

Telephone No : 080-22108119
Fax No : 080 22214663



Website :www.kptcl.karnataka.gov.in
Email ID:fara1957@gmail.com

KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

Corporate Identity Number (CIN):U40109KA1999SGC025521

Corporate Office,
Kaveri Bhavan, K.G Road,
Bengaluru-560009

Dated: 29-08-2022

No. KPTCL/B36/33980/2022-23/914
Encl :

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

Sir,

Sub: Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022 -Regarding

Ref: CERC Public Notice No: L-1/265/2022/CERC Dated: 07.06.2022.

Central Electricity Regulatory Commission (CERC) has notified the Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022 on 07th June, 2022 inviting comments/ suggestions/ objections from the stakeholders.

In this regard, I am directed to enclose herewith the comments/suggestions of KPTCL on "Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022 with a request to kindly place the same before the Hon'ble Commission for incorporating the suggestions made by KPTCL in the Draft Grid Code.

*"This issues with approval of
The Managing Director, KPTCL."*

Yours faithfully,


**Financial Advisor
Regulatory Affairs**

**Comments/Suggestions of KPTCL on the Draft Central Electricity Regulatory Commission
(Indian Electricity Grid Code) Regulations, 2022**

Sl. No.	Chapter/ Section No.	As per Draft CERC(Indian Electricity Grid Code) Regulations, 2022	Comments / Suggestions of KPTCL
1.		PREAMBLE	
		<p>".....Clause (e) of sub-section (3) of Section 28 of the Act provides that the Regional Load Despatch Centre shall be responsible for carrying out real time operations for grid control and despatch of electricity within the region through secure and economic operation of the regional grid in accordance with the Grid Standards and the Grid Code..... Therefore, the Act envisages and assigns specific roles and functions to Central Electricity Authority, Regional Power Committees, Central Transmission Utility, National Load Despatch Centre, Regional Load Despatch Centres, State Transmission Utilities, State Load Despatch Centres, generating companies and licensees and any other person connected with the operation of the power system in order to achieve real time operation and control of the grid within the regions and amongst the regions and also within the States for not only ensuring secure, economic and stable operation of the grid but also for achieving maximum economy and efficiency of the power system.</p> <p>Page No.119- Provided that the renewable energy generating stations shall not be subjected to merit order dispatch (MUST RUN), and subject to technical constraints shall be requisitioned first followed by requisition from other generating stations in merit order.</p>	<p>The Economic operation and Must run words are exactly contradictory to each other. Since, Karnataka being RE rich state is having more than 50% share from Renewable source in its total installed capacity. During solar hours, 70-100% of State demand is met from the Renewable energy and during monsoon period most of the days State is meeting entire demand from RE sources. During such instances, State is keeping lowest cost generation sources under off/minimum condition in order to honor the Must Run Status stipulated in the Regulation. In such an event economical dispatch may not happen. Hence, it is suggested to drop either Economic operation or Must run word from Regulation as both cannot happen simultaneously.</p>

	Chapter 5	Commissioning and Commercial Operation Code	
	21. (1)	<p>NOTICE OF TRIAL RUN The generating company proposing its generating station or a unit thereof for trial run or repeat of trial run shall give a notice of not less than seven (7) days to the concerned RLDC and the beneficiaries of the generating stations wherever identified. The concerned RLDC shall commence the trial run from the requested date or in case of any system constraints not later than seven (7) days from the proposed date of trial run. The trial run shall commence from the time and date as decided and informed by the concerned RLDC.</p>	<p>For trial run concurrence of SLDC needs to be obtained. Hence the Section 21 (1) may be modified as, The generating company proposing its generating station or a unit thereof for trial run or repeat of trial run shall give a notice of not less than seven (7) days to the concerned RLDC and the beneficiaries of the generating stations wherever identified. The concerned RLDC shall commence the trial run from the requested date or in case of any system constraints not later than seven (7) days from the proposed date of trial run. The trial run shall commence from the time and date as decided and informed by the concerned RLDC/ SLDC.</p>
2.	Chapter 6	OPERATING CODE	
	28.	Operating Philosophy	
	(7)	<p>Every generating station and transmission substation of 132 kV and above shall have a control room manned by qualified operating personnel round the clock. Alternatively, the same may be operated round the clock from a remotely located control room, subject to the condition that such remote operation does not result in delay in execution of any switching instructions and information flow:</p>	<p>Karnataka State has stations at voltage level of 110KV and hence the clause/section shall be modified as; Every generating station and transmission substation of 110 kV and above shall have a control room manned by qualified operating personnel round the clock. Alternatively, the same may be operated round the clock from a remotely located control room, subject to the condition that such remote operation does not result in delay in execution of any switching instructions and information flow:</p>
	29.	System Security	
	(4)	<p>Except under an emergency, or when it becomes necessary to prevent an imminent damage to a</p>	<p>This particular clause/section of the Regulation has no relevance and is ambiguous in nature.</p>

		costly equipment, no user shall suddenly reduce its generating unit output by more than 100 (one hundred) MW [20 (twenty) MW in case of NER] without prior permission of the respective RLDC.	The term "suddenly reduce" has not been defined. During real time operation it has been misinterpreted in many ways. Whether 100 MW can be reduced in a minute or in a second is widely been argued.
	(5)	Except under an emergency, or when it becomes necessary to prevent an imminent damage to a costly equipment, no user shall cause a sudden variation in its load by more than 100 (one hundred) MW without prior permission of the respective RLDC.	<p>A reduction of 100MW of power in a large grid of 15,000 MW has no technical relevance as far as the system security is concerned.</p> <p>System security is to be monitored under 4 parameters i.e. frequency, voltage, transmission constraint and deviation. As long as, all these 4 parameters are within the allowed band, reduction of 100MW under the category of "suddenly reduced" may only help to maintain a reliable grid operation.</p> <p>Hence, this clause/section has no advantage, instead may create unnecessary strain on SLDC to monitor a particular parameter which has no relevance in grid operation.</p> <p>Hence, it is suggested to drop Section 29(4) and 29(5) from the proposed grid code.</p>
	30	Frequency Control and Reserves	
	(2)	The NLDC, RLDC and SLDC shall ensure that the grid frequency remains close to 50 Hz. and ensure that the frequency is restored within the allowable band of 49.95-50.05 Hz at the earliest.	Keeping frequency within the band and maintaining area control error (deviation) by SLDC within the limit may require counter actions like frequency correction This would require on one hand SLDC to under draw to maintain the frequency, whereas on the other hand it may have to overdraw to reduce the deviation in ACE (DSM regulation-2022 not linked with frequency). Hence SLDC cannot be held responsible to ensure both frequency between the band and deviation
	(3)	All users shall adhere to their schedule of injection or drawl, as the case may be, and take such action as required under these	

		<p>regulations and as directed by NLDC or respective RLDCs or respective SLDCs so that the grid frequency is maintained and remains within the allowable band.</p>	<p>within the limits.</p> <p>In the present deviation regulation, SLDC Would get penalised if it tries to maintain the frequency within the IEGC range.</p> <p>Hence as per the present DSM regulation it is the sole responsibility of the national load despatch centre to maintain the frequency and SLDC is only penalised if it tries to support to bring the frequency within the range. Hence IEGC should be in line with the DSM regulation.</p>
		<p>Reserves</p>	
		<p>(4)There shall be reserves as under:</p> <p>(a)Primary, Secondary and Tertiary reserves:</p> <p>(i)Primary, Secondary and Tertiary reserves shall be deployed for the purpose of frequency control, reducing area control error and relieving congestion.</p> <p>(ii)The response under Primary reserve shall be provided as per these regulations.</p> <p>(iii)Secondary reserves including automatic generation control and demand response shall be deployed by a control area as per these regulations or the Ancillary Services Regulations, as the case may be.</p>	<p>As per the proposed regulations, Ancillary services has to be deployed frequently to manage any deviations made by the generators/beneficiaries and to maintain the frequency closer to 50 Hz.</p> <p>The Ancillary services Regulations 2021 introduces the SRAS/TRAS. To deploy the secondary reserves ancillary services, implementation of AGC (Automatic Generation Control) is under progress to support the power system flexibility. As of now implementation of AGC at Central generating stations are nearing completion stage, whereas at state level AGC implementation is in progress at few States for one or two stations only. RE generators not at all considered for AGC implementation. Hence, completion of AGC throughout the country will be partial since the RE installed capacity is more than 50% at State level will take long time.</p>

	<p>(iv) Tertiary reserves shall be deployed by a control area as per these regulations or the Ancillary Services Regulations, as the case may be.</p> <p>(b) Black Start reserves: Generating stations having black start capability shall be identified by NLDC and RLDCs to act as black start reserves.</p> <p>(c) Voltage Control reserves: Voltage Control reserves shall be deployed for controlling the voltage at a bus through reactive power injection or drawl.</p> <p>(5) The reserves shall be operated as Ancillary Services, namely (a) Primary Reserve Ancillary Service (PRAS); (b) Secondary Reserve Ancillary Service (SRAS); (c) Tertiary Reserve Ancillary Service (TRAS); (d) Black Start Ancillary Services; and (e) Voltage Control Ancillary Services.</p> <p>(6) The mechanism of procurement and deployment of PRAS shall be as specified in these regulations or in the Ancillary Services Regulations, as the case may be.</p> <p>(7) The mechanism of procurement, deployment and payment of SRAS and TRAS shall be as specified in the Ancillary Services Regulations.</p> <p>(8) The primary response of the generating units shall be verified by the LDCs during grid events.</p>	<p>In order to replenish the secondary reserves it has been proposed to activate Tertiary Reserve ancillary services (TRAS) for which Nodal agency (NLDC) will procure power from market through TRAS provider. This is contrary to the provision in Electricity act, 2003 Section 26, Section 27 wherein it states the National Load Despatch Centre, Regional Load Despatch Centre respectively shall not engage in the business of trading in electricity</p> <p>The Renewable Energy (RE) installed capacity in Karnataka state is around 51% in its total installed capacity. In the absence of spinning reserves and other reserves, while accommodating intermittent must run status RE power in the grid, the deviation from the schedule is inevitable. Hence, the reserve quantum available from secondary reserves will not be sufficient to manage all the deviations made by the generator / beneficiaries until implementation of AGC in all the generating stations including RE throughout the country. If tertiary reserves are deployed frequently, the cost will be more while purchasing the same from market, which will affect the DISCOMs financially. Which is contrary to economical dispatch in the section 39 of Electricity Act 2003.</p> <p>Reserves are categorised as primary secondary and tertiary. Primary reserves are to be given by each and every generator connected to the grid, and it acts uniformly for any grid disturbance happening in any part of the grid. whereas secondary and tertiary reserves need to act only in the control area where great disturbance has happened.</p> <p>For primary reserves it is prudent that the generator</p>
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participate and has no commercial implication on any generator to provide primary response. It is well accepted procedure to have primary response by each generator.

Whereas in the case of Secondary and Tertiary , it has commercial implication on the distribution company as it has to procure the power which cannot be dispatched unless there is a contingency.

In the present Regulation, each control area needs to procure these reserves independently based on the maximum contingency it can foresee. This will have huge commercial implication on distribution companies as lot of power which will be procured but will not be dispatched as this will be kept as reserve power.

Globally, specifically in European grid the practices still have common set of reserves for multiple control area [countries] which helps them to keep the reserves quantum at minimum which will reduce the burden on the consumers. Hence it is integrated to have common set of resources across multiple control area.

Instead of keeping standby of huge reserves, it is suggested that a market mechanism be established to purchase reserves on real time basis so that no distribution company needs to purchase and keep adhoc quantum of reserves. The quantum of reserves to be available in the market can be accessed at the national level which will end up having the least requirement of quantum which can be utilised by SLDCs on need basis.

			<p>The quantum of requirement at national level will be way less than at state level as simultaneous contingencies in various states won't occur. Hence will reduce the requirement of reserved to be kept idle.</p> <p>The unallocated share from CGS generating station can be kept with NLDC as a reserve instead of taking Right of PPA from beneficiaries.</p> <p>Identifying the generating stations for providing SRAS/TRAS at 16:30 hrs of previous day would be based on schedule given by beneficiaries and it will block the power for the original beneficiary(ies) who has surrendered power based on merit order to meet its LGBR. Despite paying the Fixed Cost it would not be able to use this power on intra-day which could be against PPA provisions. If it is to implemented then beneficiary(ies) would schedule higher value on D-1 and surrender in real time for it to have flexibility in real time. This would also hamper the RSD of the units which is based on close to D-1 schedules by beneficiary (ies).</p> <p>SLDCs need to have the control over all state and CGS (having shares), and since a generating station cannot be controlled from two LDCs, transfer of control of the intra-State stations to NLDC should not be expected, the generation control should not be centralized for a large country like ours, but decentralized, with stress on gearing up the SLDCs to manage the States' systems in a secure and economic manner.</p>
	31	Operational Planning	
	(2)(d)	Each SLDC shall submit node-wise morning peak, evening peak, day shoulder and night off-peak estimated demand in MW and MVAR on monthly	<p>Karnataka State has stations at voltage level of 110KV and hence the clause/section shall be modified as;</p> <p>Each SLDC shall submit node-wise morning peak,</p>

		and quarterly basis for the nodes 132 kV and above for preparation of scenarios for computation of TTC and ATC by the concerned RLDC and NLDC.	evening peak, day shoulder and night off-peak estimated demand in MW and MVAR on monthly and quarterly basis for the nodes 110 kV and above for preparation of scenarios for computation of TTC and ATC by the concerned RLDC and NLDC.
	34	System Restoration	
	(3)	Detailed procedures for restoration post partial and total blackout of each user system within a region shall be prepared by the concerned user in coordination with the concerned SLDC, RLDC or NLDC, as the case may be. The concerned user shall review the procedure every year and update the same. The user shall carry out mock trial run of the procedure for different sub-systems including black-start of generating units along with grid forming capability of inverter based generating station, VSC based HVDC black-start support at least once in a year under intimation to the concerned SLDC and RLDC. Diesel generator sets and other standalone auxiliary supply source to be used for black start shall be tested on weekly basis and the user shall send the test reports to concerned SLDC, RLDC and NLDC on a quarterly basis.	Mock trial run including black –start of generating units is not possible. Hence, the same may be removed.
	39	Reactive Power Management	
	(2)	All generating stations shall be capable of supplying dynamically varying reactive power support so as to maintain power factor within the limits as per the CEA Connectivity Standard Regulations	In view of high RE power injection into the Grid without extending any reactive power support, in KARNATAKA, it is causing Under Voltage during high RE injection period and over voltage during night hours during no RE injection period. This is causing burden on the Grid System and resulting in the operation of the power transformer at very low power factor.
	(3)	All generating stations connected to the grid shall	

generate or absorb reactive power as per instructions of the concerned RLDC or SLDC, as the case may be. within capability limits of the respective generating units.

CEA(Technical standards for connectivity to the Grid) Regulations-2007 under section B of Part-II of its notification dated 15.10.2013 stipulates that the generating station using Inverters shall be capable of supplying dynamically varying reactive power support so as to maintain power factor within limits of 0.95 Lagging to 0.95 Leading. The Power factor of 0.95 Lag corresponds to supply of reactive power of 32.9% of KW on real time basis along with supply of active power and 0.95 Lead corresponds to absorption of reactive power of 32.9% of KW on real time basis while supplying active power.

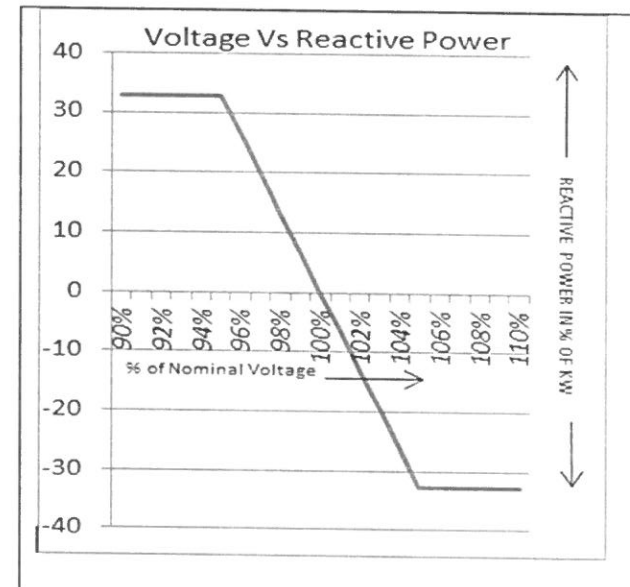
Also, as per the section 8.6.3 of KEGC-2015, the limits for Voltage at the point of interconnection for exchange of VAR is stipulated to be 95% (0.95pu) to 105% (1.05pu) of the real time basis while supplying active power.

Most of the RE Generators are not responding with variations of Grid Voltage by injecting reactive power when the voltage is below the nominal value and absorb reactive power when voltage is above the nominal value.

SLDC being Grid Operator of the State cannot instruct every RE generator to follow the Provisions of the regulations. Since solar generators are large in numbers, obligations as generators are to be followed voluntarily and should happen automatically. The inverters used are capable of supplying/absorbing reactive power provided the relevant function is enabled and proper settings are kept in the inverter.

Although the extent of reactive power is defined in the

			<p>connectivity regulation in a broad perspective, almost all the RE generators are not following the same and injecting only active power at unity power factor (no reactive power supply/absorption).</p> <p>Hence, it is opined that, the reactive power to be supplied /absorbed against voltage at the interconnection point has to be defined and stipulated in IEGC also. Commercial mechanism for reactive power exchanges from inverter based generation is to be introduced.</p>																								
	(4)	<p>NLDC, RLDCs or SLDCs may direct the users about reactive power set-points, voltage set-points and power factor control to maintain the voltage at interconnection points.</p>	<p>In case of RE sources, Since NLDC, RLDC or SLDC cannot direct individual RE generators with inverters, it is recommended to propose the stipulation for supply/absorption of reactive power is as below:</p> <table border="1" data-bbox="1198 646 1944 1264"> <thead> <tr> <th>Voltage in % of rated nominal voltage</th> <th>KVAR to be supplied / absorbed by solar Generator expressed as a % of KW generated.</th> </tr> </thead> <tbody> <tr> <td>95%</td> <td>32.87% (from Generator to Grid)</td> </tr> <tr> <td>96%</td> <td>26.24% (from Generator to Grid)</td> </tr> <tr> <td>97%</td> <td>19.68% (from Generator to Grid)</td> </tr> <tr> <td>98%</td> <td>13.12% (from Generator to Grid)</td> </tr> <tr> <td>99%</td> <td>06.56% (from Generator to Grid)</td> </tr> <tr> <td>100%</td> <td>0%</td> </tr> <tr> <td>101%</td> <td>-06.56% (from Grid to Generator)</td> </tr> <tr> <td>102%</td> <td>-13.12% (from Grid to Generator)</td> </tr> <tr> <td>103%</td> <td>-19.68% (from Grid to Generator)</td> </tr> <tr> <td>104%</td> <td>-26.24% (from Grid to Generator)</td> </tr> <tr> <td>105%</td> <td>-32.87% (from Grid to Generator)</td> </tr> </tbody> </table>	Voltage in % of rated nominal voltage	KVAR to be supplied / absorbed by solar Generator expressed as a % of KW generated.	95%	32.87% (from Generator to Grid)	96%	26.24% (from Generator to Grid)	97%	19.68% (from Generator to Grid)	98%	13.12% (from Generator to Grid)	99%	06.56% (from Generator to Grid)	100%	0%	101%	-06.56% (from Grid to Generator)	102%	-13.12% (from Grid to Generator)	103%	-19.68% (from Grid to Generator)	104%	-26.24% (from Grid to Generator)	105%	-32.87% (from Grid to Generator)
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Hence reactive power injected during the period of voltage less than the nominal value and reactive power absorbed during the period of voltage more than the nominal value by any Solar/Wind Inverter based Generator, if more than the values stipulated as above, such Var exchanges in excess of the stipulated value is proposed to be compensated based on the rate of reactive power approved by CERC as stipulated in the Annexure - 4 of draft IEGC Regulation 2022.

On the contrary, if Solar/Wind inverter based generator maintains the reactive power supply/absorption during the corresponding period less than the stipulated as above, it is proposed to be penalized based on the rate of reactive power

			<p>approved by CERC as stipulated in the Annexure-4 of the draft IEGC regulation 2022.</p> <p>It is worthwhile to consider the above proposal and if stipulated in the IEGC Regulation 2022, so that Reactive Power flow in EHV Transmission lines can be reduced to a great extent, as the reactive power will be injected/absorbed by the RE generators at all voltage class levels. Also, low voltages during the high RE injection and high voltages during low RE injection can be overcome.</p>
3	Chapter 7	Scheduling and Despatch Code	
	43	Control Area Jurisdiction of Load dispatch Center	
	(5)	<p>Entities connected to both inter-State transmission system and intra-State transmission system shall be under control area jurisdiction of RLDC, if more than 50% of quantum of connectivity is with ISTS, and if more than 50% of the quantum of connectivity is with intra-State transmission system, then it shall be under control area jurisdiction of SLDC.</p>	<p>Connectivity and evacuations are planned based on load flow study and economic way of connecting the transmission system where as scheduling is done based on the ease of co-ordination of the generating station with the buyers. Hence, to ensure smooth scheduling it should be based on the share of the power from a particular generating station to a distribution company rather than how it is connected to the IST system.</p> <p>The existing IEGC regulation, demarcation of responsibility of control centers are defined is based-on share rather than connectivity.</p>
	45	General Provisions	
	(12)	<p>Minimum turndown level for thermal generating stations</p> <p>The minimum turndown level for operation in respect of a unit of a regional entity thermal generating station shall be 55% of MCR of the</p>	<p>This particular clause has not considered reserve shutdown procedure. In past also during real time operation SLDC has found it difficult to put a generator on reserve shutdown due to intervention from RLDC, and forcefully scheduling by RLDC to</p>

		<p>said unit: Provided that the Commission may fix through an order a different minimum turndown level of operation in respect of specific unit(s) of a regional entity thermal generating station:</p> <p>Provided further that such generating station on its own option may declare a minimum turndown level below 55% of MCR:.</p> <p>Provided also that the regional entity thermal generating stations shall be compensated for generation below the normative level either as per the mechanism in the Tariff Regulations or in terms of the contract entered into by such generating station with the beneficiaries or buyers, as the case may be.</p>	<p>SLDC. Such act has lead to huge commercial loss to distribution companies. It is required in the present clause to reintroduce reserve shutdown procedure by giving ample authority to SLDC for taking down a unit under reserve shutdown. In case, a generator need to be kept under reserve requirement at national level, then there should not be any forceful scheduling to SLDC. It should be the sole responsibility of the national load dispatch center to ensure minimum schedule is given to the generator. Hence existing RSD procedure need to be retained</p>
	46	Security Constrained Unit Commitment (SCUC)	
	4(b)	<p>Beneficiaries of such stations, whose units are likely to be scheduled below minimum turndown level for some or all time blocks of the D day, shall be permitted to revise their requisitions from such stations by 1630 Hrs of D-1 day, in order to enable such units to be on bar. The revised requisition from the said generating stations, once confirmed by the beneficiaries by 1630 Hrs of D-1 day, shall be final and binding after 1630 Hrs of D-1 day and further reduction in drawal schedule shall not be allowed from such stations for such time blocks.</p>	<p>The intended clause takes out the flexibility from the SLDC to run its grid. Any reserves cannot be utilised in a day ahead basis, as whole idea of reserves is to meet contingency. Under this clause SLDC will be deprived with flexible operation of the thermal station under its control meant for meeting its demand and contingency. Under this mechanism after d -1 day it will be taken over by NLDC , SLDC would be left with no mechanism to control its deviation or any contingency occurrences which may affect the grid security.</p> <p>SLDC has the responsibility of meeting its demand along with running economic grid operation</p>

considering the security of the grid. To achieve this it requires support of all the generators under its control with whom it has signed power purchase agreement. In case SLDC is deprived to use this generator on real time basis then it will be impossible for SLDC to run a secure grid which has huge RE integration and obligation to meet 24/7 power supply.

For security constrained unit commitment in case NLDC believe that it needs more reserves it can ask for reserves through open market rather than impounding the reserves that are available with SLDC or The unallocated share from CGS generating station can keep it with NLDC as a reserves instead of taking Right of PPA from beneficiaries.

Due implementation of real time market, already SLDC have lost the flexibility which they had for scheduling at least 4 time block in advance now which has been moved to 8 time block in advance further strained the national grid and lost the flexibility for system operator to despatching the hot reserves. As may be the condition, in the draft regulation the provision of downward revisions for CGS stations is not considered.

This particular clause would deprive SLDC to run economic power system which it has planned by procuring power from various sources. In the name of security constrained unit dispatch the same power required by SLDC is being taken by NLDC, which will not be prudent from the state perspective. Hence suggested to include downward/upward revisions of the schedules which shall become effective from the 4th time block in real time.

	4(h)(i)	<p>Unit Shut Down (USD).</p> <p>The generating stations or units thereof, identified by NLDC in co-ordination with RLDCs, as per Clause (4) (c) of Regulation 46 of these regulations, but not brought on bar under SCUC, shall have the option to operate at a level below the minimum turn down level or to go under Unit Shut Down (USD).</p>	<p>The Hon'ble commissions has approved the detailed procedure vide order dated 5th May 2017, for taking unit(s) under Reserve Shut Down and Mechanism for Compensation for Degradation of Heat Rate, Aux Compensation and Secondary Fuel Consumption, due to Part Load Operation and Multiple Start/Stop of Unit after reviewing the real system difficulties with all utilities. The Commission has passed the order by giving ample flexibility to the system operator (original beneficiaries), hence, it is suggested to continue the same procedure for safe, secure and economical grid operation.</p>
	4(h)(ii)	<p>In case a generating station, or unit thereof, opts to go under unit shut down (USD), the generating company owning such generating station or unit thereof shall fulfil its obligation to supply electricity to its beneficiaries who had made requisition from the said generating station prior to it going under USD, by entering into a contract(s) covered under the Power Market Regulation or by arranging supply from any other generating station or unit thereof owned by such generating company subject to honouring of rights of the original beneficiaries of the said generating station or unit thereof from which supply is arranged.</p>	<p>Without RSD procedure as per the prevailing orders/regulations, beneficiaries may lose the control over their own resources which is meant for operational flexibility. Suppose, NLDC takes control of overall state share of CGS power & dispatches according to their MOD, this will be in violation of the State MOD and DISCOMs will have to be bear additional financial impact due to this operation of NLDC.</p>
	47	<p>Procedure for scheduling and dispatch for interstate transactions</p>	
	(1)(j)(i)	<p>Scheduling of collective transactions: (i) Power Exchange(s) shall open bidding window for day ahead collective transactions from 10 AM to 11.30 AM of 'D-1' day.</p>	<p>The Power Exchange(s) shall open bidding window for day ahead collective transactions from 10 AM to 12.00 AM of 'D-1' day.</p>

4(b)(i)

(b)The request for revision of scheduled transaction for 'D' day, shall be allowed to be made in any time block starting 2 PM on 'D-1' day subject to the following:

(i) In respect of a generating stations whose tariff is determined under Section 62 of the Act, upward revision of schedule shall be allowed starting 2 PM on 'D-1' day, only in respect of the remaining available quantum of un-requisitioned surplus after finalization of schedules under day ahead market.

It shall be made applicable even for the downward revision which has not been covered in the regulation, without downward revisions, the state may lose the basic flexibility of economical operation & it may have huge impact on RE rich state and utilities. The downward & upward revisions are vital tool for the system operator for abnormal change in load and variation of generations, state like Karnataka with a diversified mix of load and generation pattern. The revision of scheduling from 4 blocks to 8 blocks, state has experienced substantial under drawl during grid operation, resulting in financial loss to DISCOMs. The impounding of flexibility by this new regulations and directing SLDC to ensure safe, secure and economical grid operation is not feasible.

The accurate load and RE generation forecast is a mirage and yet to be achieved by most of the utilities, Commission is also aware of this scenario. However, the draft IEGC-2022 clause 44 (1) (b) states "Provided that such forecasts may be used by the wind and solar generating stations at their own risk and discretion along with all commercial liabilities arising out of it". The risks are well known to Commission with respect to RE forecast & load, hence, it is not advisable to devoid the flexibility prevailing to system operator.

Prevailing practices are evolved over the past experiences of system operators and revisions of schedules were made available for disciplined grid operation in the country. Enforcing new regulations need to be considered duly reviewing the operational difficulties of system operators, also the outcomes of several petitions filed before the commission with respect to RSD procedure and compensations.

			DISCOMs have entered into PPA with generators to meet their requirement for economical utilization of resources. Hence, it is suggested to include downward/upward revisions of the schedules which shall become effective from the 4th time block in real time.
	5(a)	Grid disturbance of category GD-5: GD-5 is defined under Regulation 11(2) of CEA Grid Standards as "When forty per cent or more of the antecedent generation or load in a regional grid is lost".	This particular clause should be applied for all GD's & the affected parties, if he is not responsible for the sole cause of the disturbance irrespective of the category of the grid disturbance.
	5(b)	Certification of such grid disturbance and its duration shall be done by the RLDC.	
	5(c)	Scheduled generation of all the affected regional entity generating stations supplying power under bilateral transactions shall be deemed to have been revised to be equal to their actual generation for all the time blocks affected by the grid disturbance. Such regional entity generating station shall pay back the energy charges received by it for the scheduled generation revised as actual generation to the pool account.	
	8(a)	Discrepancy in schedule All regional entities, open access customers, injecting entities and drawee consumers may closely check their transaction Schedule and point out errors, if any, to the concerned LDC.	It is a responsibility of the NLDC/RLDC to ensure that no discrepancy arises in the scheduling procedures as it is in the control of the NLDC/RLDC. SLDC or any other utility should be given ample time to verify any discrepancy arising out of the scheduling procedure carried out by NLDC/RLDC. SLDC and utilities should

	8(b) (b) The final schedules issued by RLDC shall be open to all regional entities and other regional open access entities for any checking and verification, for a period of 5 days. In case any mistake or omission is detected, the RLDC shall make a complete check and rectify the same.	be given the privilege to approach NLDC/RLDC to point out any discrepancy unless and until regional energy account is finalised.
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