

**ODISHA POWER GENERATION CORPORATION LTD.**

( A Government Company of the State of Odisha)

CIN : U40104OR1984SGC001429



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Ref: OPGC / C&RA/Tariff/2023-24/ 1535/WF

July 13, 2023

To  
**The Secretary,**  
Central Electricity Regulatory Commission,  
3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building  
36, Janpath, New Delhi- 110 001  
E-mail: tariff-reg@cercind.gov.in

**Sub: Suggestion/Comments on the Approach Paper on Terms and Conditions of Tariff for Control Period 2024-29.**

**Ref:** 1. CERC Public Notice dated 25-05-2023 and 03-07-2023  
2. CERC Email dated 31-05-2023

**Dear Sir,**

With reference to the cited subject and Public Notice referred above, we are submitting herewith our suggestion and comments on the Approach Paper on Terms and Conditions of Tariff for Control Period 2024-29.

We request your kind self for consideration of our suggestion and views while formulating the draft/final Tariff Regulations for the control period 2024-29.

Thanking you  
Yours faithfully

  
13/7/23  
**Addl. General Manager (C &RA)**

**Encl:** As above

OPGC Comments on Approach Paper for CERC Tariff Regulations 2024-29

Sl No	Particulars	Comments/ Suggestions
1.	Section -61 of the Electricity Act-2003	<p><b>“Section 61. (Tariff regulations):</b> The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely:-</p> <p>(a) the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees; ”</p> <p>.....</p> <p>Although the Electricity Act mandates the appropriate Commissions to be guided by the principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies, the same is not followed diligently. As a result, at times the generating companies not under the jurisdiction of CERC face difficulty or deprived of availing the benefits at par with the generating companies coming under CERC. Examples of some anomalies are mentioned in subsequent paras. Hence, it is proposed to have the provisions which shall be universally accepted and adopted by the appropriate Commissions to have consistency among all generating companies.</p>
2.	Approach-1 (Normative) Vis-à-vis Approach-2 (Performance Based Hybrid Tariff)	<p>The Hon'ble Commission has been following the Approach-2 (Performance Based Hybrid Tariff) methodology for determination of Tariff. The same is being improved over the last couple of Tariff Periods considering the difficulties being faced by the stakeholders. However, there are some issues like Recurring Additional Capitalisation, Frequent fluctuation of the prevailing Interest Rate, Consideration of GCV of Coal, Cost of Fuel etc which are yet to be stabilised/normalised. Hence, adoption of the Approach-1 (Normative Tariff) may lead to more issues/litigations amongst the stakeholders than easing out the process.</p>



		<p>In view of the above, it is proposed to continue with the Approach-2 (Performance Based Hybrid Tariff) methodology with further improvement in the adoption/acceptance of normative parameters for the control period 2024-29.</p>
<p>3.</p>	<p>Life of Generating Stations <b>(Ref. Clause-4.19)</b></p>	<p>It has been proposed to revise the life of the Generating Stations to 35 years from the present 25 years. It is suggested to continue with the existing provisions of 25 years of life of Generating Stations instead of the suggested life of 35 years. The reason for the same is as follows:</p> <p>As pointed out above at SI No. 1, per Section-61, SERCs are guided by the Regulations to be formed by Central Commission for determination of Tariff for Generation and Transmission. However, the SERCs prefer to pick and choose the CERC norms citing the state specific applicability. As a result, some of the norms which are beneficial to the Generators are scuttled and not allowed while notifying the Tariff Regulations and determining the Tariff for the Generating Companies by SERCs. For example, the provision of Special allowance. Usually, the Central Generating Stations are performing better post their usual life of 25 years due to better up-keep of the machine and equipment through availing the Special Allowance. However, the Generators coming under the jurisdiction of the SERCs suffer due to non-availability of such allowance. As a result, post 25 years, the Generators would not be able to operate with the same capability which they do within the present prescribed life of 25 years. In view of the above, it is suggested to keep the life of the Coal Based Thermal Generation Stations as 25 Years.</p>
<p>4.</p>	<p>Depreciation <b>(Ref. Clause-4.13)</b></p>	<p>As per the practice being followed by the Commission, recovery of depreciation is linked with a deemed normative loan repayment period of 12 years. This has been done abolishing the concept of AAD (Advance Against Depreciation) as mandated in the Tariff Policy. The proposal to revise depreciation rate considering the loan repayment period of 15 years may not be helpful to all the projects, as loan repayment period of most of the existing Generating Station is 12 years. In view of the above, it is suggested to keep different depreciation rate for different generating stations commensurating with the loan repayment period. Accordingly, depreciation rate for the existing stations and new Stations can be made different.</p>



5.	<p>Renovation and Modernisation and</p> <p>Special Allowance for Coal-based Thermal Generating station (Ref. Clause-4.6)</p>	<p>The relevant extracts of the provisions for Renovation and Modernisation and Special Allowance as provided in CERC (Terms and Conditions for Determination of Tariff) Regulations, 2019, which are extracted below for ready reference:</p> <p><b>“27. Additional Capitalisation on account of Renovation and Modernisation</b></p> <p>(1) <i>The generating company or the transmission licensee, as the case may be, intending to undertake renovation and modernization (R&amp;M) of the generating station or unit thereof or transmission system or element thereof for the purpose of extension of life beyond the originally recognised useful life for the purpose of tariff, shall file a petition before the Commission for approval of the proposal .....</i></p> <p>(3) <i>In case of gas/ liquid fuel based open/ combined cycle thermal generating station after 25 years of operation from date of commercial operation, any additional capital expenditure which has become necessary for renovation of gas turbines/steam turbine or additional capital expenditure necessary due to obsolescence or non-availability of spares for efficient operation of the stations shall be allowed:</i></p> <p><u>Provided that any expenditure included in the renovation and modernisation (R&amp;M) on consumables and cost of components and spares which is generally covered in the O&amp;M expenses during the major overhaul of gas turbine shall be suitably deducted from the expenditure to be allowed after prudence check.</u></p> <p>(4) <u>After completion of the renovation and modernisation (R&amp;M), the generating company or the transmission licensee, as the case may be, shall file a petition for determination of tariff. Expenditure incurred or projected to be incurred and admitted by the Commission after prudence check, and after deducting the accumulated depreciation already recovered from the admitted project cost, shall form the basis for determination of tariff.</u></p> <p><b>28. Special Allowance for Coal-based/Lignite fired Thermal Generating station</b></p> <p>(1) <u>In case of coal-based/lignite fired thermal generating stations, the generating company, instead of availing renovation and modernization (R&amp;M) may opt to avail a ‘special allowance’ in accordance with the norms specified in this Regulation, as compensation for meeting the requirement of expenses including renovation and modernisation beyond the useful</u></p>
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life of the generating station or a unit thereof and in such an event, upward revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the Special Allowance shall be included in the annual fixed cost:

Provided that such option shall not be available for a generating station or unit thereof for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations, or for a generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms;

Provided further that special allowance shall also be available for a generating station which has availed the Special Allowance during the tariff period 2009-14 or 2014-19 as applicable from the date of completion of the useful life.

(2) The Special Allowance admissible to a generating station shall be @ Rs 9.5 lakh per MW per year for the tariff period 2019-24.

(3) In the event of a generating station availing Special Allowance, the expenditure incurred upon or utilized from Special Allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission as and when directed.

(4) The Special Allowance allowed under this Regulation shall be transferred to a separate fund for utilization towards Renovation & Modernisation activities, for which detailed methodology shall be issued separately."

**Suggestion:**

As can be seen from the narration of both the above provisions, it is amply clear that the cause of allowing either R&M or Special allowance to the Thermal Generating Stations is to keep the performance level at desired level (at par with Norms) beyond the useful life of the Station. Simultaneously, the Government of India is also emphasising for continuation of the old thermal units in order to avail cheap power to tackle with the RE integration. To facilitate the same, the Hon'ble Commission is also contemplating incentivising the existing thermal units



to extend the life to generate and supply power at the cheapest tariff than bringing new stations whose tariff is comparatively very high.

With the above backdrop, we would like to highlight the anomalies in the existing R&M provision which need to be rectified. The generators availing special allowance, are not allowed R&M, which is fair and just. As a result, those stations are getting special allowance plus RoE on the Original Capital Cost as per the Tariff Regulations post useful life of the Station (25 years). However, the generating stations who are compelled to go for R&M due to either non-availability of provision towards special allowance or otherwise, are entitled for RoE only. As per the existing R&M Regulations (Proviso-4), the Generating Station opting for R&M shall be eligible for RoE **on the Additional Capitalisation on account of R&M and after deducting the accumulated depreciation already recovered from the admitted project cost.** This would not encourage any generator to go for R&M extending life of the plant, as they will not be entitled to get RoE on the Original Admitted Capital Cost. To present the case an example for both the situation is given hereunder:

Station Availing Special Allowance without R&M	Station Availing R&M
<p>Assumption:</p> <p>Station Capacity - 420 MW</p> <p>Original Capital Cost - 1200 Cr</p> <p>Debt Equity Ratio - 70:30</p> <p>Equity for RoE - 360 Cr</p> <p>Annual RoE@15.5% - 55.80 Cr</p> <p>Spl. Allowance@9.5lakh/MW/Year - 39.90 Cr</p> <p>Total Annual Benefit: Rs. 95.7 Cr</p>	<p>Assumption:</p> <p>Station Capacity - 420 MW</p> <p>Original Capital Cost - 1200 Cr</p> <p>Salvage value - 120 Cr (10% of 1200)</p> <p>R&amp;M Cost - 700 Cr</p> <p>Capital Cost for Tariff post R&amp;M-820 Cr</p> <p>Debt Equity Ratio - 70:30</p> <p>Equity for RoE - 246 Cr</p> <p>Annual RoE@15.5% - 38.13 Cr</p> <p>Total Annual Benefit: Rs 38.13 Cr</p>

\* The above example is with further assumption of "No add Cap is allowed to the Station throughout the life of the Station."



		<p>From the above example, it can be clearly seen that the Station going for R&amp;M shall be getting less RoE lest the special allowance. In view of the above, it is proposed to modify the Proviso 4 of Regulations 27 meant for R&amp;M as follows:  <u>'and after deducting the accumulated depreciation already recovered from the admitted project cost'</u> should be replaced with <u>'in addition to the admitted capital cost prior to the R&amp;M' for the purpose of tariff.</u></p>
6.	<p>Sharing of Gains (Ref. Clause-4.21)</p>	<p>Sharing of Gains with respect to the Normative Operation Parameters be stopped. Because the beneficiaries are not compensating the Generators in case of non-achievement of the norms due to constraints/factors beyond the control of the Generator.</p>
7.	<p>Blending Coal with Biomass (Ref. Clause-5.9)</p>	<p>Government of India vide its revised policy Amendment dated 7<sup>th</sup> April 2022 has mandated for co-firing of suitable Biomass pellet in Coal based Thermal Power plants upto 5% - 7%. In view of the above mandate, the Commission should specify the terms and condition and norms considering the economics, availability and requirement of the blending of Biomass based on geographical location of the power station to encourage implementation of the same.</p>
8.	<p>Impact of Energy Transition and Flexible Operation on Retrofitting and O&amp;M Expenses. (Ref. Clause-5.7 and Addendum dated 3<sup>rd</sup> July 2023)</p>	<p>The Hon'ble Commission has notified the IEGC, 2023 on 29<sup>th</sup> May 2023, which shall be made applicable from the date to be notified by the Commission. As per the same, "Mechanism for Compensation for Degradation of Heat Rate, Aux Consumption and Secondary Fuel Oil Consumption, due to Part Load Operation and Multiple Start/Stop of Units" as issued by CERC dated 5<sup>th</sup> May 2017 vide No. L-1/219/2017-CERC shall continue to be in force till the regulations or fresh Orders are issued by the Commission. Energy Transition and large scale integration of RE sources would lead to frequent and aggressive operational conditions. As a result, in addition to the degradation of the normative performance parameters, the equipment shall be under stress leading to higher O&amp;M expenses. The Hon'ble Commission has been kind enough to publish the Addendum to the Approach Paper based on the methodology prepared by CEA. We would like to bring to the notice of the Commission the following:</p>



		<p>1. The Capital Expenditure proposed for retrofitting of various measures to make the plant capable of low load operation of old units and very old units (irrespective of unit size) are amount Rs. 10 Crore and Rs. 30 Crores respectively. As the numbers may vary for different Power Companies based on the outcome of the competitive bidding, it is proposed to adopt the actual capital expenditures incurred instead of adopting a normative number as the expenses are onetime expenses only. Further, if the Commission wishes to adopt the normative numbers, then this shall be considered separately, if the expenses are not incurred as a part of R&amp;M.</p> <p>2. Further, the proposed increase in O&amp;M expenses due to increased life consumption (damage cost) varying from 9% to 20% for reduction in loading from 55% to 40% are not time -tested figures. As cited above, the frequency of flexible operation is going to be aggressive and the same has been envisaged at 85% (minimum 310 days in a year). It's repercussion may not be immediate but long term. As the compensation proposed by the Commission is normative in nature, the same may not be revised retrospectively. In view of the above, it is suggested, the Commission should allow a higher margin than the proposed 9% to 20% increase in O&amp;M cost.</p> <p>3. For estimation of ECR, in addition to the impact of SHR and SFC, impact of increase in Auxiliary consumption needs to be considered.</p>
9.	<p>NAPM/PLF for R&amp;M And Target NAPM/PLF for Incentive <b>(Ref. Clause-4.16.5)</b></p>	<p>In the Approach Paper, to promote older thermal generating stations to operate and run efficiently it has been proposed to allow additional incentive in the form of pause/kWh apart from those currently allowed to such generating stations against generation above the target PLF. The main purpose of R&amp;M is for life extension and availing power at cheaper rate in comparison to the New Thermal Power Stations. Simultaneously, the Generating Company shall have to be capable enough to follow the flexible operation guidelines. Looking at the actual performance of the Stations/units with R&amp;M, the normative conditions needs to be specified separately.</p> <p>Further, with RE integration cum solarization of the power sector and implementation of flexible operation, the actual PLF of Thermal Generating Stations during peak hours and Off-peak hours are likely to be altogether different. With a provision to run the Thermal Generating Stations at Technical Minimum of 40%, the chances of achieving PLF during peak hour may be</p>





		<p>more than 85%, but the PLF during Off-peak hours is likely to be in the range of 50 to 60%. So, to incentivize the generators operating under flexible operation, there should be different norms for different time period.</p> <p>In view of the above, it is proposed to incorporate the following for incentivization.</p> <ul style="list-style-type: none"> <li>➤ Incentives should be linked to NAPAF instead of Target PLF. (similar to the condition prevailing before 2009)</li> <li>➤ If incentive is linked to PLF, then the Target PLF for Peak Period and Off-peak period should be different.</li> <li>➤ The incentive for achieving better PLF during Peak Period should be Telescopic graded method (higher incentive for higher PLF with the present norm of Target PLF for incentive being 85%).</li> <li>➤ Similarly, for encouraging flexible operation and supply during Off-peak period, two sets of Target PLF for incentive should be there. Like incentive for Target PLF below 55% and Target PLF above 85%..</li> </ul>
10.	<p>Normative Add-Cap Generating Station <b>(Ref. Clause-4.10.1)</b></p>	<p>One step towards adoption of Normative Approach is to allow Additional capitalization after cut-off date on normative basis. To consider the norm, all the expenses above Rs 1 lakh should be considered as Capital Expenses and expenses below Rs. 1 lakh should be considered under revenue expenses (O&amp;M Expenses) of the previous years instead of the proposed Rs 20 lakhs limit.</p>
11.	<p>Computation of IDC <b>(Ref. Clause-7.1.8)</b></p>	<p>For consideration of IDC, where the actual completion period is more than schedule period and total delay is not allowed by the Commission, the proposed Option 2 method of estimation of IDC should be continued.</p> <p>Considering the example, where IDC upto SCOD is X and IDC from SCOD upto Actual COD is Y, SCOD period is 36 Months and Actual Completion period is 48 Months with delay of 4 months allowed against a delay of 12 months., the allowable IDC should be Rs. <math>(X+Y) * [(36+4)/48]</math>. It means the IDC is prorated over the actual implementation period of 48 months.</p> <p>Otherwise, if option -1 is considered, then the IDC should be estimated for the 40 months upto Actual CoD. (i.e, 40 months leading to COD). This proposal is considering the backloading of major expenses and disbursement schedule.</p>



12.	Recovery of AFC to daily Peak and Off-peak periods <b>(Ref. Clause-5.2)</b>	Looking at the practical difficulty of identifying concurrent low demand and high demand season, the recovery of AFC can be limited to daily peak and off-peak periods.
13.	Incentive for ECS Operation <b>(Ref. Clause-5.6)</b>	As considerable expenses are being incurred to reduce the adverse impact on the environment, it is imperative to bring the ECS system into operation at the earliest. Also, for proper and successful operation of such emission control systems, incentive system linking to the achievement of normative parameters for which the system is established should be in place.
14.	Segregation of Normative O&M Expenses <b>(Ref. Clause-4.12.1)</b>	<p>In the approach paper, it has been proposed to specify O&amp;M norms under the following two categories.</p> <ol style="list-style-type: none"> <li>1. Employee Expenses</li> <li>2. Other O&amp;M Expenses comprise Repair and Maintenance and Administrative and General Expenses.</li> </ol> <p>To give effect to the impact of pay/wage revision, 50% of the actual wage revision may be allowed on a normative basis.</p>

