RCE; and
- (e) Other Additional Capitalisation under Regulation 14(2) of Tariff Regulations, 2014 for the tariff period of 2014-19

55. The detailed analysis of the ACE is as follows:

A) Additional Capitalisation towards discharge of Contractor Payments.

56. The Petitioner has submitted that there were certain undischarged liabilities of the Petitioner towards its contractors for services/goods provided during and after the commissioning of the transmission assets. The undischarged liabilities were towards the retention amounts to be paid to the contractors. The Petitioner has claimed the following ACE against the discharge of contractor payments.



(₹ in lakh)

Asset	Discharge of Contractor Payments					
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Asset 1	121.71	19.94	67.97	-	-	-
Asset 2	-	537.05	749.88	213.25	466.21	-
Asset 3	-	537.05	749.88	213.25	466.21	-
Asset 4	-	608.89	633.28	431.35	113.02	-
Asset 5	-	574.54	597.56	407.02	106.65	-
Asset 6	-	-	315.76	282.83	87.31	-
Asset 7	-	-	277.15	248.24	76.63	-

57. It is observed that the Petitioner has also claimed the ACE against the Discharge of Contractor Payments beyond the cut-off date for Assets 2 to 4. The Petitioner has submitted that approximately 100 cases pertaining to RoW and compensation issues were pending en-route to the transmission line project, which caused hindrances in the completion of these pending activities. Even though these pending activities had a minor cost bearing on the overall Project Cost, in order to ensure these activities were completed in a timely manner and with proper workmanship, the Petitioner had no other option but to withhold the balance payments of the contractors (retention payments) in order to get these remaining activities completed.

58. We have considered the submission of the Petitioner. The ACE claimed by the Petitioner on account of undischarged liability towards the contractor's payment within the cut-off date and beyond the cut-off date has been allowed under Regulation 14(1)(i) and 14(2)(iv) of the 2014 Tariff Regulations.

B. Additional Capitalisation towards discharge of Initial Spares.

59. The Petitioner has submitted that the ACE for 2014-19 also includes the capital expenditure towards the procurement of initial spares for the project after COD. The Petitioner has also submitted that the actual quantity of initial spares to



be procured post commissioning was finalized only after the completion of project, as the exact quantity of initial spares to be procured could be arrived at, only after including the quantity that had become surplus due to the intermittent changes that were encountered during the construction period of the project which were beyond the control of Petitioner. A substantial part of the transmission line elements of the project traverse through extremely hilly terrain. Overall, with more than 100 combinations of towers, selecting the right combination with the right quantum of spares was an extremely difficult task. As such, there are no common spares that can be used interchangeably amongst the two transmission line sections of PKTCL apart from the Earth wire and its accessories. This makes it difficult to limit the spares within the maximum the initial spares limit specified in Regulation 13 of the 2014 Tariff Regulations. The Transmission Lines form a consolidated scheme for power evacuation of 2200 MW from these HEPs, and in case of any untoward incident/eventuality, the ready availability of spares for a transmission project like that of the Petitioner is of utmost importance. The transmission line requires more initial spares, as the project's design is unique. The hilly terrain is prone to cloud bursts and landslides. Hence, the ready availability of these spares is essential in order to cater to any such untoward incidents in a timely manner. Petitioner's project is a standalone project, and the Petitioner does not have any other transmission projects elsewhere in the country from which it may share the spares for this transmission project, as is the case with other transmission utilities like PGCIL.

60. We have considered the submission of the Petitioner. As per submission, the Petitioner has also procured the initial spares after COD and requested to allow the



excess initial spares as Additional Capital Expenditure for instant transmission assets. Therefore, the discharge of initial spares claimed by the Petitioner has been allowed as per Regulation 14(1)(iii) of the 2014 Tariff Regulations.

C. Additional Capitalisation towards IDC & IEDC.

61. The undischarged IDC and IEDC as on COD have been allowed as ACE during the year of discharge. The ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations, which pertain to undischarged liabilities recognized to be payable at a future date .

D. Additional Capitalisation towards discharge of liability against Land and Building covered under the original project scope as approved in RCE

62. The Petitioner has submitted that the additional expenditure claimed on account of “*discharge of liability against Land and Building*” was incurred towards establishing different site offices, Stores and Corporate office by the Petitioner. The Petitioner has further submitted that no provision was made for land and buildings in the Investment Approval accorded for instant transmission assets. However, during the preparation of the RCE, a need to establish the Corporate Office, Site Offices, and Store yard was identified by the Petitioner, and accordingly, the scope of the same was captured and approved in the RCE by the Board of the Petitioner’s Company vide its Resolution dated 19.05.2014. Accordingly, the provision for Land and Building was included as a part of the Original Scope of the project. The Petitioner has contended that the office locations have been decided based on the geographical locations and terrain of transmission lines, which span across 280 kms (approx.), with 180 kms traversing through an extremely hilly terrain. Accordingly, it was felt prudent to establish the offices at (a) two offices in Himachal Pradesh and (b) one office in Punjab, along with the project stores for line patrolling, operation



and maintenance of the project. A corporate office has also been established in Gurgaon, Haryana, to meet the techno-legal, regulatory, commercial, secretarial, financial and other day-to-day operational requirements of the Project as per the approvals received. The Petitioner has also submitted that most of the additional expenditure has been incurred within the cut-off date of the respective Assets. However, due to reasons beyond the control of the Petitioner, certain expenditure has been discharged beyond the cut-off date, which may be considered by this Commission for the purposes of true-up.

63. We have considered the submission of Petitioner. It is observed that the scope of work for the Corporate Office, site office, and stores against the instant transmission assets, was not part of the original scope of work. However, during the execution of work, the requirement for the same had arisen, and accordingly, the scope of work for the Corporate Office, site office and stores had been incorporated in the RCE by the Petitioner.

64. As per the Petitioner, the site offices along with stores located at Rupnagar and Himachal Pradesh were established as per geographical locations and terrain of transmission lines, which span across 280 kms (approx.) with 180 kms traversing through an extremely hilly terrain. The site office established in a store facility at Rupnagar caters to line monitoring of a 100 kms of stretch of 400 kV D/C Koldam - Ludhiana Transmission Line, whereas the store is being used for storing spares, other tools, and machinery for the entire transmission project. The store is geographically located in a manner that the desired line material for both Parbati-

Koldam sections and Koldam - Ludhiana section of the project can be easily transported overnight.

65. As per Regulation 14 of 2014 Tariff Regulations, the ACE up to the cut-off date or beyond the cut-off date is to be allowed only if it is part of the original scope of work. The Regulation does not provide any provision for ACE to be allowed beyond the original scope of work.

66. However, we are of the view that to maintain the smooth operation of transmission lines and to ensure the availability of spare material and tools & tackles as early as possible at the time of occurrence of a fault, the nearby store facility is necessarily required for storing the mandatory spares, tools and tackles for transmission lines. The need to have stores at suitable locations to house spares, tools and equipment for transmission lines passing through hilly terrain is justified. Therefore, considering the requirement of nearby Stores for storing Repair and Maintenance Spares, tools & tackles to minimise the shutdown time of transmission lines in case of faults, the Additional Capital Expenditure against the establishment of Stores (Considered in the RCE) is allowed under the "*Land and Building*" head as a special case in the instant Petition.

67. Further, we do not find any justifiable reason for consideration of the requirement for establishment of a Corporate Office for the instant transmission assets by the Petitioner, and thus, as per Regulation 14 of the 2014 Tariff Regulations, the ACE is not allowed.

68. It is noted that the Petitioner has submitted the land and building amounting to ₹ 1685.23 lakhs. However, the Petitioner has not submitted the segregated costs



of the Site Office, Stores, and Corporate Office separately. The Petitioner is directed to specifically submit the segregated cost of the site office and stores, duly certified by the auditor proposed under ACE. The Petitioner is further directed to bring on record the capital cost towards establishing Site Offices, and Store yard, included in the capital cost as on COD of assets 2 to 7. As discussed above, liberty is given to the Petitioner towards furnish the capital cost and ACE for only the site office and stores along with supporting documents at the time of truing up the 2019-24 tariff period for further consideration by the Commission.

69. In view of the above, the ACE allowed for the 2014-19 tariff period is as follows:

(₹ in lakh)					
Asset-1					
Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	20.19	67.98	0.00	0.00	0.00
Less: IDC Component Discharged after COD	0.00	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	0.25	0.00	0.00	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	19.94	67.98	0.00	0.00	0.00
Add: IEDC discharge	0.25	0.00	0.00	0.00	0.00
Total ACE Allowed	20.19	67.98	0.00	0.00	0.00

(₹ in lakh)					
Asset-2					
Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	973.64	947.09	240.45	599.45	2.44
Less: IDC Component Discharged after COD	150.51	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	17.68	10.73	0.00	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	805.45	936.36	240.45	599.45	2.44
Add: IDC discharge	150.46	0.00	0.00	0.00	0.00
Add: IEDC discharge	17.68	10.73	0.00	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	0.00	0.00	116.97	0.00
Less: Hard cost for Land and Building	189.51	125.17	0.00	133.24	0.00



disallowed					
Total ACE Allowed	784.08	821.92	240.45	349.24	2.44

(₹ in lakh)

Asset-3					
Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	1009.64	947.09	240.45	599.45	2.44
Less: IDC Component Discharged after COD	186.51	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	17.68	10.73	0.00	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	805.45	936.36	240.45	599.45	2.44
Add: IDC discharge	186.46	0.00	0.00	0.00	0.00
Add: IEDC discharge	17.68	10.73	0.00	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	0.00	0.00	116.97	0.00
Less: Hard cost for Land and Building disallowed	189.51	125.17	0.00	133.24	0.00
Total ACE Allowed	820.09	821.91	240.45	349.24	2.44

(₹ in lakh)

Asset-4					
Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	1098.17	844.62	431.35	210.06	1.65
Less: IDC Component Discharged after COD	222.90	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	96.79	15.45	0.00	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	778.47	829.17	431.35	210.06	1.65
Add: IDC discharge	221.06	0.00	0.00	0.00	0.00
Add: IEDC discharge	96.06	15.33	0.00	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	12.87	14.35	4.96	0.00
Less: Hard cost for Land and Building disallowed	5.73	91.05	0.00	97.04	0.00
Total ACE Allowed	1089.87	740.58	417	108.06	1.65

(₹ in lakh)

Asset-5					
Particulars	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	1004.40	796.97	407.02	198.21	1.56
Less: IDC Component Discharged after COD	178.52	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	91.33	14.58	0.00	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	734.55	782.39	407.02	198.21	1.56



Add: IDC discharge	177.05	0.00	0.00	0.00	0.00
Add: IEDC discharge	90.65	14.47	0.00	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	12.14	13.54	4.68	0.00
Less: Hard cost for Land and Building disallowed	5.68	85.91	0.00	91.57	0.00
Total ACE Allowed	996.57	698.81	393.48	101.97	1.56

(₹ in lakh)

Asset-6				
Particulars	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	240.08	323.90	108.58	0.00
Less: IDC Component Discharged after COD	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	31.38	16.90	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	208.69	307.00	108.58	0.00
Add: IEDC discharge	31.06	16.90	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	1.04	1.88	0.00
Less: Hard cost for Land and Building disallowed	19.66	0.00	21.27	0.00
Total ACE Allowed	220.08	322.86	85.43	0.00

(₹ in lakh)

Asset-7				
Particulars	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE Claimed as per Auditor's Certificate	210.72	284.29	95.30	0.00
Less: IDC Component Discharged after COD	0.00	0.00	0.00	0.00
Less: IEDC Component Discharged after COD	27.55	14.83	0.00	0.00
Hard Cost Claimed under Regulation 14(1)(i) of the 2014 Tariff Regulations	183.18	269.46	95.30	0.00
Add: IDC discharge	0.00	0.00	0.00	0.00
Add: IEDC discharge	27.27	14.83	0.00	0.00
Less: Excess Initial Spares disallowed	0.00	0.90	1.65	0.00
Less: Hard cost for Land and Building disallowed	17.26	0.00	18.67	0.00
Total ACE Allowed	193.19	283.39	74.98	0.00

70. The capital cost allowed as on 31.3.2019, after inclusion of ACE in respect of the transmission assets, is as follows:

(₹ in lakh)

Assets	Capital Cost allowed as on 1.4.2014 / COD	ACE				2018-19	Total Capital Cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18		
Asset – 1	1333.06	20.19	67.98	0.00	0.00	0.00	1421.23
Asset – 2	20552.24	784.09	821.91	240.45	349.24	2.44	22750.37
Asset – 3	20553.79	820.09	821.91	240.45	349.24	2.44	22787.92
Asset – 4	16063.54	1089.87	740.58	417.00	108.06	1.65	18420.70
Asset – 5	15223.56	996.57	698.81	393.48	101.97	1.56	17415.95
Asset – 6	4036.62	0.00	220.08	322.86	85.43	0.00	4665.00



Asset – 7	3542.48	0.00	193.19	283.39	74.98	0.00	4094.04
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Debt-Equity Ratio

71. The Petitioner has considered the Debt-Equity ratio of 70:30 as on 1.4.2014 / COD and for ACE. The Debt-Equity ratio of 70:30 has been considered as provided under Regulation 19 of the 2014 Tariff Regulations. The same has been summarised as follows:

Asset-1	Amount as on 1.4.2014 (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	933.14	70.00	994.86	70.00
Equity	399.92	30.00	426.37	30.00
Total	1333.06	100.00	1421.23	100.00
Asset-2	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	14386.57	70.00	15925.26	70.00
Equity	6165.67	30.00	6825.11	30.00
Total	20552.24	100.00	22750.37	100.00
Asset-3	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	14387.65	70.00	15951.55	70.00
Equity	6166.14	30.00	6836.38	30.00
Total	20553.79	100.00	22787.92	100.00
Asset-4	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	11244.48	70.00	12894.49	70.00
Equity	4819.06	30.00	5526.21	30.00
Total	16063.54	100.00	18420.70	100.00
Asset-5	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	10656.49	70.00	12191.16	70.00
Equity	4567.07	30.00	5224.78	30.00
Total	15223.56	100.00	17415.95	100.00
Asset-6	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	2825.64	70.00	3265.50	70.00
Equity	1210.99	30.00	1399.50	30.00
Total	4036.63	100.00	4665.00	100.00
Asset-7	Amount as on COD	(%)	Amount as on 31.3.2019	(%)



	(₹ in lakh)		(₹ in lakh)	
Debt	2479.74	70.00	2865.82	70.00
Equity	1062.74	30.00	1228.21	30.00
Total	3542.48	100.00	4094.03	100.00

Depreciation

72. The Gross Block during the 2014-19 tariff period has been depreciated at the weighted average rate of depreciation (WAROD). The WAROD has been worked out after taking into account the depreciation rates of assets as specified in the 2014 Tariff Regulations, and depreciation allowed during the tariff period 2014-19 is as follows:

(₹ in lakh)						
Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	1333.06	1353.25	1421.23	1421.23	1421.23
B	ACE	20.19	67.98	0.00	0.00	0.00
C	Closing Gross Block (A+B)	1353.25	1421.23	1421.23	1421.23	1421.23
D	Average Gross Block (A+C)/2	1343.16	1387.24	1421.23	1421.23	1421.23
E	Lapsed useful life at the beginning of the Year	0	1	2	3	4
F	Balance useful life at the beginning of the year	35	34	33	32	31
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
H	Depreciable Value	1208.84	1248.52	1279.11	1279.11	1279.11
I	Depreciation during the year (D*G)	70.92	73.25	75.04	75.04	75.04
J	Cumulative depreciation at the end of the year	115.56	188.80	263.85	338.89	413.93
K	Remaining Depreciable Value at the end of the year (H-J)	1093.28	1059.71	1015.26	940.22	865.18

(₹ in lakh)						
Asset-2						
	Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	20552.24	21336.32	22158.24	22398.69	22747.93
B	ACE	784.09	821.92	240.45	349.24	2.44
C	Closing Gross Block (A+B)	21336.32	22158.24	22398.69	22747.93	22750.37
D	Average Gross Block (A+C)/2	20944.28	21747.28	22278.46	22573.31	22749.15
E	Lapsed useful life at the beginning of the Year	0	0	1	2	3
F	Balance useful life at the	35	35	34	33	32



	beginning of the year					
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
H	Depreciable Value	18849.85	19572.55	20050.62	20315.98	20474.23
I	Depreciation during the year (D*G)	718.05	1148.26	1176.30	1191.87	1201.15
J	Cumulative depreciation at the end of the year	718.05	1866.31	3042.61	4234.48	5435.63
K	Remaining Depreciable Value at the end of the year (H-J)	18131.80	17706.25	17008.01	16081.50	15038.60

(₹ in lakh)

Asset-3						
	Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	20553.79	21373.88	22195.79	22436.24	22785.48
B	ACE	820.09	821.91	240.45	349.24	2.44
C	Closing Gross Block (A+B)	21373.88	22195.79	22436.24	22785.48	22787.92
D	Average Gross Block (A+C)/2	20963.84	21784.84	22316.02	22610.86	22786.70
E	Lapsed useful life at the beginning of the Year	0	0	1	2	3
F	Balance useful life at the beginning of the year	35	35	34	33	32
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
H	Depreciable Value	18867.45	19606.35	20084.42	20349.78	20508.03
I	Depreciation during the year (D*G)	697.49	1150.24	1178.29	1193.85	1203.14
J	Cumulative depreciation at the end of the year	697.49	1847.73	3026.02	4219.87	5423.01
K	Remaining Depreciable Value at the end of the year (H-J)	18169.96	17758.62	17058.40	16129.90	15085.02

(₹ in lakh)

Asset-4						
	Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	16063.54	17153.41	17893.99	18310.99	18419.05
B	ACE	1089.87	740.58	417.00	108.06	1.65
C	Closing Gross Block (A+B)	17153.41	17893.99	18310.99	18419.05	18420.70
D	Average Gross Block (A+C)/2	16608.47	17523.70	18102.49	18365.02	18419.87
E	Lapsed useful life at the beginning of the Year	0	0	1	2	3
F	Balance useful life at the beginning of the year	35	35	34	33	32
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
H	Depreciable Value	14947.63	15771.33	16292.24	16528.52	16577.89
I	Depreciation during the year	415.64	925.25	955.81	969.67	972.57



	(D*G)					
J	Cumulative depreciation at the end of the year	415.64	1340.89	2296.70	3266.38	4238.94
K	Remaining Depreciable Value at the end of the year (H-J)	14531.99	14430.44	13995.54	13262.14	12338.94

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	15223.56	16220.13	16918.94	17312.42	17414.39
B	ACE	996.57	698.81	393.48	101.97	1.56
C	Closing Gross Block (A+B)	16220.13	16918.94	17312.42	17414.39	17415.95
D	Average Gross Block (A+C)/2	15721.84	16569.53	17115.68	17363.40	17415.17
E	Lapsed useful life at the beginning of the Year	0	0	1	2	3
F	Balance useful life at the beginning of the year	35	35	34	33	32
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
H	Depreciable Value	14149.66	14912.58	15404.11	15627.06	15673.65
I	Depreciation during the year (D*G)	407.10	874.87	903.71	916.79	919.52
J	Cumulative depreciation at the end of the year	407.10	1281.97	2185.68	3102.46	4021.98
K	Remaining Depreciable Value at the end of the year (H-J)	13742.56	13630.61	13218.43	12524.60	11651.66

(₹ in lakh)

Asset-6					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	4036.63	4256.72	4579.58	4665.01
B	ACE	220.09	322.86	85.43	0.00
C	Closing Gross Block (A+B)	4256.72	4579.58	4665.01	4665.01
D	Average Gross Block (A+C)/2	4146.67	4418.15	4622.29	4665.01
E	Lapsed useful life at the beginning of the Year	0	0	1	2
F	Balance useful life at the beginning of the year	35	35	34	33
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28
H	Depreciable Value	3732.00	3976.33	4160.06	4198.51
I	Depreciation during the year (D*G)	89.73	233.28	244.06	246.31
J	Cumulative depreciation at the end of the year	89.73	323.01	567.07	813.38
K	Remaining Depreciable Value at the end of the year (H-J)	3642.27	3653.32	3593.00	3385.13



(₹ in lakh)

Asset-7					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	3542.48	3735.66	4019.05	4094.03
B	ACE	193.18	283.39	74.98	0.00
C	Closing Gross Block (A+B)	3735.66	4019.05	4094.03	4094.03
D	Average Gross Block (A+C)/2	3639.07	3877.36	4056.54	4094.03
E	Lapsed useful life at the beginning of the Year	0	0	1	2
F	Balance useful life at the beginning of the year	35	35	34	33
G	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28
H	Depreciable Value	3275.16	3489.62	3650.89	3684.63
I	Depreciation during the year (D*G)	78.75	204.72	214.19	216.16
J	Cumulative depreciation at the end of the year	78.75	283.47	497.66	713.82
K	Remaining Depreciable Value at the end of the year (H-J)	3196.42	3206.15	3153.23	2970.81

73. The details of depreciation for the transmission assets as allowed in previous tariff orders/review orders, claimed by the Petitioner in the instant Petition, and allowed after truing up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 23.12.2016 in Petition No 71/TT/2016	70.92	73.25	75.04	75.04	75.04
	Claimed by the Petitioner in the instant Petition	70.92	73.25	75.04	75.04	75.04
	Approved after true-up in this order	70.92	73.25	75.04	75.04	75.04
Asset-2	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	737.97	1204.68	1220.06	1220.06	1220.06
	Claimed by the Petitioner in the instant Petition	720.23	1155.46	1184.19	1205.07	1219.67
	Approved after true-up	718.05	1148.26	1176.30	1191.87	1201.15



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	in this order					
Asset-3	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	716.78	1206.62	1222.01	1222.01	1222.01
	Claimed by the Petitioner in the instant Petition	699.61	1157.44	1186.18	1207.06	1221.65
	Approved after true-up in this order	697.49	1150.24	1178.29	1193.85	1203.14
Asset-4	Allowed vide order dated 16.1.2017 in Petition No. 384/TT/2014	418.03	926.47	983.04	1016.24	1016.24
	Claimed by the Petitioner in the instant Petition	417.82	930.84	962.62	978.61	983.26
	Approved after true-up in this order	415.64	925.25	955.81	969.67	972.57
Asset-5	Allowed vide Review order dated 19.8.2019 in Petition No. 384/TT/2014	408.64	877.92	930.12	958.78	958.78
	Claimed by the Petitioner in the instant Petition	409.23	880.14	910.13	925.22	929.60
	Approved after true-up in this order	407.10	874.87	903.71	916.79	919.52
Asset-6	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	-	90.27	234.11	245.32	247.98
	Claimed by the Petitioner in the instant Petition	-	90.20	234.56	245.78	248.44
	Approved after true-up in this order	-	89.73	233.28	244.06	246.31
Asset-7	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	-	79.23	205.48	215.32	217.65
	Claimed by the Petitioner in the instant Petition	-	79.16	205.85	215.69	218.03
	Approved after true-up in this order	-	78.75	204.72	214.19	216.16

Interest on Loan (IoL)



74. The Petitioner has submitted that originally it had availed a loan facility for the project from Power Finance Corporation Limited (PFC) and Rural Electrification Corporation Limited (REC). The interest rate levied by PFC and REC for the sanctioned loan was approximately 13% per annum. However, the Petitioner during FY 2016-17, refinanced the loan partly through IDFC First Bank Limited and partly through its then-existing subsidiary, i.e., IDFC Infra Debt Fund Limited (IDFC IDF) (Now changed to NIIF Infrastructure Finance Limited "NIIF") at 9.50% per annum. This has resulted in a substantial reduction in interest rates levied on the loan. Regulation 26(5) of the 2014 Tariff Regulations provides as under:

"26(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio after providing appropriate accounting adjustment for interest capitalized".

Sub-clauses (7), (8) and (9) of Regulation 26 of the 2014 Tariff Regulations provides as under:

"26 (7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

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

26 (9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute: Provided that the beneficiaries or the long-term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing."

75. In view of the above, net savings in interest shall be mutually shared by the beneficiaries and the Petitioner in the ratio of 2:1. In the event of any dispute regarding the sharing of net savings on account of refinancing, any of the parties



may approach the Commission for its resolution. However, the beneficiaries shall not withhold any payment on account of the interest claimed by the transmission licensee pending resolution of such dispute.

76. The Petitioner has claimed the Weighted Average Rate of IoL based on its existing loan portfolio and rates of interest prevailing during the 2014-19 tariff period. Accordingly, the IoL is calculated based on actual interest rates, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of the IoL allowed are as follows:

(₹ in lakh)						
Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening a Normative Loan	933.14	947.28	994.86	994.86	994.86
B	Cumulative Repayments up to the Previous Year	44.64	115.56	188.80	263.85	338.89
C	Net Loan-Opening (A-B)	888.50	831.72	806.06	731.02	655.97
D	Addition due to ACE	14.13	47.59	0.00	0.00	0.00
E	Repayment during the year	70.92	73.25	75.04	75.04	75.04
F	Net Loan-Closing (C+D-E)	831.72	806.06	731.02	655.97	580.93
G	Average Loan (C+F)/2	860.11	818.89	768.54	693.49	618.45
H	Weighted Average Rate of Interest on Loan (%)	13.02	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	111.98	105.99	85.70	63.37	55.51

(₹ in lakh)						
Asset-2						
	Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
A	Opening a Normative Loan	14386.57	14935.43	15510.77	15679.08	15923.55
B	Cumulative Repayments up to the Previous Year	0.00	718.05	1866.31	3042.61	4234.48
C	Net Loan-Opening (A-B)	14386.57	14217.38	13644.46	12636.47	11689.07
D	Addition due to ACE	548.86	575.34	168.32	244.47	1.71
E	Repayment during the year	718.05	1148.26	1176.30	1191.87	1201.15
F	Net Loan-Closing (C+D-E)	14217.38	13644.46	12636.47	11689.07	10489.62
G	Average Loan (C+F)/2	14301.97	13930.92	13140.47	12162.77	11089.34
H	Weighted Average Rate of Interest on Loan (%)	13.02	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	1209.00	1803.09	1465.35	1111.47	995.40

(₹ in lakh)						
Asset-3						



	Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
A	Opening a Normative Loan	14387.65	14961.72	15537.05	15705.37	15949.84
B	Cumulative Repayments up to the Previous Year	0.00	697.49	1847.73	3026.02	4219.87
C	Net Loan-Opening (A-B)	14387.65	14264.23	13689.32	12679.35	11729.97
D	Addition due to ACE	574.06	575.34	168.32	244.47	1.71
E	Repayment during the year	697.49	1150.24	1178.29	1193.85	1203.14
F	Net Loan-Closing (C+D-E)	14264.23	13689.32	12679.35	11729.97	10528.54
G	Average Loan (C+F)/2	14325.94	13976.77	13184.34	12204.66	11129.25
H	Weighted Average Rate of Interest on Loan (%)	13.02	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	1175.26	1809.02	1470.25	1115.30	998.98

(₹ in lakh)

Asset-4						
	Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
A	Opening a Normative Loan	11244.48	12007.39	12525.79	12817.69	12893.33
B	Cumulative Repayments up to the Previous Year	0.00	415.64	1340.89	2296.70	3266.38
C	Net Loan-Opening (A-B)	11244.48	11591.75	11184.90	10520.99	9626.96
D	Addition due to ACE	762.91	518.41	291.90	75.64	1.16
E	Repayment during the year	415.64	925.25	955.81	969.67	972.57
F	Net Loan-Closing (C+D-E)	11591.75	11184.90	10520.99	9626.96	8655.54
G	Average Loan (C+F)/2	11418.11	11388.32	10852.95	10073.97	9141.25
H	Weighted Average Rate of Interest on Loan (%)	13.02	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	704.57	1474.00	1210.26	920.59	820.53

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
A	Opening a Normative Loan	10656.49	11354.09	11843.25	12118.69	12190.07
B	Cumulative Repayments up to the Previous Year	0.00	407.10	1281.97	2185.68	3102.46
C	Net Loan-Opening (A-B)	10656.49	10946.99	10561.29	9933.02	9087.61
D	Addition due to ACE	697.60	489.17	275.44	71.38	1.09
E	Repayment during the year	407.10	874.87	903.71	916.79	919.52
F	Net Loan-Closing (C+D-E)	10946.99	10561.29	9933.02	9087.61	8169.18
G	Average Loan (C+F)/2	10801.74	10754.14	10247.15	9510.31	8628.39
H	Weighted Average Rate of Interest on Loan (%)	13.02	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	689.65	1391.92	1142.71	869.08	774.50

(₹ in lakh)

Asset-6						
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	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Opening a Normative Loan	2825.64	2979.70	3205.70	3265.50
B	Cumulative Repayments up to the Previous Year	0.00	89.73	323.01	567.07
C	Net Loan-Opening (A-B)	2825.64	2889.97	2882.69	2698.44
D	Addition due to ACE	154.06	226.00	59.80	0.00
E	Repayment during the year	89.73	233.28	244.06	246.31
F	Net Loan-Closing (C+D-E)	2889.97	2882.69	2698.44	2452.13
G	Average Loan (C+F)/2	2857.80	2886.33	2790.57	2575.28
H	Weighted Average Rate of Interest on Loan (%)	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	151.59	321.87	255.01	231.16

(₹ in lakh)

Asset-7					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Opening a Normative Loan	2479.74	2614.96	2813.33	2865.82
B	Cumulative Repayments up to the Previous Year	0.00	78.75	283.47	497.66
C	Net Loan-Opening (A-B)	2479.74	2536.22	2529.86	2368.16
D	Addition due to ACE	135.23	198.37	52.49	0.00
E	Repayment during the year	78.75	204.72	214.19	216.16
F	Net Loan-Closing (C+D-E)	2536.22	2529.86	2368.16	2152.00
G	Average Loan (C+F)/2	2507.98	2533.04	2449.01	2260.08
H	Weighted Average Rate of Interest on Loan (%)	12.94	11.15	9.14	8.98
I	Interest on Loan (G*H)	133.04	282.47	223.80	202.87

77. The details of interest on loan for the transmission assets as allowed in the previous order, claimed by the Petitioner in the instant Petition, and allowed after trued up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 23.12.2016 in Petition No 71/TT/2016	111.51	106.16	99.64	89.91	80.18
	Claimed by the Petitioner in the instant petition	111.98	105.99	85.70	63.37	55.51
	Approved after true-up in this order	111.98	105.99	85.70	63.37	55.51
Asset-2	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	1254.90	1934.88	1803.06	1643.57	1484.09
	Claimed by the Petitioner in the instant Petition	1214.85	1825.69	1488.87	1137.78	1027.68



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Approved after true-up in this order	1209.00	1803.09	1465.35	1111.47	995.40
Asset-3	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	1219.76	1940.89	1808.81	1649.08	1489.34
	Claimed by the Petitioner in the instant Petition	1180.94	1831.64	1493.77	1141.61	1031.27
	Approved after true-up in this order	1175.26	1809.02	1470.25	1115.30	998.98
Asset-4	Allowed vide order dated 16.1.2017 in Petition No. 384/TT/2014	713.62	1500.09	1481.11	1410.50	1277.66
	Claimed by the Petitioner in the instant Petition	710.46	1490.95	1228.79	938.78	840.72
	Approved after true-up in this order	704.57	1474.00	1210.26	920.59	820.53
Asset-5	Allowed vide Review order dated 19.8.2019 in Petition No. 384/TT/2014	697.27	1420.08	1399.68	1328.26	1202.93
	Claimed by the Petitioner in the instant Petition	695.40	1407.90	1160.19	886.23	793.54
	Approved after true-up in this order	689.65	1391.92	1142.71	869.08	774.50
Asset-6	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	153.01	324.94	257.55	235.40
	Claimed by the Petitioner in the instant Petition	0.00	153.11	325.78	258.85	235.49
	Approved after true-up in this order	0.00	151.59	321.87	255.01	231.16
Asset-7	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	134.30	285.21	226.06	206.62
	Claimed by the Petitioner in the instant Petition	0.00	134.37	285.90	227.17	206.67
	Approved after true-up in this order	0.00	133.04	282.47	223.80	202.87

Return on Equity (RoE)

78. The Petitioner has claimed RoE for the transmission system in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay the income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax rate (in %)	Grossed up RoE (Base Rate/1-t) (in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704



Year	Claimed effective tax rate (in %)	Grossed up RoE (Base Rate/1-t) (in %)
2018-19	21.549	19.758

79. The Commission, in 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 the MAT rates and the same is as follows:

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

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

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

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

(₹ in lakh)						
Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19



A	Opening Equity	399.92	405.98	426.37	426.37	426.37
B	Addition due to ACE	6.06	20.39	0.00	0.00	0.00
C	Closing Equity(A+B)	405.98	426.37	426.37	426.37	426.37
D	Average Equity(A+C)/2	402.95	416.17	426.37	426.37	426.37
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	79.02	82.01	84.02	84.02	84.24

(₹ in lakh)

Asset-2						
	Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	6165.67	6400.90	6647.47	6719.61	6824.38
B	Addition due to ACE	235.23	246.57	72.14	104.77	0.73
C	Closing Equity(A+B)	6400.90	6647.47	6719.61	6824.38	6825.11
D	Average Equity(A+C)/2	6283.28	6524.18	6683.54	6771.99	6824.74
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	800.05	1285.59	1316.99	1334.42	1348.43

(₹ in lakh)

Asset-3						
	Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	6166.14	6412.16	6658.74	6730.87	6835.64
B	Addition due to ACE	246.03	246.57	72.14	104.77	0.73
C	Closing Equity(A+B)	6412.16	6658.74	6730.87	6835.64	6836.38
D	Average Equity(A+C)/2	6289.15	6535.45	6694.81	6783.26	6836.01
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	777.15	1287.81	1319.21	1336.64	1350.66

(₹ in lakh)

Asset-4						
	Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	4819.06	5146.02	5368.20	5493.30	5525.71
B	Addition due to ACE	326.96	222.17	125.10	32.42	0.50



C	Closing Equity(A+B)	5146.02	5368.20	5493.30	5525.71	5526.21
D	Average Equity(A+C)/2	4982.54	5257.11	5430.75	5509.51	5525.96
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	463.11	1035.91	1070.13	1085.65	1091.82

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	4567.07	4866.04	5075.68	5193.72	5224.32
B	Addition due to ACE	298.97	209.64	118.04	30.59	0.47
C	Closing Equity(A+B)	4866.04	5075.68	5193.72	5224.32	5224.78
D	Average Equity(A+C)/2	4716.55	4970.86	5134.70	5209.02	5224.55
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	453.59	979.51	1011.79	1026.44	1032.27

(₹ in lakh)

Asset-6					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Opening Equity	1210.99	1277.01	1373.87	1399.50
B	Addition due to ACE	66.03	96.86	25.63	0.00
C	Closing Equity(A+B)	1277.01	1373.87	1399.50	1399.50
D	Average Equity(A+C)/2	1244.00	1325.44	1386.69	1399.50
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	100.46	261.18	273.25	276.51

(₹ in lakh)

Asset-7					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Opening Equity	1062.74	1120.70	1205.71	1228.21
B	Addition due to ACE	57.96	85.02	22.49	0.00
C	Closing Equity(A+B)	1120.70	1205.71	1228.21	1228.21
D	Average Equity(A+C)/2	1091.72	1163.21	1216.96	1228.21



E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	21.342	21.342	21.342	21.549
G	Applicable ROE Rate (%)	19.705	19.705	19.705	19.758
H	Return on Equity for the year(D*G)	88.17	229.21	239.80	242.67

82. The details of RoE for the transmission assets as allowed in previous order(s), claimed by the Petitioner in the instant Petition, and allowed after trued-up in the instant order are as follows:

		(₹ in lakh)				
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 23.12.2016 in Petition No 71/TT/2016	79.02	81.61	83.61	83.61	83.61
	Claimed by the Petitioner in the instant Petition	79.02	82.01	84.02	84.02	84.24
	Approved after true-up in this order	79.02	82.01	84.02	84.02	84.24
Asset-2	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	826.96	1356.65	1373.79	1373.79	1373.79
	Claimed by the Petitioner in the instant Petition	803.91	1300.86	1335.96	1360.79	1382.22
	Approved after true-up in this order	800.05	1285.59	1316.99	1334.42	1348.43
Asset-3	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	803.21	1358.81	1375.95	1375.95	1375.95
	Claimed by the Petitioner in the instant Petition	780.89	1303.08	1338.18	1363.01	1384.44
	Approved after true-up in this order	777.15	1287.81	1319.21	1336.64	1350.66
Asset-4	Allowed vide order dated 16.1.2017 in Petition No. 384/TT/2014	467.14	1038.53	1106.57	1145.18	1145.18
	Claimed by the Petitioner in the instant Petition	466.97	1047.42	1085.13	1104.09	1113.28
	Approved after true-up in this order	463.11	1035.91	1070.13	1085.65	1091.82
Asset-5	Allowed vide Review order dated 19.8.2019 in Petition No. 384/TT/2014	456.72	984.26	1047.12	1080.58	1080.58
	Claimed by the Petitioner in the instant Petition	457.36	990.36	1025.95	1043.84	1052.52
	Approved after true-up in this order	453.59	979.51	1011.79	1026.44	1032.27
Asset-6	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	101.14	263.72	276.50	280.46
	Claimed by the Petitioner in the instant Petition	0.00	101.46	264.24	277.02	280.97
	Approved after true-up in this order	0.00	100.46	261.18	273.25	276.51



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-7	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	88.77	231.47	242.69	246.17
	Claimed by the Petitioner in the instant Petition	0.00	89.04	231.90	243.12	246.58
	Approved after true-up in this order	0.00	88.17	229.21	239.80	242.67

Operation & Maintenance Expenses (O&M Expenses)

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	2.13	2.21	2.28	2.35	2.43
Asset-2	34.58	55.06	56.87	58.75	60.71
Asset-3	33.56	55.06	56.87	58.75	60.71
Asset-4	18.15	39.59	40.86	42.24	43.64
Asset-5	17.66	37.24	38.44	39.74	41.05
Asset-6	0.00	3.30	8.31	8.59	8.87
Asset-7	0.00	2.80	7.05	7.29	7.53

84. The O&M Expenses claimed by the Petitioner are within the norms specified under the 2014 Tariff Regulations. The O&M Expenses approved in respect of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	Asset 1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line: (in Km)					
LILO Point of Parbati-III HEP to LILO Point of Parbati Pooling Station of 400 KV(Quad) S/c Parbati II to Koldam Transmission Line(CKT-II)	3.518	3.518	3.518	3.518	3.518
Norm (₹ lakh/ Km)					
S/C Bundled with 4 or more sub-conductors)	0.61	0.63	0.65	0.67	0.69
Total Transmission Expenses	2.13	2.21	2.28	2.35	2.43
Total O&M Expenses	2.13	2.21	2.28	2.35	2.43

(₹ in lakh)	
	Asset 2



Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Transmission Line: (in Km)					
Ckt-I of 400 kV D/C Koldam - Ludhiana Transmission Line	75.321	75.321	75.321	75.321	75.321
Norm (₹ lakh/ Km)					
D/C Twin/Triple Conductor	0.71	0.73	0.76	0.78	0.81
Total Transmission Expenses	53.25	55.06	56.87	58.75	60.71
Total O&M Expenses	34.58	55.06	56.87	58.75	60.71

(₹ in lakh)

Particulars	Asset 3				
	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
Transmission Line: (in Km)					
Ckt-II of 400 kV D/C Koldam - Ludhiana Transmission Line	75.321	75.321	75.321	75.321	75.321
Norm (₹ lakh/ Km)					
D/C Twin/Triple Conductor	0.71	0.73	0.76	0.78	0.81
Total Transmission Expenses	53.25	55.06	56.87	58.75	60.71
Total O&M Expenses	33.56	55.06	56.87	58.75	60.71

(₹ in lakh)

Particulars	Asset 4				
	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
Transmission Line: (in Km)					
Section of 400 kV (Quad Bundle) 2 X S/C Parbati-II HEP to Koldam HEP Transmission Line starting from LILO Point of Banala Pooling Station to Koldam Ckt-I	40.463	40.463	40.463	40.463	40.463
	12.959	12.959	12.959	12.959	12.959
Norm (₹ lakh/ Km)					
S/C (Bundle Conductor- 4 sub-c)	0.61	0.63	0.65	0.67	0.69
D/C Bundled with 4 or more sub-conductor)	1.06	1.10	1.13	1.17	1.21
Total Transmission Expenses	38.28	39.59	40.86	42.24	43.64
Total O&M Expenses	18.15	39.59	40.86	42.24	43.64

(₹ in lakh)



Particulars	Asset 5				
	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
Transmission Line: (in Km)					
Section of 400 kV (Quad) S/C Parbati – Koldam Transmission Line (Ckt-II) starting from LILO Point of Banala Pooling Station to Koldam (connected to Tower 9E of 400 kV D/C Koldam – Nalagarh Transmission Line forming Banala – Koldam section)	36.718	36.718	36.718	36.718	36.718
	12.959	12.959	12.959	12.959	12.959
Norm (₹ lakh/ Km)					
S/C (Bundle Conductor- 4 sub-c)	0.61	0.63	0.65	0.67	0.69
D/C Bundled with 4 or more sub-conductor)	1.06	1.10	1.13	1.17	1.21
Total Transmission Expenses	36.01	37.24	38.44	39.74	41.05
Total O&M Expenses	17.66	37.24	38.44	39.74	41.05

(₹ in lakh)

Particulars	Asset 6			
	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
Transmission Line: (in Km)				
Portion starting from Parbati-II HEP to LILO point of Parbati Pooling Station (Circuit-I)	12.838	12.838	12.838	12.838
Norm (₹ lakh/ Km)				
S/C (Bundle Conductor- 4 sub-c)	0.63	0.65	0.67	0.69
Total Transmission Expenses	8.05	8.31	8.59	8.87
Total O&M Expenses	3.30	8.31	8.59	8.87

(₹ in lakh)

Particulars	Asset 7			
	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
Transmission Line: (in Km)				
Portion starting from Parbati-II HEP LILO point of Parbati-III HEP (Ckt.-II)	8.25	8.25	8.25	8.25
	1.511	1.511	1.511	1.511
Norm (₹ lakh/ Km)				
S/C (Bundle Conductor- 4 sub-c)	0.63	0.65	0.67	0.69
D/C Bundled with 4 or more sub-conductor)	1.10	1.13	1.17	1.21
Total Transmission Expenses	6.83	7.05	7.29	7.53
Total O&M Expenses	2.80	7.05	7.29	7.53



85. The details of O&M Expenses for the transmission assets as allowed in previous order(s), claimed by the Petitioner in the instant Petition, and allowed after true-up in the instant order are as follows:

(₹ in lakh)						
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 23.12.2016 in Petition No 71/TT/2016	2.13	2.20	2.27	2.35	2.43
	Claimed by the Petitioner in the instant petition	2.13	2.21	2.28	2.35	2.43
	Approved after true-up in this order	2.13	2.21	2.28	2.35	2.43
Asset-2	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	34.58	55.06	56.87	58.75	60.71
	Claimed by the Petitioner in the instant Petition	34.58	55.06	56.87	58.75	60.71
	Approved after true-up in this order	34.58	55.06	56.87	58.75	60.71
Asset-3	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	33.56	55.06	56.87	58.75	60.71
	Claimed by the Petitioner in the instant Petition	33.56	55.06	56.87	58.75	60.71
	Approved after true-up in this order	33.56	55.06	56.87	58.75	60.71
Asset-4	Allowed vide order dated 16.1.2017 in Petition No. 384/TT/2014	18.14	39.59	40.86	42.24	43.64
	Claimed by the Petitioner in the instant Petition	18.15	39.59	40.86	42.24	43.64
	Approved after true-up in this order	18.15	39.59	40.86	42.24	43.64
Asset-5	Allowed vide Review order dated 19.8.2019 in Petition No. 384/TT/2014	17.66	37.24	38.44	39.74	41.05
	Claimed by the Petitioner in the instant Petition	17.66	37.24	38.44	39.74	41.05
	Approved after true-up in this order	17.66	37.24	38.44	39.74	41.05
Asset-6	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	3.37	8.30	8.58	8.87
	Claimed by the Petitioner in the instant Petition	0.00	3.30	8.31	8.59	8.87
	Approved after true-up in this order	0.00	3.30	8.31	8.59	8.87
Asset-7	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	7.22	7.04	7.27	7.52
	Claimed by the Petitioner in the instant Petition	0.00	2.80	7.05	7.29	7.53
	Approved after true-up in this order	0.00	2.80	7.05	7.29	7.53



Interest on Working Capital (IWC)

86. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations, and the trued-up IWC allowed for the transmission system is as follows:

(₹ in lakh)

Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	0.18	0.18	0.19	0.20	0.20
B	Working Capital for Maintenance Spares (15% of O&M)	0.32	0.33	0.34	0.35	0.36
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	45.03	44.93	42.13	38.34	37.05
D	Total Working Capital (A+B+C)	45.53	45.45	42.66	38.89	37.62
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	6.15	6.14	5.76	5.25	5.08

(₹ in lakh)

Asset-2						
	Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	4.44	4.59	4.74	4.90	5.06
B	Working Capital for Maintenance Spares (15% of O&M)	7.99	8.26	8.53	8.81	9.11
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	725.47	732.09	684.96	630.58	615.11
D	Total Working Capital (A+B+C)	737.90	744.94	698.23	644.29	629.27
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	64.68	100.57	94.26	86.98	84.95

(₹ in lakh)

Asset-3						
	Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	4.44	4.59	4.74	4.90	5.06



B	Working Capital for Maintenance Spares (15% of O&M)	7.99	8.26	8.53	8.81	9.11
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	726.38	733.82	686.51	631.95	616.44
D	Total Working Capital (A+B+C)	738.80	746.67	699.78	645.66	630.60
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	62.85	100.80	94.47	87.16	85.13

(₹ in lakh)

Asset-4						
	Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	3.19	3.30	3.41	3.52	3.64
B	Working Capital for Maintenance Spares (15% of O&M)	5.74	5.94	6.13	6.34	6.55
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	576.30	592.67	558.97	514.83	499.56
D	Total Working Capital (A+B+C)	585.23	601.90	568.50	524.69	509.75
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	37.45	81.26	76.75	70.83	68.82

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	3.00	3.10	3.20	3.31	3.42
B	Working Capital for Maintenance Spares (15% of O&M)	5.40	5.59	5.77	5.96	6.16
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	545.34	560.05	528.19	486.50	472.06
D	Total Working Capital (A+B+C)	553.75	568.74	537.16	495.77	481.64
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	36.66	76.78	72.52	66.93	65.02



(₹ in lakh)

Asset-6					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	0.67	0.69	0.72	0.74
B	Working Capital for Maintenance Spares (15% of O&M)	1.21	1.25	1.29	1.33
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	143.61	140.65	133.19	130.12
D	Total Working Capital (A+B+C)	145.49	142.58	135.20	132.19
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	8.05	19.25	18.25	17.85

(₹ in lakh)

Asset-7					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for 1 Month)	0.57	0.59	0.61	0.63
B	Working Capital for Maintenance Spares (15% of O&M)	1.02	1.06	1.09	1.13
C	Working Capital for Receivables (Equivalent to 2 months of annual transmission charges)	125.99	123.39	116.85	114.15
D	Total Working Capital (A+B+C)	127.58	125.03	118.55	115.90
E	Rate of Interest on working capital (%)	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	7.06	16.88	16.00	15.65

87. The details of IWC for the transmission assets as allowed in previous order(s), claimed by the Petitioner in the instant Petition, and allowed after trued-up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 23.12.2016 in Petition No 71/TT/2016	6.14	6.13	6.07	5.85	5.63
	Claimed by the Petitioner in the instant petition	6.15	6.14	5.76	5.25	5.08
	Approved after true-up in this order	6.15	6.14	5.76	5.25	5.08
Asset-2	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	66.82	106.53	104.35	100.78	97.22
	Claimed by the Petitioner in the instant Petition	64.96	101.60	95.42	88.50	86.90



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Approved after true-up in this order	64.68	100.57	94.26	86.98	84.95
Asset-3	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	64.92	106.77	104.58	101.00	97.43
	Claimed by the Petitioner in the instant Petition	63.11	101.84	95.63	88.68	87.08
	Approved after true-up in this order	62.85	100.80	94.47	87.16	85.13
Asset-4	Allowed vide order dated 16.1.2017 in Petition No. 384/TT/2014	37.80	81.95	84.45	84.55	81.57
	Claimed by the Petitioner in the instant Petition	37.72	82.04	77.68	71.88	70.02
	Approved after true-up in this order	37.45	81.26	76.75	70.83	68.82
Asset-5	Allowed vide Review order dated 19.8.2019 in Petition No. 384/TT/2014	36.94	77.61	79.85	79.71	76.90
	Claimed by the Petitioner in the instant Petition	36.93	77.52	73.39	67.92	66.16
	Approved after true-up in this order	36.66	76.78	72.52	66.93	65.02
Asset-6	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	8.11	19.40	18.41	18.07
	Claimed by the Petitioner in the instant Petition	0.00	8.12	19.44	18.47	18.10
	Approved after true-up in this order	0.00	8.05	19.25	18.25	17.85
Asset-7	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	7.36	17.01	16.15	15.85
	Claimed by the Petitioner in the instant Petition	0.00	7.12	17.05	16.19	15.87
	Approved after true-up in this order	0.00	7.06	16.88	16.00	15.65

Approved Annual Fixed Charges for the 2014-19 Tariff Period

88. The trued-up AFC allowed for the transmission system for the 2014-19 tariff period is as follows:

(₹ in lakh)						
Asset-1						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Depreciation	70.92	73.25	75.04	75.04	75.04
B	Interest on Loan	111.98	105.99	85.70	63.37	55.51
C	Return on Equity	79.02	82.01	84.02	84.02	84.24
D	O&M Expenses	2.13	2.21	2.28	2.35	2.43
E	Interest on Working Capital	6.15	6.14	5.76	5.25	5.08
F	Total	270.20	269.60	252.80	230.03	222.30

(₹ in lakh)						
Asset-2						



	Particulars	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
A	Depreciation	718.05	1148.26	1176.30	1191.87	1201.15
B	Interest on Loan	1209.00	1803.09	1465.35	1111.47	995.40
C	Return on Equity	800.05	1285.59	1316.99	1334.42	1348.43
D	O&M Expenses	34.58	55.06	56.87	58.75	60.71
E	Interest on Working Capital	64.68	100.57	94.26	86.98	84.95
F	Total	2826.36	4392.57	4109.77	3783.49	3690.64

(₹ in lakh)

Asset-3						
	Particulars	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
A	Depreciation	697.49	1150.24	1178.29	1193.85	1203.14
B	Interest on Loan	1175.26	1809.02	1470.25	1115.30	998.98
C	Return on Equity	777.15	1287.81	1319.21	1336.64	1350.66
D	O&M Expenses	33.56	55.06	56.87	58.75	60.71
E	Interest on Working Capital	62.85	100.80	94.47	87.16	85.13
F	Total	2746.31	4402.93	4119.09	3791.70	3698.62

(₹ in lakh)

Asset-4						
	Particulars	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
A	Depreciation	415.64	925.25	955.81	969.67	972.57
B	Interest on Loan	704.57	1474.00	1210.26	920.59	820.53
C	Return on Equity	463.11	1035.91	1070.13	1085.65	1091.82
D	O&M Expenses	18.15	39.59	40.86	42.24	43.64
E	Interest on Working Capital	37.45	81.26	76.75	70.83	68.82
F	Total	1638.92	3556.01	3353.81	3088.98	2997.38

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
A	Depreciation	407.10	874.87	903.71	916.79	919.52
B	Interest on Loan	689.65	1391.92	1142.71	869.08	774.50
C	Return on Equity	453.59	979.51	1011.79	1026.44	1032.27
D	O&M Expenses	17.66	37.24	38.44	39.74	41.05
E	Interest on Working Capital	36.66	76.78	72.52	66.93	65.02
F	Total	1604.66	3360.32	3169.17	2918.98	2832.36

(₹ in lakh)



Asset-6					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Depreciation	89.73	233.28	244.06	246.31
B	Interest on Loan	151.59	321.87	255.01	231.16
C	Return on Equity	100.46	261.18	273.25	276.51
D	O&M Expenses	3.30	8.31	8.59	8.87
E	Interest on Working Capital	8.05	19.25	18.25	17.85
F	Total	353.13	843.89	799.16	780.70

Asset-7					
(₹ in lakh)					
	Particulars	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19
A	Depreciation	78.75	204.72	214.19	216.16
B	Interest on Loan	133.04	282.47	223.80	202.87
C	Return on Equity	88.17	229.21	239.80	242.67
D	O&M Expenses	2.80	7.05	7.29	7.53
E	Interest on Working Capital	7.06	16.88	16.00	15.65
F	Total	309.82	740.33	701.08	684.88

89. Accordingly, the Annual Transmission Charges as allowed in previous order(s), claimed by the Petitioner in the instant Petition, and allowed after trued-up in the instant order are as follows:

(₹ in lakh)						
Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	Allowed vide order dated 23.12.2016 in Petition No 71/TT/2016	269.71	269.35	266.63	256.76	246.89
	Claimed by the Petitioner in the instant Petition	270.19	269.58	252.80	230.04	222.30
	Approved after true-up in this order	270.20	269.60	252.80	230.03	222.30
Asset-2	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	2921.22	4657.80	4558.13	4396.96	4235.87
	Claimed by the Petitioner in the instant Petition	2838.52	4438.68	4161.32	3850.89	3777.18
	Approved after true-up in this order	2826.36	4392.57	4109.77	3783.49	3690.64
Asset-3	Allowed vide Review order dated 24.7.2019 in Petition No. 312/TT/2014	2838.22	4668.15	4568.22	4406.79	4245.44
	Claimed by the Petitioner in the instant Petition	2758.10	4449.06	4170.63	3859.11	3785.15



Assets	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Approved after true-up in this order	2746.31	4402.93	4119.09	3791.70	3698.62
Asset-4	Allowed vide order dated 16.1.2017 in Petition No. 384/TT/2014	1654.73	3586.63	3696.03	3698.72	3564.30
	Claimed by the Petitioner in the instant Petition	1651.12	3590.83	3395.08	3135.60	3050.92
	Approved after true-up in this order	1638.92	3556.01	3353.81	3088.98	2997.38
Asset-5	Allowed vide Review order dated 19.8.2019 in Petition No. 384/TT/2014	1617.25	3397.10	3495.22	3487.06	3360.23
	Claimed by the Petitioner in the instant Petition	1616.58	3393.16	3208.10	2962.95	2882.87
	Approved after true-up in this order	1604.66	3360.32	3169.17	2918.98	2832.36
Asset-6	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	355.90	850.46	806.36	790.78
	Claimed by the Petitioner in the instant Petition	0.00	356.19	852.33	808.70	791.86
	Approved after true-up in this order	0.00	353.13	843.89	799.16	780.70
Asset-7	Allowed vide order dated 9.2.2021 in Petition No. 156/TT/2015	0.00	316.88	746.21	707.49	693.81
	Claimed by the Petitioner in the instant Petition	0.00	312.49	747.75	709.46	694.67
	Approved after true-up in this order	0.00	309.82	740.33	701.08	684.88

Determination of Annual Fixed Charges for the 2019-24 Tariff Period

90. The details of the transmission charges for the Combined Asset for the 2019-24 tariff period, as claimed by the Petitioner in this Petition, are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	4895.90	4895.90	4895.90	4922.30	4948.70
Interest on Loan	4139.92	3766.18	3139.21	2690.14	2238.47
Return on Equity	5270.60	5270.60	5270.60	5298.77	5326.94
Interest on Working Capital	226.67	207.15	185.58	182.11	176.88
O&M Expenses	264.40	274.89	291.83	336.78	348.62
Total	14797.49	14414.72	13783.12	13430.10	13039.61

91. The details of IWC for the Combined Assets for the 2019-24 period, as claimed by the Petitioner in this Petition, are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	22.03	22.91	24.32	28.07	29.05
Maintenance Spares	39.66	41.23	43.77	50.52	52.29



Receivables	1819.36	1777.16	1699.29	1655.77	1603.23
Total Working Capital	1881.06	1841.30	1767.38	1734.35	1684.57
Rate of Interest (%)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	226.67	207.15	185.58	182.11	176.88

Effective Date of Commercial Operation (E-COD)

92. The Petitioner has claimed transmission charges for the 2019-24 tariff period for a single Combined Asset for all the assets. However, only for the purpose of calculation of the transmission tariff for the 2019-24 tariff period, assets are being combined into two (02) sets of Combined Assets as Asset-2 and Asset-3, related to Koldam-Ludhiana transmission line as the “**Combined Asset-A**” and Assets-1, 4, 5, 6 and 7 related to Parbati-Koldam transmission line as the “**Combined Asset-B**” and the transmission tariff is allowed as a single Combined Asset.

93. Accordingly, based on the trued-up admitted capital cost and actual COD of the above assets, the E-COD has been worked out as follows:

Computation of E-COD for Combined Asset-A					
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Total Weighted Days
Asset – 2	7.8.2013	22750.37	49.96	7.00	3.50
Asset – 3	14.8.2014	22787.92	50.04	0.00	0.00
Total		45538.29	100.00		3.50
Effective COD (Latest COD – Total weighted Days) 10.08.2014					

Computation of E-COD for Combined Asset-B					
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (%)	No. of Days from last COD	Total Weighted Days
Asset – 1	1.8.2013	1421.23	3.09%	824.00	25.45
Asset – 4	10.10.2014	18420.70	40.03%	389.00	155.72
Asset – 5	4.10.2014	17415.95	37.85%	395.00	149.50
Asset – 6	3.11.2015	4665.00	10.14%	0.00	0.00
Asset – 7	3.11.2015	4094.03	8.90%	0.00	0.00
Total		46016.91	100.00		330.66



94. The E-COD is used to determine the lapsed life of Combined Asset-A (Asset-2 and Asset-3) and Combined Asset-B (Asset-1, Asset-4, Asset-5, Asset-6 and Asset-7), which works out as (4) four years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

95. Life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for the determination of the Weighted Average Life. The Combined Asset may have multiple elements such as land, buildings, transmission lines, Substations, and PLCC, and each element may have a different lifespan. Therefore, the concept of Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

96. The 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. Life, as defined in the 2019 Tariff Regulations, has been considered for the determination of the WAL. Accordingly, the WAL of the Combined Asset has been worked out as 35 years, as shown below:

Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life in Years (2)	Weighted Cost (3)=(1) x (2)	Weighted Avg. Life of Asset (in years) (4)=(3)/(1)
Transmission Line	91555.20	35	3204431.92	
Total	91555.20		3204431.92	35 years

97. The 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 the previous tariff period is required to be done. As discussed, the Effective COD of Assets 2 and 3 is 10.08.2014, and the Effective COD of Assets 1,4,5,6 and 7 is 07.12.2014. The lapsed life of the project as a whole works out as four (4) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, the WAL has been used to determine the remaining useful life as on 31.3.2019 to be 31 years.

Capital Cost

98. 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 asset before the date of commercial operation;***



- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(3) The Capital cost of an existing project shall include the following:

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

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

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

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

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



Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;

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

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

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

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

99. The capital cost has been dealt with in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, substation and PLCC) as admitted by the Commission as on 31.3.2019 in respect of the transmission assets is considered as capital cost of the Combined Asset as on 1.4.2019 as per the following details:

(₹ in lakh)				
Elements	Asset-1	Asset-2	Asset-3	Asset-4
Transmission Line	1421.23	22750.37	22787.92	18420.70

(₹ in lakh)			
Elements	Asset-5	Asset-6	Asset-7
Transmission Line	17415.95	4665.00	4094.03

100. The trued-up capital cost of ₹45538.29 lakh for Combined Asset-A (Asset-2 and Asset-3) and ₹46016.91 lakh for Combined Asset-B (Asset-1, Asset-4, Asset-5, Asset-6 and Asset-7) is considered as admitted capital cost as on 31.3.2019 for working out the tariff for the 2019-24 tariff period.

Additional Capital Expenditure

101. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under:

“24. Additional Capitalisation within the original scope and upto the cut-off date

(1) The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the



original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

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

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

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

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

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*
- (e) Force Majeure events;*
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) Raising of ash dyke as a part of ash disposal system*

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”*

102. The Petitioner has claimed ACE of ₹1000.00 lakh in the year 2022-23. The Petitioner has considered Additional Capitalisation on account of the following heads of expenditure during 2019 to 2024:-

- A. Emergency Restoration System ("ERS")
- B. Resolution of Pending ROW Matters of the construction period
- A. Additional Capitalisation towards procurement of Emergency Restoration System ("ERS")_(2019-24 Tariff Period)

Re. Treatment of ERS in Project Cost as per Tariff Regulation 2014

(i) Regulation 14(3)(ix) of the 2014 Tariff Regulations provides that capital expenditure in respect of a transmission system incurred or projected to be incurred after the cut-off date, *inter alia*, towards ERS may be admitted by this Commission, subject to a prudence check. Regulation 14(3)(ix) specifies as under:-

"14. Additional Capitalisation and De-capitalisation: ...

(3) The capital expenditure, in respect of existing generating station or the transmission system, including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

...

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and"

(ii) Procurement of ERS was part of the original project cost and was within the original scope of the Project. In this regard, the Petitioner has submitted the following for allowing the additional capitalization towards ERS:-

(a) The Board of PKTCL on 19.05.2014 had approved procurement of ERS as a part of the Project. In 2014, PKTCL filed Petition No. 384/TT/2014 under the 2014 Tariff Regulations and claimed ERS as a part of the project cost for one of its transmission lines, viz. 'Section of 400 kV (Quad) 2xS/C



Parbati-Koldam transmission line (starting from LILO point of Parbati (Banala) Pooling Station to Koldam HEP)'.

(b) The said transmission lines were idle charged in October 2014 (Banala – Nalagarh Section or Ckt-I charged on 10.10.2014 and Banala – Koldam Section or Ckt-II idle charged on 04.10.2014). Accordingly, the cut-off date for the said lines was considered by the Petitioner as 31.03.2017, i.e., the 31st March of the financial year two (2) years from the end of FY 2014-15 (as per Regulation 3(13) of the Tariff Regulations, 2014). The Petitioner had already submitted the cost towards this ERS as part of Additional Capitalization in Tariff Petition 384/TT/2014, which was subsequently approved by this Commission vide order dated 16.01.2017.

(iii) The ERS is within the original scope of the Project (as a part of RCE), but the same could not be procured. However, the ERS is required for the early restoration of transmission line elements under the project in case of an emergency and forms an integral part of the Operation and Maintenance of crucial transmission projects.

(iv) As per Regulation 14(3)(ix) of the 2014 Tariff Regulations, expenditure towards ERS, if incurred after the cut-off date, is admissible as additional capitalization. As such, since the cost of ERS is within the original scope of the Petitioner's Project, and the same will be incurred beyond the cut-off date (i.e., 31.03.2017), such expenditure may kindly be allowed as additional capitalization under the Tariff Regulations.

(v) The Procurement of ERS was deferred beyond the cut-off date due to reasons beyond the Petitioner's control. However, by operation of Regulation 14(3)(ix), the same was admissible as additional capitalization under the 2014 Tariff Regulations. However, on 07.03.2019, this Commission notified the 2019 Tariff Regulations (w.e.f. 01.04.2019), which have changed the treatment of additional capitalization beyond the cut-off date. It is submitted that Regulation 25 of the 2019



Tariff Regulations, although it provides for additional capitalization (within the original scope) beyond the cut-off date, the said Regulation does not specifically include expenditure towards ERS (as was provided in Regulation 14 of the 2014 Tariff Regulations). This change in regulatory treatment of ERS in the 2019 Tariff Regulations could not have been foreseen by the Petitioner until the said regulations came into effect. Therefore, the Petitioner is praying before this Commission to relax the requirements of Regulation 25 of the 2019 Tariff Regulations by invoking Regulation 76 of the said Regulations.

(vi) The ERS forms an essential component of a transmission system and is an integral part of the original project cost provided through RCE in main Petition 384/TT/2014. Ministry of Power ("MoP") as well as the Central Electricity Authority ("CEA") have time and again emphasized the absolute requirement of ERS for safe, secure, and sustained transmission of power even during emergency situations.

Re: Requirement of ERS as provided by MoP and CEA

(vii) ERS is an essential part of the Operation & Maintenance of a transmission line system. The same is used for the speedy recovery of the transmission system in cases of an emergency.

(viii) In this regard, it is noteworthy that the MoP on 05.12.2014 issued a letter directing all States and Union Territories to issue appropriate directions to the transmission licensees within each state to take stock, procure an appropriate number of ERS infrastructure and place them at strategic locations. It is submitted that MoP in the said letter also referred to:

(a) The strategy to be adopted for the procurement of ERS which prescribed as under:



“2. For any transmission utility, one set of ERS has been planned to cater to failure of towers for transmission line lengths of up to 5000 Ckt. Kms. Accordingly, two (2) sets of ERS have been planned for transmission line lengths of about 5000 to 10,000 Ckt. Kms. And three (3) sets for more than 10,00 Ckt. Kms and so on.

3. The transmission Utility with line length less than 500 ckt kms (of 400kV lines) may be given option either to procure ERS or have agreement with other transmission utilities for providing ERS on mutually agreed terms, when need arises.”

(b) The ‘Guidelines for Planning, Procurement and Deployment of Emergency Restoration System’ formulated by CEA. In the said guidelines, CEA has inter alia prescribed that:

- (i) Proper management of ERS and training of personnel for the erection of towers on ERS and the use of associated software is essential.
 - (ii) ERS should not be used in new lines under construction. Otherwise, the very purpose of ERS will be defeated.
 - (iii) The transmission utilities may approach the Appropriate Commission for approval and initiate the procurement process on an urgent basis to comply with Grid Standards. Utilities may also approach the State Disaster Management Authorities for funding.
- (ix) From the aforesaid, it is evident that ERS is mandatorily required for optimum operation and maintenance of a transmission system during an emergency.

The installation of ERS has also been mandated by CEA in Regulation 22 of the CEA (Grid Standards) Regulations, 2010, which are applicable to all transmission systems.

Further, the Guidelines for Availability of Spares and Inventories for Power Transmission System (Transmission Lines & Substation/Switchyard) Assets issued by CEA in July 2020 also further emphasise the requirement of ERS for transmission systems .

(x) The need for installation of ERS for the Petitioner’s Project is further evident from CEA’s disaster management plans for the power sector issued from time to time. It is submitted that:

(a) In March 2017, CEA issued the 'Crisis and Disaster Management Plan for Power Sector'. Clause 6.1.3.7 of the said plan provides that transmission lines are the arteries of the Electricity grid, and these are most prone to damage due to earthquakes, cyclones, terrorist attacks, floods, etc. Accordingly, for the restoration of transmission lines, ERS should be provided/made use of. The ERS, communication and other equipments should be maintained properly so that they can be used without any delay. Further, clause 6.1.4 provides as under:-

"CEA has issued guidelines for requisition of ERS and advisory has been issued by Ministry of Power to all state utilities. In the case of damage to transmission line, temporary arrangements for restoration of power supply can be made with the help of ERS, which consists of special type of light weight modular structures, with light weight polymer insulators and number of stays. This facility is currently available with power Grid Corporation of India and GRIDCO, Odisha. It is, however, suggested that based upon the past experience of disaster prone areas, one set of ERS for each such area should be procured and kept in store at strategic locations."

(b) In January 2021, CEA issued the 'Disaster Management Plan for Power Sector' wherein clause 8.2.5.1.2 reiterates the requirement of installing ERS as under:-

"For the restoration of transmission lines, Emergency Restoration System (ERS) should be provided/made use of. The ERS, communication and other equipment should be maintained properly so that it can be used without any delay."

- (xi) Therefore, the installation of ERS is an essential requirement also from a disaster management perspective, and such a requirement cannot be done away with.
- (xii) The Petitioner's transmission lines are located in remote areas of Himachal Pradesh and pass through treacherous hilly terrain, which is prone to landslides, cloud bursts, heavy and inclement snowfall, earthquakes, and other such eventualities. As these transmission lines serve as the primary power evacuation system for key Hydro Power Plants ("HEP") in Parbati



basin for 2200 MW (viz. 520 MW Parbati-III and 800 MW Parbati-II HEP of NHPC, 800 MW Koldam HEP of NTPC, 100 MW Sainj HEP of HPPCL and power from Banala Pooling Station of PGCIL), in the event of outage/tower failure in any of the transmission line, might lead to disruption in power from the above HEPs, hence availability of ERS becomes necessary for early restoration of transmission line, till that section of line is completely restored. The Petitioner is a single project company and does not have any spare ERS which can be mobilized from another site in the event of failure of the transmission system.

- (xiii) Accordingly the cost towards ERS has been incorporated under additional capitalization for the tariff period of 2019-24 in FY 2023, as it was made part of the original scope under the approved RCE and the same may kindly be allowed by this Commission.

B. Resolution of Pending RoW Matters during construction period (RoW Litigation Payments made in 2019-24 Tariff Period)

(i) During the construction of the transmission project, the Petitioner encountered various RoW issues with the landowners/farmers whose land was falling en route to the transmission lines. Various landowners/farmers who were dissatisfied with the tree and crop compensation paid by the Petitioner filed various litigations for higher compensation. Some of these litigations have attained finality in the 2014-19 tariff period, which have been addressed in the above paragraphs. Similarly, any additional capitalisation carried out in the 2019-24 tariff period is covered under Regulation 25(1)(a) of the 2019 Tariff Regulations, which provides for capitalisation of:

“Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law”.



(ii) These expenditures are part of the original scope and relate to the construction period. The Petitioner craves leave to raise any claim based on the current outstanding litigations of the project. A consolidated submission corresponding to the ACE in the 2019-24 tariff period, towards these expenses, will be submitted with the true-up Petition for the 2019-24 tariff period. Taking into consideration the aforementioned additional capitalisation submitted under the instant Petition as per the 2019 Tariff Regulations (already incurred/projected to be incurred in the 2019-24 tariff period), the expected project cost at the end of 31.03.2024 will be as under:

(₹ in lakh)

Particulars	ACE					Total
	2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Cost	-	-	-	1,000.00	-	94,542.37

Analysis and decision

103. We have perused the submissions of the Petitioner and the relevant documents on record. The Petitioner has submitted that ERS was part of the original scope of work of the project (as part of the Revised Scope of Work) of PKTCL, but the procurement of ERS was deferred beyond the cut-off date.

104. Regulation 22 of the CEA (Grid Standards) Regulations, 2010 provides as under:

“Emergency Restoration System: Each transmission licensee shall have an arrangement for restoration of transmission lines of 400 kV and above and strategic 220 kV lines through the use of Emergency Restoration System in order to minimise the outage time of the transmission lines in case of tower failures.”

105. The 2019 Tariff Regulations allow additional Capital expenditure within the original scope and after the cut-off date as under:

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

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;



(b) Change in law or compliance of any existing law;" As per above, additional capital expenditure within the original scope of work and after the cutoff date can be allowed by the Commission."

106. It is observed that as per the Resolution passed by the Board of Directors of the Petitioner's company in the meeting held on 19.5.2014, the Emergency Restoration System (ERS) was not envisaged in the FR cost estimate and the provision for the "one set of ERS especially for Parbati – Koldam Transmission Lines which is the only evacuation system for approximately 3000 MW of power to be transmitted from Parbati-II, Parbati-III & Sainj HEPs apart from the Banala/Parbati Pooling Station of PGCIL" had been considered in the RCE under "Miscellaneous Tools & Plants" head. Therefore, considering the requirement of the ERS as per Regulation 22 of the CEA (Grid Standards) Regulations, 2010, the ACE projected towards the ERS is allowed under Regulation 25(1) (a) &(b) of the 2019-24 Tariff Regulations. The Petitioner is directed to submit the implementation details along with a cost break-up of the ERS at the time of truing-up.

107. Further, regarding the ACE claimed by the Petitioner towards the Resolution of pending RoW matters during the construction period (RoW Litigation Payments made in the 2019-24 tariff period), the Petitioner has submitted that various land owners/farmers filed litigations for higher compensation and the Petitioner can claim the ACE for the 2019-24 tariff period towards the current outstanding litigations. We have considered the Petitioner's submissions. The Petitioner has not submitted the details of the litigations filed by the landowners/farmers. The ACE towards the same will be considered based on the supporting documents submitted by the Petitioner at the time of truing-up.



108. The details of the proposed ACE allowed with respect to the Combined Asset – 1,4,5,6, and 7 are as under:

Particulars	(₹ in lakh) Proposed ACE 2022-23
Proposed ACE allowed under Regulations 24(1)(a), 24(1)(b) and 25(1)(d) of the 2019 Tariff Regulations	1000.00

Capital Cost for the 2019-24 tariff period

Asset	Capital Cost as on 1.4.2019	(₹ in lakh) ACE 2022-23	Capital Cost as on 31.3.2024
Combined Asset-A (Asset-2 and Asset-3)	45538.29	0.00	45538.29
Combined Asset-B (Asset-1, Asset-4, Asset-5, Asset-6 and Asset-7)	46016.91	1000.00	47016.91

Debt-Equity Ratio

109. Regulation 18 of the 2019 Tariff Regulations provides as follows:

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

Provided that:

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

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

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

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019,



if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

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

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

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

110. The debt-equity ratio for the 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of the debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period for the Combined Asset are as follows:

Combined Asset-A				
Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	31876.80	70.00	31876.80	70.00
Equity	13661.49	30.00	13661.49	30.00
Total	45538.29	100.00	45538.29	100.00

Combined Asset-B				
Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	32211.84	70.00	32911.84	70.00
Equity	13805.07	30.00	14105.07	30.00
Total	46016.91	100.00	47016.91	100.00



Depreciation

111. 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 asset 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 asset 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 up to 31.3.2019 from the gross depreciable value of the asset.

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

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

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

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

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

b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or

c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

112. We have considered the Petitioner's submissions. The IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). The WAROD has been worked out after



taking into account the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e., the IT asset is considered 100% depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and the accumulated depreciation up to 31.3.2019. The depreciation allowed in respect of the Combined Assets is as follows:

(₹ in lakh)

Combined Asset-A						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	45538.29	45538.29	45538.29	45538.29	45538.29
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	45538.29	45538.29	45538.29	45538.29	45538.29
D	Average Gross Block (A+C)/2	45538.29	45538.29	45538.29	45538.29	45538.29
E	Depreciable Value	40984.46	40984.46	40984.46	40984.46	40984.46
F	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
G	Remaining life at the beginning of the year (Year)	31.00	30.00	29.00	28.00	27.00
H	Elapsed life at the beginning of the year (Year)	4.00	5.00	6.00	7.00	8.00
K	Depreciation during the year (D*F)	2404.42	2404.42	2404.42	2404.42	2404.42
M	Cumulative Depreciation at the end of the year	13263.07	15667.49	18071.91	20476.33	22880.75
N	Remaining depreciable value at the end of the year	27721.39	25316.97	22912.55	20508.13	18103.71

(₹ in lakh)

Combined Asset-B						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	46016.91	46016.91	46016.91	46016.91	47016.91
B	ACE	0.00	0.00	0.00	1000.00	0.00
C	Closing Gross Block (A+B)	46016.91	46016.91	46016.91	47016.91	47016.91
D	Average Gross Block (A+C)/2	46016.91	46016.91	46016.91	46516.91	47016.91
E	Depreciable Value	41415.22	41415.22	41415.22	41865.22	42315.22
F	Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
G	Remaining life at the beginning of the year (Year)	31.00	30.00	29.00	28.00	27.00
H	Elapsed life at the beginning of the year (Year)	4.00	5.00	6.00	7.00	8.00
K	Depreciation during the year (D*F)	2429.69	2429.69	2429.69	2456.09	2482.49
M	Cumulative Depreciation at the end of the year	12631.75	15061.44	17491.13	19947.23	22429.72



Combined Asset-B						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
N	Remaining depreciable value at the end of the year	28783.47	26353.78	23924.08	21917.99	19885.50

Interest on Loan (IoL)

113. Regulation 32 of the 2019 Tariff Regulations provides as under:

“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 up to the date of de-capitalisation of such asset.

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

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

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

Provided further that if the generating station or the transmission project, 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”.



114. The weighted average rate of interest of IoL has been considered based on the rates prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2019-24 tariff period, be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. In view of the above, the IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed in respect of the Combined Asset is as under:

(₹ in lakh)

Combined Asset-A						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	31876.80	31876.80	31876.80	31876.80	31876.80
B	Cumulative Repayments upto Previous Year	10858.64	13263.07	15667.49	18071.91	20476.33
C	Net Loan-Opening (A-B)	21018.16	18613.74	16209.31	13804.89	11400.47
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	2404.42	2404.42	2404.42	2404.42	2404.42
F	Net Loan-Closing (C+D-E)	18613.74	16209.31	13804.89	11400.47	8996.05
G	Average Loan (C+F)/2	19815.95	17411.53	15007.10	12602.68	10198.26
H	Weighted Average Rate of Interest on Loan (%)	9.94	10.24	9.85	9.85	9.85
I	Interest on Loan (G*H)	1969.10	1783.57	1478.20	1241.36	1004.53

(₹ in lakh)

Combined Asset-B						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	32211.84	32211.84	32211.84	32211.84	32911.84
B	Cumulative Repayments upto Previous Year	10202.06	12631.75	15061.44	17491.13	19947.23
C	Net Loan-Opening (A-B)	22009.78	19580.09	17150.39	14720.70	12964.61
D	Addition due to ACE	0.00	0.00	0.00	700.00	0.00
E	Repayment during the year	2429.69	2429.69	2429.69	2456.09	2482.49
F	Net Loan-Closing (C+D-E)	19580.09	17150.39	14720.70	12964.61	10482.12
G	Average Loan (C+F)/2	20794.93	18365.24	15935.55	13842.66	11723.36
H	Weighted Average Rate of Interest on Loan (%)	9.94	10.24	9.85	9.85	9.85
I	Interest on Loan (G*H)	2066.38	1881.27	1569.65	1363.50	1154.75

Return on Equity (RoE)

115. Regulations 30 and 31 of the 2019 Tariff Regulations specify as follows:

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



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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

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 (COD) 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 follows:

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

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

Illustration-

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

Rate of return on equity = 15.50/ (1-0.2155) = 19.758%

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

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

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

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;

(d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%

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

116. The Petitioner has submitted that it is liable to pay Income Tax at the MAT rate specified under the Taxation Laws (Amendment) Ordinance 2019. Further, the RoE has been calculated @18.782% after grossing up the RoE with the MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations for the 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of the 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 the Petitioner. Any under-recovery or over-recovery of grossed-up rate on the RoE after truing up shall be recovered or refunded to beneficiaries or the long-term customers on a yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand, including interest, duly adjusted for any refund of tax, including interest, received from IT authorities, shall be recoverable/ adjustable during the 2019-24 tariff period on a yearly basis on receipt of the Income Tax assessment order.

117. We have considered the Petitioner's submissions. The MAT rate applicable in 2019-20 has been considered for the purpose of the RoE, which will be trued-up with the actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE allowed for the transmission system for the 2019-24 tariff period is as follows:

(₹ in lakh)

Combined Asset-A						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	13661.49	13661.49	13661.49	13661.49	13661.49
B	Additions due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	13661.49	13661.49	13661.49	13661.49	13661.49
D	Average Equity (A+C)/2`	13661.49	13661.49	13661.49	13661.49	13661.49
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	2565.90	2565.90	2565.90	2565.90	2565.90

(₹ in lakh)

Combined Asset-B						
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	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	13805.07	13805.07	13805.07	13805.07	14105.07
B	Additions due to ACE	0.00	0.00	0.00	300.00	0.00
C	Closing Equity (A+B)	13805.07	13805.07	13805.07	14105.07	14105.07
D	Average Equity (A+C)/2`	13805.07	13805.07	13805.07	13955.07	14105.07
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	2592.87	2592.87	2592.87	2621.04	2649.21

Operation & Maintenance Expenses (O&M Expenses)

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

“35. Operation and Maintenance Expenses:

...

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for HVDC stations</i>					
<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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

119. The O&M Expenses claimed by the Petitioner for the Combined Asset are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line					
Combined Asset	264.40	274.89	291.83	336.78	348.62

120. We have considered the Petitioner's submissions. After examining the tariff forms submitted by the Petitioner, it is observed that the Petitioner has also claimed the following Security Expenses under O&M Expenses for the Combined Asset for the 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Security Expenses					
Combined Asset	18.58	20.48	28.44	64.20	66.46

121. The aforementioned Regulation 35(3)(c) of the 2019 Tariff Regulations provides that the security expenses for the transmission system shall be allowed separately after a prudence check. Therefore, as per Regulation 35(3)(c) of the 2019 Tariff Regulations, the security expenses claimed by the Petitioner are not considered under the O&M Expenses, and the same shall be dealt with separately in the instant order.

122. Therefore, the O&M Expenses for the Combined Asset covered in the instant Petition are worked out as per Regulation 35(3) (a) of the 2019 Tariff Regulations, and the same are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line : 400 kV Single Circuit (Four sub-conductors)					
• LILO point of Parbati III HEP to LILO point of Parbati Pooling Station : (Total Length of Line : 3.518 Km) • Banala-Koldam Part of CKT-I : (Total Length of Line: 40.463 Km) • Banala-Koldam Part of CKT-II : (Total Length of Line: 36.718 Km) • Portion Starting from Parbati-II HEP to Lilo Point of Parbati Pooling Station (CKT-I).: (Total Length of Line: 12.838 Km)					



Portion Starting from Parbati-II HEP to Lilo Point of Parbati-III HEP (CKT-II). (Total Length of Line: 8.25 Km)					
Norms as Per Regulation (Rs. Per Km)	0.755	0.781	0.809	0.837	0.867
O&M Expenses	76.85	79.50	82.35	85.20	88.25
Transmission Line : 400 kV Double Circuit (Tripple subconductor) Koldam-Ludhiana Transmission Line CKT-I & II: (Total Length of Line : 150.642 Km)					
Norms as Per Regulation (Rs. Per Km)	0.881	0.912	0.944	0.977	1.011
O&M Expenses	132.72	137.39	142.21	147.18	152.30
Transmission Line : 400 kV Double Circuit (Four sub conductor) - Banala-Koldam Part of CKT-I: (Total Length of Line: 12.959 Km) - Banala-Koldam Part of CKT-II: (Total Length of Line: 12.959 Km) - Portion Starting from Parbati-II HEP to Lilo Point of Parbati-III HEP (CKT-II). (Total Length of Line: 1.511 Km)					
Norms as Per Regulation (Rs. Per Km)	1.322	1.368	1.416	1.466	1.517
O&M Expenses	36.26	37.52	38.84	40.21	41.61
Total O&M Expenses	245.83	254.40	263.39	272.58	282.16

123. Therefore, the O&M Expenses allowed for the Combined Asset for the 2019-24 tariff Period are as follows:

(₹ in lakh)					
Asset Name	2019-24	2020-24	2021-22	2022-23	2023-24
Combined Asset					
O&M Expenses Claimed	264.40	274.89	291.83	336.78	348.62
O&M Expenses Allowed	245.83	254.40	263.39	272.58	282.16

Security Expenses:

124. The Security Expenses claimed by the Petitioner are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Security Expenses					
Combined Asset	18.58	20.48	28.44	64.20	66.46

125. Regulation 35(3)(c) of the 2019 Tariff Regulations provides as under:

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

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



126. With respect to Payment of Security Expenses, the Petitioner has submitted the following:

(i) The Petitioner has a Store-cum-Site Office in the outskirts of Rupnagar, Punjab, which serves as the main store for the complete project. A patrolling office has also been set up within the store yard to cater to the requirement of line patrolling of a 100 km section of the 400 KV D/C Koldam – Ludhiana Transmission Line in the plain area.

(ii) In addition to this, the Petitioner has two site offices and one make-shift patrolling post in Himachal Pradesh. The two site offices in Himachal Pradesh cover the operation and maintenance of approximately 140 kms of 2 X S/C 400 kV Parbati- Koldam Transmission Line section in Hilly Terrain. The first office is located in Bhunter (i.e. start of the 2 X S/C 400 kV Parbati- Koldam Transmission Line near Parbati-II HEP), which covers operation and maintenance of approximately 70 kms of the two S/C transmission lines from Parbati end. The second site office is placed at Sundernagar and covers the Operation and Maintenance of the remaining 70 kms of the transmission line and is geographically located in the middle of the transmission line section.

(iii) Further, a make-shift patrolling office has been set up in the Bilaspur region of Himachal Pradesh, which caters to the operation and maintenance requirements of the complete hilly section of 50 km of 400 kV D/C Koldam – Ludhiana Transmission Line.

(iv) Apart from these site offices, the Petitioner Company also operates a corporate centre in Gurgaon that also serves as the main as well as Registered Office for the Petitioner Company. All Regulatory, Commercial, Financial, Legal,

Engineering, Secretarial, and Managerial functions for the project are handled through this Corporate Centre, which has been established in Gurgaon, Haryana.

(v) The Petitioner has hired security personnel as a security requirement at the site offices and stores. The placement of such security personnel and the shift timings of such personnel are in line with the Labour Laws and Minimum Wage laws applicable from time to time, to the respective region of services. The primary security requirement is for the store area of the project. The piece of land on which the store yard has been made is 2.87 acres and houses the complete spare material for the project, from tower parts to nuts and bolts, insulators, conductor, hardware fittings, etc. The Petitioner has placed 6 Security Guards in the store-yard area in order to ensure proper upkeep and safety of the material stocked in the store yard. Further, as the patrolling office of the Petitioner has also been placed within the store premises, the same set of Guards also caters to the safety and security of the officials stationed there in the Ropar Division in case of local agitation or ruckus caused by the local villagers/landowners en route the transmission line project.

(vi) The other two offices in Sundernagar and Bhunter, Himachal Pradesh, also need security staff as they serve as main offices for local public dealing as part of the operation and maintenance. These offices have 14 security guards each operating in shifts of 8 Hrs to tackle any nuisance created by the locals, as well as to track and record the visitors' log in these offices, apart from ensuring the safety of the respective offices 24/7, as they house key O&M material and minor spares as well.



(vii) On similar grounds, the corporate centre at Gurgaon also requires 3 Security Guards operating in a shift cycle of 8 hours each, for the safety and security of man and material at the corporate centre.

(viii) The annual expenditure incurred towards deployment of aforementioned set of Security Personnel for 2019-20 and 2020-21 period, along with the projected expenditure claimed in O&M for the 2021-24 is as under:

Particulars	Security Expenses					Total
	2019-20	2020-21	2021-22	2022-23	2023-24	
			Projected			
Security Expenses	18.58	20.48	28.44	64.20	66.46	198.15

127. We have considered the Petitioner's submissions. The Relevant Regulation of the 2019 Tariff Regulations is as follows:

"35(3)(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

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

128. As per the submissions by the Petitioner, the Security Expenses claimed by the Petitioner are mainly on account of security arrangements for Store-cum-Site Office in the outskirts of Rupnagar, two site offices and one patrolling post in Himachal Pradesh and corporate centre in Gurgaon.

129. We have allowed the ACE against Stores established in Rupnagar and Himachal Pradesh only and not allowed the ACE incurred against Site Office and Corporate Office in the instant order. However, since the details of ACE for the Stores, Site offices, and Corporate Office have not been submitted by the Petitioner separately, the Petitioner is at liberty to claim the aforementioned expenditure as ACE at the time of truing up of the 2019-24 tariff period.



130. Therefore, in view of the above and considering the requirement for deployment of security personnel for 24x7 to avoid any kind of theft of spares and Tools & Tackles from Stores, the expenditure incurred against deployment of Security at Stores located at Rupnagar and Himachal Pradesh is hereby allowed. The Petitioner is at liberty to submit the details of security expenses for stores along with the supporting documents at the time of truing-up for appropriate consideration of the Commission.

Interest on Working Capital (IWC)

131. Regulations 34(1)(c), 34(3) and (4) and 3(7) of the 2019 Tariff Regulations specify as under:

“34. Interest on Working Capital

(1)...

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

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

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

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

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

“3.Definitions ...

(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;”



132. The Petitioner has submitted that it has computed the IWC for the 2019-24 tariff period, considering the 2019 Tariff Regulations, and the IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for FY 2020-21, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for the FY 2021-22 and FY 2022-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for the FY 2023-24. The components of the working capital and interest allowed thereon are as under:

(₹ in lakh)

Combined Asset-A						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	11.06	11.45	11.85	12.26	12.69
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	19.91	20.61	21.33	22.08	22.84
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	883.07	862.01	823.65	794.70	765.15
D	Total Working Capital (A+B+C+D)	914.03	894.07	856.83	829.04	800.69
E	Rate of Interest of working capital (in %)	12.05	11.25	10.50	10.50	12.00
F	Interest of working capital (D*E)	110.14	100.58	89.97	87.05	96.08

(₹ in lakh)

Combined Asset-B						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	9.43	9.75	10.10	10.45	10.82
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	16.97	17.55	18.18	18.81	19.48
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	899.21	878.14	838.91	820.51	801.16
D	Total Working Capital (A+B+C+D)	925.60	905.45	867.18	849.77	831.46
E	Rate of Interest of working capital (in %)	12.05	11.25	10.50	10.50	12.00



F	Interest of working capital (D*E)	111.54	101.86	91.05	89.23	99.78
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Annual Fixed Charges for the 2019-24 Tariff Period

133. The transmission charges allowed for the Combined Assets for the 2019-24 tariff period are as under:

(₹ in lakh)

Combined Asset-A					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2404.42	2404.42	2404.42	2404.42	2404.42
Interest on Loan	1969.10	1783.57	1478.20	1241.36	1004.53
Return on Equity	2565.90	2565.90	2565.90	2565.90	2565.90
O&M Expenses	132.72	137.39	142.21	147.18	152.30
Interest on Working Capital	110.14	100.58	89.97	87.05	96.08
Total	7182.28	6991.86	6680.70	6445.91	6223.23

(₹ in lakh)

Combined Asset-B					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2429.69	2429.69	2429.69	2456.09	2482.49
Interest on Loan	2066.38	1881.27	1569.65	1363.50	1154.75
Return on Equity	2592.87	2592.87	2592.87	2621.04	2649.21
O&M Expenses	113.11	117.02	121.19	125.41	129.86
Interest on Working Capital	111.54	101.86	91.05	89.23	99.78
Total	7313.59	7122.71	6804.45	6655.27	6516.09

134. Therefore, the total transmission tariff allowed for the Combined Asset is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset-A	7182.28	6991.86	6680.70	6445.91	6223.23
Combined Asset-B	7313.59	7122.71	6804.45	6655.27	6516.09
Total AFC Allowed	14495.77	14114.57	13485.15	13101.18	12739.32

Filing Fee and Publication Expenses

135. The Petitioner has sought reimbursement of the fee paid by it for filing the Petition and publication expenses. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the present Petition,



directly from the beneficiaries on a pro rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax (GST)

137. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on 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. Furthermore, any additional taxes, if any, paid by the Petitioner on account of a demand from the government or statutory authorities may also be recovered from the beneficiaries.

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

Sharing of Transmission Charges

139. With respect to the sharing of the transmission charges in case of Asset-2 and Asset-3, the Commission vide order dated 24.7.2019 in Review Petition No. 8/RP/2017 and Review Petition No. 9/RP/2017 in Petition No. 312/TT/2014 had held as under:



“33. In view of above discussions, we hereby approve the COD of Assets-I and II as 7.8.2014 and 14.8.2014 respectively under proviso (ii) of Regulation 4(3) of 2014 Tariff Regulations as PKTCL has not been able to put the instant assets into commercial operation due to delay in completion of the Koldam Switchyard under the scope of NTPC. We further direct NTPC to pay full transmission charges to PKTCL from 7.8.2014 and 14.8.2014 for Assets-I and II respectively till the date of usage of Koldam-Ludhiana line i.e. 30.3.2015 and thereafter from 31.3.2015 it will be included in the POC. The impugned order is modified to that extent. Further, as we have approved the COD of Assets-I and II as 7.8.2014 and 14.8.2014 respectively, the cut-off date in case of these assets is 31.3.2017. Accordingly, PKTCL’s prayer to allow the cut-off of the instant assets as 31.3.2018, which was based on the tariff COD of 31.3.2015, has become infructuous.”

140. As per the above decision of the Commission, NTPC shall be liable to pay the transmission charges to PKTCL from 7.8.2014 to 14.8.2014 for Assets-2 and 3, respectively, till the date of usage of Koldam-Ludhiana line, i.e., 30.3.2015 and, thereafter, from 31.3.2015, it will be included in the PoC pool.

141. With respect to the sharing of transmission charges in the case of Asset-5, the Commission vide order dated 19.8.2019 in Review Petition Nos. 8/RP/2017, 10/RP/2017 along with I.A No. 16 of 2017 and 16/RP/2017 in Petition No. 384/TT/2014 had held as under:

“31. In view of above discussions, we hereby approve the COD of Ckt-II as 4.10.2014 under proviso (ii) of Regulation 4(3) of 2014 Tariff Regulations as PKTCL has not been able to put the instant asset into commercial operation due to delay in completion of the 400 kV bays in Koldam switchyard under the scope of NTPC. We further direct NTPC to pay full transmission charges to PKTCL from 4.10.2014 to 20.3.2015 (till the date of usage of Parbati-Koldam line) and thereafter it will be included in the POC. The impugned order is modified to that extent.”

142. As per the above decision of the Commission, NTPC shall be liable to pay transmission charges to PKTCL from 4.10.2014 to 20.3.2015 (till the date of usage of Parbati-Koldam line) and, thereafter, it will be included in the PoC pool.

143. With effect from 1.11.2020, the 2010 Sharing Regulations have been repealed and the sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of



transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection, and disbursement of transmission charges for the subsequent period shall be recovered in terms of the provisions of the 2020 Sharing Regulations as outlined in Regulation 57 of the 2019 Tariff Regulations.

144. To summarise:

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

Asset-1					(₹ in lakh)
AFC	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	270.19	269.58	252.80	230.04	222.30
Allowed	270.20	269.60	252.80	230.03	222.30

Asset-2					(₹ in lakh)
AFC	2014-15 (Pro-rata for 237 days)	2015-16	2016-17	2017-18	2018-19
Claimed	2838.52	4438.68	4161.32	3850.89	3777.18
Allowed	2826.36	4392.57	4109.77	3783.49	3690.64

Asset-3					(₹ in lakh)
AFC	2014-15 (Pro-rata for 230 days)	2015-16	2016-17	2017-18	2018-19
Claimed	2758.10	4449.06	4170.63	3859.11	3785.15
Allowed	2746.31	4402.93	4119.09	3791.70	3698.62

Asset-4					(₹ in lakh)
AFC	2014-15 (Pro-rata for 173 days)	2015-16	2016-17	2017-18	2018-19
Claimed	1651.12	3590.83	3395.08	3135.60	3050.92
Allowed	1638.92	3556.01	3353.81	3088.98	2997.38



Asset-5					(₹ in lakh)
AFC	2014-15 (Pro-rata for 179 days)	2015-16	2016-17	2017-18	2018-19
Claimed	1616.58	3393.16	3208.10	2962.95	2882.87
Allowed	1604.66	3360.32	3169.17	2918.98	2832.36

Asset-6					(₹ in lakh)
AFC	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19	
Claimed	356.19	852.33	808.70	791.86	
Allowed	353.13	843.89	799.16	780.70	

Asset-7					(₹ in lakh)
AFC	2015-16 (Pro-rata for 150 days)	2016-17	2017-18	2018-19	
Claimed	312.49	747.75	709.46	694.67	
Allowed	309.82	740.33	701.08	684.88	

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

(₹ in lakh)					
AFC	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed	14797.49	14414.72	13783.12	13430.10	13039.61
Allowed	14495.77	14114.57	13485.15	13101.18	12739.32

145. This order disposes of Petition No. 21/TT/2022 in terms of the above discussion and findings.

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

