



**RP-Sanjiv Goenka
Group**

Growing Legacies



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ED (DT): 764

30 September 2022

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

Sir,

**Subject: Comments on the Draft Central Electricity Regulatory Commission
(Indian Electricity Grid Code) Regulations, 2022 ("Draft IEGC")**

With reference to the notice Ref No. L-1/265/2022/CERC dated 07.06.2022 read with notice Ref No. L-1/265/2022/CERC dated 30.08.2022, we are submitting our suggestions / comments in Attachment on the Draft IEGC for your kind consideration.

Assuring you of our best attention.

Yours faithfully,

Executive Director (Distribution Technical)

Encl.

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Attachment to Letter No. ED (DT): 764 Dated 30.09.2022
Comments on the Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022 ("Draft IEGC")

Reference	Regulations	Remarks
Chapter -4: Protection Code	<p>"13. PROTECTION PROTOCOL</p> <p>(4) <i>The protection protocol in a particular system <u>which are part of National Grid</u> may vary depending upon operational experience. Changes in protection protocol, as and when required, shall be carried out after deliberation and approval of the concerned RPC."</i></p> <p>14. PROTECTION SETTINGS</p> <p>(2) <i>All users connected to the grid shall:</i></p> <p>...</p> <p>(b) <i>obtain approval of the concerned RPC for (i) any revision in settings, and (ii) implementation of new protection system <u>which are part of National Grid</u>;</i></p> <p>(c) <i>intimate to the concerned RPC about the changes implemented in protection system or protection settings within a fortnight of such changes;</i></p> <p>(d) <i>ensure correct and appropriate settings of protection as specified by the concerned RPC."</i></p>	<ul style="list-style-type: none"> It is submitted that internal network elements should not be included under these parameters as it is not required and it will not be manageable in terms of cost and manpower requirement. It should be limited to the elements which are part of National grid. In view of our submission, the underlined parts may be added to the regulations.

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Chapter -4: Protection Code	<p style="text-align: center;"><i>"15. PROTECTION AUDIT PLAN</i></p> <p><i>(1) All users shall conduct internal audit of their protection systems <u>on system requirement annually</u>, and any shortcomings identified shall be rectified and informed to their respective RPC.</i></p> <p><i>(2) All users shall also conduct third party protection audit of each sub-station <u>which are part of National Grid at 220 kV and above (132 kV and above in NER)</u> once in five years or earlier as advised by the respective RPC."</i></p>	<ul style="list-style-type: none"> • Internal audit of the protection system of distribution licensee carried out based on system requirement, e.g. whenever any new element is added to the system. Also, a separate cell is engaged for regular health monitoring and status review of the protection system of the existing internal network elements using suitable tools to optimise performance. In view of that separate annual protection audit of the internal elements will not be required as it will involve extra cost and manpower. In view of our submission the term "annually" may be deleted and the underlined part may be added. • For each sub-station, third party protection audit is not required as explained above. Where the system is connected with the

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		<p>National grid, those sub-stations can be included under third party protection audit. In case of any shortcomings or major changes, during this audit, RPC will be informed. In view of that the term "each" may be deleted and the underlined part may be added.</p>
<p>Chapter -4: Protection Code</p>	<p><i>"15. Protection Audit Plan</i></p> <p><i>6) Users shall submit the following protection performance indices <u>for the elements which are part of National Grid</u> of previous month to their respective RPC on monthly basis, which shall be reviewed by the RPC:</i></p> <p>.....</p> <p><i>(7) Each user shall also submit the reasons for performance indices less than unity of individual element wise protection system <u>which are part of National Grid</u> to the respective RPC and action plan for corrective measures. The action plan will be followed up regularly in the respective RPC."</i></p>	<ul style="list-style-type: none"> The draft regulations provided few performance indices. It may be used to know the actual health status of the protection system of National Grid. In that case, it is submitted that internal network elements should not be included under these parameters as it is not required and it will not be manageable in terms of cost and manpower requirement. It should be limited to the elements which are connected with the National Grid. In view of our submission, the underlined parts may be added to the

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Chapter -6: Operating Code	<p><i>"29. System Security</i></p> <p><i>(12) All distribution licensees, STUs and bulk consumers shall provide automatic underfrequency relays (UFR) and df/dt relays for load shedding in their respective systems to arrest frequency decline that could result in grid failure as per the plan given by the RPCs from time to time...."</i></p>	<ul style="list-style-type: none"> Automatic under frequency relays are enough to arrest frequency decline. If it is not there, df/dt relays can be used. Both are not required at the same time. So, the term "and" can be deleted.
Chapter -6: Operating Code	<p><i>"32. Outage Planning</i></p> <p><i>(2) (d) Protection relay related outages, auto-re-closure outages and SPS testing outages <u>of the elements which are part of the National Grid</u> shall be planned on monthly basis with prior permission of the concerned RPC, which shall consult the concerned RLDC & NLDC."</i></p>	<ul style="list-style-type: none"> It is submitted that internal network elements should not be included under these parameters as it is not required and it will not be manageable in terms of cost and manpower requirement. It should be limited to the elements which are connected with the grid. In view of our submission, the underlined part may be added to the regulations.