#### Regulation No.: L-1/8/2022/CERC

Reference No.: 9/2022

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Reference No.	9/2022		No. L- 1/265/2022/CERC
Regulation No.	L-1/8/2022/CERC	Regulation No. Generation Date	14/06/2022

Regulation Type : New Regulation

Regulation Title : Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022.

Subject : Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2022.

Comment Detail

Type : Stakeholder Comment

Stakeholder Name : DAMODAR VALLEY CORPORATION (DVC)

Order Date / Direction of Commission / Compliance Date : 19/10/2022

Brief of

Comments/Objections/Suggestions

: 1. CHAPTER-1: general, Sl. no.1.3 (ii): Scope: 2. SCOPE AND EXTENT OF APPLICATION ?For the purpose of these regulations, the Damodar Valley Corporation (DVC) shall be treated as a regional entity and a separate control area. The DVC Load Despatch Centre shall perform functions of a SLDC for the control area of DVC.? Amendment along with Addendum in the last line of the Clause may be made as follows: ?The DVC SLDC shall perform functions of a SLDC for the control area of DVC. Accordingly, all the regulations of central commission like Deviation settlement mechanism regulation, Fees and charges regulation for RLDC etc shall be applicable for the licensees falling under the purview of area of operation of DVC SLDC. The expenditure of DVC SLDC and recovery thereof, shall also be guided like RLDC?. 2. CHAPTER-7: SCHEDULING AND DESPATCH CODE 44. RESPONSIBILITIES OF LOAD DESPATCH CENTRES ?? (4) Damodar Valley Corporation and Settlement Nodal Agency shall carry out the responsibilities in their respective control area, in accordance with clause (2) of this Regulation, for stable, smooth and secure operation of the integrated grid.? Comments of DVC-SLDC in respect to above provision as below: ?As per the proposed provision under Sl. No.1, SLDC, DVC will perform the functions of SLDC in the control area of DVC. Presently, scheduling and despatch in respect to DVC generators is being carried out by SLDC ensuring the secure, stable, smooth grid operation within the control area?. 3. CHAPTER-2: RESOURCE PLANNING CODE (4) Transmission resource adequacy assessment ?(a) CTU shall undertake assessment and planning of the inter-State transmission system as per the provisions of the Act and shall inter alia take into account: (i) adequate power transfer capability across each flow-gate; (ii) import and export capability for each control area; (iii) import and export capability between regions; and (iv) cross-border import and export capability. (b) STU shall undertake assessment and planning of the intra-State transmission system as per the provisions of the Act and shall inter alia take into account: (i) import and export capability across ISTS and STU

## Comments of DVC on draft amendment of IEGC

1. CHAPTER-1: general, Sl. no.1.3 (ii): Scope: 2. SCOPE AND EXTENT OF APPLICATION

"For the purpose of these regulations, the Damodar Valley Corporation (DVC) shall be treated as a regional entity and a separate control area. The DVC Load Despatch Centre shall perform functions of a SLDC for the control area of DVC."

Amendment along with Addendum in the last line of the Clause may be made as follows:

"The DVC SLDC shall perform functions of a SLDC for the control area of DVC.

Accordingly, all the regulations of central commission like Deviation settlement mechanism regulation, Fees and charges regulation for RLDC etc shall be applicable for the licensees falling under the purview of area of operation of DVC SLDC. The expenditure of DVC SLDC and recovery thereof, shall also be guided like RLDC".

- 2. CHAPTER-7: SCHEDULING AND DESPATCH CODE
  - 44. RESPONSIBILITIES OF LOAD DESPATCH CENTRES

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(4) Damodar Valley Corporation and Settlement Nodal Agency shall carry out the responsibilities in their respective control area, in accordance with clause (2) of this Regulation, for stable, smooth and secure operation of the integrated grid."

Comments of DVC-SLDC in respect to above provision as below:

"As per the proposed provision under SI. No.1, SLDC, DVC will perform the functions of SLDC in the control area of DVC.

Presently, scheduling and despatch in respect to DVC generators is being carried out by SLDC ensuring the secure, stable, smooth grid operation within the control area".

- 3. CHAPTER-2: RESOURCE PLANNING CODE
  - (4) Transmission resource adequacy assessment
  - "(a) CTU shall undertake assessment and planning of the <u>inter-State transmission system</u> as per the provisions of the Act and shall inter alia take into account:
  - (i) adequate power transfer capability across each flow-gate;
  - (ii) import and export capability for each control area;
  - (iii) import and export capability between regions; and
  - (iv) cross-border import and export capability.
  - (b) STU shall undertake assessment and planning of the intra-State transmission system as per the provisions of the Act and shall inter alia take into account:
  - (i) import and export capability across ISTS and STU interface; and
  - (ii) adequate power transfer capability across each flow-gate."

Comments of DVC-SLDC in respect to above provision as below:

"As far as the transmission planning is concerned, DVC T&D is treated like other STUs. Presently, augmentation/planning of New Transmission elements, is under the purview of STU. However, SLDC is consulted prior to finalisation of the plan."

The following may kindly be considered:

"The entire Transmission & Distribution (T&D) network of DVC right from voltage level 400 kV to 33 kV, has been declared as 'ISTS Network' so far as Tariff is concerned.

However, for connectivity purpose, DVC T&D should be treated as STU.

In case of CTU, for network planning and approval thereof is being decided at RPC.

However, in case of DVC, like other STU discussion and approval thereof at RPC forum is limited to  $220\ kV$  and above voltage.

But, DVC has to plan and construct new line, bay at 33 kV / 11 kV voltage level in order to fulfil the discom obligation in meeting power requirement end consumer at below 132 kV voltage level.

Therefore, discussion and approval for T&D network for augmentation of below 220 kV voltage level should be at the discretion of SLDC in consultation with STU.

However, Information for such augmentation may be provided to RPC by DVC SLDC.".

Also, keeping in view, the load Growth in a State and its impact on neighbouring systems / tie lines, a six-monthly/ yearly review / audit in coordination with CTU/RLDC/RPC may be made mandatory for healthy system operation satisfying (n-1) contingency."

#### 4. CHAPTER-3: CONNECTION CODE

#### "9. CONNECTIVITY AGREEMENT

(1) In case of users seeking connectivity to the ISTS under GNA Regulations, Connectivity Agreement shall be signed between such users and the CTU.

The following may kindly be considered:

"The entire Transmission & Distribution (T&D) network of DVC right from voltage level 400 kV to 33 kV, has been declared as 'ISTS Network' so far as Tariff is concerned.

Accordingly, for connectivity with DVC network (declared as ISTS for Tariff purpose) by any other entity, suitable provision may be incorporated."

#### 5. CHAPTER-5: COMMISSIONING AND COMMERCIAL OPERATION CODE

#### "23. TRIAL RUN OF INTER-STATE TRANSMISSION SYSTEM

(1) Trial run of a transmission system or an element thereof shall mean successful energisation of the transmission system or the element thereof at its nominal system voltage through interconnection with the grid for continuous twenty-four (24) hours flow of power and communication signal from the sending end to the receiving end and with requisite metering system, telemetry and protection system:

Provided that under exceptional circumstances and with the prior approval of CEA, a transmission element can be energized at lower nominal system voltage level."

Comments of DVC-SLDC in respect to above provision as below:

"The trial-run certificate in respect to all the elements (including Bays) of voltage level 220kV and below is being issued by SLDC. However, for tie lines, intimation of successful trial operation is forwarded to ERLDC"

The following may kindly be considered:

"The entire Transmission & Distribution (T&D) network of DVC right from voltage level 400 kV to 33 kV, has been declared as 'ISTS Network' so far as Tariff is concerned.

In order to provide power supply to new distribution consumer on application within specified time as per regulation, some spare bays of 33 kV and below are kept ready. Those bays are kept in charged condition to make it available for giving power supply to new consumer on application. Power flow is only possible, as and when new consumer is connected with that bay and consumer takes power supply. So, unlike transmission system, for distribution system of DVC which is also part of integrated T&D network (declared as ISTS system for tariff purpose), power flow is dependent on power supply taken by end consumer.

Hence, SLDC may be empowered to declare successful trial run operation based on successful charging of such distribution element."

#### 6. CHAPTER-7: SCHEDULING AND DESPATCH CODE

"47. PROCEDURE FOR SCHEDULING AND DESPATCH FOR INTER-STATE TRANSACTIONS

New inclusion in Part-6: Scheduling and Despatch Code, Sl.no. 6.3B: Technical minimum schedule for operation of CGS and ISGS:

"For embedded Thermal Generators having partial allocation, provision may be incorporated for allowing Compensation mechanism for flexible operation.

Since, DVC Generator has multiple Interstate beneficiaries, SLDC scheduling software (for LTOA, MTOA, STOA, collective) may be integrated with RLDC scheduling software for saving of time & elimination of errors in real time, keeping in view the ensuing 5-minute scheduling in future."

## Comments of SLDC, DVC on Draft IEGC 2022

- Chapter-5 (Commissioning and Commercial Operation Code): Clause 21
  - "(1) 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 ....."
  - "(2) In case the repeat trial run is to take place within twenty-four (24) hours of the failed trial run, fresh notice shall not be required."

### Comments:

Interruption may occur during Trial Operation of a thermal unit (after first time coal-synchronization) due to several critical reasons which may take longer duration to resolve and further synchronization. In such cases, repeat trial run may not be possible to commence within 24Hrs of failed trial run and thus shall require a fresh notice period of another 7 days. In case the unit gets available after 24Hrs, this notice period would involve idle engagement of manpower and materials with the financial liability to the P/H owner.

Therefore, it is proposed to extend the mentioned time period under Cl. 21(2) from 24Hrs to 72Hrs i.e., equal to the required duration of successful Trial Operation.

# 2. Chapter-6 (Operating Code): Clause 29

- "12. All distribution licensees, STUs and bulk consumers shall provide automatic under-frequency relays (UFR) and df/dt relays for load shedding in their respective systems to arrest frequency decline..."
- "13(c) There shall be uniform spatial spread of feeders selected for UFR and df/dt disconnection".
- "13 (d) .... RLDC shall inform SLDCs as well as the concerned RPC on quarterly basis, durations during the quarter when combined load in MW of these feeders was below the level considered while

designing UFR scheme by the RPC. SLDC shall take corrective measures within a reasonable period and inform the respective RLDC and RPC."

Clause 36

"(b) Provided that load shedding shall be resorted to after the demand response option has been exhausted."

Comments:

DVC distribution network comprises feeders mostly supplying power to the Steel industries, traction and coal mines, with few domestic feeders supplying to JBVNL. Hence, DVC is left with no other option but to consider the domestic feeders under the Defence mechanism (UFR/ (df/dt) / Demand Response) scheme. As such, identification of specific feeders under different schemes namely, Demand Response, UFR & df/dt scheme, may not be possible in respect to DVC.

Also, the spatial spread of feeders may not be feasible due to concentration of most of the Distribution feeders across Jharkhand area.

Therefore, while finalizing the Load Relief Quantum. i.r.o. DVC state, the above issues may be considered.