

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 489/TT/2019

Coram:

Shri P. K. Pujari, Chairperson
Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member

Date of order : 05.05.2020

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and revision of transmission tariff for the 2004-09 tariff period, 2009-14 tariff period and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for LILO of Kolaghat–Renagli 400 kV S/C line at Baripada and establishment of new 400/220/132 kV Sub-station at Baripada in Eastern Region.

And in the matter of:

Power Grid Corporation of India Ltd.,
SAUDAMINI, Plot No-2,
Sector-29, Gurgaon-122 001 (Haryana).

.....Petitioner

Versus

1. Bihar State Power (Holding) Company Ltd.,
(Formerly Bihar State Electricity Board -BSEB),
Vidyut Bhavan, Bailey Road, Patna-800001.
2. West Bengal State Electricity Distribution Company Ltd.,
Bidyut Bhawan, Bidhan Nagar,
Block Dj, Sector-Ii, Salt Lakecity,
Calcutta-700091.
3. Grid Corporation of Orissa Ltd.,
Shahid Nagar, Bhubaneswar-751007.
4. Jharkhand State Electricity Board,
In Front Of Main Secretariat,



Order in Petition No. 489/TT/2019

Doranda, Ranchi-834002.

5. Damodar Valley Corporation,
Dvc Tower, Maniktala,
Civic Centre, Viproad, Calcutta-700054.

6. Power Department,
Government of Sikkim, Gangtok-737101.

...Respondent(s)

For Petitioner : Shri S. S. Raju, PGCIL
Shri B. Dash, PGCIL
Shri A. K.Verma, PGCIL
Shri Ved Rastogi, PGCIL

For Respondent : Ms. Rohini Prasad, Advocate, BSPHCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”) for revision of transmission tariff for the 2004-09 and 2009-14 tariff periods, and truing up of transmission tariff for the period from 1.4.2014 to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff under 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 LILO of Kolaghat-Renagli 400 kV S/C line at Baripada and establishment of new 400/220/132 kV Sub-station at Baripada (hereinafter referred to as “the transmission asset”) in Eastern Region.

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

“1) Approve the revised Transmission Tariff for 2004-09 block and transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.

2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per Para 9 and 10 above.



- 3) (a) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9 and 10 above for respective block.
- (b) It is further submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term transmission customers /DICs as the case may be, as and when materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allowed to recover the deferred tax liability materialized directly without making any application before the commission as provided in the regulation
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

3. The brief facts of the case are as under:
- a. The Investment Approval (IA) for the transmission asset was accorded by the Board of Directors of the Petitioner's company vide letter dated 5.12.2001 at an estimated cost of ₹6624.00 lakh, which included IDC of ₹544.00 lakh.



- b. The transmission asset was put into commercial operation on 1.7.2005 (COD), the tariff from COD to 31.3.2009 period was approved *vide* order dated 15.10.2007 in Petition No. 1/2007. The tariff from 1.4.2006 to 31.3.2009 was revised by the Commission *vide* order dated 19.3.2009 in Petition No. 142/2008 due to Additional Capital Expenditure (ACE) incurred during the period 2006-07 and 2007-08.
- c. The tariff for the 2009-14 tariff period was allowed *vide* order dated 15.2.2011 in Petition No. 186/2010 based on admitted capital cost of ₹5333.04 lakh for the transmission asset as on 31.3.2009 in accordance with the 2009 Tariff Regulations.
- d. The tariff for the 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined *vide* order dated 30.12.2015 in Petition No. 443/TT/2014.
- e. The Petitioner has sought revision of transmission tariff approved for the 2004-09 tariff period on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in Maintenance Spares in terms of the Appellate Tribunal for Electricity (hereinafter referred to as "the APTEL") judgment dated 22.1.2007 and 13.6.2007 in Appeal No. 81/2005 and 139/2006 respectively. The Petitioner has sought consequential revision of tariff allowed for the 2009-14 tariff period and truing up of tariff of the 2014-19 tariff period and determination of tariff for the 2019-24 tariff period for LILO of Kolaghat-Renagli 400 kV S/C line at Baripada and establishment of new 400/220/132 kV Sub-station at Baripada in the Eastern Region.
- f. The APTEL, *vide* judgements dated 22.1.2007 in Appeal No. 81/2005 and other related Appeals, and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC decided on, mainly, the following issues:-
- (a) Computation of IoL
 - (b) Consequences of refinancing of loan



- (c) Depreciation as deemed repayment
 - (d) Admissibility of depreciation up to 90% of the value of the assets
 - (e) Consideration of maintenance of spares for working capital
 - (f) Depreciation of assets.
- g. The Commission and certain beneficiaries filed Appeals against the APTEL's judgments before the Hon'ble Supreme Court in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon'ble Supreme Court.
- h. The Petitioner based on the APTEL's judgments dated 22.1.2007 and 13.6.2007, sought re-determination of tariff of its transmission assets for the tariff periods 2001-04 and 2004-09 in Petition No. 121/2007. The Commission after taking into consideration the pending Appeals before the Hon'ble Supreme Court adjourned sine die and directed to revive the same after the disposal of the Civil Appeals by the Hon'ble Supreme Court.
- i. The Hon'ble Supreme Court dismissed the said Civil Appeals filed against the APTEL's said judgments *vide* its judgment dated 10.4.2018.
- j. Consequent to the Hon'ble Supreme Court's judgment dated 10.4.2018 in NTPC matters, the Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission, *vide* order dated 18.1.2019 in Petition No. 121/2007, directed the petitioner to submit its claim separately for the assets at the time of filing of truing up of the petitions for the 2014-19 tariff period in respect of concerned transmission assets.
- k. The instant petition was heard on 3.3.2021 and in view of APTEL's judgments dated 22.1.2007 and 13.6.2007 and the judgement of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Although, period wise tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods, suitable assumptions at certain places, if any, are being applied which are being indicated.



I. The capital cost of ₹4747.22 lakh as on COD for the transmission asset was approved by the Commission *vide* its order dated 15.10.2007 in Petition No. 1/2007. Further, considering the subsequent ACE of ₹289.66 lakh, ₹190.70 lakh and ₹105.46 lakh in the year 2005-06, 2006-07 and 2007-08 respectively, the capital cost approved as on 31.3.2009 is ₹5333.04 lakh. Accordingly, tariff is being revised for the 2004-09 and 2009-14 tariff periods in terms of the APTEL's judgement dated 22.1.2007 and 13.6.2007.

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

5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Bihar State Power (Holding) Company Ltd. (BSPHCL), Respondent No. 1 has filed its reply *vide* affidavit dated 15.10.2020. BSPHCL has raised the issues of grossing up of RoE, calculation of IoL, cost of maintenance spares, deferred tax liability, CGST and filling fee and publication expenses. The Petitioner *vide* affidavit dated 26.10.2020, has filed rejoinder to the reply filed by BSPHCL. The issues raised by BSPHCL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. The hearing in this matter was held on 3.3.2021 and the Commission reserved the order in the matter.



7. This order is issued considering the submissions made by the Petitioner dated 30.8.2019, BSPHCL's reply *vide* dated 15.10.2020 and the Petitioner's affidavits *vide* dated 26.6.2020 and 26.10.2020.

8. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

9. The Petitioner has sought revision of the computation of the IoL, maintenance spares for working capital and IWC allowed for the 2004-09 period on the basis of the judgements of the APTEL dated 22.1.2007 in Appeal No. 81 of 2005 and 13.6.2007 in Appeal No.139/2006. The APTEL while dealing with the issue of computation of IoL, in judgement dated 22.1.2007, observed that IoL for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgement dated 14.11.2006 in Appeal Nos.94 and 96 of 2005. APTEL in its judgement dated 14.11.2006 set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment, whichever is higher. The relevant portions of the judgement of 14.11.2006 are as under:-

"12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.

13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt-equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.

14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon."



“18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004

19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001.”

10. In view of the above, the interest allowed for the 2004-09 period is revised on the basis of the normative debt repayment methodology.

11. The APTEL in judgement dated 13.6.2007 in Appeal No.139 of 2006 and others held that Additional Capital Expenditure (ACE) after the date of commercial operation should also be considered for computation of maintenance spares as under:-

“Analysis and Decision

We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example it is common to build redundancies in the plant at a little later stage. CERC's own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below:-

“Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

(i) Deferred liabilities

(ii) Works deferred for execution

(iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17.

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) On account of change in law.

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station.”



It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure. Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from 'book value' or 'the replacement cost'. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations."

12. In view of the above, the maintenance spares to be considered for computation of working capital for the 2004-09 period are also required to be revised taking into consideration the ACE after the date of commercial operation.

13. As regard to depreciation, APTEL in its judgement dated 13.6.2007 in Appeal No. 139 of 2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. The relevant portion of the judgement is as under:-

"Analysis and Decision

In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.

It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-

"The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation"

It is well established that the depreciation is an expense and therefore, it cannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall



need to make a fresh computation of outstanding loan in the light of the aforesaid observations.”

14. Accordingly, in view of the above directions of APTEL, the normative loan repayment for the transmission asset for the 2004-09 period is revised in the instant order.

15. The revision of tariff allowed for the 2004-09 tariff period necessitates the revision of tariff allowed for the 2009-14 period, which is also allowed in the instant order. The implementation of the directions of the APTEL in case of the Petitioner has been kept pending waiting for the outcome of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner will neither claim nor pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that allowed in the instant order. Further, the said difference in tariff shall be recovered / paid over a period of six months from the date of issue of this order.

REVISION OF TRANSMISSION CHARGES ALLOWED FOR THE 2004-09 AND 2009-14 TARIFF PERIODS

2004-09 Period

16. The Commission in order dated 15.10.2007 in Petition No. 1/2007 and order dated 19.3.2009 in Petition No. 142/2008 had approved the following transmission charges for transmission asset for the 2004-09 period:



(₹ in lakh)

Particulars	2005-06 (Pro-rata for 9 months)	2006-07	2007-08	2008-09
Depreciation	113.52	158.03	162.25	163.74
Interest on Loan	182.06	247.28	245.12	233.66
Return on Equity	151.27	211.78	218.00	220.22
Interest on Working Capital	16.23	22.48	23.20	25.40
O&M Expenses	182.14	252.58	262.60	273.17
Advance against Depreciation	0.00	0.00	0.00	99.71
Total	645.21	892.16	911.17	1015.90

17. The Petitioner has claimed the following revised transmission charges for the transmission asset for the 2004-09 period in the instant petition:

(₹ in lakh)

Particulars	2005-06 (Pro-rata for 9 months)	2006-07	2007-08	2008-09
Depreciation	113.52	158.03	162.25	163.74
Interest on Loan	185.08	238.27	262.37	250.66
Return on Equity	151.27	211.78	218.00	220.22
Interest on Working Capital	16.39	22.82	24.18	24.75
O&M Expenses	182.14	252.58	262.60	273.17
Advance against Depreciation	-	-	-	-
Total	648.40	883.48	929.40	932.53

18. We have considered the submissions of the Petitioner. The tariff is allowed for the transmission asset on the basis of the following:

- a) Admitted capital cost of ₹4747.22 lakh and ₹5333.04 lakh as on 1.7.2005 and as on 31.3.2009 for the transmission asset.
- b) Weighted Average Rate of Interest on actual loan adopted from order dated 15.10.2007 in Petition No. 1/2007 and order dated 19.3.2009 in Petition No. 142/2008.
- c) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 15.10.2007 in Petition No. 1/2007 and order dated 19.3.2009 in Petition No. 142/2008.



19. Further, ACE of ₹289.66 lakh, ₹190.70 lakh and ₹105.46 lakh in the year 2005-06, 2006-07 and 2007-08 respectively have been approved by the Commission *vide* order dated 15.10.2007 in Petition No. 1/2007 and order dated 19.3.2009 in Petition No. 142/2008.

20. In view of the above, the revised transmission charges allowed for the transmission asset for the 2004-09 tariff period is as under:

Particulars	(₹ in lakh)			
	2005-06 (Pro-rata for 9 months)	2006-07	2007-08	2008-09
Depreciation	113.52	158.03	162.25	163.74
Interest on Loan	185.08	259.77	262.46	250.66
Return on Equity	151.27	211.78	218.00	220.22
Interest on Working Capital	16.39	23.12	24.10	24.66
O&M Expenses	182.14	252.58	262.60	273.17
Advance against Depreciation	0.00	0.00	0.00	0.00
Total	648.40	905.29	929.41	932.44

21. The AFC allowed earlier for 2004-09 period *vide* order dated 15.10.2007 in Petition No. 1/2007 and 19.3.2009 in Petition No. 142/2008, the revised AFC claimed in the instant petition and AFC allowed in the instant order is given below:-

Particulars	(₹ in lakh)			
	2005-06 (Pro-rata for 9 months)	2006-07	2007-08	2008-09
AFC approved <i>vide</i> order dated 15.10.2007 in Petition No. 1/2007 and 19.3.2009 in Petition No. 142/2008	645.21	892.16	911.17	1,015.90
Claimed by the Petitioner in the instant petition	648.40	883.48	929.40	932.54
Allowed after true-up in the instant order	648.40	905.29	929.41	932.44

2009-14 Tariff Period

22. The Commission *vide* order dated 15.2.2011 in Petition No. 186/2010 had approved the tariff for the transmission assets for the 2009-14 tariff period and in order dated 30.12.2015 in Petition No. 443/TT/2014 had true up the tariff allowed for the



2009-14 tariff period that was earlier allowed in order dated 15.2.2011 and the same is as under:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	263.28	263.28	263.28	263.28	263.28
Interest on Loan	214.81	195.86	176.75	157.56	138.39
Return on Equity	293.74	304.50	304.79	304.79	308.46
Interest on Working Capital	32.14	32.89	33.47	34.09	34.85
O&M Expenses	320.91	339.29	358.69	379.21	400.89
Total	1124.88	1135.82	1136.98	1138.94	1145.87

23. The Petitioner has claimed the following revised transmission charges for the transmission asset for the 2009-14 period in this petition:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	263.28	263.28	263.28	263.28	263.28
Interest on Loan	231.28	212.36	193.27	174.10	154.95
Return on Equity	293.74	304.50	304.79	304.79	308.46
Interest on Working Capital	32.48	33.23	33.81	34.44	35.20
O&M Expenses	320.91	339.29	358.69	379.21	400.89
Total	1141.70	1152.66	1153.84	1155.82	1162.78

24. We have considered the submissions of the Petitioner. The tariff is allowed for the transmission asset on the basis of the following:

- a) Admitted capital cost of ₹5333.04 lakh as on 1.4.2009.
- b) Weighted Average Rate of Interest on actual loan derived/ adopted from order dated 30.12.2015 in Petition No. 443/TT/2014.
- c) Weighted Average Rate of Depreciation as per order dated 30.12.2015 in Petition No. 443/TT/2014.

25. In view of the above, the revised transmission charges allowed for the transmission asset for the 2009-14 tariff period is as under:



(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	263.28	263.28	263.28	263.28	263.28
Interest on Loan	231.28	212.36	193.28	174.10	154.95
Return on Equity	293.74	304.50	304.79	304.79	308.46
Interest on Working Capital	32.48	33.23	33.81	34.44	35.20
O&M Expenses	320.91	339.29	358.69	379.21	400.89
Total	1141.69	1152.66	1153.85	1155.83	1162.78

26. The AFC allowed earlier for 2009-14 period *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, the revised AFC claimed in the instant petition and AFC allowed in the instant order are shown as under:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
AFC approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	1124.88	1135.82	1136.98	1138.94	1145.87
Claimed by the Petitioner in the instant petition	1141.70	1152.66	1153.84	1155.82	1162.78
Allowed after true-up in the instant order	1141.69	1152.66	1153.85	1155.83	1162.78

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

27. The details of the transmission charges claimed by the Petitioner in respect of the transmission asset is as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	263.29	263.29	263.29	263.29	103.22
Interest on Loan	135.83	116.79	97.90	79.57	69.97
Return on Equity	308.70	310.11	309.95	309.95	310.79
Interest on Working Capital	36.68	36.95	37.21	37.51	34.37
O&M Expenses	369.02	381.27	393.92	407.00	420.52
Total	1113.52	1108.41	1102.27	1097.32	938.87

28. The details of the IWC claimed by the Petitioner in respect of the transmission asset are as follows:



(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses for 1 month)	30.75	31.77	32.83	33.92	35.04
Maintenance Spares (15% of O&M Expenses)	55.35	57.19	59.09	61.05	63.08
Receivables (Equivalent to 2 months of annual transmission charges)	185.59	184.74	183.71	182.89	156.48
Total Working Capital	271.69	273.70	275.63	277.86	254.60
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	36.68	36.95	37.21	37.51	34.37

Capital Cost

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

30. The Commission *vide* order dated 30.12.2015 in Petition No. 443/TT/2014 had allowed capital cost as on 1.4.2014 of ₹5333.04 lakh and capital cost as on 1.4.2019 of ₹5436.44 lakh since the Petitioner had projected ACE of ₹103.40 lakh on account of balance/retention payment for contract closing of sub-station package. The capital cost allowed for determination of tariff for the 2014-19 tariff period in order dated 30.12.2015 in Petition No. 443/TT/2014 for the transmission asset covered under instant petition as shown under:

(₹ in lakh)		
Admitted Capital Cost as on 31.3.2014	Admitted ACE during 2014-19	Admitted Capital Cost as on 31.3.2019
5333.04	103.40	5436.44

Additional Capital Expenditure (ACE)

31. The Commission had allowed ACE of ₹103.40 lakh on account of balance/retention payment for contract closing of sub-station package for the transmission asset in 2014-19 *vide* order dated 30.12.2015 in Petition No. 443/TT/2014. However, the Petitioner has not claimed any ACE in the instant petition.

32. We have considered the submissions made by the Petitioner. The details of the approved capital cost in the instant order are as under:



(₹ in lakh)		
Capital Cost as on 31.3.2014	ACE 2014-19	Approved Capital Cost as on 31.3.2019
5333.04	0.00	5333.04

Debt-Equity ratio

33. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt:equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the debt-equity ratio of 70.51:29.49 for the period ending on 31.3.2014, considered for the purpose of determination of tariff of the 2014-19 tariff period has been considered for the purpose of truing up of the tariff of the transmission asset for the 2014-19 tariff period. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 for the transmission asset is as under:

Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	3760.07	70.51%	3760.07	70.51%
Equity	1572.97	29.49%	1572.97	29.49%
Total	5333.04	100.00%	5333.04	100.00%

Depreciation

34. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average of depreciation (WAROD) during the year 2014-15 to 2017-18. The transmission asset has completed 12 years of life as on 31.3.2018, the remaining depreciable value of ₹1651.42 lakh as on 31.3.2018 has been spread across the balance useful life of 16 years in accordance with Regulation 27(5) of the 2014 Tariff Regulations. The annual depreciation from 2018-19 onwards is ₹103.21 lakh. The WAROD (placed at Annexure-1) has been worked out after taking into account the



depreciation rates of assets as prescribed in the 2014 Tariff Regulations and trued up depreciation allowed is as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	5333.04	5333.04	5333.04	5333.04	5333.04
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	5333.04	5333.04	5333.04	5333.04	5333.04
Average Gross Block	5333.04	5333.04	5333.04	5333.04	5333.04
Freehold Land	201.38	201.38	201.38	201.38	201.38
Weighted Average Rate of Depreciation (%)	4.94	4.94	4.94	4.94	Spreading
Aggregate Depreciable Value	4618.49	4618.49	4618.49	4618.49	4618.49
Balance useful life of the asset (Year)	20	19	18	17	16
Elapsed life (Year)	8	9	10	11	12
Depreciation during the year	263.28	263.28	263.28	263.28	103.21
Cumulative depreciation	2177.23	2440.51	2703.79	2967.07	3070.29
Remaining Depreciable Value	2441.27	2177.98	1914.70	1651.42	1548.21

35. The details of depreciation approved *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, depreciation claimed by the Petitioner and trued up in the instant order are shown in the table below:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	266.01	268.74	268.74	268.74	101.60
Claimed by the Petitioner in the instant petition	263.29	263.29	263.29	263.29	103.22
Allowed after true-up in this order	263.28	263.28	263.28	263.28	103.21

Interest on Loan (IoL)

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

37. The submission of the Petitioner has been considered. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner, in



accordance with Regulation 26 of the 2014 Tariff Regulations. The trued up IoL allowed in respect of the transmission asset is as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	3760.07	3760.07	3760.07	3760.07	3760.07
Cumulative Repayments up to Previous Year	1788.93	2052.21	2315.49	2578.77	2842.06
Net Loan-Opening	1971.15	1707.86	1444.58	1181.30	918.02
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	263.28	263.28	263.28	263.28	103.21
Net Loan-Closing	1707.86	1444.58	1181.30	918.02	814.80
Average Loan	1839.51	1576.22	1312.94	1049.66	866.41
Weighted Average Rate of Interest on Loan (%)	7.3843	7.4094	7.4568	7.5809	8.0758
Interest on Loan	135.83	116.79	97.90	79.57	69.97

38. The details of IoL approved *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, IoL claimed by the Petitioner and trued up in the instant order are shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	121.81	105.10	85.73	66.78	56.18
Claimed by the Petitioner in the instant petition	135.83	116.79	97.90	79.57	69.97
Allowed after true-up in this order	135.83	116.79	97.90	79.57	69.97

Return on Equity (RoE)

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

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



Year	Claimed effective tax rate (in %)	Grossed up RoE [Base Rate/(1-t)] (in %)
2017-18	21.337	19.704
2018-19	21.549	19.758

40. BSPHCL, vide affidavit dated 15.10.2020, has submitted that as provided in Regulation 25(3) of the 2014 Regulations, penalty, if any arising on account of delay in deposit or short deposit of tax amount cannot be permitted to be claimed and the actual tax paid has to be duly adjusted for any refund of tax including interest received from the income tax authorities. The Petitioner vide affidavit dated 26.10.2020, has filed rejoinder to the reply filed by BSPHCL that the Commission has already determined the effective tax percentage to arrive at grossed-up Return on Equity (RoE).

41. We have considered the submissions of the Petitioner and BSPHCL. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the table below. The relevant portion of the order dated 27.4.2020 is as under:

“26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. 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 transmission customers / DICs as the case may be on year to year basis.

27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:



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

42. The same MAT rates as above are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations which is as under:

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

43. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 15.50% with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. The RoE is trued up on the basis of the MAT rate applicable in the respective years and is allowed for the transmission asset as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1572.97	1572.97	1572.97	1572.97	1572.97
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1572.97	1572.97	1572.97	1572.97	1572.97
Average Equity	1572.97	1572.97	1572.97	1572.97	1572.97
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
Return on Equity	308.46	309.95	309.95	309.95	310.79



44. The details of RoE approved *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, RoE claimed by the Petitioner and trued up in the instant order are shown in the table below:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	311.50	314.54	314.54	314.54	314.54
Claimed by the Petitioner in the instant petition	308.70	310.11	309.95	309.95	310.79
Allowed after true-up in this order	308.46	309.95	309.95	309.95	310.79

Operation & Maintenance Expenses (O&M Expenses)

45. The total O&M Expenses claimed by the Petitioner for the transmission asset are as under:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission line LILO of Kolaghat Rengali at Baripada 400 kV D/C line					
D/C Bundled (Twin and triple conductors) (km)	18.744	18.744	18.744	18.744	18.744
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Sub-station Bays 400 kV (Conventional)					
Baripada Kolaghat Bay	1 Number				
Baripada Rengali Bay	1 Number				
Baripada ICT I Bay	1 Number				
Norms (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71
Sub-station Bays 220 kV (Conventional)					
Baripada ICT II (220/132) Bay	1 Number				
Baripada ICT I Bay	1 Number				
Norms (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.1
Sub-station Bays 132 KV (Conventional)					
Baripada ICT II (220/132) Bay	1 Number				
Baripada-Baripada Bay	1 Number				
Baripada-Rairangur Bay	1 Number				
Norms (₹ lakh/bay)	30.15	31.15	32.18	33.25	34.36
Total O&M expenses (₹ in lakh)	369.02	381.27	393.92	407.00	420.52



46. We have considered the Form-2 submitted along with the TV reply dated 26.6.2020 by the Petitioner. The O&M Expenses are allowed for the transmission asset as per the norms specified in the 2014 Tariff Regulations and are as under:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission line 400 kV D/C line					
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Sub-station Bays 400 kV (Conventional)					
Norms (₹ lakh/bays)	60.30	62.30	64.37	66.51	68.71
Sub-station Bays 220 kV (Conventional)					
Norms (₹ lakh/bays)	42.21	43.61	45.06	46.55	48.1
Sub-station Bays 132 KV (Conventional)					
Norms (₹ lakh/bays)	30.15	31.15	32.18	33.25	34.36

47. The Commission has considered the submissions made by the Petitioner. The O&M Expenses are allowed as per the norms specified in Regulation 29(3) of the 2014 Tariff Regulations and are as under:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission line LILO of Kolaghat Rengali at Baripada 400 kV D/C line					
D/C Bundled (Twin and triple conductors) (km)	18.744	18.744	18.744	18.744	18.744
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Sub-station Bays 400 kV (Conventional)					
Baripada Kolaghat Bay	1 Number				
Baripada Rengali Bay	1 Number				
Baripada ICT I Bay	1 Number				
Norms (₹ lakh/bays)	60.30	62.30	64.37	66.51	68.71
Sub-station Bays 220 kV (Conventional)					
Baripada ICT II (220/132) Bay	1 Number				
Baripada ICT I Bay	1 Number				
Norms (₹ lakh/bays)	42.21	43.61	45.06	46.55	48.1
Sub-station Bays 132 KV (Conventional)					
Baripada ICT II (220/132)	1 Number				



Bay					
Baripada-Baripada Bay	1 Number				
Baripada-Rairangur Bay	1 Number				
Norms (₹ lakh/bays)	30.15	31.15	32.18	33.25	34.36
Total O&M expenses (₹ in lakh)	369.02	381.27	393.92	407.00	420.52

48. The details of the O&M Expenses approved *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, claimed by the Petitioner and trued up in the instant order is shown in the table as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	369.02	381.27	393.92	407.00	420.52
Claimed by the Petitioner in the instant petition	369.02	381.27	393.92	407.00	420.52
Allowed after true-up in this order	369.02	381.27	393.92	407.00	420.52

Interest on Working Capital (IWC)

49. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed for the transmission asset as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses (O&M Expenses for 1 month)*	30.75	31.77	32.83	33.92	35.04
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)*	55.35	57.19	59.09	61.05	63.08
Receivables (Receivables equivalent to 2 months of fixed cost)*	185.55	184.71	183.71	182.89	156.48
Total Working Capital	271.65	273.67	275.63	277.85	254.60
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	36.67	36.95	37.21	37.51	34.37

*As per the 2014 Tariff Regulations

50. The details of IWC approved *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, IWC claimed by the Petitioner and trued up in the instant order are shown in the table below:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	36.48	36.91	37.16	37.45	34.10
Claimed by the Petitioner in the instant petition	36.68	36.95	37.21	37.51	34.37
Allowed after true-up in this order	36.67	36.95	37.21	37.51	34.37

Approved Annual Fixed Charges for the 2014-19 Tariff Period

51. The trued up Annual Fixed Charges for the transmission asset for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	263.28	263.28	263.28	263.28	103.21
Interest on Loan	135.83	116.79	97.90	79.57	69.97
Return on Equity	308.46	309.95	309.95	309.95	310.79
Interest on Working Capital	36.67	36.95	37.21	37.51	34.37
O&M Expenses	369.02	381.27	393.92	407.00	420.52
Total	1113.27	1108.24	1102.27	1097.32	938.86

52. Accordingly, the Annual Transmission Charges as approved *vide* order dated 30.12.2015 in Petition No. 443/TT/2014, claimed by the Petitioner and approved after truing up in the instant order is shown as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 30.12.2015 in Petition No. 443/TT/2014	1104.43	1106.57	1100.09	1094.51	926.94
Claimed by the Petitioner in the instant petition	1113.52	1108.41	1102.27	1097.32	938.87
Allowed after true-up in this order	1113.27	1108.24	1102.27	1097.32	938.86

53. The Annual Transmission Charges for the transmission asset approved after truing up have increased in comparison to that approved earlier *vide* order dated 30.12.2015 in Petition No. 443/TT/2014 mainly due to consequential impact of IOL revision based on APTEL judgement dated 22.1.2007 and 13.6.2007 and variation in ACE.



DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

54. The Petitioner has claimed the following transmission charges for the 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	103.22	103.22	103.22	103.22	103.22
Interest on Loan	68.95	60.27	51.79	42.95	33.17
Return on Equity	310.79	310.79	310.79	310.79	310.79
Interest on Working Capital	22.98	23.45	23.89	24.35	24.76
O&M Expenses	360.74	373.51	386.56	400.14	413.88
Total	866.68	871.24	876.25	881.45	885.81

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

Particular	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses for 1 month)	30.06	31.13	32.21	33.35	34.49
Maintenance Spares (15% of O&M Expenses)	54.11	56.03	57.98	60.02	62.08
Receivables (Equivalent to 45 days of annual transmission charges)	106.56	107.41	108.03	108.67	108.91
Total Working Capital	190.73	194.57	198.22	202.04	205.48
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest of Working Capital	22.98	23.45	23.89	24.35	24.76

Capital Cost

56. Regulation 19 of the 2019 Tariff Regulations provides as under:

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*



- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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



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

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

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

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be 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 assets.

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

57. The Petitioner has claimed the capital cost of ₹5333.04 lakh as on 31.3.2019 for the transmission asset. The same has been worked out by the Commission as on 31.3.2019 and considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

58. The Petitioner has not projected any ACE during the 2019-24 tariff period for the transmission asset.

59. Accordingly, the capital cost considered for the 2019-24 tariff period is as under:

(₹ in lakh)		
Total Capital Cost as on 1.4.2019	ACE admitted for 2019-24	Total Capital Cost as on 31.3.2024
5333.04	0.00	5333.04



Debt-Equity ratio

60. Regulation 18 of the 2019 Tariff Regulations provides as under:

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

Provided that:

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

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

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

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

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

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

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



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

61. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as under:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	3760.07	70.51%	3760.07	70.51%
Equity	1572.97	29.49%	1572.97	29.49%
Total	5333.04	100.00%	5333.04	100.00%

Depreciation

62. Regulations 33(1), 33(2) and 33(5) of the 2019 Tariff Regulations provide as under:

"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 there of 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”

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

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial



operation of the station shall be spread over the balance useful life of the assets.”

63. As the transmission asset has completed 12 years of useful life as on 31.3.2018, the remaining depreciable value is spread over the balance useful life of the asset in the 2019-24 period as prescribed in Regulation 33(5) of the 2019 Tariff Regulations. The transmission asset has completed 12 years of life as on 31.3.2018, the remaining depreciable value of ₹1651.42 lakh as on 31.3.2018 has been spread across the balance useful life of 16 years from 2018-19 in accordance with Regulation 27(5) of the 2014 Tariff Regulations. The same depreciation amount has been carried forward for the 2019-24 tariff period in accordance with Regulation 33(5) of the 2019 Tariff Regulations. Therefore, the annual depreciation for the tariff period 2019-24 is ₹103.21 lakh. The depreciation allowed for the transmission asset for the 2019-24 tariff period is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	5333.04	5333.04	5333.04	5333.04	5333.04
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	5333.04	5333.04	5333.04	5333.04	5333.04
Average Gross Block	5333.04	5333.04	5333.04	5333.04	5333.04
Freehold Land	201.38	201.38	201.38	201.38	201.38
Weighted Average Rate of Depreciation (%)	Spreading				
Aggregate Depreciable Value	4618.49	4618.49	4618.49	4618.49	4618.49
Balance useful life of the asset (Year)	15	14	13	12	11
Elapsed life (Year)	13	14	15	16	17
Depreciation during the year	103.21	103.21	103.21	103.21	103.21
Cumulative depreciation	3173.50	3276.72	3379.93	3483.14	3586.36
Remaining Depreciable Value	1444.99	1341.78	1238.56	1135.35	1032.14

Interest on Loan (IoL)

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

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

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

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

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

(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.”*

65. BSPHCL has submitted that the 2019 Regulations do not permit any adjustment in the claim over the tariff block of 5 years directly from/ with the beneficiaries due to applicable floating rate of interest. The Petitioner *vide* affidavit dated 26.10.2020, has submitted that for 2019-24 tariff period, IoL has been calculated on the basis of prevailing rate of interest as on 1.4.2019 for respective loans and any change in interest rate due to floating rate of interest, needs to be claimed/ adjusted over the tariff blok of 5 years directly from/ with the beneficiaries.



66. We have considered the submissions of the Petitioner and BSPHCL. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL approved for the transmission asset for the 2019-24 tariff period are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	3760.07	3760.07	3760.07	3760.07	3760.07
Cumulative Repayments up to Previous Year	2945.27	3048.48	3151.70	3254.91	3358.12
Net Loan-Opening	814.80	711.59	608.38	505.16	401.95
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	103.21	103.21	103.21	103.21	103.21
Net Loan-Closing	711.59	608.38	505.16	401.95	298.74
Average Loan	763.20	659.98	556.77	453.56	350.34
Weighted Average Rate of Interest on Loan (%)	9.0341	9.1320	9.3022	9.4690	9.4690
Interest on Loan	68.95	60.27	51.79	42.95	33.17

Return on Equity (RoE)

67. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as under:

“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.”

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

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

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

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

Illustration-



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

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

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

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

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

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

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

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1572.97	1572.97	1572.97	1572.97	1572.97
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	1572.97	1572.97	1572.97	1572.97	1572.97
Average Equity	1572.97	1572.97	1572.97	1572.97	1572.97
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	295.43	295.43	295.43	295.43	295.43



Operation & Maintenance Expenses (O&M Expenses)

69. The O&M Expenses claimed by the Petitioner for the various elements included in the transmission asset for the 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line LILO of Kolaghat Rengali at Baripada 400 kV D/C line					
D/C Bundled (Twin and triple conductors) (km)	18.744	18.744	18.744	18.744	18.744
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Sub-station Bays 400 kV (Conventional)					
Baripada Kolaghat Bay	1 Number				
Baripada Rengali Bay	1 Number				
Baripada ICT I Bay	1 Number				
Norms (₹ lakh/bays)	32.15	33.28	34.45	35.66	36.91
Sub-station Bays 220 kV (Conventional)					
Baripada ICT II (220/132) Bay	1 Number				
Baripada ICT I Bay	1 Number				
Norms (₹ lakh/bays)	22.51	23.3	24.12	24.96	25.84
Sub-station Bays 132 KV (Conventional)					
Baripada ICT II (220/132) Bay	1 Number				
Baripada-Baripada Bay	1 Number				
Baripada-Rairangur Bay	1 Number				
Norms (₹ lakh/bays)	16.08	16.64	17.23	17.83	18.46
400 kV Sub-station ICT					
Baripada-ICT I Bay 400 kV	315 MVA				
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
Baripada-ICT II Bay 220 kV	160 MVA				
Norms (₹ lakh/MVA)	0.245	0.254	0.263	0.272	0.282
O&M Expenses claimed for PLCC (2% of ₹ 127.49 lakh)	2.55	2.55	2.55	2.55	2.55
Total O&M Expenses (₹ in lakh)	360.74	373.51	386.56	400.14	413.88

70. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provides that:

“35 Operation and Maintenance Expenses

...



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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913



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

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

Provided further that:

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

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

(c) The Security Expenses and Capital Spares for transmission system shall be allowed



separately after prudence check:

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

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

71. We have considered the submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission in order dated 24.1.2021 in Petition No. 126/TT/2020 has already held that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No. 126/TT/2020 are extracted hereunder:

“103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.”

“105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner's prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.



106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”

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

72. The O&M Expenses have been worked out as per the as per the norms specified in the 2019 Tariff Regulations and the same are as under:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line LILO of Kolaghat Rengali at Baripada 400 kV D/C line					
D/C Bundled (Twin and triple conductors) (km)	18.744	18.744	18.744	18.744	18.744
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Sub-station Bays 400 kV (Conventional)					
Baripada Kolaghat Bay	1 No.				
Baripada Rengali Bay	1 No.				
Baripada ICT I Bay	1 No.				
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
Sub-station Bays 220 kV (Conventional)					
Baripada ICT II (220/132) Bay	1 No.				
Baripada ICT I Bay	1 No.				
Norms (₹ lakh/bay)	22.51	23.3	24.12	24.96	25.84
Sub-station Bays 132 KV (Conventional)					
Baripada ICT II (220/132) Bay	1 No.				
Baripada-Baripada Bay	1 No.				
Baripada-Rairangur Bay	1 No.				
Norms (₹ lakh/bay)	16.08	16.64	17.23	17.83	18.46
400 kV Sub-station ICT					
Baripada-ICT I Bay 400 kV	315 MVA				



Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
Baripada-ICT II Bay 220 kV	160 MVA				
Norms (₹ lakh/MVA)	0.245	0.254	0.263	0.272	0.282
Total O&M expenses (₹ in lakh)	358.19	370.96	384.01	397.59	411.33

Interest on Working Capital (IWC)

73. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 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;”

74. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The ROI considered is 12.05% (SBI 1-



year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed is as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses (O&M Expenses including security expenses for 1 month)*	29.85	30.91	32.00	33.13	34.28
Maintenance Spares (Maintenance Spares @15% of O&M Expenses including security expenses)*	53.73	55.64	57.60	59.64	61.70
Receivables (Receivables equivalent to 45 days of annual fixed cost)*	104.32	104.97	105.59	106.22	106.47
Total Working Capital	187.89	191.53	195.19	198.99	202.44
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest on Working Capital	22.64	21.55	21.96	22.39	22.77

* As per the 2019 Tariff Regulations

Annual Fixed Charges of the 2019-24 Tariff Period

75. The transmission charges allowed for the transmission asset for the 2019-24 tariff period are summarised as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	103.21	103.21	103.21	103.21	103.21
Interest on Loan	68.95	60.27	51.79	42.95	33.17
Return on Equity	295.43	295.43	295.43	295.43	295.43
Interest on Working Capital	22.64	21.55	21.96	22.39	22.77
O & M Expenses	358.19	370.96	384.01	397.59	411.33
Total	848.43	851.42	856.41	861.57	865.92

Filing Fee and Publication Expenses

76. BSPHCL has submitted that grant of filing fee and expenses incurred is in the discretion of the Commission and need not necessarily be allowed in all cases. In response, the Petitioner has submitted that Commission has allowed the recovery of petition filing fee and publication of notices from the beneficiaries on pro-rata basis in



the order dated 28.3.2016 in Petition No. 137/TT/2015 for determination of tariff for 2014-19 period.

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

License Fee and Publication Expenses

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

Goods and Services Tax

79. BSPHCL has submitted that the Regulation 56 of the 2019 Regulations does not permit any recovery of the statutory charges by transmission companies. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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



Security Expenses

81. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

82. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Capital Spares

83. The Petitioner has sought reimbursement of capital spares at the end of tariff period. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.



Sharing of Transmission Charges

84. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

85. To summarise:

(a) The revised Annual Fixed Charges allowed for the transmission asset for the 2004-09 tariff period are as under:

(₹ in lakh)

Particulars	2005-06 (Pro-rata for 9 months)	2006-07	2007-08	2008-09
Annual Fixed Charges	648.40	905.29	929.41	932.44

(b) The consequential revision of Annual Fixed Charges allowed for the transmission asset for the 2009-14 tariff period are as under:

(₹ in lakh)

Particulars	2009-10	2010-11	2012-13	2013-14	2014-15
Annual Fixed Charges	1141.69	1152.66	1153.85	1155.83	1162.78

(c) The trued-up Annual Fixed Charges allowed for the transmission asset for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	1113.27	1108.24	1102.27	1097.32	938.86

(d) The Annual Fixed Charges allowed for the transmission asset for the 2019-24 tariff period in this order are as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	848.43	851.42	856.41	861.57	865.92

86. The Annexure given hereinafter forms part of the order.

87. This order disposes of Petition No. 489/TT/2019.

sd/-
(Pravas Kumar Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-1

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
				2014-15	2015-16	2016-17	2017-18
Land - Freehold	201.38	201.38	-	-	-	-	-
Land - Leasehold	-	-	3.34%	-	-	-	-
Building Civil Works & Colony	464.31	464.31	3.34%	15.51	15.51	15.51	15.51
Transmission Line	1524.59	1524.59	5.28%	80.50	80.50	80.50	80.50
Sub Station	3015.27	3015.27	5.28%	159.21	159.21	159.21	159.21
PLCC	127.49	127.49	6.33%	8.07	8.07	8.07	8.07
IT Equipment (Incl. Software)	-	-	5.28%	-	-	-	-
Total	5333.04	5333.04		263.28	263.28	263.28	263.28
Average Gross Block (₹ in lakh)				5333.04	5333.04	5333.04	5333.04
Weighted Average Rate of Depreciation				4.94%	4.94%	4.94%	4.94%

The instant asset has completed 12 years of life as on 31.3.2018, the remaining depreciable value of ₹1651.42 lakh as on 31.3.2018 has been spread across the balance useful life of 16 years in accordance with Regulation 27(5) of the 2014 Tariff Regulations. The annual depreciation from 2018-19 onwards is ₹103.21 lakh.

