

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 11/RP/2022**  
**in**  
**Petition No. 401/GT/2020**

**Coram:**

**Shri I. S. Jha, Member**  
**Shri Arun Goyal, Member**  
**Shri Pravas Kumar Singh, Member**

**Date of Order: 17<sup>th</sup> March, 2023**

**In the matter of**

Review of Commission's order dated 31.1.2022 in Petition No. 401/GT/2020 with regard to the approval of tariff of Vindhychal Super Thermal Power Station Stage-I (1260 MW) for the period 2019-24.

**AND**

**In the matter of**

NTPC Limited,  
NTPC Bhawan, Core-7,  
Core-7, Scope Complex,  
7, Institutional Area, Lodhi Road,  
New Delhi – 110003

**.... Review Petitioner**

**Vs**

1. Madhya Pradesh Power Management Company Limited,  
Shakti Bhawan, Vidyut Nagar,  
Jabalpur – 482008
2. Maharashtra State Electricity Distribution Company Limited,  
Prakashgad, Bandra (East),  
Mumbai – 400051
3. Gujarat Urja Vikas Nigam Limited,  
Vidyut Bhawan, Race Course,  
Vadodara – 390007
4. Chhattisgarh State Power Distribution Company Limited,  
Sundar Nagar, Danganiya,  
Raipur – 492013
5. Electricity Department,  
Government of Goa,  
Vidyut Bhawan, Panji, Goa



6. Electricity Department,  
Administration of Daman & Diu,  
Daman – 396210
7. Electricity Department,  
Administration of Dadra & Nagar Haveli,  
Silvasa

....Respondents

**Parties Present:**

Shri A.S. Pandey, NTPC  
Shri Harshit Sharma, NTPC  
Shri Anurag Naik, MPPMCL

**ORDER**

Petition No. 401/GT/2020 was filed by the NTPC Limited (in short 'the Review Petitioner') for determination of tariff of Vindhyachal Super Thermal Power Station Stage- I (1200 MW) (in short' the generating station') for the period 2019-24, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short 'the 2019 Tariff Regulations') and the Commission by order dated 31.1.2022 (in shot 'the impugned order') had disposed of the same. Aggrieved by the impugned order, the Review Petitioner has filed this Review Petition. limited to 'the following aspects:

*"Non-grossing up of Return on Equity (ROE) allowed on additional capitalization at Weighted Average Rate of Intertest (WAROI)'*

**Hearing dated 24.6.2022**

2. The Review Petition was heard on 'admission' on 24.6.2022 through 'video conferencing'. During the hearing, the representative of the Review Petitioner submitted that there is error apparent on the face of the impugned order, as the Commission in the said order had not allowed the grossing up of ROE on the additional capitalization allowed beyond the original scope of work. The Commission accordingly, reserved its order on 'admissibility' of the Review Petition. Thereafter, by



order dated 2.8.2022, the review petition was 'admitted' and notice was served on the Respondents. The parties were directed to complete pleadings in the matter.

3. The Respondent MPPMCL has filed its reply on 22.6.2022 and the Petitioner has filed its rejoinder to the said reply on 11.8.2022.

### **Hearing dated 24.1.2023**

4. The Petition was, thereafter, heard on 24.1.2023 through 'video conferencing'. During the hearing, the representative of the Review Petitioner made detailed oral submissions and prayed that the error apparent on the face of record with regard to the non-grossing up of ROE, at weighted average rate of interest (WAROI) in the impugned order, may be corrected and review be allowed accordingly. The representative of the Respondent, MPPMCL referred to the reply and made oral submissions in the matter. The Commission, after hearing the parties, reserved the order in the matter.

5. Based on the submissions of the parties and documents on the record, we proceed to examine the issues raised by the Review Petitioner in the subsequent paragraphs.

### **Non-grossing up of Return on Equity (ROE) allowed on additional capitalization at Weighted Average Rate of Interest (WAROI)**

#### ***Submissions of the Review Petitioner, NTPC***

6. The Review Petitioner has submitted that the Commission, in the impugned order, has inadvertently erred in not grossing up the Return on Equity (ROE) at the weighted average rate of interest (WAROI) for the purpose of tariff. It has also submitted that the rate of ROE as allowed under Regulation 30 of the 2019 Tariff Regulations has to be grossed up with the effective tax rate of the effective financial year, as per Regulation 31 of the 2019 Tariff Regulations. The Review Petitioner has further



submitted that Regulation 30 (as amended) read with Regulation 31 provides for grossing up of base ROE with effective tax rate. Accordingly, the Review Petitioner has contended that the base rate of 15.50% as applicable for additional capital expenditure items, within the original scope and base rate of WAROI (weighted average rate of interest) as applicable for additional capital expenditure items beyond the original scope, are to be grossed up with the effective tax rate. It has pointed out that the Commission, has determined the ROE for additional capital expenditure items within the original scope, by grossing 15.50% ROE with the effective tax rate. However, the Review Petitioner has stated that while calculating ROE for additional capital expenditure items beyond the original scope, the Commission had not grossed up WAROI, with the effective tax rate. It has further stated that the Commission has erred by not moving to pre-tax ROE (from post-tax ROE) since the period 2009-14. The Review Petition has added that the 2004 Tariff Regulations, had provisions for post-tax ROE i.e., the income tax liability was pass through tariff based on actuals, but in terms of the 2009 Tariff Regulations, the Commission migrated to pre-tax ROE (from post-tax ROE) and in either case, the income tax liability arising out of the returns allowed was a pass through in tariff. Accordingly, the Review Petitioner has prayed that the review may be allowed on this ground.

### ***Submissions of the Respondent, MPPMCL***

7. The Respondent, MPPMCL has submitted that Regulation 30 of the 2019 Tariff Regulations provides that the ROE shall be computed on the equity determined in accordance with the Regulation 18 of 2019 Tariff Regulations, in the following manner:

*i. At the base rate of 15.50% for thermal generating stations, transmission system and run of river hydro generating stations at the base rate of 16.50% for storage or pumped storage hydro generating station.*

*ii. At weighted average rate of interest on actual loan portfolio of generating station or the transmission system from the equity invested on additional capital expenditure beyond cut-off date and beyond original scope of work.*



8. The Respondent has further submitted that for computation of ROE, the base rate and WAROI has been provided under Regulation 30 of the 2019 Tariff Regulations. It has pointed out that Regulation 31(1) of the 2019 Tariff Regulations, specifically and unambiguously states that 'the base rate of return on equity as allowed by Commission under Regulation 30' shall be grossed up with the effective tax rate of the respective financial year. The Respondent has pointed out that under Regulation 31, the Commission has clearly specified the word 'base rate of return' and there is no mention of allowing 'grossing of weighted average rate of interest' which is applicable for additional capitalization undertaken after the cut-off date and beyond the original scope of work. The Respondent has added that Regulation 30 and Regulation 31 of the 2019 Tariff Regulations, are specific regarding the applicability of grossing up effective tax rate, on the base rate of return only. Accordingly, the Respondent has submitted that there is no error apparent on the face of the order, and the Review Petition may be rejected.

### **Analysis and Decision**

9. We have examined the matter. 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.

10. Regulation 31 of the 2019 Tariff Regulations, provides as under:

31. Tax on Return on Equity:

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

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

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

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

Illustration-

xxxxxx

(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.”*

11. Thus, Regulation 30(1) of the 2019 Tariff Regulations provides for computation of ROE, on the equity base, as determined in accordance with Regulation 18 of the 2019 Tariff Regulations. While clause (1) of Regulation 18 provides for the determination of the debt-equity ratio for new projects, clauses (3) and (4) of the said Regulation provides for consideration/ determination of the debt-equity ratio in respect of the generating stations declared under commercial operation prior to 1.4.2019. Further, clause (5) of the said regulation provides that the admitted additional capital expenditure incurred or projected to be incurred on or after 1.4.2019, is to be serviced in the manner specified in clause (1) of Regulation 18 of the 2019 Tariff Regulations. On the same analogy, Regulation 30(2) of the 2019 Tariff Regulations provides for the computation of at the base rate of 15.50% (for thermal generating stations) while the proviso to Regulation 30(2) provides for computation of ROE in respect of additional capitalization after cut-off date, beyond the original scope, excluding additional capitalization due to change in law, at the weighted average rate of interest on actual loan portfolio of the generating station. It is however noticed that as per clause (1) of Regulations 31 of the 2019 Tariff Regulations (tax on ROE), the base rate of return on equity, as allowed by the Commission under Regulation 30 of the said regulations, is required to be grossed up with the effective tax rate of the respective financial year. Thus, we are of the view that on a harmonious construction of the provisions of Regulation 18 with Regulation 30 and Regulation 31 of the 2019 Tariff Regulations, the ROE computed at the predetermined base rate of 15.50% and ROE computed at the weighted average rate of interest (WAROI) are required to be grossed up with the effective tax rate of the respective financial year.





12. Admittedly, in the present case, the Commission, has determined the ROE for admitted additional capital expenditure items within the original scope, by grossing 15.50% ROE with the effective tax rate. However, while calculating ROE for admitted additional capital expenditure items beyond the original scope, the Commission had not grossed up WAROI, with the effective tax rate. This, apparently escaped the attention of the Commission, while passing the impugned order dated 31.1.2022. In our view, the non-grossing up of ROE on the admitted capital expenditure at the weighted average rate of interest, is an error apparent on the face of the order and review on this ground is maintainable. Accordingly, the prayer of the Review Petitioner is allowed and the annual fixed charges determined for the generating station for the period 2019-24, vide impugned order dated 31.1.2022, stands rectified, as stated in the subsequent paragraphs.

### **Return on Equity**

13. The Return on Equity, as allowed in the table (B) of paragraph 30 of the impugned order dated 31.1.2022 is revised as under:

*(Rs. in lakh)*

	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Gross Notional Equity	0.00	0.00	0.00	198.60	198.60
Less: Adjustment to equity in terms of 1st proviso to Regulation 18(3)	0.00	0.00	0.00	0.00	0.00
<b>Normative Equity – Opening</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>198.60</b>	<b>198.60</b>
Addition of Equity due to additional capital expenditure	0.00	0.00	198.60	0.00	0.00
<b>Normative Equity – Closing</b>	<b>0.00</b>	<b>0.00</b>	<b>198.60</b>	<b>198.60</b>	<b>198.60</b>
Average Normative Equity	0.00	0.00	99.30	198.60	198.60
Weighted average rate of interest	8.2970%	8.2978%	8.2988%	8.2980%	8.2923%
Tax rate for the year	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax)	10.054%	10.055%	10.056%	10.055%	10.048%
<b>B: Return on Equity - (annualized)</b>	<b>0.00</b>	<b>0.00</b>	<b>9.99</b>	<b>19.97</b>	<b>19.96</b>

### **Total Return on Equity allowed**

*(Rs. in lakh)*

	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Return on Equity at Normal Rate (A)	8271.89	8356.18	8483.38	8531.28	8531.28





Return on Equity at WAROI (B)	0.00	0.00	9.99	19.97	19.96
<b>Total Return on Equity allowed (A+B)</b>	<b>8271.89</b>	<b>8356.18</b>	<b>8493.37</b>	<b>8551.25</b>	<b>8551.23</b>

### Working Capital on Receivables

14. The working capital on Receivables, as allowed in the table under paragraph 77 of the impugned order dated 31.1.2022 is revised as under:

	<i>(Rs. in lakh)</i>				
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Receivables equivalent to 45 days of energy charge	17841.21	17841.21	17841.21	17841.21	17841.21
Receivables equivalent to 45 days of capacity charge	7341.49	7521.53	7717.83	7957.73	8157.57
<b>Total working capital for receivables</b>	<b>25182.70</b>	<b>25362.74</b>	<b>25559.04</b>	<b>25798.94</b>	<b>25998.78</b>

### Interest on Working Capital

15. Interest on Working Capital, as allowed in the table under paragraph 80 of the impugned order dated 31.1.2022 is revised as under:

	<i>(Rs. in lakh)</i>				
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Working Capital for Cost of Coal towards Stock - 10 days	3901.00	3901.00	3901.00	3901.00	3901.00
Working Capital for Cost of Coal towards Generation - 30 days	11702.99	11702.99	11702.99	11702.99	11702.99
Working Capital for Cost of Secondary fuel oil - 2 months	395.37	394.29	394.29	394.29	395.37
Working Capital for Maintenance Spares @ 20% of O&M expenses	8931.51	9240.37	9545.16	9885.79	10236.53
Working Capital for Receivables - 45 days	25182.70	25362.74	25559.04	25798.94	25998.78
Working Capital for O&M expenses - 1 month	3721.46	3850.15	3977.15	4119.08	4265.22
<b>Total Working Capital</b>	<b>53835.03</b>	<b>54451.54</b>	<b>55079.63</b>	<b>55802.08</b>	<b>56499.89</b>
Rate of Interest	12.0500%	11.2500%	10.5000%	10.5000%	10.5000%
<b>Interest on Working Capital</b>	<b>6487.12</b>	<b>6125.80</b>	<b>5783.36</b>	<b>5859.22</b>	<b>5932.49</b>

### Annual Fixed Charges



16. Based on the above, the annual fixed charges allowed for the period 2019-24 in the table under paragraph 83 of the impugned order dated 31.1.2022, stands revised as under:

*(Rs. in lakh)*

	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	143.03	96.01	232.69	295.04	295.04
Interest on Loan	151.16	228.15	364.91	411.58	386.83
Return on Equity	8271.89	8356.18	8493.37	8551.25	8551.23
Interest on Working Capital	6487.12	6125.80	5783.36	5859.22	5932.49
O&M Expenses	44657.56	46201.85	47725.82	49428.93	51182.66
Special Allowance	11970.00	11970.00	11970.00	11970.00	11970.00
<b>Total</b>	<b>71680.76</b>	<b>72978.00</b>	<b>74570.15</b>	<b>76516.02</b>	<b>78318.26</b>

17. All other terms in order dated 31.1.2022 remain unchanged.

18. Review Petition No. 11/RP/2022 in Petition No. 401/GT/2020 is disposed of in terms of the above.

**Sd/-**  
**(Pravas Kumar Singh)**  
**Member**

**Sd/-**  
**(Arun Goyal)**  
**Member**

**Sd/-**  
**(I.S. Jha)**  
**Member**

