

Ref No. TPL/CERC/2023/3107

31<sup>st</sup> July 2023

To,  
The Secretary,  
Central Electricity Regulatory Commission  
3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building,  
36, Janpath, New Delhi- 110001

**SUGEN**  
**MEGA POWER PROJECT**

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Sub: Submission of comments on the Approach Paper of Terms and Conditions of Tariff for the period commencing from 1st April, 2024.

Dear Sir:

The Hon'ble Commission, vide public notice dated 26<sup>th</sup> May 2023 had issued the Approach Paper of Terms and Conditions of Tariff for the period commencing from 1st April, 2024.

In this regard, we take this opportunity to express our gratitude to the Hon'ble Ministry for giving us an opportunity to submit our comments/ suggestions on the subject matter.

We are hereby submitting 3 hard copies + soft copy on the required email id. We earnestly request you to give due consideration to our comments/ suggestions while drafting the Tariff Regulations.

Thanking you,

Yours Sincerely,  
For **Torrent Power Limited**

  
Naresh Joshi  
Vice President



Enclosed:

1. Comments of Torrent Power Limited ( 3 Copies)

Sr No	Point of the Approach Paper	Subject	Approach Paper - Tariff Regulation 2024-29	Submission	Rationale
1	3.2 (page 20)	Annual Fixed Cost	<p>...In order to achieve the dual objectives as flagged above, <b>for existing generating stations</b> and transmission systems whose cut-off date shall be over by 31.03.2024, the gross fixed assets as approved as on 31.03.2024 may be considered for projecting base year AFC i.e., for the first year of the Control Period (FY 2024-25). Subsequently, <b>fixed charges for future years may be approved on the basis of indexation that may be specified for each generating station/transmission system</b> by the Commission from time to time...</p> <p>...In this context, comments/ observations from stakeholders are invited on the following points:</p> <p><b>1) Whether clustering the components of AFC based on their nature to increase/ decrease will allow better projections? Any other possible method to cluster the AFC components?</b></p> <p><b>2) What other methodology can be adopted to determine the increasing/ decreasing factors?</b></p> <p><b>3) Whether the impact of additional capitalization can also be allowed through the same indexation mechanism or through a separate revenue stream?...</b></p>	<p>We humbly submit to retain / continue with the existing methodology of determination of annual fixe cost-based hybrid approach.</p>	<p>The approach suggests having indexation for each plant separately. Such plant specific indexation is proposed based on relevant data for determination of indexation. Post verification, the same needs to be approved by commission. In this context, it may be noted that Hon'ble Commission decides normative parameters after due consideration of actual data. Further, Hybrid approach very well balanced the cost-of-service approach as well as embedding efficiency. Such approach has given stable and transparent regulatory framework which is very important for long term and capital-intensive investment like power generation and transmission.</p> <p>In addition to the above, it is very important to avoid subjectivity in providing regulatory framework. In the proposed approach, indexation is to be determined for each plant which would lead to differences and disputes (as always, a case with indexation) in determining the index and there would always be comparison related issue.</p> <p>Further, the current approach provides certainty in terms of tariff to be considered over the period of five years and the state regulations are also aligned with current approach allowing smooth and timely termination of MYT of the beneficiaries.</p> <p>In view of the above, it is humbly suggested to continue with current hybrid approach.</p>
2	4.12.5 (page 50-51)	Change in Law and Taxes	<p>It is observed that there are <b>no provisions with regard to allowing additional expenses on account of any change in law</b> resulting in an increase in O&amp;M expenses. However, including the same may lead to recurring impacts, and claims that may result in regulatory overburden. <b>Comments and suggestions are therefore sought from stakeholders on whether to include any provisions with regard to allowing impact of a change in law on O&amp;M expenses.</b></p>	<p>We humbly submit that Change in law may be provided as an enabling provision for Normative O &amp; M expenses under separate provision.</p>	<p>It may be noted that change in law needs to be considered on case-to-case basis and it cannot be normalized. In this view, it is suggested to provide an enabling clause under O&amp;M for uncontrollable events. Such enabling provision would also address a concerns of wage revision under Point no. 4.12.1 of the Approach Paper.</p>
3	4.13 (page 50-52)	Depreciation	<p>...It is observed that while specifying the depreciation rate, the tenure of the loan considered is 12 years, whereas the life of most of the assets is between 25 and 40 years. <b>It is observed that shorter loan duration and higher depreciation in the initial years have resulted in front loading of tariffs...</b></p> <p><b>In view of the above, a depreciation rate may be specified considering a loan tenure of 15 years instead of the current practice of 12 years. Further, additional provisions may also</b></p>	<p>We humbly submit to continue existing provision of Depreciation, considering 12 years of loan duration &amp; useful life of project.</p>	<p>The forthcoming tariff period will be 5<sup>th</sup> control period after encapsulation of EA 2003. We request Hon'ble CERC to note that many of the existing generating stations have either completed 12 years of life or are near to completion. In this context, change in approach of calculating depreciation may not be considered. Further, the financing of most of the new capacities would have been done considering existing practice only as such arrangements are to be done at the time of financial closure. Hence, it is</p>

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			<p>be specified that allow lower rate of depreciation to be charged by the generator in the initial years if mutually agreed upon with the beneficiary(ies).</p>		<p>humbly submitted that the proposal will lead to more uncertainty and complexities.</p> <p>Being capital intensive, Financing for power sector project has become very difficult and lenders in most cases insist for lower tenure. Further, financing through NCD (which is mandatory in case of turnover above certain value) will have tenure of only about 5 to 8 years. Hence, in order to match the repayment schedule, there is a need to consider depreciation for shorter period.</p> <p>Also, higher tenure of loan would have bearing on the interest rate and overall cost of financing.</p> <p>Therefore, it is suggested to continue with current practice of higher depreciation for 12 years.</p>
4	4.14.1 (page 52-53)	Weighted Average Rate of Interest	<p>...</p> <p>To simplify the approval of interest on loans, <b>the weighted average actual rate of interest of the generating company</b> or transmission licensee may be considered instead of <b>project specific interest on loans</b>. Further, the cost of hedging related to foreign loans be allowed on an actual basis, without allowing any actual FERV...</p>	<p>We suggest continuing the existing practice to consider project specific weighted average rate of interest.</p>	<p>It may be noted that risk &amp; reward of each project are different. In addition to the same, companies are involved in various projects and segments of the business. Generation, distribution, renewables, hydro, transmission etc. have different risks &amp; rewards. Accordingly, lenders offer different ROI for different projects, even for the same company.</p> <p>In addition to the above, it would lead to complexities of under / over recovery in case the project has actual loan outstanding with different rate of interest (vis-à-vis the company).</p> <p>In this context, the current approach of taking weighted average actual rate of interest of the project is more appropriate &amp; balanced.</p>

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5	4.16.4 (page 54)	Rate of Return on Equity	<p>.....Different models, viz. Discounted Cash Flows (DCF), Risk Premium Model (RPM), Capital Asset Pricing Model (CAPM) etc. are available for the estimation of the cost of equity/RoE. However, the Commission has been largely dependent on the CAPM model for arriving at RoE during previous tariff periods.</p> <p>The formula for computing the return on equity based on CAPM is as under:</p> <p><b><math>Re = Rf + \beta \times (Rm - Rf)</math></b>  Where:  Rf = risk-free rate  <math>\beta</math> = equity beta  Rm-Rf = equity market risk premium</p> <p><b>Comments and suggestions are sought from stakeholders on the following issues:</b></p> <ol style="list-style-type: none"> <li><b>1. Review of Rate of RoE to be allowed, including that to be allowed on additional capitalisation that is carried out on account of Change in Law and Force Majeure.</b></li> <li><b>2. Whether the revised rate of RoE to be made applicable to only new projects or to both existing and new projects?</b></li> <li><b>3. Whether timely completion of hydro generating stations can be incentivised to attract investments?</b></li> <li><b>4. Merit behind approving different Rate of RoE to thermal, hydro generation and transmission projects with further incentives for dam/reservoir based projects including PSP.</b></li> <li><b>5. Merit in allowing RoE by linking the rate of return with market interest rates such as G-SEC rates/MCLR/RBI Base Rate.</b></li> </ol>	<p>We humbly submit to provide higher RoE of 16% continuing the existing approach. Also, for additional capitalization on account of Change in Law / Force Majeure should be allowed with equal RoE of 16%.</p>	<ul style="list-style-type: none"> <li>• The existing pretax return on equity by grossing up ROE with applicable MAT/Corporate Tax should continue. Considering no return during gestation period and prevailing high uncertainty and risk in Indian Power Market higher ROE should be given to developers.</li> <li>• Further, additional capitalization on account of Change in Law / Force Majeure requires the developer to divert the equity which would have been used to earn higher returns from other business/ project. Hence, it is unfair to consider lower RoE for uncontrollable Change in Law / Force Majeure.</li> <li>• The Indian Grid is moving toward heavy RE generation mix. This transition would need support &amp; incentives for existing &amp; efficient thermal &amp; gas based generating stations operating under section 62.</li> <li>• Hence, Existing capacities under Section 62 will continue to play an important role and will form a major chunk of future generation. Therefore, the risk perception of these investors. including other stakeholders such as lenders, needs to be lowered so that it provides the correct signal to investors for creating the much-needed capacity.</li> <li>• Further, the Regulatory certainty is also utmost important to continue attracting investment in the Sector, specifically a sector which is very important and is going through much needed sustainable transition.</li> </ul> <p>In view of the above, it is requested to provide higher RoE in the range of 16% (post tax). Such return will provide incentives to the existing / new generation stations under Section 62 to participate in this transition phase, requiring lots of flexibility and having lots of uncertainty.</p>
6	4.18.1 (page 64-65)	Working Capital	<p>With regard to gas based generating stations, from the operational data in recent years, it is observed that the PLF of such generating stations is around 20%-25%. As power from these plants is costlier it is generally scheduled by beneficiaries only to meet peak requirements. It is anticipated that these generating stations will continue to operate at such low PLFs in the next tariff period, and</p>	<p>We humbly submit to continue with the existing approach of calculating working capital.</p>	<p>Current norms for considering amount of stock of Fuel Oil/O&amp;M/Maintenance spares, receivables as specified in existing regulations should continue. We submit the following rationales.</p> <ol style="list-style-type: none"> <li><b>1. Recovery of AFC including working capital should be linked to parameters which are under the control of</b></li> </ol>

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			<p>therefore, the current practice of allowing working capital requirements considering generation at normative PLF may need review.</p>		<p>generating station i.e. PAF and should not be linked to parameters determined by others i.e. PLF.</p> <ol style="list-style-type: none"> <li>2. Generators are responsible for maintaining availability and the recovery of Fixed Cost is linked with availability. In this context, we would like to submit that the availability is derived based on declared capacity. As per the definition of declared capacity, it is to be decided after duly considering the fuel and water availability. Further, availability depends not only on water and fuel but also on factors such as ensuring competent manpower, maintaining consumables (part of O&amp;M) &amp; maintenance spares as well as other long term fixed arrangements. Hence, irrespective of actual PLF, the cost of maintaining the fuel stock and other essential remain the same for lower as well as higher PLF.</li> <li>3. All the above-mentioned components of working capital (i.e. O&amp;M, Maintenance Spares, Liquid Fuel Stock, Receivable) are fixed and mandatory expenses to maintain availability. It is empathized that if the generators are obligated to have in place all above-mentioned arrangements to declare availability (irrespective of the offtake) and such availability is required to be maintained at normative level (i.e. 85%), calculation of interest of working capital should be linked to such normative level only and generators should not be deprived to recover such expenses by associating with irrelevant norms i.e. PLF.</li> <li>4. One of the basic objectives of Availability based Tariff for generating stations is to induce maximization of plant availability. This is done by linking the fixed cost (capacity charge) payment to availability declaration. The Electricity Act and the Tariff Policy provide to balance the interests of both the Parties. Norms should protect the interest of consumers, but the same cannot deny recovery of cost under the veil of PLF. The right</li> </ol>

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					<p>approach, however, would be to ensure that the recovery is correctly linked to performance of the correct type for the generators so that it brings benefits to consumers. In the present case, the consumer can exercise flexibility based on availability to manage peak and off peak, which will be very important in RE heavy grid.</p> <p>In view of the above, it is submitted that change in norms of interest on working capital as proposed will adversely impact important arrangements like fuel supply &amp; transportation, Manpower &amp; Service Contract, Spares and will disturb complete cycle of receivables and payables. Further, the existing norms have already gone through scrutiny &amp; deliberation of almost five tariff period (more than 20 years) and should be continued for maintaining sanctity of all such rationales and decisions. It is also necessary to provide regulatory certainty in terms of principle and approach, specifically the approach having been in place for more than 20 years and very important (for availability) in the present &amp; future situation of RE heavy grid.</p>
7	4.21 (page 68)	Sharing of Gains	<p><b>Regulation 60 of the CERC Tariff Regulations 2019, allows sharing of gains on account of the following:</b></p> <p>1. Due to efficiency gains related to operational parameters namely Station Heat Rate, Auxiliary Energy Consumption, SFOC which are to be shared in the ratio of 50:50.</p> <p>2. Due to the refinancing or restructuring of loans, net gains are to be shared in the ratio 50:50.</p> <p>It is observed that both generating companies as well as transmission utilities have considerable resources in the form of assets such as land banks and other enabling infrastructure and human resources that can be utilized to increase non-core revenues through lease, data centers, ecotourism, etc., which should be explored, and in order to generate such lateral revenue opportunities, the utilities need to be incentivized.</p> <p><b>Comments and suggestions are sought from the stakeholders on the following:</b></p> <p><b>1. Ways to increase non-core revenues through optimal utilization of available resources.</b></p>	We humbly submit to consider sharing of gain and passing of loss on equal footing.	The Sharing of gains on Heat rate and Auxiliary consumption is completely in contradiction to rationales of having these parameters on normative basis with incentives for being efficient. We would like to submit that the Heat Rate is dependent on (a) Site and ambient conditions (b) Scheduling and generation (c) stand-by of units (d) Deterioration due to ageing etc. and the Auxiliary Consumption is dependent on (i) operation of Plant at considerably lower load (ii) Loss of Bus Reactor, if any (iii) Losses of Inter-connecting Transformers inside Switchyard (iv) Losses of Generator Step-up Transformers, Auxiliary Transformers (v) Power Consumption for Water Intake Pump Facility, when the same is away from the Power Station etc. Hence, in the current or evolving supply-demand situation, it would be difficult to operate with significant margin vis-à-vis normative parameters.

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			<b>2. Any modification in the sharing mechanism that may be required.</b>		In view of above, gain or loss, if any, on account of these parameters should be shared at 50:50 (generator: beneficiary).
8	5.10 (page 80)	Incentives		We humbly request to provide incentives linked to PAF.	<p>Incentive/disincentive for generating stations should be linked to parameters which are under control as generator is responsible to make the plant available. Hence, the criteria for granting incentive should remain linked to availability. Generation is based on actual station dispatch which in turn depends upon many factors like climatic changes, festival / holidays, abrupt demand changes, renewable generation, transmission / grid considerations etc which are beyond the control of the Generator. In fact such factors compel the DISCOM / beneficiaries not to utilize availability as per declaration.</p> <p>Further, the reimbursement of fixed charges and computation of Incentive on PAF basis is the most balanced approach, specifically in this transition phase (towards RE) serving the interest of the generators and consumers. A perception that the measure of "service rendered" is the energy supplied by a station has to change, and the capability to supply power (which would normally be fully harnessed and utilized) has to be accepted as the measure of service rendered, specifically in the evolving situation of RE heavy grid.</p> <p>We submit that the proposed regulations should take into account the existing situation. Availability is required throughout the day in the developing scenario of renewable heavy grid. Due to variability of renewable generation, thermal and gas based capacity need to maintain very high availability irrespective of peak and off peak period, which is now decided not only by demand but RE availability also. Hence, we humbly request the Hon'ble Commission to provide incentive linked to availability in line with the Tariff Regulations 2009-14. It is a fact that the consumers' interest can be taken care of through the supply of continuous and reliable power. Further, it is well-established that Availability Based Tariff has dramatically improved the power supply/availability scenario with</p>

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					greater emphasis on continuity and quality. Linking incentive to plant availability is only an extension of this principle in the right direction.
9	5.7 (page 77-78)	Compensation for Part-Load Operations	<p>The compensation mechanism for the thermal generating stations operating on loads below normative level up to the technical minimum, was included as part of the amendment to the Indian Electricity Grid Code, 2010, in the year 2017.....</p> <p>Further, the Commission, in its Explanatory Memorandum to the draft IEGC, 2022 has mentioned that since norms for generating stations under Section 62 are determined under the Tariff Regulations, the appropriate placement of compensation for such projects should be through the Tariff Regulations.</p> <p>Therefore, the norms are now to be dealt with as a part of the Tariff Regulations and therefore, appropriate provisions need to be inserted....</p> <p>It is observed that currently the impact is being allowed considering the norms or actuals, whichever is lower. This mechanism results in operational gains being passed on to the beneficiaries, while any losses are borne by the generator. The mechanism may need a review wherein either normative norms are followed, or compensation is limited to actuals. It is further observed that there have been instances where the actual PLF of plants has been even below 55%. The current provisions for compensation do not cover operating PLF below 55%, and therefore, devising a compensation mechanism to govern such cases may also be required. With regard to the compensation norms, an Expert Committee has already been constituted; however, in view of the above discussion, <b>comments and suggestions are sought from stakeholders on the earlier norms and any changes that may be required to compensate the generators to operate the plants in a flexible manner to support the Grid.</b></p>	<p>We welcome consideration of Hon'ble commission to include Compensation Loss under Tariff Regulations. We humbly submit to consider;</p> <p>1) bringing formula of Compensation Loss in parity with Sharing of Gain.</p> <p>2) passing on 100% loss of technical minimum operation below 55% to the beneficiary.</p>	<p>Generators should be made accountable for parameters which are under its control. However, if the operating PLF deteriorates (due to below technical minimum load) as flexibility exercised by the beneficiaries due to lower demand or variable RE, generators should not be penalized in providing such flexibility. Further, the need (in the evolving situation of the grid) is to encourage such flexibility in the overall interest of power system. We suggest considering this aspect along with the sharing of gain / passing of loss, as mentioned above.</p>
10	5.2 (page 72)	Peak and Off-Peak Tariff	<p>As recovery of reasonable costs is of prime importance for any infrastructure sectoral growth, comments/suggestions are sought on the possible interventions/modifications required to address the issues highlighted above. Specific suggestions are also sought on the following.</p> <p>1. Whether it would be advisable to limit the recovery based on daily peak and off peak periods.</p> <p>2. Suggestions on National versus Regional Peak as a reference point for recovery of fixed charges.</p>	<p>It is humbly submitted to consider incentives based on PLF in addition to the PAF based incentives as mentioned above.</p>	<p>As the major issue is related to the difference in peak period of various beneficiaries (even located in the same region), it is submitted that this issue could be addressed as part of overall incentives scheme to be provided. Part (A) of the incentive is linked to PAF as mentioned above and Part (B) of the incentive is linked with PLF. Linking Part (B) with PLF would provide (a) flexibility to beneficiary in off taking power as per its peak / off peak profile and (b) incentives for Generating stations to accommodate (as</p>



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					<p>much as possible) variation in offtake of different beneficiaries.</p> <p>Generators would be incentivised to maintain better availability throughout the day and not only during the peak hours period as decided by RLDC (which is responsible for managing the regional demand (on overall basis) not the demand of individual beneficiary / state of the generator). Further, it will provide an opportunity to each beneficiary of the plant having different peak and off-peak period to optimise its offtake and pay incentive for such offtake above normative.</p> <p>It may also be noted that the incentive on block basis (on contracted capacity) provides better management of peak and off-peak demand of the beneficiaries considering the operation of other mechanisms on block basis e.g. RTM, Ancillary Service, TRAS etc.</p> <p>In view of the above, we suggest considering incentive on each block and each beneficiary basis. We propose to consider Rs. 0.50 / unit for offtake above 85% of the contracted capacity.</p>
11	File No. L-1/268/2022/CERC – ADDENDUM dated 3 <sup>rd</sup> July 2023 Compensation methodology	CEA (Flexible Operation of Coal based Thermal Power Generating Units) Regulations, 2023	Compensation methodology for operating Thermal ( Coal ) Generating unit below 55% Minimum Power Level	It is humbly submitted to consider Gas Based Generating Unit under the proposed Regulations	<p>Comparatively better adaptability (reasonable cost/quicker ramp up/down / more turndown) of Gas-based power plants can help in providing flexible power and to manage grid balancing. Considering this flexibility of Gas Based power plants, we feel that In addition to Coal based Power Plant, Gas based Power Plants should also be considered in the proposed Regulations.</p> <p>Further, revised grid operation regime, necessitating flexibility of generation either from coal/gas or other sources, has significantly impacted the gas-based power plants operation regime (increased startups, shutdowns, low load operations, frequent turn up/turn down and so on) impacting the operating efficiencies beyond normal operations. The same can also be considered for compensation. This is in view of certain solutions available from various Gas based power plant OEMS, which if implemented (with necessary CAPEX approvals), shall further help reduce losses to Gas based power plants in the changed regime and will be of national interest.</p>

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					<p>Anticipating positive response from hon'ble CERC, we have approached out OEM to provide cost estimation and required details for operating unit below 55% Minimum Power Level.</p> <p>We will submit the necessary details to hon'ble commission in due course. In the mean time, we request Hon`ble CERC to consider our request for inclusion of compensation methodology (after due review) for operating thermal (gas) units below 55% minimum as an enabling provision.</p>