



**ग्रिड-इंडिया**  
**GRID-INDIA**

**ग्रिड कंट्रोलर ऑफ इंडिया लिमिटेड**  
(भारत सरकार का उद्यम)  
**GRID CONTROLLER OF INDIA LIMITED**  
(A Government of India Enterprise)  
[formerly Power System Operation Corporation Limited (POSOCO)]



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Date: 20<sup>th</sup> May 2024

To

**Secretary,**

Central Electricity Regulatory Commission (CERC),  
3rd & 4th Floor, Chanderlok Building,  
36, Janpath,  
New Delhi- 110001

**Subject:** Draft Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2024

Sir,

The suggestions on behalf of Regional Load Despatch Centres (RLDCs) and National Load Despatch Centre (NLDC) on Draft Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2024 are enclosed herewith for your kind perusal and consideration of the Hon'ble Commission.

Yours Sincerely

*Manoj Kumar Agrawal*  
20/05/2024

**Manoj Kumar Agrawal**

**ED (SP&M)**

Encl: As above



**Grid Controller of India Limited**  
**(A Govt. of India Enterprise)**

**(Formerly Power System Operation Corporation Limited)**

**Date: 20-05-2024**

**Inputs on CERC (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2024**

Functional and financial autonomy of Load Despatch Centres (LDCs) viz. System Operators is the key to ensure reliability of electricity grids and functioning of an efficient electricity market. At the interstate level, the Government of India and Central Electricity Regulatory Commission (CERC) have taken several key steps in the last fifteen (15) years. This has enabled Grid Controller of India Limited (earlier known as Power System Operation Corporation Limited) through the National Load Despatch Centre (NLDC) and Regional Load Despatch Centres (RLDCs) under its umbrella to put System Operation in India on a sound footing.

The CERC (Regional Load Despatch Centres Fees and Charges) Regulations is a key step towards ensuring financial autonomy. The draft notification is the fourth (4<sup>th</sup>) since 2009 and we have a good amount of experience now in this regulatory framework. The first set of Regulations for the control period 2009-14 did not have any Key Performance Indicators (KPIs) specified for RLDCs/NLDC even though the Satnam Singh Committee Report in 2009 (Report of the Task Force on Capital Expenditure and Issues Related to Emoluments for Personnel in Load Despatch Centres) had suggested the same and had included a set of illustrative KPIs in its report. The subsequent set of five-year Regulations had an elaborate set of KPIs with the Performance Linked Incentive (PLI) in place.

Regulation of the System Operation function should ideally ensure the following:

- i) **Transparency and Accountability exercised by the System Operators:** Individual regulations of the Commission clearly provide for stakeholder consultation process to be adopted by System Operators, information to be shared by System Operators and so on. This has been well established in the Indian context over the last two decades.
- ii) **Performance Standards:** Regulators can set performance standards for grid reliability, response time to emergencies and efficiency of grid operations. They can also specify the information system required for Market Oversight to be maintained by the System Operator and shared with the Commission.

- iii) **Regulatory Compliance:** The Indian Electricity Grid Code (IEGC) 2023 already has a Chapter on Regulatory Compliance by all entities including the RLDCs and NLDC and provision for self-audit. On the financial side too, GRID-INDIA being a Central Public Sector Enterprise (CPSE) is subject to statutory audits by CAG, Department of Public Enterprises (DPE) MoU framework and oversight of different Parliamentary Committees.
- iv) **Innovation and Adaptation:** The regulatory framework should be flexible and adaptive to accommodate technological advancements, changes in energy markets, and evolving grid challenges. The Capital Expenditure (CAPEX) programs of System Operators essentially involve software applications which have to keep pace with regulatory and policy changes besides being brownfield projects. Implementing software changes in a live system is prone to several uncertainties.

The 2019-24 CERC Fees and Charges Regulation had KPIs in four broad categories with respective weights viz. Stakeholder satisfaction (40%), Financial Prudence (20%), Learning & Growth (20%) and Internal Process (20%). These categories captured very well the four areas listed above.

In the last fifteen (15) years, GRID-INDIA has implemented many key reforms and regulation with the guidance of the Hon'ble Commission. These have been implemented by GRID-INDIA with very challenging timelines. Some of them are:

- (i) **Real Time Market (RTM):** The introduction of regulatory framework for RTM provided an organized platform for energy trade closer to real time to the buyers and sellers. The RTM was rolled out from 1 June 2020.

The **two-month run-up** to the rollout was the period of lockdown due to the COVID pandemic and the entire software for RTM had to be developed and tested in close coordination with the two Power Exchanges. Further changes in the algorithm had to be made in the **last three days** due to the order from CERC. These were also done and the entire RTM was rolled out seamlessly for trades with effect from 0000 hours of 1 June, 2020.

- (ii) **Security Constrained Economic Despatch (SCED):** CERC vide order 02/SM/2019 dated 31<sup>st</sup> January 2019 directed GRID-INDIA to implement SCED pilot for all the thermal Inter State Generating Stations (ISGS) that are regional entities and to frame the **Detailed Procedure for this within one month**. Implementation of the centralized despatch model envisaged under SCED for the first time on a Pan-India level within **two months' time** was a challenging task considering the fact that prevailing scheduling exercise happens in a

decentralized fashion at the five Regional Load Despatch Centres (RLDCs). The scope of SCED Pilot was further expanded by the Hon'ble CERC vide suo-moto order dated 18.04.2020 to include IPPs and intra-state generators with an elaborate gain sharing mechanism post payment for part-load compensation. Some of the challenges faced during implementation of SCED include implementation of **Gate Closure in scheduling**, continuous run of optimization engine from NLDC and seamless integration with WBES across five RLDCs for timely updating of schedules within a very tight time line, **Information Technology and Data Interfacing** across multiple Web Based Energy Scheduling Softwares across RLDCs, Communication and Integration of **Regional Scheduling Software Applications** etc.

- (iii) **DSM Regulations 2022** were implemented from 5<sup>th</sup> December 2022 wherein the deviation settlement charges were de-linked from frequency initially which led to increased instances of high frequency and the frequency remaining outside the operating band of 49.90 Hz and 50.05 Hz. The prompt operational feedback was provided by GRID-INDIA in this regard which facilitated Hon'ble Commission to issue necessary directions in the interest of grid security.
- (iv) **Ancillary Services Regulations 2022** were notified in February 2022. The regulations introduced Secondary Reserve Ancillary Service (SRAS) and Tertiary Reserve Ancillary Service (TRAS). In compliance with the regulations, NLDC prepared various Procedures and submitted the same to Commission after extensive consultation with stakeholders through organizing several workshops. The provisions of the regulations pertaining to SRAS were implemented w.e.f. 5<sup>th</sup> December 2022. GRID-INDIA had also worked towards implementation of TRAS, under which tertiary reserves are being procured through the power exchanges and NLDC is collecting bids from all power exchanges & carry out price discovery for TRAS. The software and systems for reserve assessment, bid collection, clearing, dispatch and scheduling were developed and tested in coordination with power exchanges. In line with CERC order dated 28<sup>th</sup> April 2023, TRAS was operationalized w.e.f. 1<sup>st</sup> June 2023. Implementation of software engine for discovery of market prices, Implementation of robust settlement mechanism etc. are some of the major challenges experienced in this regard.
- (v) **Procedures pertaining to Indian Electricity Grid Code, 2023:** After more than three and half years of deliberation Central Electricity Regulatory Commission notified the Indian Electricity Grid Code (IEGC), regulations 2023 on 11<sup>th</sup> July 2023. However, for implementation of same only three months' time period was

given. (to be implemented from 1<sup>st</sup> October 2023). GRID-INDIA ensured the implementation of Grid code in just 3-months' time.

A number of detailed procedures were prepared within a short period of time. Some of them are listed below:

<b>S. N.</b>	<b>Procedure</b>	<b>Final procedure issued on</b>
1	NLDC Operating Procedure (Consolidated)	29 <sup>th</sup> September 2023
2	Formats for testing plan and periodic tests reports	29 <sup>th</sup> September 2023
3	Dynamic reactive power reserve assessment	29 <sup>th</sup> September 2023
4	Performance evaluation of SRAS, TRAS providers	29 <sup>th</sup> September 2023
5	Resource Adequacy Assessment and Operational Planning	29 <sup>th</sup> September 2023
6	Scheduling and Dispatch code under IEGC 2023 and its implementation aspect and demo	29 <sup>th</sup> September 2023

- (vi) The implementation of **General Network Access (GNA)** w.e.f. 1<sup>st</sup> October 2023 was a paradigm shift necessitating modifications in many software applications in GRID-INDIA with tight timelines. A detailed Procedure for Allocation of Transmission Corridor for Scheduling of GNA and Temporary-GNA was prepared and workshops were conducted with stakeholders for facilitating smooth implementation of the same.
- (vii) **Shadow Pilot on Market Coupling:** Hon'ble Commission issued directions to GRID- INDIA for implementing a Shadow Pilot on Power System and Cost Optimization through Market Coupling on 6<sup>th</sup> February 2024. Two-months' time was initially allowed for the implementation of the same. In this context, it is pertinent to mention that the market coupling efforts in Europe started in 2006 with the first successful coupling for France, Belgium and Netherlands implemented in 2010. Subsequently, this has gradually expanded to include other countries and has culminated with the implementation of 'Euphemia' which now includes 26 countries as on date. At each stage extensive consultations and testing was involved with all stakeholders.

GRID-INDIA is thankful to the Hon'ble Commission for the encouragement and support so far. It is important that the RLDC Fees and Charges Regulation provides sufficient freedom to the RLDCs & NLDC and encourages learning and growth without being too prescriptive. While the draft Regulations provide an excellent framework, it is noticed that the prescriptive nature at certain places could possibly stifle innovation

besides affecting the functional autonomy. The same has been indicated in the detailed clause wise comments, wherever noticed.

Considering the key role of System Operators in navigating the energy transition, the RLDC Fees and Charges Regulation should encourage innovation and be able to attract and retain talent at RLDCs & NLDC. The new talent pool is limited and GRID-INDIA has to compete for this talent pool along with other market players. Forward looking and progressive RLDC Fees and Charges Regulations would greatly help in this process.

## Additional Suggestions

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
Para 3.5	<b>Base rate of Late Payment Surcharge'</b> shall have the same meaning as defined in Electricity (Late Payment Surcharge and Related Matters) Rules, 2022.	<b>Base rate of Late Payment Surcharge'</b> shall have the same meaning as defined in Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 <b>and its subsequent amendments.</b>
Para 3.6	<b>'Buyer'</b> means a person buying power under General Network Access (GNA) or Temporary General Network Access (T-GNA) and whose scheduling, <b>metering and energy accounting</b> are coordinated by the Regional Load Despatch Centers;	<p><b>May be re-phrased as –</b></p> <p><b>'Buyer'</b> means a person (<b>other than Discom or Bulk Consumer</b>) buying power under General Network Access (GNA) whose scheduling is coordinated by the Regional Load Despatch Centers;</p> <p>Rationale –</p> <p>As per clause 27(6) of draft regulation, the monthly billing of the users under the category of Buyers will be on the basis of GNA quantum only and not on the basis of T-GNA transactions.</p> <p>Therefore, the word "T-GNA" should be removed from definition otherwise all the Buyers like Hotel, Hospitals and other small entities transacting power through T-GNA (which are already registered in NOAR) would require to registration.</p> <p>Further, RLDC does not carry out the metering &amp; energy accounting activity for intra-state entities which will fall under the definition of "Buyers". Therefore, the same can also be omitted.</p>
Para 3.9	<b>Charges'</b> means recurring payments on a monthly basis to be collected by the Regional Load Despatch Centres for the services rendered by National Load Despatch Centre, Regional Load Despatch Centers and Grid-India;	Surcharge, PLI bill are also charges that are raised on quarterly or annual basis.
Para 3.14	<b>Default trigger date'</b> (i) In case of non-payment of dues, shall be 30 days	The reference to 30 days after the due date and 75 days after the presentation of the bill by RLDCs convey the same meaning.

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
	<p>after the due date of payment or 75 days after the presentation of the bill by the RLDCs, whichever is later, and:</p> <p>(ii) In case of non-maintenance of the payment security mechanism, it shall be from the next bank working day after the payment security mechanism is due to be replenished but is not replenished.</p>	<p>Considering that it has a similar interpretation, it may be merged.</p>
<b>Para 3.18</b>	<p><b>Fees'</b> means the non-refundable fixed payment collected by the Regional Load Despatch Centres, or National Load Despatch Centre for the services rendered for commencement of grid access and scheduling and on account of registration, membership or any other purpose as specified by the Commission from time to time;</p>	<p><b>May be re-phrased as –</b>  <b>'Fees'</b> means the non-refundable fixed payment collected by the Regional Load Despatch Centres, or National Load Despatch Centre for the services rendered for commencement of grid access <b>and for availing system operation services</b>, scheduling and on account of registration, membership or any other purpose as specified by the Commission from time to time;</p>
<b>Para 3.20</b>	<p><b>Grid Access'</b> means the permission granted by the concerned RLDC for integration of the generating station including a stage or unit of the generating station, or licensees, or buyers or bulk consumers or sellers with the grid on meeting the technical requirements.</p>	<p><b>May be re-phrased as –</b>  <b>Grid Access'</b> means the permission granted by the concerned RLDC for integration of the generating station including a stage or unit of the generating station, or licensees, or buyers or bulk consumers or sellers with the grid on meeting the technical requirements <b>as per various CEA and CERC Regulations;</b></p>
<b>Para 3.22</b>	<p><b>Human Resource Expenses' or 'HR Expenses'</b> means the expenditure incurred on human resources, human resource development and training of manpower of RLDCs and NLDC.</p>	<p><b>Human Resource Expenses' or 'HR Expenses'</b> means the expenditure incurred on human resources, human resource development and training of manpower of RLDCs and NLDC <b>including corporate center of GRID-INDIA and capacity building of stakeholders.</b></p>



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Para 3.27	'National Load Despatch Centre' or 'NLDC' means the Load Despatch Centre at the national level established by the Central Government under sub-section (1) of Section 26 of the Act;	<b>May be re-phrased as –</b> 'National Load Despatch Centre' or 'NLDC' means the Load Despatch Centre at the national level established by the Central Government under sub-section (1) of Section 26 of the Act; <b>and corporate center of GRID-INDIA shall be considered as part of the NLDC in these Regulations</b>
Para 3.28	<b>Operation and Maintenance Expenses' or 'O&amp;M expenses'</b> means and includes the expenditure incurred for operation and maintenance of the assets of RLDCs and NLDC and includes consumables, insurance and overheads but does not include human resource expenses;	<b>May be re-phrased as –</b> <b>Operation and Maintenance Expenses' or 'O&amp;M expenses'</b> means and includes the expenditure incurred for operation and maintenance of the assets of RLDCs and NLDC and includes consumables, insurance, <b>operational expenditure</b> (refers to expenditure on the services where a significant portion of delivery is through an annual recurring expenses mode) and overheads but does not include human resource expenses;
Para 3.29	<b>Other Support Functions"</b> means the functions performed by the RLDCs and NLDC and include but are not limited to accounting, taxation and TDS reconciliation, settlement, billing and collection of charges, contracts, human resource administration, management information system, legal and regulatory affairs, rendering inputs for policy making, and to assist in other works as assigned to it time to time by The Central Regulatory Commission.	<b>May be re-phrased as –</b> <b>Other Support Functions"</b> means the functions performed by the RLDCs and NLDC and include but are not limited to accounting, taxation and TDS reconciliation, settlement, billing and collection of charges, contracts, human resource administration, management information system, legal and regulatory affairs, rendering inputs for policy making, and to assist in other works as assigned to it time to time by The Central Regulatory Commission <b>or Government of India.</b>
Para 3.30	<b>Reference Rate of Interest'</b> means the one-year marginal cost of funds based lending rate (MCLR) of the State Bank of India (SBI) issued from time to time plus 325 basis points;	<b>"Bank Rate"</b> replaced by the term <b>"Reference Rate of Interest"</b> and is computed as 1-year SBI MCLR plus 325 basis points ( <b>earlier 350 basis points</b> ). May be proposed to be kept <b>350 basis points</b> as in the previous regulation.

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
<b>Para 3.36</b>	<b>Seller'</b> means a person other than a generating company supplying power through GNA or T-GNA and whose scheduling, metering and energy accounting are coordinated by RLDCs or NLDC, as the case may be;	<p><b>May be re-phrased as –</b></p> <p><b>'Seller'</b> means a person other than a <b>regional</b> generating <b>station</b> supplying power through GNA and whose scheduling is coordinated by RLDCs or NLDC, as the case may be;</p> <p>Rationale –</p> <p>A Seller can be Generating company. The difference between a generating station &amp; seller (for the purpose of this regulation) is that an ISTS connected Generating station will be registered under category of Generating station. However intra-state generating station supplying power through GNA shall be registered under Seller.</p> <p>RLDC does not carry out the metering &amp; energy accounting activity for intra-state generating station which will fall under the definition of "Sellers". Therefore, the same can also be omitted.</p>
<b>Para 5.1(a)</b>	All generating stations, including captive generating plant and Standalone storage system, distribution licensees, bulk consumers, Qualified Coordinating Agency (QCA), .....	All generating stations, including captive generating plant and Standalone storage system, distribution licensees, bulk consumers, Settlement Nodal Agency (SNA), Qualified Coordinating Agency (QCA), .....
<b>Para 5.3</b>	After scrutiny, concerned RLDC or NLDC, as the case may be, shall intimate the deficiencies in the application, if any, to the applicant within one week of receipt of the application. The applicant shall rectify the deficiency within <b>one week</b> thereafter, failing which the application shall be closed.	It may be proposed as <b>7 working days</b>
<b>Para 5.7</b>	RLDCs or NLDC may, after issuing a notice of at least one month, de-register a user in case of (i) termination of	May be kept as <b>90</b> days in line with the previous regulation.

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
	connectivity or (ii) termination of GNA or (iii) continuous default in payment of charges as specified in these regulations for more than <b>120 days</b> from the due date including notice period. A user can subsequently re-register once the default has been cured by following the registration process as specified under Regulation 5(1) of these regulations.	
<b>Para 5.8</b>	The eligible entities which have been registered with RLDCs or NLDC, and which have undergone a <b>change in the name or legal status</b> after the grant of registration, shall inform along with relevant documents from the appropriate authority such as Registrar of Companies or National Company Law Tribunal or any other Court, to the concerned RLDC or NLDC which shall, upon verification of the documents, update such change in its records within 30 days from the date of such information.	<ul style="list-style-type: none"> <li>• The timeline for intimation by the user which have undergone a change in the name or legal status after the grant of registration may be specified, say within 15 days.</li> <li>• It is proposed to add a record updating fee of Rs.10,000.</li> </ul>
<b>Para 6.3</b>	System operation function includes operational planning, scheduling and despatch on day-ahead and real time basis, post despatch analysis, Information dissemination and any other function(s) assigned to the RLDCs or NLDC, as the case may be, under the Act or Regulations or orders issued by the Commission from time to time.	<b>May be re-phrased as –</b> System operation function includes <b>Real Time Grid Operation</b> , operational planning, scheduling and despatch on day-ahead and real time basis, post despatch analysis, Information dissemination and any other function(s) assigned to the RLDCs or NLDC, as the case may be, under the Act or Regulations or orders issued by the Commission from time to time.

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
Para 7.2(vi)	Any innovative schemes, R&D projects and pilot projects for better <b>system</b> operation;	<b>May be re-phrased as –</b> Any innovative schemes, R&D projects and pilot projects for better <b>grid</b> operation;
Para 7.2(viii)	Construction and renovation of civil structures inter-alia for <b>office building, staff quarters;</b>	Land for office building may be included.
Para 7.4(b)	In case of CAPEX involving one or more RLDCs, the CAPEX chargeable to each RLDC shall be segregated and shall form part of the CAPEX plan of the concerned RLDC.	<b>May be re-phrased as –</b> In case of CAPEX involving one or more <b>RLDCs/NLDC</b> , the CAPEX chargeable to each <b>RLDC/NLDC</b> shall be segregated and shall form part of the CAPEX plan of the concerned <b>RLDC/NLDC</b> .
Para 8.1(i)	A <b>generating station</b> or stage or unit thereof whose scheduling, metering and energy accounting are carried out separately for each stage or unit, such generating station.....	<b>Following provision may be added –</b> Provided that co-located Renewable Hybrid Generating Stations (comprising two or more technologies such as Wind, Solar, Energy Storage System) shall be registered as single Generating Station based on its total AC Installed Capacity.
Para 8.1(iv)	Where any cross-border generating station is connected to the inter-State transmission system of the Indian Grid and is injecting power through GNA or T-GNA, the Settlement Nodal Agency (SNA) designated by the Government of India.....	<b>May be re-phrased as –</b> Where any cross-border generating station is connected to the inter-State transmission system of the Indian Grid and is <b>injecting/drawing</b> power through GNA or T-GNA, the Settlement Nodal Agency (SNA) designated by the Government of India.....
Para 8.1(vi)	<b>Distribution licensee</b> selling <b>electricity r through GNA</b> and using transmission system shall be considered as a user under the category “Seller” for the purpose of these regulations;	<ul style="list-style-type: none"> <li>• intra state seller using inter-state transmission system may also be considered.</li> <li>• The typographical error may be corrected as “electricity through GNA”.</li> </ul>
Para 8.2	Buyers, bulk consumers, sellers, Qualified Coordinating Agencies (QCA) and Settlement Nodal Agency (SNA) shall be considered as users of the respective Regional	<b>May be re-phrased as –</b> Buyers, bulk consumers, sellers, Qualified Coordinating Agencies (QCA) and <b>RE Power Park Developers</b> , Settlement Nodal Agency (SNA), <b>Qualifying Coordinated Agency (QCA), Energy Storage System(ESS)</b> shall be considered

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	Load Despatch Centres for the purpose of these regulations	as users of the respective Regional Load Despatch Centres for the purpose of these regulations.
<b>Para 10.6</b>	<p>.....</p> <p>Provided that the annual LDC charges of NLDC including Corporate Centre expenses for the <b>control period</b> shall be apportioned among Regional Load Despatch Centres on the basis of the <b>GNA of the drawee DICs located in the respective region as on 31.3.2024.</b></p>	<ul style="list-style-type: none"> <li>• Instead of control period it can be financial year.</li> <li>• May be proposed to be modified as GNA <b>“as on 31st March of preceding year”</b></li> </ul>
<b>Para 13.4</b>	<p>.....</p> <p>Provided that IDC on normative loan corresponding to excess equity over 30% of funds deployed shall be allowed only in case the actual infusion of equity on a <b>quarterly</b> basis is more than 30% of total funds <b>deployed on a pari-passu basis.</b></p> <p>.....</p> <p>Provided also that IDC on normative loan, post infusion of actual loan shall be computed based on Weighted Average Rate of Interest (WAROI) for that respective <b>quarter.</b></p>	<ul style="list-style-type: none"> <li>• It is proposed to change from <b>“quarter/quarterly”</b> to <b>“Year/Yearly”</b></li> <li>• It is proposed to remove the line <b>“deployed on a pari-passu basis”.</b></li> </ul>
<b>Para 15.2</b>	<p>..... the Commission shall determine the debt-equity ratio in accordance with <b>Regulation 15(3)</b> of the Central Electricity Regulatory Commission (Fees and Charges for Regional Load Despatch Centres and other related matters) Regulations 2019.</p>	It is proposed to correct <b>Regulation 15(3)</b> as <b>Regulation 16(3).</b>

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
<b>Para 16.1</b>	The RLDC Fees and Charges shall comprise of Load Despatch Centre (LDC) Fees to be recovered by RLDCs or NLDC, as the case may be, towards registration for commencement of grid access or for other services; and Annual LDC Charges (ALC) from the users towards scheduling of power.	<b>May be re-phrased as –</b> The RLDC Fees and Charges shall comprise of Load Despatch Centre (LDC) Fees to be recovered by RLDCs or NLDC, as the case may be, towards registration for commencement of grid access or for other services; and Annual LDC Charges (ALC) from the users towards scheduling of power <b>or availing system operation services as the case may be.</b>
<b>Para 17.3(c)</b>	All expenses of NLDC and Corporate Centre as approved by the Commission shall be apportioned to the Regional Load Despatch Centres for the control period 2024- 29 on the basis of the GNA of the drawee DICs located in the respective regions as on <b>31.03.2024.</b>	It is proposed to modify the sentence as <b>“All expenses of NLDC and Corporate Centre as approved by the Commission for each financial year during the control period 2024- 29 shall be apportioned to the Regional Load Despatch Centres on the basis of the GNA of the drawee DICs located in the respective regions as on 31st March for the preceding year.”</b>
<b>Para 17.4</b>	Performance Linked Incentive as approved by the Commission shall be recovered over and above Annual RLDC charges calculated under Regulation 17(2) of these regulations	Performance Linked Incentive as approved by the Commission shall be recovered over and above Annual <b>RLDC/NLDC</b> charges of GRID-INDIA calculated under Regulation 17(2) <b>&amp; 17(3)</b> of these regulations.
<b>Para 19.4</b>	<b>Interest on Loan Capital -</b> .... Provided that if there is no actual loan for a particular year but the normative loan is still outstanding, the last available <b>weighted average rate</b> shall be considered	<b>May be re-phrased as –</b> Provided that if there is no actual loan for a particular year but the normative loan is still outstanding, the last available <b>reference rate</b> as defined in the regulation shall be considered;
<b>Para 21.1</b>	<b>Operation and Maintenance Expenses</b>	Hiring consultancy services for learning & implementation of new technologies and market products needs to be considered part of Operation and Maintenance Expenses.
<b>Para 22.2</b>	Any significant Human Resource Expenses envisaged	<b>Following provision may be added –</b>

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	during the control period 2024-29, due to additional manpower, <b>wage revision</b> , shall be allowed separately after prudence check.	Provided that in case of wage revision of the manpower as per DPE Guidelines, RLDCs shall bill the users for the impact of the same on a provisional basis in the monthly bills, subject to adjustment at the time of truing up at the end of the control period.
<b>Para 22.3</b>	Human Resource expenses shall include expenditure on manpower, funding for participation in national or international conferences and publication of technical papers there-in, facilitating higher education, availing institutional membership with national bodies and international bodies, <b>funding of analytics tools development, funding of pilot projects</b> and <b>hiring consultancy services for learning &amp; implementation of new technologies and market products</b> .	It is proposed to remove the “ <b>funding of analytics tools development, funding of pilot projects</b> ” as it is capex in nature And remove “ <b>hiring consultancy services for learning &amp; implementation of new technologies and market products</b> ”, as it is Opex in nature.
<b>Para 24</b>	<b>LDC Development Fund</b>	In line with the previous regulation, the utilization of LDCD fund may include expenses towards <b>Corporate Social Responsibility and Sustainability Activities</b> .
<b>Para 24.2</b>	The charges on account of return on equity, interest on loan, depreciation, registration fees, Charges for scheduling under T-GNA, <b>REC Charges, PAT Charges</b> and interest earned on LDCD Fund shall be deposited into the LDCD Fund after meeting the statutory tax requirements.	There is reference to the REC and PAT Charges being transferred to LDCD Fund, however, since these mechanisms are governed by separate CERC Regulations, which requires that surplus earned on their account has to be transferred to a separate fund to be utilized for its stipulated objectives, it is proposed that REC charges and PAT Charges not be considered for inflow to be deposited into the LDCD Fund.
<b>Para 24.6</b>	Amount taken out from the LDCD fund for funding an asset shall be treated as <b>notional loan</b> and shall carry the	<b>May be re-phrased as –</b> Amount taken out from the LDCD fund for funding an asset shall be treated as <b>normative loan</b> and shall carry the

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
	normative rate of interest as a 1-year MCLR of the State Bank of India.....	normative rate of interest as a 1-year MCLR of the State Bank of India.....
Para 25.2	The generating companies shall pay registration fees as under: .....	Energy Storage entities can be considered as generating station for registration fees & monthly ALC charges.
Para 26.1	<p>.....</p> <p>(b) <b>The LDC Charges</b> for the inter-State Generating station and sellers shall be worked out on the basis of installed capacity in the case of the generating station and GNA in the case of sellers;</p> <p>(c) <b>The LDC Charges</b> for the distribution licensees, bulk consumers, SNA and buyers shall be worked out on the basis of GNA to such entites.</p>	<p><b>May be re-phrased as -</b></p> <p>.....</p> <p>b) The LDC Charges for the inter-State Generating station, sellers <b>and SNA</b> shall be worked out on the basis of installed capacity in the case of the generating station and GNA in the case of sellers <b>and SNA</b>;</p>
Para 27	<b>Computation and Payment of LDC Charges:</b>	<p>As per Regulations 31 of F&amp;C 2019-24 All other users having NIL contracted capacity (LTA &amp; MTOA) shall be billed monthly ALC charge on the basis of a minimum capacity for which an entity is eligible for grant of connectivity to Inter-State transmission system as per the CERC Connectivity Regulations 2009.</p> <p>No such clause to bill user with NIL GNA quantum has been mentioned in the draft regulation and may be incorporated under Clause 27.</p> <p>Hence it is proposed that in case of user with NIL GNA quantum, user charges corresponding to 50MW may be considered.</p> <p>(50MW is minimum connectivity quantum under GNA Regulations)</p>
Para 27.5	<b>The monthly LDC charges</b> for generating station or sellers or SNA shall be computed on the basis of rates determined above and the respective	It is proposed to modify the sentence as "or seller <b>or SNA</b> respectively"



Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
	installed capacity (MW) or the GNA quantum (MW) of the generating station or seller respectively.	
<b>Para 27.8</b>	<b>NLDC shall publish INR per MW or INR per ckt-km or INR per MVA rate every month</b> on last working day of the previous month for bills to be raised for the next month.	It may be removed as Charges in INR per MW or INR per ckt-km or INR per MVA is RLDC specific and varies from RLDC to RLDC. Had the rate been determined on national basis, the declaration of the rate by NLDC might have been required.
<b>Para 27.9</b>	The respective State Load Despatch Centre (SLDC) shall be the nodal agency for collection of monthly LDC charges payable to the concerned Regional Load Despatch Centre (RLDC) from the distribution licensees and other RLDC users in the State. After collecting the monthly LDC charges, the concerned SLDC shall deposit the same into the account of the concerned RLDC. <b>The RLDC users in the state shall have option to make direct payment of monthly RLDC Charges into the account of the concerned RLDC or they may choose to pay the same through the respective SLDC.</b>	<ul style="list-style-type: none"> <li>• The following line may be added - In that case the for calculation of rebate and surcharge, the last date in which all the entity of the state has made payments will be considered.</li> <li>• The timelines within which the SLDC shall pay to the RLDC after collection may be specified.</li> <li>• It may be reworded as –  <b>“The intra-state entity (who has registered themselves as RLDC users by paying applicable fees) shall have option.....”</b>.  <b>It may be proposed for payment on same day, after considering the applicable provisions of Rebate and Surcharge as per the CERC Regulations.</b></li> </ul>
<b>Para 28.4</b>	The key performance indicators and their weightages specified in Appendix-IV shall be applicable for period 2024-2025. <b>For year 2025-26 onwards, NLDC shall submit revised key performance indicators and their weightages, as required, with revised procedure by end of</b>	The key performance indicators and their weightages specified in Appendix-IV shall be applicable for period 2024-25. <b>From the year 2025-26 onwards, NLDC shall, at the time of filing the petition for claiming the performance linked incentive for the year, shall incorporate additional KPIs based on any new specific compliances made applicable on NLDC/RLDCs by the Commission for</b>

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	<p>December in each year starting from December 2024, for the proposed KPIs for next financial year, which shall be reviewed and approved by the Commission. Unless revised by the Commission, key performance indicators and their weightages approved for last Financial Year shall be applicable for next Financial year till 2028-2029.</p>	<p>that year. In the absence of any additional compliances directed by the Commission, key performance indicators and their weightages approved for last Financial Year shall be applicable for next Financial year till 2028-29.</p> <p>Exercise of annual KPIs being approved by Commission every year would be a time consuming process. Instead there could be a section with 15-20% weightage for new innovation/ R&amp;D activity done every year by RLDCs &amp; NLDC.</p>
<p><b>Para 28.5</b></p>	<p>Each RLDC and NLDC shall be allowed to recover incentive of 12% of its Annual LDC Charges for performance level of 90% against the KPIs. <b>The performance of previous year ending on 31st March shall be considered for calculation and recovery of incentive in the year.</b></p>	<p>It is proposed to modify the sentence as "Each RLDC and NLDC shall be allowed to recover 12% of its Annual LDC Charges <b><i>billed on monthly basis</i></b> for performance level of 90% against the KPIs. The performance of <b><u>last available year</u></b> (ending on 31st March) shall be considered for calculation and recovery of incentive in the year.</p> <p>Since filing a petition and obtaining subsequent approval of performance by the commission for any financial year typically takes more than a year, the performance of the previous year may not be available by the time incentives for the current financial year are recovered on a monthly basis. Therefore, it is suggested to consider the last available performance score for calculating the monthly incentive recovery. For example, if we need to recover the incentive for FY 2024-25 on a monthly basis within FY 2024-25 itself, the performance of even FY 2022-23 will not be available. Consequently, using the last available performance score for incentive recovery would be appropriate.</p>

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<p><b>Para 28.6</b></p>	<p>Provided that “Team’s Performance Component” under Annexure-IV of DPE Office Memorandum No. W-02/0028/2017-DPE (WC)-GL-XIII/ 17 dated 3.8.2017 <b>for each RLDC or NLDC shall be taken as Performance approved by the Commission for each RLDC or NLDC</b> as per Appendix-IV of these Regulations</p>	<p>It is submitted that the referenced DPE Memorandum entrusts the responsibility of identifying team performance indicators to the CPSE itself, in accordance with its nature of operations and MoU parameters. The relevant provision of the DPE office memorandum, referred to in the draft Regulations, regarding Team Performance Rating is reproduced below:</p> <p>“The <b>team rating shall be</b> linked to individual Plant/Unit’s productivity measures and operational and physical performance, <b>primarily derived from CPSE’s MoU parameters and as identified by CPSE depending upon the nature of the industry/business...</b>”</p> <p>GRID-INDIA’s Team Performance evaluation framework has been prepared in accordance with the spirit of the DPE provisions, covering the MoU parameters, CERC performance indicators, and other parameters encompassing its other business operations. Therefore, restricting the Team performance indicators solely to CERC-identified parameters would not be in line with the spirit of the DPE guidelines.</p> <p>In view of the above, it is proposed to assign more weightage to the CERC KPI’s in the Team Performance evaluation framework of the Company (50%) and balance 50% weightage could be assigned to the KPIs identified by GRID-INDIA covering its other operations. This would ensure enough functional autonomy for the GRID-INDIA management.</p>
<p><b>Para 29.2</b></p>	<p><b>Funding</b> for (i) payment of registration and / or application fees for appearing in basic, specialist and management level examinations, (ii) payment towards training expenses for</p>	<p>In the utilization objectives specified for the LDCD Fund regulation, there is no mention of payment of Certification Incentive. Further, the expenditure related to capacity building of employees of the RLDCs &amp; NLDC is covered under HR</p>

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
	these examinations, and (iii) payment of incentive for acquiring the certification, shall be made from the LDCD Fund.	expenses. As the training expenses related to certification examinations (including payment towards application fees for appearing in certification exams/ incentive for acquiring certification) are also of the similar nature, <b>the same shall be covered under HR expenses only.</b>
Para 31.1	.....The rate of late payment surcharge for the successive months of default shall increase by 0.5 per cent for every month of delay provided that the late payment surcharge shall not be more than three per cent higher than the base rate at any time.	It is proposed to modify the sentence as - "The rate of late payment surcharge for the successive months of default shall increase by 0.5 per cent for every month of delay provided that the late payment surcharge shall not be more than three per cent higher than the base rate at any time. <b>The date on which the amount has been credited into the bank account of GRID-INDIA, through payment gateway shall be considered for rebate and surcharge purposes.</b> "
Para 32.3	<b>Operationalizing the Payment Security Mechanism (PSM) and its consequences</b>	Fees and charges realisation of RLDCs is almost 99%. Considering same the requirement of maintaining Letter of Credit may be made applicable only for users having two months of back to back payment default.
Para 33	<b>Regulation of access to defaulting entities:</b> (1) ..... (a)..... Provided further that the NLDC may, under exceptional circumstances for grid security, temporarily review the regulation of T-GNA and record the reasons for doing so in writing. (b) If, even one month after the regulation of the T-GNA the dues remain unpaid, apart from the regulation of the T-GNA in its entirety, the transactions under GNA shall be regulated by ten per cent (10%).	It is proposed to modify/align the regulation 33 as per LPSC regulation as follows: (1)..... (a)..... Provided further that the NLDC may, under exceptional circumstances for grid security, temporarily review the regulation of T-GNA and record the reasons for doing so in writing. <b>Access, including any previously approved access, for the sale and purchase of electricity through short-term contracts or power exchange, shall be regulated entirely:</b> <b>Provided that the NLDC may, in exceptional circumstances for grid security, temporarily review the</b>

Para no. of the draft Regulation	Proposed draft Regulation	Comments/Suggestions on the draft Regulation
	(2) Reduction or withdrawal of scheduling under GNA shall be in such a manner that the quantum of reduction in drawl schedule increases progressively by ten per cent (10%) for each month of default.	<b>regulation of access after recording the reasons, in writing;</b> <b>(2) The reduction or withdrawal of access for sale and purchase of electricity through the contracts other than the short-term contracts shall be in such manner that the quantum of reduction in drawl or injection schedule increases progressively by ten per cent (10%) for each month of default;</b>
<b>Para 33.3</b>	..... DICs towards yearly transmission charges for such defaulting ISTS transmission licensee within 7 days from the date of issuance of such intimation by <b>NLDC</b> .	..... DICs towards yearly transmission charges for such defaulting ISTS transmission licensee within 7 days from the date of issuance of such intimation by <b>RLDC/ NLDC</b>
<b>Para 33.4</b>	On payment of outstanding dues, the regulation of access shall cease to operate and access shall be restored at the earliest, but not later than two days.	On payment of outstanding dues <b>or opening of LC or maintaining adequate Payment Security Mechanism</b> , the regulation of access shall cease to operate and access shall be restored at the earliest, <b>, but not later than one day, excluding the day on which payment is made.</b>
<b>Para 35(1)</b>	..... <b>Explanation:</b> In case of computation of '5 days', the number of days shall be counted consecutively without considering any holiday. <b>However, in case the last day or day is an official holiday, the 5th day for the purpose of Rebate shall be construed as the immediate succeeding working day (as per the official State Government's calendar, where the Office of the Authorised Signatory or Representative of the Beneficiary, for the purpose of receipt or acknowledgement of Bill is situated).</b>	It is proposed to modify the sentence as <b>"immediate succeeding working day (as per the RBI declared holiday list in the respective region)"</b> .

### **Additional Comments –**

1. Following definition of 'Bulk Consumer' may be added - 'Bulk Consumer' means a person connected to ISTS, directly, with a load of 50 MW and above and scheduling power through General Network Access and whose scheduling is coordinated by the Regional Load Despatch Centers. It is not defined in the draft regulations.
2. System Logistics functions may be added under the functions of RLDC and NLDC. Detailed functions of SO and MO may be mentioned (Annexure-1).
3. There is no provision outlined regarding additional capitalization by the Transmission licensee on account of R&M. This may be included appropriately under regulation 6.
4. The following clauses may be added under regulation 30. Billing and Payment of charges -
  - (a) The Users shall inform the RLDC about tax deduction with challan number on monthly basis by every 10th of the next month for the payment of previous month.
  - (b) The Users shall submit the quarterly TDS certificates within 60 days (90 days for 4th quarter) from the date of closure of each quarter in respect of GRID-INDIA.
5. Research and Development Expenses may be proposed in the FORM 6-D.
6. Sub-point 7 mentions of Corporate Tax, which was not there in the earlier Regulation Considering the inclusion of statutory taxes as mentioned in the utilisation of LDCD Fund, the same may be removed from Form 6-D.
7. Form-10 may be deleted as the relevant clauses have been removed/ merged into LDCD fund chapter. Accordingly, Form-9 may be modified.
8. Chapter 2 – Para 7 (2) xi: Replacement of the assets or equipment before completion of their useful life: May include provision for replacement of any hardware / software asset which is declared as end-of-support by the OEM and/or is not compatible / not able to be suitably patched to comply with the necessary cyber security guidelines and requirements, even if the same has not attained end-of-life as per the calculated rate of depreciation of the asset.
9. Chapter 5 – Para 17 (3b): CERT-GO function entrusted on GRID-INDIA is similar to FOLD Secretariat function. As FOLD secretariat has been explicitly indicated in this para, we include CERT-GO functions as well.
10. Further, as per procedure developed for functions of Regional & Central Cyber Security Coordination forum as per IEGC, the expenses of these forums need to be

booked under RLDC/NLDC Fees & Charges. Accordingly, we may mention the expenses of regional & central cyber security coordination forum in this para as well.

11. Chapter 5 – Para 21 (2): With commissioning of GRID-INDIA owned buildings, O&M expenses towards maintenance, housekeeping, logistic support, municipal taxes etc., will increase substantially, which need to be provisioned herein. Therefore, the additional O&M expenses envisaged may not be restricted due to new hardware or software only.
12. Chapter 5 – Para 22 (5): May include the term “CC” for provision towards HRD and capacity building expenses.
13. Appendix-II: Depreciation Schedule: Items like Office interior works associated to Data Centre, Access Control mechanism, Fire-fighting mechanism etc. generally do not have a useful life of more than 7-8 years. However, as these items are not explicitly indicated in the list, either they need to be considered at par with Office equipment / Office furniture OR as rate as per any other item, which do not suitably represent provision for depreciation and replacement after useful life.
14. Appendix-IV: Performance Indicators: As per Regulation 53 of IEGC the RLDCs & have been entrusted with the secretarial functions for the Regional & Central Cyber Security Coordination Forum. Compliance to the responsibility of organising meetings of the forum and related activities may be included in the Performance Indicators.
15. Also, CEA Guideline on Cyber Security (further draft Regulation on Cyber Security) also mandates for basic, intermediate & advanced certification on cyber security. The compliance to the same also may be included in performance indicators as well as the incentive scheme as provided in Regulation 29.
16. There is a difference in the methodology of calculation of working capital, wherein as per the Form 8, the entire NLDC and CC charges are specified and as per Regulation 23, only HR and O&M expenses of NLDC and CC charges are mentioned. Considering the Form 8 and the previous regulation on the aspect of Interest on Working Capital, it may be proposed to correct the Form 8 in line with regulation 23.1.

**Functions of RLDC and NLDC**

(1) System Operation function includes but shall not be limited to the following functions:

**a) Operational Planning**

- i) Load Forecasting
- ii) RE forecasting
- iii) Fuel security assessment
- iv) Production cost optimization studies
- v) Generating outage planning
- vi) Resource adequacy planning
- vii) Transmission outage planning
- viii) Assessment of Transfer Capability
- ix) Reactive Power studies
- x) Short circuit and transient stability studies
- xi) small signal stability studies
- xii) Electromagnetic transient studies
- xiii) Mock black start drills
- xiv) Operation of back up control centre
- xv) Preparations for special events like festivals, natural calamities like cyclone, floods etc.
- xvi) Documentation of procedures (operating, restoration)

**b) Scheduling and Despatch on day-ahead and real-time basis**

- i) Day ahead security studies factoring all outages
- ii) Unit commitment
- iii) Day ahead optimization and scheduling
- iv) Shift Crew Resource Management
- v) Anticipating and mitigating congestion



- vi) Preparation for special events
- vii) Handling requests for emergency/urgent outages unforeseen in operational planning horizon

**c) Real Time Operation**

- i) Frequency Control
- ii) Voltage control
- iii) Tie line loading control
- iv) Congestion management
- v) Ensuring security at all times
- vi) Ancillary Services
- vii) Balancing Services, Automatic Generation Control
- viii) Real Time Contingency Analysis
- ix) Dynamic Security Assessment
- x) Monitoring weather updates
- xi) Handling emergency outage requests
- xii) Restoration of network after tripping
- xiii) Rescheduling of generation
- xiv) Reporting of a grid disturbance (GD)/grid incident (GI)
- xv) Periodic communication with stakeholders and sensitizing in case of emergency
- xvi) De-briefing after an extreme event

**d) After the Fact or Post Despatch Analysis:**

- i) Analysis of frequency and voltage
- ii) Analysis of Grid Code violations and follow up with agencies
- iii) Analysis of Grid Events (GD/GI)
- iv) Evaluating primary response viz. computation of Frequency Response Characteristics (FRC) of individual control areas
- v) Low Frequency Oscillations (LFO) monitoring and analysis

- vi) Detailed reports of Grid Disturbances/Grid Events
  - vii) Simulation of events and learnings thereof
  - viii) Event replay, lessons learnt and dissemination of same
  - ix) Taking up shortcomings with stakeholders
  - e) Submission of Operational feedback to CEA/CTU/STU/CERC/SERC
  - f) Information dissemination and any other function(s) assigned to the RLDCs or NLDC, as the case may be, under the Act or NLDC Rules or regulations and/or orders issued by the Commission from time to time.
- (2) Market Operation function includes but shall not be limited to the following functions:
- (a) Facilitating Grid Access to new entities including but not limited to first time charging of elements
  - (b) Feedback in respect of Market Design, for complementing reliability and causing economy
  - (c) Open Access Administration through NOAR/ GOAR, Green Term Ahead Market
  - (d) Finalization of Inter-change schedules for energy accounting
  - (e) Day Ahead Market, Green Day Ahead Market, High Price Day Ahead Market
  - (f) Real Time Market
  - (g) Ancillary Services Market administration through NOAR
  - (h) Interface Energy Metering
  - (i) Handling of Regulatory Pool Accounts
  - (j) Late Payment Surcharge
  - (k) Scheduling through PUSHp portal
- (3) Logistics Functions includes design, operations & maintenance of but shall not be limited to the following:
- (a) Engineering of new SCADA/EMS/WAMS/REMC upgrades
  - (b) Maintenance of SCADA/EMS/WAMS/REMC infrastructure
  - (c) Synchro- phasor technologies
  - (d) Real time software applications

- (e) Off-line software applications
- (f) Big Data Analytics tools
- (g) Decision Support Systems
- (h) IT, Networking and Communication systems including websites, Wi-Fi access systems, cyber security & other related systems
- (i) Conference & meeting related facilities including audio-visual equipment such as video conference equipment etc.,
- (j) Power supply system
- (k) Firefighting & alarm systems
- (l) Public Address System
- (4) Registry Function under REC and PAT and similar other scheme as directed by the Commission includes:
  - a) NOAR/ GOAR registry functions
  - b) Indian Carbon Market registry function
  - c) Information dissemination
  - d) Any other functions assigned to the RLDCs or NLDC under the Act and/or National Load Despatch Centre Rules, 2005 ('NLDC Rules') or the regulations and orders issued by the Commission/CEA/MoP from time to time;

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