

78821/2024/CRO-CERC

06-09-24



**RP - Sanjiv Goenka
Group**
Growing Legacies



Energising Lives - Since 1899

Head - Regulatory:001

06 September 2024

The Secretary
Central Electricity Regulatory Commission
7th Floor, Tower B, World Trade Centre,
Nauroji Nagar,
New Delhi – 110 029

Sir,

**Comments on Draft Central Electricity Regulatory Commission
(Terms and Conditions of Tariff) (First Amendment) Regulations, 2024**

With reference to your communication File No. No. L-1/268/2022/CERC dated 02 August 2024, we furnish our submissions / suggestions on the above draft 1st amendment to the Tariff Regulations for your kind consideration in three copies. It is our earnest hope and humble prayer that the Hon'ble Commission will recognize our concerns and make necessary modifications.

We also crave leave to submit at a future date further materials on the subject which may be available to us in the event we are of the opinion that the same would render meaningful assistance to the Hon'ble Commission in the matter.

Yours faithfully,


Balaji Sivan
Head – Regulatory

Encl.

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23.9.24

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Under (CERC)
C (R.P.)
Mansukh

**Comments of CESC Limited on draft Central Electricity Regulatory Commission
(Terms and Conditions of Tariff) (First Amendment) Regulations, 2024**

- Government of India has set an ambitious target of 500 GW of Renewable Generation capacity by the end of 2029-30. In the near future, this is set to significantly affect the thermal generation plants, which have been serving as a base load support to the energy demand. This is likely to impact the operating parameters of the thermal plants, which need to be operated at part load of their installed capacity. Therefore, adequate compensation is necessary to support the thermal power plants towards their flexible operations, which would be essential to maintain grid stability as well as accommodate the variable nature of renewable power in the system.
- The proposed amendment on introduction of compensation for generating stations operating below their normative availability factor is a welcome step towards the implementation of the same.
- Apart from the necessity of flexible operations of thermal generating stations on account of renewable energy integration in the system, backing down of generating stations can also be attributable to other factors like merit order scheduling, lower system demand in lean periods.
- It is submitted that there are many vintage thermal generating stations with units of smaller capacity that, owing to their higher costs of generation, are backed down first according to the merit order dispatch principle. These stations, though vintage, play an essential role in supporting the grid stability and are mostly used to cater to peak demand requirements. Further, these stations bear the maximum impact towards the lower load operations and therefore need to be adequately compensated. Therefore, an additional subcategory with higher levels of compensation may be necessary for plants with lower unit sizes.
- Further, the proposed amendment stipulates sharing of gains pertaining to actual levels of performance parameters vis-à-vis the normative parameters and additional incremental parameters pertaining to lower % loading of units. It is submitted that existing tariff regulations of CERC do not mandate reconciliation of the actual parameters against the normative allowable performance parameters. Moreover, the Tariff Regulations of State Electricity Regulatory Commissions also have established mechanisms for sharing of such gains.
- Therefore, it is submitted that only the incremental increase of parameters must be evaluated, instead of the entire actual performance, as sharing of any gains from actual levels would in effect disincentivize stations who had been able to achieve better efficiency factors. It is prayed that the gains be assessed on an incremental basis only, and that no restrictions based on actual operating parameters must be imposed on thermal generating stations.
- It is prayed that since SLDC raises monthly statements on the declared capacity and actual dispatch for respective generators, the compensation allowable may also be allowed to be recovered on an average monthly basis, subject to an annual reconciliation. Furthermore,

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it is submitted in this regard that since the compensation methodology is being incorporated through the tariff regulations, a pilot phase may be introduced to assess the operational impact and mitigate any challenges thereof before implementation of the same.

- Moreover, the effect of backing down of thermal generating stations is a national level phenomenon and implementation of such compensation mechanism must be done in a unified manner to mitigate any preferential treatment of central, state or private gencos. Therefore, it is further submitted that since the CERC Tariff Regulations form a benchmark guideline for all State Commissions, it would be beneficial for all the stakeholders, if such compensation mechanism is directly adopted without any restrictive clauses or other conditionalities by the respective State Commissions. Accordingly, it may please be kept in the agenda for discussion for the Forum of Regulator meeting for harmonious adoption by the respective State Commissions.
- The summarised submission of the company has been attached hereinbelow-

Comments of CESC Limited on draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2024

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	1.	85-100	Nil		
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	<p>(6) The additional compensation for secondary fuel oil consumption shall be permissible over and above seven (7) start / stop in a year for the generating station under Unit Shutdown in terms of Regulation 47 of the Grid Code Regulations 2023. For the purpose of compensation under regulation (1) of this regulation, the secondary fuel oil consumption per start up shall be considered based on the following norms or actual, whichever is lower:-</p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th rowspan="2">Unit Size</th> <th colspan="3">Secondary fuel oil consumption per stat up (Kl)</th> </tr> <tr> <th>Hot</th> <th>Warm</th> <th>Cold</th> </tr> </thead> <tbody> <tr> <td>200/210/250 MW</td> <td>20</td> <td>30</td> <td>50</td> </tr> <tr> <td>500 MW</td> <td>30</td> <td>50</td> <td>90</td> </tr> <tr> <td>660 MW</td> <td>40</td> <td>60</td> <td>110</td> </tr> </tbody> </table> <p>Additional specific secondary fuel oil consumption of 0.2 ml/ kWh shall be provided for units operating below unit loading of 55%.</p>			Unit Size	Secondary fuel oil consumption per stat up (Kl)			Hot	Warm	Cold	200/210/250 MW	20	30	50	500 MW	30	50	90	660 MW	40	60	110	
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	<p>(7) The financial gains computed, after taking into account compensation, over and above the actual energy charges shall be shared between the generating station and the beneficiaries in the ratio of 1:1. in accordance with the procedure to be issued by NLDC with the approval of the Commission</p>																						

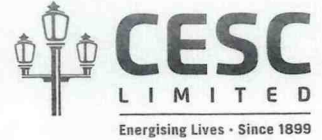
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	<p>(8) There shall be a reconciliation of the compensation at the end of the financial year considering actual weighted average operational parameters of station heat rate, auxiliary energy consumption and secondary oil consumption.</p> <p>(9) The change in the schedule of power under the provisions of Central Electricity Regulatory Commission (Ancillary Services Operations) Regulations, 2022 shall not be considered for compensation.</p> <p>(10) Procedure stipulating the mechanism to work out the compensation for degradation of heat rate, auxiliary consumption and secondary fuel oil consumption due to part load operation and multiple start and stop of units of the generating station shall be issued by the NLDC separately with the approval of the Commission</p>	



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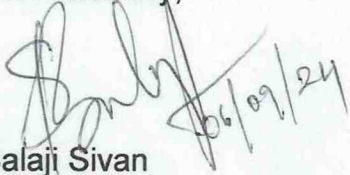
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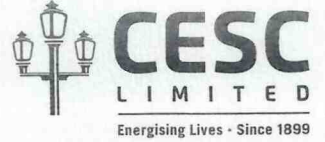
Comments of CESC Limited on draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2024

Clause Reference	Proposed Amendment	Submission / Comment
	<p>(8) There shall be a reconciliation of the compensation at the end of the financial year considering actual weighted average operational parameters of station heat rate, auxiliary energy consumption and secondary oil consumption.</p> <p>(9) The change in the schedule of power under the provisions of Central Electricity Regulatory Commission (Ancillary Services Operations) Regulations, 2022 shall not be considered for compensation.</p> <p>(10) Procedure stipulating the mechanism to work out the compensation for degradation of heat rate, auxiliary consumption and secondary fuel oil consumption due to part load operation and multiple start and stop of units of the generating station shall be issued by the NLDC separately with the approval of the Commission</p>	



**RP - Sanjiv Goenka
Group**

Growing Legacies



CESC
LIMITED

Energising Lives - Since 1899

Head - Regulatory:001

06 September 2024

The Secretary
Central Electricity Regulatory Commission
7th Floor, Tower B, World Trade Centre,
Nauroji Nagar,
New Delhi – 110 029

Sir,

**Comments on Draft Central Electricity Regulatory Commission
(Terms and Conditions of Tariff) (First Amendment) Regulations, 2024**

With reference to your communication File No. No. L-1/268/2022/CERC dated 02 August 2024, we furnish our submissions / suggestions on the above draft 1st amendment to the Tariff Regulations for your kind consideration in three copies. It is our earnest hope and humble prayer that the Hon'ble Commission will recognize our concerns and make necessary modifications.

We also crave leave to submit at a future date further materials on the subject which may be available to us in the event we are of the opinion that the same would render meaningful assistance to the Hon'ble Commission in the matter.

Yours faithfully,


Balaji Sivan
Head – Regulatory

Encl.

CESC Limited

CIN : L31901WB1978PLC031411 □ e-mail : cesclimited@rpsg.in

Regd. Office : CESC House, Chowringhee Square, Kolkata - 700 001, India

Tel : +91 33 2225 6040 Fax : +91 33 2225 3495 Web : www.cesc.co.in

**Comments of CESC Limited on draft Central Electricity Regulatory Commission
(Terms and Conditions of Tariff) (First Amendment) Regulations, 2024**

- Government of India has set an ambitious target of 500 GW of Renewable Generation capacity by the end of 2029-30. In the near future, this is set to significantly affect the thermal generation plants, which have been serving as a base load support to the energy demand. This is likely to impact the operating parameters of the thermal plants, which need to be operated at part load of their installed capacity. Therefore, adequate compensation is necessary to support the thermal power plants towards their flexible operations, which would be essential to maintain grid stability as well as accommodate the variable nature of renewable power in the system.
- The proposed amendment on introduction of compensation for generating stations operating below their normative availability factor is a welcome step towards the implementation of the same.
- Apart from the necessity of flexible operations of thermal generating stations on account of renewable energy integration in the system, backing down of generating stations can also be attributable to other factors like merit order scheduling, lower system demand in lean periods.
- It is submitted that there are many vintage thermal generating stations with units of smaller capacity that, owing to their higher costs of generation, are backed down first according to the merit order dispatch principle. These stations, though vintage, play an essential role in supporting the grid stability and are mostly used to cater to peak demand requirements. Further, these stations bear the maximum impact towards the lower load operations and therefore need to be adequately compensated. Therefore, an additional subcategory with higher levels of compensation may be necessary for plants with lower unit sizes.
- Further, the proposed amendment stipulates sharing of gains pertaining to actual levels of performance parameters vis-à-vis the normative parameters and additional incremental parameters pertaining to lower % loading of units. It is submitted that existing tariff regulations of CERC do not mandate reconciliation of the actual parameters against the normative allowable performance parameters. Moreover, the Tariff Regulations of State Electricity Regulatory Commissions also have established mechanisms for sharing of such gains.
- Therefore, it is submitted that only the incremental increase of parameters must be evaluated, instead of the entire actual performance, as sharing of any gains from actual levels would in effect disincentivize stations who had been able to achieve better efficiency factors. It is prayed that the gains be assessed on an incremental basis only, and that no restrictions based on actual operating parameters must be imposed on thermal generating stations.
- It is prayed that since SLDC raises monthly statements on the declared capacity and actual despatch for respective generators, the compensation allowable may also be allowed to be recovered on an average monthly basis, subject to an annual reconciliation. Furthermore,

**Comments of CESC Limited on draft Central Electricity Regulatory Commission
(Terms and Conditions of Tariff) (First Amendment) Regulations, 2024**

it is submitted in this regard that since the compensation methodology is being incorporated through the tariff regulations, a pilot phase may be introduced to assess the operational impact and mitigate any challenges thereof before implementation of the same.

- Moreover, the effect of backing down of thermal generating stations is a national level phenomenon and implementation of such compensation mechanism must be done in a unified manner to mitigate any preferential treatment of central, state or private gencos. Therefore, it is further submitted that since the CERC Tariff Regulations form a benchmark guideline for all State Commissions, it would be beneficial for all the stakeholders, if such compensation mechanism is directly adopted without any restrictive clauses or other conditionalities by the respective State Commissions. Accordingly, it may please be kept in the agenda for discussion for the Forum of Regulator meeting for harmonious adoption by the respective State Commissions.
- The summarised submission of the company has been attached hereinbelow-

Comments of CESC Limited on draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2024

Clause Reference	Proposed Amendment	Submission / Comment																												
<p>Regulation 70 (G) - Compensation for the operation of generating station below normative plant availability factor</p>	<p>(1) The generating stations whose tariff is determined by the Commission under Section 62 of the Act shall be compensated for degradation of station heat rate and auxiliary energy consumption, consumption of additional secondary fuel oil due to loading below the normative plant availability factor specified under Regulation 70(A) of these regulations</p> <p>(2) The compensation for degradation under regulation (1) of this regulation shall be borne by the entity which has caused the plant to be operated at schedule lower than the corresponding Normative Plant Availability Factor</p> <p>(3) The compensation for the station heat rate and auxiliary energy consumption shall be worked out in terms of energy charge rate</p> <p>(4) For the purpose of compensation under regulation (1) of this regulations, the degradation of gross station heat rate (SHR) over and above the norms specified under Regulation 70(B) of these regulations shall be considered as under:-</p> <p>a) For coal or lignite based generating stations:-</p> <table border="1" data-bbox="555 948 1368 1401"> <thead> <tr> <th>Sr. No.</th> <th>Unit loading as a % of Installed Capacity of the Unit</th> <th>Increase in SHR (for sub-critical units) %</th> <th>Increase in SHR (for super-critical units) %</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>85-100</td> <td>Nil</td> <td>Nil</td> </tr> <tr> <td>2.</td> <td>80-<85</td> <td>2.1</td> <td>1.8</td> </tr> <tr> <td>3.</td> <td>75-<80</td> <td>3.0</td> <td>2.5</td> </tr> <tr> <td>4.</td> <td>70-<75</td> <td>4.0</td> <td>3.3</td> </tr> <tr> <td>5.</td> <td>65-<70</td> <td>5.1</td> <td>4.1</td> </tr> <tr> <td>6.</td> <td>60-<65</td> <td>6.1</td> <td>4.9</td> </tr> </tbody> </table>	Sr. No.	Unit loading as a % of Installed Capacity of the Unit	Increase in SHR (for sub-critical units) %	Increase in SHR (for super-critical units) %	1.	85-100	Nil	Nil	2.	80-<85	2.1	1.8	3.	75-<80	3.0	2.5	4.	70-<75	4.0	3.3	5.	65-<70	5.1	4.1	6.	60-<65	6.1	4.9	<ul style="list-style-type: none"> • Compensation for backing down should be allowable due to any factor beyond the control of generating stations, and not restricted to any single reason like renewable integration alone. • Compensation for backing down should be linked with normative performance parameters only, and allowed to generating stations being backed down – without any restrictions based on actual performance parameters • Compensation should be assessed and allowed on an overall annual average basis and applicable on all units generated, as individual block level assessment for backing down and attribution for various factors would be cumbersome and may lead to disputes • Another subcategory may be introduced under the sub-critical category with higher percentages of compensation to serve units of capacity 150 MW or below
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Comments of CESC Limited on draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2024

Clause Reference	Proposed Amendment				Submission / Comment
	7.	55-<60	7.6	6.0	<ul style="list-style-type: none"> For Clause 6 - compensation for secondary fuel consumption, category 1 for unit sizes 200/210/250 MW may modified to “200/210/250/300 MW or lower” to allow the proposed norms for unit sizes of 300 MW as well for stations with lower unit sizes
	8.	50-<55	9.2	7.1	
	9.	45-<50	11.3	8.3	
	10.	40-<45	13.8	9.9	
	b) For gas or liquid fuel based generating station:-				
	(i) Module/ plant operating in CCGT mode:				
	Sr.No.	Module/ plant loading as % of installed capacity	Increase in SHR (for Module / plant) (%)		
	1.	85-100	Nil		
	2.	80-<85	2.5		
	3.	70-<80	5		
	4.	60-<70	8		
	5.	50-<60	12		
	(ii) Module/ plant operating in Open Cycle mode:				
	Sr.No.	Module/ plant loading as % of installed capacity	Increase in SHR (for Module / plant) (%)		
	1.	85-100	Nil		
	2.	80-<85	3		
	3.	70-<80	7		

Comments of CESC Limited on draft Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2024

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	4.	60-<70	11																																		
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