



NLC TAMILNADU POWER LIMITED

(A JVC between NLC India Ltd & TANGEDCO
and a Subsidiary of NLC India Limited)

OFFICE OF THE CHIEF EXECUTIVE OFFICER

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Lr. No. NTPL/CERC/Draft Tariff Regulation 2024-29/2023-24

Date: 20.02.2024

To

The Secretary,
Central Electricity Regulatory Commission,
3rd & 4th floor, Chanderlok Building,
36, Janpath Marg, NEW DELHI - 110 001.

Sir,

Sub: NLC TAMILNADU POWER LIMITED (NTPL) - 2 x 500 MW Thermal Power Station - Draft
Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations,
2024 for the Tariff Period 01.04.2024 to 31.03.2029 - Submission of Comments/
Suggestions - Reg.

Ref: CERC File No. L-1/268/2022/CERC Dated 04.01.2024

Please find enclosed the Comments/Suggestions on Draft Central Electricity Regulatory
Commission (Terms and Conditions of Tariff) Regulations, 2024 for the Tariff Period
01.04.2024 to 31.03.2029. The above may please be taken on record.

Yours faithfully,
for NLC TAMILNADU POWER LIMITED


Chief Executive Officer

Encl.: As above

NLC TAMILNADU POWER LIMITED
2 X 500 MW COAL BASED THERMAL POWER PLANT
TUTICORIN, TAMILNADU

**Comments/Suggestions on Draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for the
Tariff Period 01.04.2024 to 31.03.2029**

- NTPL is 2 x 500 MW Coal based Thermal Power Plant located at Tuticorin, Tamilnadu
- NTPL achieved COD in the year 2015 (Unit 1: 18.06.2015 Unit 2:29.08.2015)

Sl. No	Draft CERC (Terms and Conditions of Tariff) Regulations, 2024 for the Tariff Period 01.04.2024 to 31.03.2029			NTPL Comments/Suggestions
	Chapter	Regulation	Description	
1	1 Preliminary	3 Definitions	(12) 'Capital Spares' means spares individually costing above ₹ 20 Lakh, which is maintained by the generating company or the transmission licensee over and above the initial spares	Existing practice of considering capital spares costing ₹ 1 lakh and above shall be continued
2	7 Computation of Additional Capital Expenditure	25	Additional Capitalization within the original scope and after the cut-off date (2) Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not	Additional capitalisation with respect to replacement of assets under the original scope of work and on account of obsolescence of technology shall also be treated as part of capital cost and shall not be restricted. Any claim less than 20 lakh also shall be allowed after prudence check

			<p>be considered as part of Capital cost and shall be met by Generating company and Transmission licensee through normative O&M charges only</p>	
		<p>26</p>	<p>Additional Capitalization beyond the original scope (1) (a) Payment made against award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law; (b) Change in law or compliance of any existing law; (c) Force Majeure events; (d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security; (2) Any claim of additional capitalisation less than Rs. 20 lakhs shall not be considered under Clause (1) of this regulation.</p>	<p>The claim of additional capital expenditure on account of</p> <ul style="list-style-type: none"> i. Change in law or compliance of existing law ii. Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security <p>shall be considered as statutory requirement and claim of any value (even less than 20 lakhs also) shall be allowed after prudence check</p> <p>The claim of additional capital expenditure on account of force majeure events which is not under the control of generating stations shall not be restricted and claim of any value (even less than 20 lakhs also) shall be allowed after prudence check</p>

3	8 Computation of Annual Fixed Cost	30 Return of Equity	<p>(3).....</p> <p>Provided further that</p> <p>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 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;</p> <p>ii. in case of an 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, the rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;</p>	<p>The existing generating station equipped with RGMO shall be allowed to continue with the same without reduction in RoE as the impact of FGMO along with AGC variation will affect the stable operation of the Units</p>
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4	8 Computation of Annual Fixed Cost	36 Operation and Maintenance Expenses (1) Thermal Generating Station	(1) Coal based	The Normative O&M expenses for the FY 2024-25 was escalated only by 1.47% from the normative O&M of FY 2023-24. However, for other series, it is escalated by atleast 3.93%. Hence, it is requested to consider the escalation rate of 3.93% for 500 MW series also and fix the normative O&M for the FY 2024-25 at ₹ 26.85 lakh/MW and escalate for the other years at the rate of 5.89%									
			<table border="1"> <thead> <tr> <th>Year</th> <th>500 MW Series</th> </tr> </thead> <tbody> <tr> <td>2024-25</td> <td>26.22</td> </tr> <tr> <td>2025-26</td> <td>27.77</td> </tr> <tr> <td>2026-27</td> <td>29.41</td> </tr> <tr> <td>2027-28</td> <td>31.14</td> </tr> <tr> <td>2028-29</td> <td>32.97</td> </tr> </tbody> </table>		Year	500 MW Series	2024-25	26.22	2025-26	27.77	2026-27	29.41	2027-28
Year	500 MW Series												
2024-25	26.22												
2025-26	27.77												
2026-27	29.41												
2027-28	31.14												
2028-29	32.97												
		(6) The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check											

			<p>(6)..... Provided also that the generating station shall submit the details of year-wise actual capital spares consumed individually costing above Rs. 20 Lakh at the time of truing up.....</p>	<p>Considering capital spares only above 20 lakh and meeting the expenses of other capital spares below 20 lakhs from O&M expenses will have high impact on O&M expenses of the plant. Hence capital spares upto ₹ 1 lakh only shall be considered under Normative O&M Expenses and the existing practice of allowing capital spares costing ₹ 1 lakh and above separately after prudence check shall be continued</p>
			<p>(7) Any additional O&M expenses incurred by the generating company or transmission licensee due to any change in law or Force Majeure event shall be considered at the time of truing up of tariff. Provided that such impact shall be allowed only in case the overall impact of such change in law event in a year is more than 5% of normative O&M expenses allowed for the year.</p>	<p>Additional O&M expenses due to change in law is a statutory requirement and shall be allowed without any restriction after prudence check Additional O&M expenses due to force majeure events which is not in the control of generating stations shall be allowed without restriction after prudence check</p>
5	10 Computation of Energy Charge	60. Gross Calorific Value of Primary Fuel	<p>(1) The gross calorific value for computation of energy charges as per Regulation 64 of these regulations shall be done in accordance with 'GCV as Received'; Provided that the generating station shall have third party sampling done at the billing end and the receiving end through an agency certified by the Ministry of Coal and</p>	<p>NTPL is a Joint Venture (JV) Company of NLC India Limited (NLCIL) and TANGEDCO (Tamilnadu Generation and Distribution Corporation Limited) and a subsidiary of NLCIL. NTPL is a Non-Pit Head Station located at Tuticorin, Tamilnadu. As per the Nominated authority constituted under section 6 of Coal mines (Special Provision) Act 2015, Ministry of Coal,</p>

		<p>ensure recovery of compensation as per Fuel Supply Agreement(s) and pass on the benefits of the same to the beneficiaries of the generating station;</p> <p>Provided further that in the absence of any third-party sampling through an agency certified by the Ministry of Coal, the GCV shall be considered on the basis of 'as billed' by the Supplier less:</p> <p>i. Actual loss in calorific value of coal between as billed by the supplier and as received at the generating station, subject to maximum loss in calorific value of 300 kCal/kg for Pit-head based generating stations or generating stations with Integrated mine and 600 kCal/kg for Non-Pit Head based generating stations.</p> <p>No loss in calorific value between 'GCV as billed' and 'GCV as received' is admissible for generating stations procuring coal from Integrated mines or through the import of coal.</p>	<p>GoI allocated Talabira II & III OCP Coal Block to NLCIL and NTPL is the End User Plant (EUP).</p> <p>NTPL is receiving coal from NLCIL Talabira Mines and third-party sampling by agency certified by the Ministry of Coal is being taken place at NLCIL end (loading end) which will be considering for coal sale invoice. At NTPL, third party sampling is done by agency certified by the Ministry of Coal and is used for the power billing to DISCOMS.</p> <p>In this regard, it is submitted that though NTPL is the End User Plant (EUP) of Talabira Mines allotted to NLCIL, the sale transaction is happening between two independent companies.</p> <p>Also, NTPL being a non-pit head station located nearly 2950 kms away from Talabira Mines, coal is transported to the station through multimode transportation i.e., Road cum Rail cum Sea mode. Hence, in the absence of any third-party sampling through an agency certified by the Ministry of Coal, the provision of considering GCV on the basis of 'as billed' by the supplier less Actual loss in calorific value of coal between as billed by the supplier and as received at the generating station subject to maximum loss in calorific value of 600 kCal/kg shall be made applicable to NTPL.</p>
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6	12 Norms of Operation	70 (C)	<p>Gross Station Heat Rate</p> <p>(b) Thermal Generating Stations achieving COD on or after 1.4.2009</p> <p>(i) For Coal-based and lignite-fired Thermal Generating Stations:</p> <p>For 500 MW Sets and above:</p> <p>1.04 x Design Heat Rate (kCal/kWh)</p>	<p>NTPL Design Turbine Heat Rate is 1932 kCal/kWh and Design Boiler Efficiency is 85.90%.</p> <p>As per CERC Tariff Regulation 2019 and Draft CERC Tariff Regulation 2024, prescribed ceiling limits of minimum Boiler Efficiency is 86 % and Maximum Design Turbine Cycle Heat rate of 1935 kCal/kWhr. Hence the Design Station Heat Rate is Design Station Heat Rate (1932/0.86) = 2246.51 Kcal/kWhr</p> <p>As per CERC Tariff Regulation 2019, the allowable Gross Station Heat rate (GSHR) for the period 2019-24 with the operating margin of 5% is</p> <p>1.05 * Design Heat Rate (kCal/kWh)</p> <p>1.05 * 2246.51 = 2358.84 kCal/kWh</p> <p>However, in the Draft CERC Tariff Regulation 2024-29, the operating margin was reduced to 4% and hence the allowable Gross Station Heat rate (GSHR) for 500 MW sets achieved COD on or after 01.04.2009 is</p> <p>1.04 * Design Heat Rate (kCal/kWh)</p> <p>1.04 * 2246.51 = 2336.37 kCal/kWh</p> <p>Considering the ageing of Units and part load operation of Units due to high RE penetration, the operating margin should be increased above 5% or atleast to be maintained at 5%, but reduction in operating margin by 1% will have an impact of 22.47 kCal/kWh reduction in Normative Station Heat Rate.</p>
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				<p>Also, the present methodology of part load compensation on account of power surrender does not compensate the degradation of Station Heat Rate in full as the compensation computation is based on Range of Unit loading vs % degradation in SHR and not based on Load Vs SHR Curve which will be more accurate.</p> <p>Hence, it is requested that the norms already existing as per CERC Tariff Regulation 2019-24 may be retained in 2024-29 also.</p>
7	12 Norms of Operation	70 (E)	<p>Auxiliary Energy Consumption (a) For Coal-based generating stations ii. 500 MW and above Steam driven boiler feed pumps 5.25%</p>	<p>CERC has fixed norms for APC as 5.25% for 500 MW Units in Tariff Regulations 2014 for the tariff control period 2014-19 NTPL had claimed an additional APC of 1% for the special features viz., Cross Country Conveyor system, Shore Unloader & Desalination Plant in NTPL.</p> <p>CERC considering the special features viz., Cross Country Conveyor System, Shore Unloader & Desalination Plant had provisionally allowed APC of 6.25% (with additional APC 1%) vide tariff order dated 11.07.2017 and directed to furnish Actual APC & PLF at the time of truing up. Accordingly actual APC & PLF had been submitted to CERC in Truing up Petition 2014-19 (528/GT/2020) which is reproduced below</p>

Year	APC	PLF
	%	%
2015-16*	9.36	54.25
2016-17	7.13	71.38
2017-18	7.14	61.79
2018-19	6.80	62.63

*COD Unit 1: 18.06.2015 Unit 2: 29.08.2015

CERC has revised the norms for APC from **5.25%** to **5.75%** for 500 MW Units in the Tariff regulation 2019 for the tariff period 2019-24 and a provision to consider APC for external coal handling plant (jetty and associated infrastructure) and also Desalination Plant separately.

Hence, in the Tariff Petition 2019-24 (254/GT/2020), NTPL had claimed upward revision of Normative APC from **5.75%** to **6.75%** considering external coal handling plant (jetty and associated infrastructure) and also Desalination Plant for the tariff period 2019-24 as allowed during the tariff period 2014-19. The actual PLF & APC during the FY 2019-20 to 2022-23 is as follows

Year	APC %	PLF %
2019-20	7.17	55.15
2020-21	7.38	60.39
2021-22	7.87	47.74
2022-23	6.85	67.69

				<p>However, in the draft Tariff Regulation 2024, the APC norms for 500 MW was tightened and was reduced by 0.5% i.e., from 5.75% to 5.25%. Considering the ageing of the plant and running of plant at low PLF due to high penetration of RE, it is difficult to achieve the stringent norm of 5.25%.</p> <p>Also, the present methodology of part load compensation on account of power surrender does not compensate the degradation of AEC fully as the compensation computation is based on Range of Unit loading vs % degradation in AEC and not based on Load Vs AEC Curve which will be more accurate.</p> <p>Hence, the norms of 5.75% for 500 MW Units may be retained in tariff period 2024-29 also.</p> <p>Also, the additional Auxiliary Power Consumption sanctioned by the Commission in original tariff order in specific cases like NTPL shall be allowed in addition to applicable Auxiliary Power Consumption provided as per this Regulation</p>
8	Chapter 12 Norms of Operation	70 (E)	<p>f Norms of Auxiliary energy consumption for the emission control system (AUXen) of thermal generating stations:</p> <p>(1) For reduction of emission of Sulphur dioxide:</p>	<p>Additional capital expenditure on account of implementation of Emission control System i.e., Flue Gas De-sulphurization (FGD) plant including its associated packages viz., Additional chimney and Additional Desalination Plant has been approved by the Commission</p>

			a) Wet Limestone based FGD system (without Gas-to-Gas heater)	<p>The Auxiliary Power consumption envisaged for FGD Plant including Additional chimney is 1.0 % for FGD and for additional De-Salination plant is 0.2 %.</p> <p>Hence provision shall be given for claim of Auxiliary Power Consumption separately for associated packages of emission control system</p>
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