

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 21/TT/2020

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member**

Date of Order: 27.01.2021

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 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 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 1x1500 MVA, 765/400 kV ICT at Vindhyachal Pooling Station along with associated bays, under "Transmission System associated with Vindhyachal-V (500 MW) Project of NTPC (Part-A)" in the Western 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. Madhya Pradesh Power Management Company Ltd.,
Shakti Bhawan, Rampur,
Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Ltd.,
Shakti Bhawan, Rampur,
Jabalpur-482008.
3. Madhya Pradesh Audyogik Kendra,
Vikas Nigam (Indore) Ltd.,
3/54, Press Complex, Agra-Bombay Road,
Indore-452008.



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4. Maharashtra State Electricity Distribution Co. Ltd.,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort,
Mumbai-400001.
5. Maharashtra State Electricity Transmission Co. Ltd.,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East)
Mumbai-400051.
6. Gujarat Urja Vikas Nigam Ltd.,
Sardar Patel Vidyut Bhawan,
Racecourse Road,
Vadodara-390007.
7. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel,
Goa-403001.
8. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
9. DNH Power Distribution Corporation Ltd.,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,
Silvassa-396230.
10. Chhattisgarh State Power Transmission Co. Ltd.,
State Load Despatch Building,
Dangania, Raipur-492013.
11. Chhattisgarh State Power Distribution Co. Ltd.,
P.O. Sunder Nagar, Dangania, Raipur,
Chhattisgarh-492013.
12. NTPC,
NTPC Bhawan,
Core-7, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003.

...Respondents



For Petitioner: Shri S.S. Raju, PGCIL
Shri A.K. Verma, PGCIL
Shri B. Dash, PGCIL
Shri Abhay Choudhary, PGCIL

For Respondents: None.

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for truing up of tariff from COD 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 for the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of 1x1500 MVA, 765/400 kV ICT at Vindhyachal Pooling Station along with associated bays (hereinafter referred to as “ the transmission asset”), under “Transmission System associated with Vindhyachal-V (500 MW) Project of NTPC (Part-A)” in Western Region (hereinafter referred to as “the transmission project”).

2. The Petitioner has made the following prayers:

- “1) Allow the addcap for 2014-19 and 2019-24 tariff block as claimed as per Para 5 and 7 above.
- 2) Approve the trued-up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 6 and 7 above.
- 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before Hon’ble Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 6 and 7 above for respective block.



- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.
- 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 6.6 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 beneficiaries, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

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

a. The Investment Approval (IA) for the said transmission project was accorded by the Board of Directors of the Petitioner Company *vide* Memorandum No. C/CP/IA/IRSS, Vin-V dated 16.2.2015 at an estimated cost of ₹6673.00 lakh including an IDC of ₹406.00 lakh (based on October, 2014 price level). The scope of work covered under the instant transmission project broadly includes:

Sub-Station Extension

Installation of 1x1500 MVA, 765/400 kV ICT at Vindhychal Pooling Station



765 kV

- 1500 MVA 765/400 kV Transformer : 1 No.
- Transformer Bay : 1 No.

400 kV

- Transformer Bay : 1 No.

b. The instant petition includes the entire scope covered the instant transmission project.

c. The instant asset was scheduled to be put into commercial operation within 30 months from the date of IA. Therefore, the scheduled COD of the transmission system was 11.8.2017 against which the instant asset was put into commercial operation on 31.7.2017. Thus, there is no time over-run.

d. The tariff for the instant asset from COD to 31.3.2019 was granted vide order dated 27.6.2018 in Petition No. 85/TT/2017.

e. The Annual Fixed Charges (AFC) approved for the instant assets vide order dated 27.6.2018 and the trued up AFC claimed by the Petitioner for the instant asset for the 2014-19 tariff period as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Annual Fixed Charges (AFC) approved vide order dated 27.6.2018 in Petition No. 85/TT/2017	667.29	1110.99
AFC claimed by the Petitioner in the instant petition	619.90	1041.90

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

5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspapers in accordance with Section 64 of the



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Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Notices dated 14.1.2020 and 12.3.2020 directing the beneficiaries/ Respondents to file reply in the matter were also published on the Commission's website. Madhya Pradesh Power Management Company Ltd. (MPPMCL), Respondent No.1, has filed its reply *vide* affidavit dated 3.2.2020. MPPMCL has raised the issues of grossing up of RoE, proposed ACE and projected CGST during the 2019-24 tariff period. The Petitioner *vide* affidavit dated 13.7.2020, has filed rejoinder to the reply of MPPMCL. The issues raised by MPPMCL and the clarifications given by the Petitioner are considered in the relevant paragraphs of this order.

6. This order is issued considering the submissions made by the Petitioner in the petition dated 27.11.2019, information submitted by the Petitioner *vide* affidavits dated 4.5.2020 and 14.8.2020, MPPMCL's reply affidavit dated 3.2.2020 and the Petitioner's rejoinder dated 13.7.2020.

7. The hearing in this matter was held on 28.7.2020 through video conference and the order was reserved.

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



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

9. The details of the trued up transmission charges claimed by the Petitioner in respect of the instant asset is as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Depreciation	170.62	279.72
Interest on Loan	135.74	256.81
Return on Equity	190.68	313.73
Interest on Working Capital	16.16	26.73
O&M Expenses	106.70	164.91
Total	619.90	1041.90

10. The details of the trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the instant asset are as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
O&M Expenses	13.30	13.74
Maintenance Spares	23.94	24.74
Receivables	154.55	173.65
Total Working Capital	191.79	212.13
Rate of Interest (%)	12.60	12.60
Interest on Working Capital	16.16	26.73

Capital Cost

11. The details of FR apportioned approved capital cost, actual capital expenditure upto COD and actual Additional Capital Expenditure (ACE) in 2017-18 and 2018-19 as per Auditor Certificate dated 2.8.2019 for the instant asset are as under:

(₹ in lakh)	
FR Apportioned	Details as per Auditor Certificate dated 2.8.2019



Approved Capital Cost	Actual Capital Cost as on COD	Actual ACE 2017-18	Actual ACE 2018-19	Total Capital Cost as on 31.3.2019
6672.61	4612.35	481.56	419.68	5513.59

12. The estimated capital cost of the instant asset as on 31.3.2019, including the ACE is within the approved capital cost. Therefore, there is no cost over-run.

Interest During Construction (IDC)

13. The Commission *vide* order dated 27.6.2018 in Petition No. 85/TT/2017 had allowed the IDC of ₹120.67 lakh against claimed IDC of ₹123.30 lakh and directed the Petitioner to submit the interest rate for SBI loan and statement of discharge of IDC liability at the time of truing up of tariff of the 2014-19 period. The Petitioner has submitted the desired information in the instant petition and claimed IDC of ₹123.30 lakh for the instant asset. The Petitioner has also submitted Auditor Certificate dated 2.8.2019 in support of the same.

14. The IDC of ₹123.30 lakh, claimed by the Petitioner, is approved. The details of IDC claimed as per Auditor Certificate, IDC now allowed and IDC discharged are shown as under:

IDC claimed as per Auditor Certificate dated 2.8.2019	IDC disallowed due to computation difference	IDC allowed	IDC allowed on cash basis as on COD	Un-discharged IDC liability as on COD	Discharge of IDC liability allowed as ACE	
					2017-18	2018-19
123.30	0.20	123.10	89.00	34.10	12.49	21.61



Initial Spares

15. 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 cut-off date, subject to the following ceiling norms:

*“(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
Gas Insulated sub-station:5.00%
Communication System: 3.5%”*

16. The Commission *vide* order dated 27.6.2018 in Petition No. 85/TT/2017 had allowed Initial Spares of ₹179.74 lakh which was within the ceiling limit.

17. The Petitioner *vide* Auditor Certificate dated 2.8.2019 has claimed Initial Spares as ₹179.74 lakh which is same as approved by the Commission in order dated 27.6.2018 in Petition No. 85/TT/2017 and is within the ceiling. Therefore, the same is allowed. The details of the Initial Spares claimed by the Petitioner and allowed as under:

(₹ in lakh)					
Element	Plant and Machinery excluding IDC, IEDC, Land cost and cost of Civil works	Initial spares Claimed	Ceiling as per 2014 Tariff Regulations (%)	Initial Spares worked out as per CERC norms	Initial Spares allowed
Sub-station	5392.56	179.74	6.00	332.73	179.74

Capital Cost as on COD

18. The capital cost of the instant asset has been calculated in accordance with Regulation 9(3) and Regulation 9(6) of the 2014 Tariff Regulations. The Commission *vide* order dated 27.6.2018 in Petition No. 85/TT/2017 had approved the transmission



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tariff of the instant asset for the 2014-19 period based on the admitted capital cost as on COD and projected ACE during 2017-18 and 2018-19 as under:

(₹ in lakh)

Capital Cost claimed as on COD (A)	IDC disallowed due to computation difference (B)	Un-discharged IDC (C)	Excess Initial Spares disallowed (D)	Capital Cost allowed as on COD (E) = (A-B-C-D)
4612.34	2.63	33.95	0.00	4575.75

19. The details of the capital cost as on COD now approved after adjustment of IDC are as under:

(₹ in lakh)

Capital Cost claimed as on COD (A)	IDC disallowed due to computation difference (B)	Un-discharged IDC (C)	Capital Cost allowed as on COD (D) = (A-B-C)
4612.34	0.20	34.10	4578.04

Additional Capital Expenditure (ACE)

20. The Commission *vide* order dated 27.6.2018 in Petition No. 85/TT/2017 had allowed ACE of ₹785.54 lakh and ₹706.08 lakh for 2017-18 and 2018-19 respectively towards un-discharged liabilities and works deferred for execution. Against this, the Petitioner has claimed ACE of ₹494.05 lakh and ₹441.33 lakh during 2017-18 and 2018-19 respectively as un-discharged liabilities for works executed within the cut-off date for the instant asset under Regulation 14(3)(v) of the 2014 Tariff Regulations. The details of the ACE claimed by the Petitioner are as under:

(₹ in lakh)

Particulars	Regulation	2017-18	2018-19
Discharge of Liabilities on hard cost	Regulation 14(1)(i)	211.03	407.78
ACE towards works deferred for execution (by addition into gross block)	Regulation 14(1)(ii)	270.53	11.89
Discharge of IDC Liability	Regulation 14(1)(i)	12.49	21.66



Total ACE		494.05	441.33
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21. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations, as it is towards balance and retention payments and balance work deferred for execution. The un-discharged IDC liability has been allowed as ACE during the year of its discharge. Further, the disallowed IDC liability has been adjusted with ACE of 2018-19. The details of ACE allowed are as under:

(₹ in lakh)			
Particulars	Regulation	2017-18	2018-19
Discharge of Liabilities on hard cost	Regulation 14(1)(i)	211.03	407.78
ACE towards works deferred for execution (by addition into gross block)	Regulation 14(1)(ii)	270.53	11.89
Discharge of IDC Liability	Regulation 14(1)(i)	12.49	21.61
Total ACE allowed for tariff		494.05	441.28

22. Accordingly, the capital cost considered for the 2014-19 period for the instant asset is as under:

(₹ in lakh)				
Apportioned Approved Capital Cost	Capital Cost as on COD	ACE		Total Capital Cost as on 31.3.2019
		2017-18	2018-19	
6672.61	4578.04	494.05	441.28	5513.37

Debt-Equity Ratio

23. The Petitioner has claimed debt-equity ratio of 70:30 as on the COD. Accordingly, the debt-equity ratio of 70:30 as per Regulation 19(3) of the 2014 Tariff Regulations has been considered. The details of debt-equity ratio in respect of the instant asset as on the COD and as on 31.3.2019 are as under:-

Particulars	Capital cost as on COD (₹ in lakh)	(%)	ACE (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	3204.63	70.00	654.73	70.00	3859.36	70.00



Particulars	Capital cost as on COD (₹ in lakh)	(%)	ACE (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
Equity	1373.41	30.00	280.60	30.00	1654.01	30.00
Total	4578.04	100.00	935.33	100.00	5513.37	100.00

Interest on Loan (IoL)

24. The Petitioner has claimed the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been allowed in this order is as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Gross Normative Loan	3204.63	3550.46
Cumulative Repayments up to Previous Year	0.00	169.53
Net Loan-Opening	3204.63	3380.93
Additions	345.84	308.90
Repayment during the year	169.53	278.01
Net Loan-Closing	3380.93	3411.82
Average Loan	3292.78	3396.38
Weighted Average Rate of Interest on Loan (%)	6.168	7.565
Interest on Loan	135.76	256.94

25. The details of IoL approved by the Commission vide order dated 27.6.2018 in Petition No. 85/TT/2017, claimed by the Petitioner in the instant petition and trued up in this order is shown in the table as under:

Particular	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Approved vide order dated 27.6.2018 in Petition No.85/TT/2017	173.45	281.19
Claimed by the Petitioner in the instant petition	135.74	256.81
Allowed after true-up in this order	135.76	256.94



Return on Equity (RoE)

26. The Petitioner is entitled to RoE for the instant asset in terms of Regulations 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 following effective tax rates for the 2014-19 period:

Year	Claimed effective tax (in %)	Grossed up RoE (Base Rate/1-t) (in %)
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

27. MPPMCL has submitted that the Petitioner has grossed up RoE on the basis of actual taxes paid during 2016-17 and 2017-18 and has not placed on record the assessment orders for 2016-17 and 2017-18. For 2018-19, it has grossed up RoE and has not claimed the effective tax rate based on actual taxes paid for 2018-19. In response, the Petitioner *vide* affidavit dated 13.7.2020 has submitted that effective rates of tax considered for 2014-15 and 2015-16 are based on assessment orders issued by Income Tax authorities for the purpose of grossing up of RoE rate. The effective rate of tax considered for 2016-17 and 2017-18 are based on the Income-tax returns filed for the purpose of grossing up of RoE rate of the respective years. Further, for 2018-19, effective rate of tax is calculated based on the applicable MAT rate (i.e. MAT 18.50% + Surcharge 12.00% + Cess 4%) for the purpose of grossing up of RoE rate. The Petitioner has also submitted a copy of the assessment orders for 2014-15 to 2016-17.



28. We have considered the submissions of the Petitioner and the MPPMCL. The Commission *vide* order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rate for the Petitioner based on the notified MAT rates. The relevant extract of the order dated 27.4.2020 in Petition No. 274/TT/2019 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

”

29. The same MAT rates as considered in the above order 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.

Year	Notified MAT rates (inclusive of surcharge &	Base rate of RoE	Grossed up ROE (Base Rate/1-t)
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	cess) (in %)	(in %)	(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

30. 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 2014 Tariff Regulations. The RoE is trued up on the basis of the MAT rate applicable for the respective years and is allowed as under:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 244 days)	2018-19
Opening Equity	1373.41	1521.63
Additions	148.22	132.38
Closing Equity	1521.63	1654.01
Average Equity	1447.52	1587.82
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	19.705	19.758
Return on Equity	190.68	313.71

31. The details of RoE approved vide order dated 27.6.2018 in Petition No. 85/TT/2017, claimed by the Petitioner in the instant petition and trued up RoE allowed in the instant order are shown in the table as under:

(₹ in lakh)		
Particular	2017-18 (Pro-rata for 244 days)	2018-19
Approved vide order dated 27.6.2018 in Petition No.85/TT/2017	195.40	336.17
Claimed by Petitioner in the instant petition	190.68	313.73
Allowed after true-up in this order	190.68	313.71



Depreciation

32. The Petitioner's claim towards depreciation in this petition has been found to be in variation with the depreciation allowed for the instant asset in order dated 27.6.2018 in Petition No. 85/TT/2017. The Petitioner has neither given any justification for claiming this variation in depreciation with that of allowed earlier by the Commission in order dated 27.6.2018 in Petition No. 85/TT/2017 nor has it made any specific prayer for allowing depreciation with this variation in this petition. Similar issue had come up in Petition No.19/TT/2020 wherein the Commission *vide* order dated 9.5.2020 decided as under:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No.147/TT/2011 respectively. Further, the tariff of the 2009- 14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.0/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT



Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.”

33. In line with the above order dated 9.5.2020, depreciation has been considered @ 5.28% for IT Equipment as part of the sub-station upto 31.3.2019 while truing-up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations. The details of the WAROD are placed at Annexure-I to this order. The gross block during the 2014-19 period has been depreciated at WAROD as per Annexure-I to this order.

34. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed is as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Opening Gross Block	4578.04	5072.09
Additional Capitalisation	494.05	441.28
Closing Gross Block	5072.09	5513.37
Average Gross Block	4825.07	5292.73
Weighted Average Rate of Depreciation (%)	5.26	5.25
Balance useful life of the asset	25	25
Elapsed life at the beginning of the year	0	0
Aggregated Depreciable Value	4342.56	4763.46
Depreciation during the year	169.53	278.01
Cumulative Depreciation	169.53	447.54
Remaining Aggregate Depreciable Value	4173.03	4315.92



35. The details of the depreciation approved vide order dated 27.6.2018 in Petition No. 85/TT/2017, trued up depreciation claimed by the Petitioner in the instant petition and trued up depreciation allowed in the instant order are shown in the table as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Approved vide order dated 27.6.2018 in Petition No. 85/TT/2017	174.59	300.54
Claimed by the Petitioner in the instant petition	170.62	279.72
Allowed after true-up in this order	169.53	278.01

Operation & Maintenance Expenses (O&M Expenses)

36. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The total O&M Expenses claimed by the Petitioner for the instant asset are as under:

Particulars	2017-18 (Pro rata)	2018-19
O&M Expenses		
765 kV ICT bay at Vindhyachal Pooling Station		
No. of bays	1	1
Norms (₹ lakh/Bay)	93.11	96.20
400 kV ICT bay at Vindhyachal Pooling Station		
No. of bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
Total O&M Expenses (₹ in lakh)	106.70	164.91

37. Norms specified in respect of the elements covered in the instant asset are as under:

Particulars	2017-18	2018-19
Norms for sub-station Bays (₹ lakh per bay)		
765 kV Sub-station	93.11	96.20
400 kV Sub-station	66.51	68.71



38. We have considered the submission of the Petitioner. The O&M Expenses are allowed for the instant asset as per the norms specified in the 2014 Tariff Regulations and are as under:

Particulars	2017-18 (Pro-rata for 244 days)	2018-19
O&M Expenses		
765 kV ICT bay at Vindhyachal Pooling Station		
No. of bays	1	1
Norms (₹ lakh/Bay)	93.11	96.20
400 kV ICT bay at Vindhyachal Pooling Station		
No. of bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
Total O&M Expenses (₹ in lakh)	106.70	164.91

39. The details of the O&M Expenses approved by the Commission vide order dated 27.6.2018 in Petition No. 85/TT/2017, claimed by the Petitioner and as trued up in the instant order is shown in the table as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Approved vide order dated 27.6.2018 in Petition No.85/TT/2017	106.70	164.91
Claimed by the Petitioner in the instant petition	106.70	164.91
Allowed after true-up in this order	106.70	164.91

Interest on Working Capital (IWC)

40. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
O&M Expenses	13.30	13.74
Maintenance Spares	23.94	24.74
Receivables	154.28	173.38
Total Working Capital	191.52	211.86
Rate of Interest (%)	12.60	12.60
Interest on Working Capital	16.13	26.69



41. The details of IWC approved by the Commission *vide* order dated 27.6.2018 in Petition No. 85/TT/2017, claimed by the Petitioner in the instant petition and as trued up in this order are shown in the table as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Approved <i>vide</i> order dated 27.6.2018 in Petition No. 85/TT/2017	17.15	28.18
Claimed by the Petitioner in the instant petition	16.16	26.73
Allowed after true up in this order	16.13	26.69

Annual Fixed Charges approved for the 2014-19 Tariff Period

42. The trued up annual fixed charges for the instant transmission asset for the 2014-19 tariff period are summarised as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 244 days)	2018-19
Depreciation	169.53	278.01
Interest on Loan	135.76	256.94
Return on Equity	190.68	313.71
Interest on Working Capital	16.13	26.69
O&M Expenses	106.70	164.91
Total	618.81	1040.27

Accordingly, the Annual Fixed Charges approved in dated 27.6.2018 in Petition No. 85/TT/2017, trued Annual Fixed Charges claimed by the Petitioner in the instant petition and trued approved IWC after truing up for the instant assets is as under:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata)	2018-19
Approved <i>vide</i> order dated 27.6.2018 in Petition No. 85/TT/2017	667.29	1110.99
Claimed by the Petitioner in the instant petition	619.90	1041.90
Allowed after true-up in this order	618.81	1040.27



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

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	294.75	298.38	298.38	298.38	298.38
Interest on Loan	252.37	233.22	210.26	187.48	164.64
Return on Equity	314.54	318.42	318.42	318.42	318.42
Interest on Working Capital	48.42	49.54	50.50	51.52	52.48
O&M Expenses	813.66	841.88	871.68	903.09	934.59
Total	1723.74	1741.44	1749.24	1758.89	1768.51

44. The details of IWC claimed by the Petitioner in respect of the instant asset are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	67.81	70.16	72.64	75.26	77.88
Maintenance Spares	122.05	126.28	130.75	135.46	140.19
Receivables	211.94	214.70	215.66	216.85	217.44
Total Working Capital	401.80	411.14	419.05	427.57	435.51
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	48.42	49.54	50.50	51.52	52.48

Capital Cost as on 1.4.2019

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



with the beneficiaries.

- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
 - (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

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

46. The Petitioner has claimed capital cost of ₹5513.57 lakh as on 31.3.2019 and the same has been allowed by the Commission. This capital cost of ₹5513.57 lakh has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

47. Regulation 24 of the 2019 Tariff Regulations provides 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.”*

48. The Petitioner has claimed projected ACE of ₹137.75 lakh in respect of the instant asset for 2019-24 tariff period under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. Further, the Petitioner vide affidavit dated 9.11.2017 in Petition No. 85/TT/2017 has submitted that it had already claimed projected ACE of ₹94.56 lakh for 2019-20. However, the Commission did not consider the same in order dated 27.6.2018 in Petition No. 85/TT/2017 as it was beyond the 2014-19 tariff period.

49. Further, revised projected ACE of ₹137.75 lakh has been claimed in the instant petition for 2019-20 on account of un-discharged liability towards final payment for works executed and for works deferred for execution within cut-off date for the instant asset as shown under:



(₹ in lakh)

Apportioned Approved Cost as per FR	Capital as on 1.4.2019	Estimated ACE for	Total Cost as on 31.3.2024
		2019-20	
6672.61	5513.57	137.75	5651.32

50. MPPMCL vide affidavit dated 3.2.2020 has submitted that the projected ACE is not supported by proper documents and details. In response, the Petitioner vide affidavit dated 13.7.2020 has submitted that the projected ACE is to be incurred for balance and retention payments and works deferred for execution under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations.

51. We have considered the submission made by the Petitioner and MPPMCL. The ACE claimed by the Petitioner is allowed under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations, as it is towards un-discharged liabilities recognised to be payable at a future date and balance work deferred for execution. The total capital expenditure as on 31.3.2024 is within the apportioned approved cost of ₹6672.61 lakh. Accordingly, ACE for 2019-20 and the capital cost as on 31.3.2024 for the instant asset considered is as under:

(₹ in lakh)

Apportioned Approved Cost as per FR	Admitted Capital Cost as on 1.4.2019	ACE for	Total Capital Cost as on 31.3.2024
		2019-20	
6672.61	5513.37	137.75	5651.12

Debt-Equity Ratio

52. 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.”

53. The details of the debt and equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the instant asset is as under:



Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	ACE 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	3859.36	70.00	96.43	70.00	3955.78	70.00
Equity	1654.01	30.00	41.33	30.00	1695.34	30.00
Total	5513.37	100.00	137.75	100.00	5651.12	100.00

Return on Equity (RoE)

54. 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 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.”

55. The Petitioner has submitted that MAT rate is applicable on it. Accordingly, the MAT rate applicable for 2019-20 period 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 instant asset is as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1654.01	1695.34	1695.34	1695.34	1695.34
Additions	41.33	0.00	0.00	0.00	0.00
Closing Equity	1695.34	1695.34	1695.34	1695.34	1695.34
Average Equity	1674.67	1695.34	1695.34	1695.34	1695.34
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
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	314.53	318.41	318.41	318.41	318.41

Interest on Loan (IoL)

56. 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.”

57. 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 the 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL for the instant asset has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	3859.36	3955.78	3955.78	3955.78	3955.78
Cumulative Repayments upto Previous Year	447.54	742.27	1040.65	1339.03	1637.40
Net Loan-Opening	3411.82	3213.51	2915.13	2616.76	2318.38
Additions	96.43	0.00	0.00	0.00	0.00
Repayment during the year	294.74	298.38	298.38	298.38	298.38
Net Loan-Closing	3213.51	2915.13	2616.76	2318.38	2020.01
Average Loan	3312.67	3064.32	2765.95	2467.57	2169.19
Weighted Average Rate of Interest on Loan (%)	7.624	7.617	7.609	7.606	7.599
Interest on Loan	252.57	233.42	210.47	187.68	164.85

Depreciation

58. Regulation 33 of the 2019 Tariff Regulations provides 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 thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

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

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

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

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

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

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

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

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

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



(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

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

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

59. The IT equipment has been considered as a part of the gross block and depreciated using WAROD (as placed at Annexure-II to this order). WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered NIL, i.e. IT asset has been considered as 100% depreciable. The calculation of WAROD for the 2019-24 tariff period is placed at Annexure-II to this order. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the instant asset is as under:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	5513.37	5651.12	5651.12	5651.12	5651.12
Addition during the year 2019-24 due to projected Additional Capitalisation	137.75	0.00	0.00	0.00	0.00
Closing Gross Block	5651.12	5651.12	5651.12	5651.12	5651.12
Average Gross Block	5582.25	5651.12	5651.12	5651.12	5651.12
Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year	24	23	22	21	20



Elapsed Life	1	2	3	4	5
Aggregated Depreciable Value	5025.80	5087.79	5087.79	5087.79	5087.79
Depreciation during the year	294.74	298.38	298.38	298.38	298.38
Aggregate Cumulative Depreciation	742.27	1040.65	1339.03	1637.40	1935.78
Remaining Aggregated Depreciable Value	4283.53	4047.14	3748.76	3450.39	3152.01

Operation & Maintenance Expenses (O&M Expenses)

60. Regulation 35(3) (a) and (4) of the 2019 Tariff Regulations provides that:

“35. Operation and Maintenance Expenses:

xxxxx

(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-	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662



Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*



vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

(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.”

61. The O&M Expenses claimed by the Petitioner for the instant asset for the 2019-24 tariff period are as under:

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
765 kV ICT bay at Vindhyachal Pooling Station					
No. of bays	1	1	1	1	1
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
400 kV ICT bay at Vindhyachal Pooling Station					
No. of bays	1	1	1	1	1
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Transformer(s) at Vindhyachal Pooling Station					
765 kV					
Capacity MVA	1500	1500	1500	1500	1500
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
Total O&M Expenses (₹ in lakh)	813.66	841.88	871.68	903.09	934.59



62. We have considered the submission of the Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as under:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
765 kV ICT bay at Vindhyachal Pooling Station					
No. of bays	1	1	1	1	1
Norms (₹ lakh/Bay)	45.01	46.6	48.23	49.93	51.68
400 kV ICT bay at Vindhyachal Pooling Station					
No. of bays	1	1	1	1	1
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
Transformer(s) at Vindhyachal Pooling Station					
765 kV					
Capacity MVA	1500	1500	1500	1500	1500
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
Total O&M Expenses (₹ in lakh)	813.66	841.88	871.68	903.09	934.59

Interest on Working Capital (IWC)

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

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

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

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

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

Provided that in case of truing-up, the rate of interest on working capital shall be



considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

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

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

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

64. The Petitioner has submitted that it has claimed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has claimed the rate of IWC as 12.05%.

65. The IWC has been allowed 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 are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	67.81	70.16	72.64	75.26	77.88
Maintenance Spares	122.05	126.28	130.75	135.46	140.19
Receivables	211.96	214.31	215.26	216.45	217.03
Total Working Capital	401.81	410.75	418.66	427.17	435.10
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest on Working Capital	48.42	46.21	47.10	48.06	48.95

Annual Fixed Charges for the 2019-24 Tariff Period

66. The annual fixed charges allowed for the instant asset for the 2019-24 tariff period are as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	294.74	298.38	298.38	298.38	298.38
Interest on Loan	252.57	233.42	210.47	187.68	164.85
Return on Equity	314.53	318.41	318.41	318.41	318.41
Interest on Working Capital	48.42	46.21	47.10	48.06	48.95
O & M Expenses	813.66	841.88	871.68	903.09	934.59
Total	1723.91	1738.30	1746.03	1755.62	1765.17

Filing Fee and the Publication Expenses

67. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

Security Expenses

69. The Petitioner has submitted that security expenses for the instant asset 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 yearly basis.

70. 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.

Goods and Services Tax

71. 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 beneficiaries to the Petitioner and the same shall be charged & 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.



72. MPPMCL has submitted that the Petitioner's prayer is premature and need not be considered at this juncture. In response, the Petitioner has submitted that currently transmission of electricity by an electric transmission utility is exempted from GST hence, the transmission charges currently charged are exclusive of GST. Further, if GST is levied at any rate and at any point of time in future, the same shall be borne and additionally paid by the beneficiaries to the Petitioner and the same shall be charged and billed separately.

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

Capital Spares

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

Sharing of Transmission Charges

75. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time 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.



76. To summarise, the trued up AFC allowed for the instant asset for the 2014-19 tariff period are as under:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 244 days)	2018-19
AFC	618.81	1040.27

The AFC allowed for the instant asset for the 2019-24 tariff period in the instant order are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	1723.91	1738.30	1746.03	1755.62	1765.17

77. This order disposes of Petition No. 21/TT/2020.

Sd/
(Arun Goyal)
Member

Sd/
(I. S. Jha)
Member



Annexure-I

2014-19 Capital Expenditure	Admitted Capital Cost as on 31.7.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
		2017-18	2018-19			2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	59.96	0.16	29.23	89.35	3.34%	2.01	2.50
Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Sub Station	4501.56	493.27	411.39	5406.22	5.28%	250.70	274.59
PLCC	0.00	0.00	0.00	0.00	6.33%	0.00	0.00
IT Equipment (Incl. Software)	16.52	0.62	0.66	17.80	5.28%	0.89	0.92
Total	4578.04	494.05	441.28	5513.37		253.60	278.01
Average Gross Block						4825.07	5292.73
Weighted Average Rate of Depreciation						5.26%	5.25%



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019	Projected Additional Capitalisation					Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	89.35	0.00	0.00	0.00	0.00	0.00	89.35	3.34%	2.98	2.98	2.98	2.98	2.98
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
Sub Station	5406.22	137.75	0.00	0.00	0.00	0.00	5543.97	5.28%	289.09	292.72	292.72	292.72	292.72
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	17.80	0.00	0.00	0.00	0.00	0.00	17.80	15.00%	2.67	2.67	2.67	2.67	2.67
Total	5513.37	137.75	0.00	0.00	0.00	0.00	5651.12		294.74	298.38	298.38	298.38	298.38
Average Gross Block									5582.25	5651.12	5651.12	5651.12	5651.12
Weighted Average Rate of Depreciation									5.28%	5.28%	5.28%	5.28%	5.28%

