



**POWER SYSTEM OPERATION CORPORATION LIMITED**  
**National Load Despatch Centre (NLDC), New Delhi**

Dated: 03-Feb-2020

To  
All Stakeholders.

**Subject: Draft Procedure for Scheduling Collective Transactions in the Real Time Market (RTM)**

In order to implement the Real Time Market(RTM) in India, Central Electricity Regulatory Commission (Open Access in inter-State Transmission) (Sixth Amendment) Regulations, 2019, Central Electricity Regulatory Commission (Indian Electricity Grid Code) (Sixth Amendment) Regulations, 2019 and Central Electricity Regulatory Commission (Power Market) (Second Amendment) Regulations, 2019 have been notified on 12<sup>th</sup> December, 2019.

Para 9.7 of the Statement of Reasons (SoR) of Framework for Real Time Market for Electricity mentions the following:

*"9.7 The Commission directs the NLDC to prepare detailed procedures for collective transactions under RTM in line with the outline specified in the Regulations. "*

In compliance to the above, the Draft Procedure for Scheduling Collective Transactions in the Real Time Market are enclosed and hereby placed on the websites of NLDC/RLDCs for stakeholder consultations.

Suggestions/feedback on the Draft Procedures are invited from stakeholders.

The suggestions/feedback may kindly be sent to NLDC through email at [rtm@posoco.in](mailto:rtm@posoco.in) latest by 21<sup>st</sup> February 2020.

  
03/02/2020

(Debasis De)  
Executive Director  
NLDC, POSOCO

Copy for kind information: Secretary, CERC

**Power System Operation Corporation Ltd.**  
**(A Government of India Enterprise)**



**Procedure for Scheduling**  
**Collective Transactions in the Real Time Market (RTM)**  
**(Draft)**

*[As per CERC Open Access Regulations, 2008 (dated 25.01.2008) &  
subsequent (Amendment) Regulations*

**National Load Despatch Center, New Delhi**  
**February, 2020**

*(Revision No. 0 dated 3<sup>rd</sup> February 2020)*

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**FORMATS FOR SCHEDULING OF COLLECTIVE TRANSACTIONS:**

- |                   |   |
|-------------------|---|
| FORMAT – PX-I :   | Standing Clearance / No Objection Certificate         |
| FORMAT - PX-IA:   | Affidavit regarding Deemed Concurrence of SLDC        |
| FORMAT – PX-II :  | Application for Scheduling of Collective Transaction  |
| FORMAT - PX-III : | Scheduling Request for Collective Transaction to NLDC |
| FORMAT - PX-IV:   | Scheduling Request for Collective Transaction to SLDC |

*NOTE: [ Formats PX-I to PX-IV mentioned above are the same formats as applicable under the Procedure for Day Ahead Collective Transactions in Power Exchange]*

# Procedure for Scheduling of Collective Transactions through Real Time Market (RTM)

## 1. PREAMBLE

**1.1.** This Procedure is in accordance with the Para 9.7 of the Statement of Reason (SoR) of Framework for Real Time Market for Electricity and various provisions of the Central Electricity Regulatory Commission (Open Access in inter-State Transmission) Regulations, 2008 and amendments thereof and Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 and amendment thereof.

**1.2.** The Procedure shall apply to the applications made for Scheduling of Collective Transactions in Real Time Market by availing of Short Term Open Access for use of the transmission lines or associated facilities with such lines on the inter state transmission system. The short term open access transmission charges would be payable as per the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations 2010 and relevant CERC orders.

**1.3.** All the words and expression used in the Procedure shall have the same meaning assigned to them as defined in the Regulations.

## 2. INTRODUCTION

**2.1.** All Entities, whose scheduling, metering and energy accounting is presently being carried out by Regional Load Despatch Centres (RLDCs)/Regional Power Committees (RPCs) shall be deemed to be Regional Entities of the respective region. Any new Entity, who satisfies the conditions for scheduling, metering & energy accounting by Regional Load Despatch Centres, as per Indian Electricity Grid Code and amendments thereof, and is intending to participate in trade through Power Exchange (Day Ahead and/or Real Time Market) as a Regional Entity shall obtain Standing Clearance"/ "No Objection Certificate" from the respective Regional Load Despatch Centres (RLDCs), as per the enclosed format. [FORMAT-PX-I: "Standing Clearance" to Power Exchange.]

**2.2.** State Utilities and intra State entities proposing to participate in trading through Power Exchange(s) (Day Ahead and/or Real Time Market) shall obtain “Standing Clearance” from the respective State Load Despatch Centres (SLDCs), as per the enclosed format. [FORMAT-PX-I: “Standing Clearance” to Power Exchange.]

**2.3.** The “Standing Clearance” shall include maximum power that can be scheduled for an entity through all LTA/MTOA/STOA Bilateral/ STOA Collective (Day Ahead & Real Time) transactions.

**2.4.** The entities shall submit “Standing Clearance” obtained from NLDC/RLDC/SLDC to Power Exchange (s). The Power exchange (s) shall allow the transactions as per these Standing Clearance or Available Transfer Capability (ATC) advised by NLDC/RLDC/SLDC.

**2.5.** The “Standing Clearance” submitted by the Regional Entity/ State Utilities/intra state entity to the Power Exchange for the Day Ahead market shall also be utilized in Real Time Market.

**2.6.** The “Standing Clearance” submitted by the Regional Entity/ State Utilities/intra state entity shall be reviewed on quarterly basis by the respective RLDCs/SLDCs as the case may be. Even if there is no change in the status, it shall be resubmitted by the respective Regional Entity/ State Utilities/intra state Entity. However, the RLDC/SLDC may revise /withdraw the Standing Clearance in case of emergency / detection of undesired gaming or conditions/new developments which may warrant the same in the interest of Grid safety/security or any such other reason The concerned Entity shall ensure that total scheduled MW through all types transactions remains within the quantum as per the Standing Clearance issued by the concerned NLDC/RLDC/SLDC.

**2.7.** Each RLDC, on their website, shall display the list of Regional Entities of the Region. Similarly, each SLDC, on their website, shall display the list of the intra state Entities of their State.

**2.8.** All Entities participating in the Power Exchange(s) shall be identifiable with a Unique Code on the basis of Bid Area, sub Bid Area (if any), Regional Entity; Intra state Entity. Power Exchange (s) shall use the same codes as have been specified for the Day Ahead Market by NLDC.

**2.9.** All data between NLDC and Power Exchange(s) shall be exchanged electronically through redundant dedicated communication channel for better reliability.

**2.10.** The Power Exchange(s) shall ensure that the necessary infrastructure for data exchange/communication with NLDC/RLDCs and SLDCs is put in place prior to commencement of the operation. The Power Exchange(s) shall be responsible for the day to day maintenance of the same.

**2.11.** Power Exchange(s) shall be responsible for Settlement of Energy Charges, Price Discovery and Settlement arising due to Congestion, with its participants in accordance with the relevant CERC Regulations.

**2.12.** Application for “Scheduling of Collective Transaction in Real Time Market” not in conformity with these Procedures/Regulations shall not be processed.

**2.13.** Notwithstanding anything contained in this Procedure, NLDC/RLDCs/SLDCs may take appropriate decisions in the interest of System Operation. Such decisions shall be taken under intimation to CERC and the procedure shall be modified /amended, as necessary.

### **3. SUBMISSION/PROCESSING OF APPLICATION**

**3.1.** The National Load Despatch Center (NLDC) shall intimate the Power Exchange(s), at the end of the RTM bidding session, regarding the transmission margin of the interfaces/control areas/ inter regional/transnational transmission systems.

**3.2.** Based on the intimation in regard to transmission margins by NLDC, the Power Exchange(s) shall clear the bids received and shall submit the application as per clause 3.4 of this procedure..

**3.3.** The allocation of transmission corridor between the power exchanges for real time transactions shall be in the ratio of their shares in the cleared volumes in the day ahead market subject to a minimum of 10% of the available capacity to the power exchange having smaller share; or based on such methodology to be decided by the Commission by way of an order.

**3.4.** Power Exchange(s) shall ensure that “Scheduling Request for Collective Transaction in Real Time Market” is within the limits (as per Para 3.1 of this Procedure) for each time block as intimated by NLDC. Further, Power Exchange(s) shall ensure that the Scheduling Request is within the limits for each time block specified by respective RLDCs/SLDCs in the “Standing Clearance”, submitted by Utilities/ Entities to Power Exchange(s). However, for a particular RTM session if the bid cleared by a particular power exchange is more than the margin provided by NLDC, then NLDC shall consider the trade quantum of all bid area for the

particular Power Exchange(s) to be zero and send an exception report to the corresponding power exchange (s)

**3.5.** Power Exchange(s) shall club together all Buyers within a State in one group and all Sellers within a State in another group for the purpose of Scheduling by RLDCs.

**3.6.** The Application fees for scheduling of Collective Transaction in Real Time Market shall be submitted along with the application for scheduling of Collective Transaction in Day Ahead Market submitted by the Power Exchange(s), to the NLDC as per Format-PX-II.

#### **4. SCHEDULING**

**4.1.** The Scheduling request of Collective Transaction in Real Time Market shall be submitted by the Power Exchange(s) three(3) time blocks (45 minutes) ahead of the first time block for delivery of the power, to the NLDC as per Format-PX-III.

**4.2.** NLDC shall send the details (Scheduling Request of Collective Transaction in Real Time Market) to the concerned RLDCs after receipt of the same from the Power Exchange(s) accommodating them in their schedules.

**4.3.** Concerned RLDCs shall accommodate the Schedule of Collective Transactions in Real Time Market in the schedules of the respective Regional Entity's and inter-Regional Schedules.

**4.4.** RLDCs shall schedule the Collective Transaction at the periphery of the respective Regional Entities.

**4.5.** RLDCs shall incorporate all buyers within a State (clubbed together as one group) and all sellers within a State (clubbed together as another group), in the schedules of the Collective Transactions in Real Time Market.

**4.6.** The individual transactions for State Utilities/intra-State Entities shall be scheduled by the respective SLDCs. Power Exchange(s) shall send the detailed breakup of each point of injection and each point of drawl within the State to respective SLDCs two(2) time blocks (30 minutes) ahead of the time of delivery of the power. The details for Scheduling Request for Collective Transaction in Real Time Market shall be submitted by Power Exchange (s) to the respective SLDCs as per Format-PX-IV.

**4.7.** Power Exchange(s) shall ensure necessary co-ordination with SLDCs for scheduling of the transactions.

**4.8.** While finalizing the Drawl Schedule / Injection schedule of Entities, each transaction shall have a resolution of 0.01 MW at each State/inter-Regional boundaries.

**4.9.** Under extreme circumstances including but not limited to failure of communication and/or any such other reason for data transfer, if the final cleared trades are not received by NLDC for scheduling through the RLDCs, then, the schedules for such RTM session(s) shall be made zero (0) and the Power Exchange(s) shall settle accordingly.

## **5. TREATMENT OF LOSSES**

**5.1.** Inter State transmission losses would be applied separately on Buyers as well as Sellers of Collective Transaction, for arriving at the Schedules.

**5.2.** To compensate for losses in the inter-State transmission system, the Sellers in the Collective Transaction shall inject extra power (MW), in addition to the contracted power.

**5.3.** To compensate for the losses in the inter-State transmission system, the Buyers in the Collective transaction shall draw less power (MW) than contracted power.

**5.4.** Losses shall be applicable as per the Procedure for Sharing of Inter-State Transmission Losses under Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 and relevant CERC orders.

**5.5.** The intra-State transmission system losses shall also be taken care of in the Schedules by respective SLDCs.

## **6. REAL TIME CONGESTION MANAGEMENT**

**6.1.** In case of transmission constraint or threat to grid security, the scheduled transactions may be curtailed in the manner as decided by the NLDC / RLDCs / SLDCs to relieve the transmission constraint/ to improve grid security.

Provided that subject to provisions of the Grid Code, while curtailment of any transaction, among short term, medium term and long term transactions, short term transactions shall be curtailed first, followed by medium term and thereafter long term transactions.

**6.2.** Collective Transaction through Power Exchange(s) would be curtailed subsequent to the Short Term Bilateral Transaction(s).

**6.3.** While curtailing collective transactions, day ahead transactions shall be curtailed first followed by the real time transactions.



**6.4.** RLDCs would curtail a Transaction at the periphery of the Regional Entities. SLDC(s) shall further incorporate the inter-se curtailment of intra-State Entities to implement the curtailment. NLDC/RLDCs/SLDCs shall endeavour to incorporate the curtailment of RTM transactions in the schedules of the respective entities prior to the delivery period on best effort basis as the time available is extremely short & limited.

**6.5.** In case of curtailment of a Transaction caused by transmission constraints / threat to grid security, the Transmission Charges in respect of such Transaction shall be payable on pro-rata basis in accordance with the finally Implemented Schedules. Operating Charges shall not be revised in case of curtailment.

**6.6.** Power Exchange (s) shall be responsible for the settlement on account of curtailment, directly with its participants. NLDC/RLDCs/SLDCs shall interact only with the respective Power Exchange(s), for the same.

## **7. REVISION OF SCHEDULE:**

**7.1.** ISGS(s) may participate in the Real Time Market due to generation margin available after revision of schedules by its beneficiaries, where revision in schedule made in odd time blocks shall become effective from 7th time block and any revision in schedule made in even time blocks shall become effective from 8th time block, counting the time block in which the request for revision has been received by the RLDCs to be the first one.

**7.2.** Wind or Solar generator may participate in the Real Time Market provided that their schedules through the Day-Ahead Market and Real Time Market shall not be revised.

**7.3.** A generator having participated in collective transaction in Day Ahead Market and Real Time Market cannot revise its schedule in case of forced outage for the time blocks for which it has been cleared.

**7.4.** Generator shall have an option to purchase power in real time market, only in the case of forced outage of a unit(s). In such a case, the generator shall submit an undertaking to the Power Exchange(s) where it is participating giving details of the forced outage (time of outage, reason of outage, anticipated revival time) prior to bidding in the RTM.

## **8. COMMERCIAL CONDITIONS:**

**8.1.** The following Short-Term Open Access charges shall apply for Collective Transaction in Real Time Market through Power Exchange(s) and shall be payable to National Load Dispatch Centre by Power Exchange(s):

- a)** Non-refundable fee of Rs. 5000/- shall be payable per day, for processing the RTM application(s) along with the day ahead application irrespective of the quantum of RTM trade.
- b)** The transmission charges shall be payable as applicable as per the rate specified under Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations 2010 and relevant CERC orders.
- c)** NLDC operating charges shall be payable at Re. 1/MWh by each of the successful buyer and seller on the basis of its energy scheduled (MWh) at regional periphery. The NLDC Operating Charges payable by each of the successful buyer and seller, for a day, shall be capped to a maximum ceiling of Rs 200 per day.

**8.2.** The following Short Term Open Access charges shall apply for the intra state entities for the use of intra state transmission system in Collective Transaction in Real Time Market through Power Exchange(s) and shall be payable directly to State Load Dispatch Centre by Power Exchange(s):

- a)** The intra state entities shall pay the transmission charges for use of the State network as determined by the respective State Commission in addition to the charges specified under the clause 7.1 of this procedure.
- b)** If State Commission has not determined the transmission charges for use of the state network in Rs./MWh, the charges for use of respective State network shall be payable at the rate of Rs. 80/MWh for the energy approved.

Provided further that non-determination of the transmission charges by the State Commission for use of the State network shall not be a ground for refusal of open access.

- c)** The successful buyers and sellers shall also pay SLDC operating charges as may be decided by the Commission or Rs 1000/- per day only if the operating charges have not been notified by the respective State Commission for the SLDC involved for each point of the collective transaction.

d) For the purpose of the levy of operating charges for State Load Despatch Centre and levy of the intra-State transmission charges, each point of the injection or drawl in the State network shall be counted separately.

**8.3.** Payments of Application fee, Inter State Transmission Charges, NLDC Operating Charges and Congestion Revenue shall be made by the Power Exchange(s) to the NLDC, by the next working day falling after the day on which its Application was processed at NLDC along with the Day Ahead Collective transaction charges.

**8.4.** The Transmission Charges for the use of intra state transmission system and Operating Charges for the SLDCs shall be directly settled by the Power Exchange(s) with the respective SLDC.

**8.5.** All payments shall be remitted by electronic transfer to the designated Bank Accounts of the respective entities.

**8.6.** The Power Exchanges will provide NLDC with a daily consolidated list of successful participants along with their volumes cleared and the NLDC operating charges levied on these successful participants.

**8.7.** The generators whose tariffs are determined by the Commission under section 62 of the Act and participating in this market shall share the net gains (after accounting for the energy charge) with the beneficiaries in the ratio of 50:50 subject to a ceiling of share of 7 paisa / kWh to the generator and the balance to the beneficiary.

## **9. TREATMENT IN CASE OF DEFAULT IN PAYMENT**

**9.1.** In case of default in payment of NLDC/RLDCs/SLDCs, the NLDC at its discretion, may suspend the scheduling of Transaction and/or may terminate the already Scheduled Transaction and/or may not entertain any Application of such Power Exchange(s) in future, until such time the default is cured.

**9.2.** In case of payment default, Power Exchange(s) shall pay to NLDC a simple interest at the rate of 0.04 % for each day of default, from the Due Date of Payment.

## **10. DISBURSAL OF PAYMENT**

**10.1.** NLDC shall reconcile the Short-Term Open Access Charges collected during the previous month by the tenth (10<sup>th</sup>) working day of the current month.

**10.2.** The transmission charges shall be transferred to the CTU for disbursement in accordance with the Approved Detailed Procedure for Billing, Collection and Disbursement under Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations 2010 and relevant CERC orders.

**10.3.** In case of refunds arising due to curtailment of transactions during the previous month, the same shall also be disbursed to the concerned Power Exchange by fifteen (15) working day of the current month.

## **11. INDEMNIFICATION**

**11.1.** The Power Exchange(s), including its Buyers and Sellers, shall keep each of the NLDC/RLDCs/SLDCs indemnified at all times and shall undertake to indemnify, defend and save the NLDC/RLDCs/SLDCs harmless from any and all damages, losses, claims and actions, including those relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the transactions.

**11.2.** The Power Exchange(s), including its Buyers and Sellers, shall keep each of the NLDC/RLDCs/SLDCs indemnified at all times and shall undertake to indemnify, defend and save the NLDC/RLDCs/SLDCs harmless from any and all damages, losses, claims and actions arising out of disputes among Buyers and Sellers, as well as with Power Exchange(s), inclusive of confidentiality issues.

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