



पावर सिस्टम ऑपरेशन कॉर्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A wholly owned subsidiary of POWERGRID)



पंजीकृत एवं केन्द्रीय कार्यालय: बी-9, प्रथम तल, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016
Registered & Corporate Office : B-9, 1st Floor, Qutub Institutional Area, Katwaria Sarai, New Delhi - 110016
Website : www.posoco.in, www.nldc.in, Tel: 011-26536832, 26524522, Fax: 011-26524525, 26536901

POSOCO / NLDC / CERC

दिनांक : 01st May, 2015

To,

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

Subject: Views / Suggestions of POSOCO on the CERC proposed Framework on Forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State Level

Ref.: CERC Public Notice No. 1/14/2015-Reg.Aff.(FSDS)/CERC dtd: 31st March, 2015

Dear Sir,

With reference to the above mentioned public notice of the Hon'ble Commission, the views / suggestions of POSOCO on the CERC proposed Framework on Forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State Level are enclosed at Annex for your kind perusal.

Thanking You.

Encl: As above

Yours Sincerely,

(S.S. Barpanda)

Addl. General Manager
National Load Despatch Centre, POSOCO

POSOCO Comments on the CERC Proposed Framework on “Forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations based on wind and solar at Inter-State Level

Forecasting, Scheduling & Imbalance Handling for Renewable Energy (RE) Generating Stations is absolutely crucial for market access to RE generators. RE generators need just and reasonable deviation volumes due to their unique characteristics. Hon’ble Commission proposes system-wide reform which is a welcome step to break down RE integration barriers to treat it as marketable commodity. The comments/suggestions on the proposed amendments are as follows:

A. Draft CERC (Indian Electricity Grid Code) (Third Amendment) Regulations, 2015

1. Para (1 – 3), 5, 7, 8(i), 9(i) – No comments

Common Rationale for Points(2-7)

At present, an intra-state generator may sell to a buyer outside the state in a bilateral transaction. In such case, the RLDCs also schedule in view of inter-state nature of the transaction. In the proposed amendments, it is mentioned that *“wind and solar energy generators whose scheduling is done by the RLDCs”* which may be misinterpreted. In order to bring clarity, it is suggested that the above phrase may be replaced by *“regional entity wind and solar energy generators”*. This will be in line with intent of the Hon’ble Commission as stated in the Para 2 *“.....scheduling of wind and solar energy generators covered under the control area of RLDCs, has been incorporated in this code.”*

The individual paras where such changes are required are given below:

2. Para 4: Amendment of Regulation 2 of Part 2 of Principal Regulations:

POSOCO inputs

The words in the proposed Regulation 2.4.5 *“.....and deviation charge account for wind and solar energy generators whose scheduling is done by the RLDCs, based on data provided by SLDC/RLDC of the State/Region”* may be replaced with *“.....and deviation charge account for regional entity wind and solar energy generators, based on data provided by SLDC/RLDC of the State/Region”*

3. Para 6: Amendment of Regulation 6.2 of Part 6 of Principal Regulations:

POSOCO inputs

The words in the proposed Regulation 6.2 *“....This code also provides the methodology for re-scheduling of wind and solar energy generators whose scheduling is done by the RLDCs, on one and half hourly basis.....”* may be replaced with *“....This code also provides the methodology for regional entity wind and solar energy generators, on one and half hourly basis.....”*

4. Regulation 8(iv): Amendment of Regulation 6.5 of Part 6 of Principal Regulations

POSOCO inputs

The words in the proposed Regulation 8(iv) *“The schedule of solar generation whose scheduling is done by the RLDCs, shall be given by the generator based on availability of the generator, weather forecasting, solar insolation, season and normal solar generation curve.”* may be replaced with *“The schedule of regional entity solar energy generators, shall be given by the generator based on availability of the generator, weather forecasting, solar insolation, season and normal solar generation curve.”*

5. Regulation 9: Amendment of Annexure-1 of Principal Regulations:

POSOCO inputs

The words in the proposed Regulation 4 of the Annexure-1 *“The wind and solar energy generators whose scheduling is done by the RLDCs, shall forecast renewable energy generation at the following time intervals:”* may be replaced with *“The regional entity wind and solar energy generators, shall forecast renewable energy generation at the following time intervals:”*

6. Regulation 9: Amendment of Annexure-1 of Principal Regulations:

POSOCO inputs

The words in the proposed Regulation 4(ii) of the Annexure-1 *“.....The schedule by such wind and solar energy generating stations whose scheduling is done by the RLDCs.....”* may be replaced with *“.....The schedule by such regional entity wind and solar energy generators.....”*

7. Regulation 10 : Amendment of Annexure-1 of Principal Regulations

POSOCO inputs

The words in the proposed Para 5 of the Annexure-1 of the Principal Regulations *“.....“The charges payable for deviation form schedule for the wind and solar energy generators whose scheduling is done by the RLDCs, shall be delinked form frequency.....”* may be replaced with *“.....“The charges payable for deviation form schedule for regional entity wind and solar energy generators, shall be delinked form frequency.....”*

8. Regulation 8(ii): Amendment of Regulation 6.5 of Part 6 of Principal Regulations

POSOCO inputs

The words in the proposed Regulation 8 part (ii) *“..... The concerned RLDCs may engage forecasting agency(ies) at the centralized level and prepare a schedule of inter-State renewable generating stations.”* may be replaced with *“..... The concerned RLDCs and RE generators may engage forecasting agency(ies) at the centralized and decentralized level respectively. RE generators may provide schedule to concerned RLDC for scheduling of inter-State renewable generating stations.”*

Rationale

There is a need for clarity on the intent of the regulation regarding forecasting and scheduling. Forecasting needs to be done by both RE generator and the concerned RLDC. The forecast by the concerned RLDC would be from the point of grid security. The forecast by the RE generator would be RE facility centric and would form the basis of scheduling having commercial impact. Therefore, RE generators would need to engage forecasting agency(ies) at decentralized level too and provide schedule to the concerned RLDC. The respective RLDC may collate the schedules provided by the RE generators.

9. a) Regulation 8(iii): Amendment of Regulation 6.5 of Part 6 of Principal Regulations

b) Amendment of Annexure-1 of Principal Regulations: Regulation 4(ii) of the Annexure-1 of the Principal Regulations

POSOCO inputs

The draft regulation has provided maximum of 16 revisions in a day for each fixed one and half hour time slot starting from 00:00 hours. There is no issue in the revision of Long-Term and Medium-Term transactions. However, in case of Short-Term transactions, there is a need for consent from the buyer side. It may be ensured that the upward/downward revision of the transaction not cause congestion in the upstream/downstream corridor. Therefore, appropriate regulations may be made so that revisions in the schedule of RE generator are subject to congestion in the upstream/downstream corridor.

B. Draft CERC (Deviation Settlement Mechanism and related matters) (Second Amendment) Regulations, 2015

1. Para 1, 4 – No comments

Common Rationale for Points(2-5)

At present, an intra-state generator may sell to a buyer outside the state in a bilateral transaction. In such case, the RLDCs also schedule in view of inter-state nature of the transaction. In the proposed amendments, it is mentioned that *“wind and solar energy generators whose scheduling is done by the RLDCs”* which may be misinterpreted. In order to bring clarity, it is suggested that the above phrase may be replaced by *“regional entity wind and solar energy generators”*. This will be in line with intent of the Hon’ble Commission as stated in the Para 2 *“.....scheduling of wind and solar energy generators covered under the control area of RLDCs, has been incorporated in this code.”*

2. Regulation 5 of Principal Regulations:

POSOCO inputs

In the proposed clause (1) of Regulation 5 of the Principal Regulations *“.....and over-injection by the seller, except for the wind and solar energy generators whose scheduling is done by the RLDCs,.....”* may be replaced with *and over-injection by the seller, except for regional entity wind and solar energy generators*”

3. Regulation 5 of Principal Regulations:

POSOCO inputs

In the proposed Sub-clause (iv) to clause (1) of Regulation 5 of the Principal Regulations *“.....and except for wind and solar energy generators whose scheduling is done by RLDCs, which shall be governed by sub-clauses (v) to (vii) below:.....”* may be replaced with *“.....and except for regional entity wind and solar energy generators, which shall be governed by sub-clauses (v) to (vii) below:.....”*

4. Regulation 5 of Principal Regulations:

POSOCO inputs

In the proposed clause (2) of Regulation 5 of the Principal Regulations *“The Charge for Deviation, except for wind and solar energy generators whose scheduling is done by the RLDCs, shall be determined in accordance with the following methodology”*. may be replaced with *“The Charge for Deviation, except for regional entity wind and solar energy generators, shall be determined in accordance with the following methodology”*.

5. New proviso to clause (1) under Regulation 7

POSOCO inputs

In the proposed new proviso after the existing proviso to clause (1) of Regulation 7 of the Principal Regulations, *“.....as stipulated under Regulation 7 shall not apply to wind and solar energy generators whose scheduling is done by the RLDCs”* may be replaced with *“.....as stipulated under Regulation 7 shall not apply to regional entity wind and solar energy generators”*.

6. Regulation 9 of Principal Regulations - Accounting of Charges for Deviation

POSOCO Inputs

The draft amendment regulations have provided that due to the deviations in the RE generation, the RE generators may buy/sell RECs depending on the under injection / over generation. Due to deviations, REC market may have sudden variations/fluctuations in the demand/supply of RECs which may have

adverse impact on the price of RECs. It is suggested that netting of buy/sell of RECs may be done by that RE generator for the deviation account settlement on quarterly basis. Also, this would enable RE generator to adjust his generation according to his REC liability. Therefore, statement of Charges for Deviations including REC liability may be prepared by the respective Regional Power Committee on weekly basis. The financial settlement may be done on weekly basis and RE generator may be responsible for adjusting his REC liability within the financial quarter i.e. 3 months.

C. CERC (Terms and Conditions for recognition and issuance of Renewable Energy Certificate for Renewable Energy Generation) (Fourth Amendment) Regulations, 2015

1. Regulations (1 – 2) – No comments

D. Other Suggestions

The following additional changes in the IEGC may be considered by the Hon'ble Commission:

1. Need for Nodal Entity for fragmented RE generators

It has been observed that in case of renewable energy generation, particularly in case of Wind Turbine Generators (WTGs), the ownership is quite fragmented and large capacity of WTGs is owned by small investors. In an earlier order, Hon'ble CERC has recognized the need of a nodal entity at the connection point, which shall be responsible for coordinating with SLDC/RLDC on behalf of all the developers/generators. Hence, a separate Institutional Entity e.g. Qualified Scheduling Entity (QSE) may be required to be put in place, which is recognized under regulatory framework and could be qualified/certified/registered with System Operator to undertake various activities associated with scheduling/commercial settlement/de-pooling/communication/data consolidation and management and co-ordination etc. Suitable definition may be incorporated in the appropriate regulations including Grid Code.

2. Data Telemetry and Communication Facilities

Data Telemetry and Communication Facilities with the Solar/Wind ISGS stations for all real time operations and exchange real time code for switching and shutdown etc. is vital for secure grid operation.

3. Handling Infirm RE Power

The handling of the Infirm RE power before CoD, Trial Operation and Declaration of CoD may be clarified for the wind and solar energy generators connected to the ISTS system in the appropriate regulation.