



# महाराष्ट्र विद्युत नियामक आयोग Maharashtra Electricity Regulatory Commission

MERC/Amended RE F&S/2024-25/००२०

Date: 15 January 2025

The Executive Director  
Maharashtra State Load Despatch Centre,  
Thane-Belapur Road, Airoli  
Navi Mumbai - 400 708

**Sub:-** Compliance of MERC (Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation) (First Amendment) Regulations, 2024

**Ref:-** (i) Procedure submitted by MSLDC on 12 September 2024 under the MERC (Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation) (First Amendment) Regulations, 2024 along with few suggestions for implementation of these Regulations

(ii) Letters dated 3 October 2024 and 23 December 2024 received from MSLDC seeking extension for software deployment

**Sir/Madam,**

This has reference to the Procedure submitted by MSLDC on 12 September 2024 under the MERC (Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation) (First Amendment) Regulations, 2024 (**RE F&S Amendment Regulations**) along with few suggestions made by MSLDC for smooth implementation of the RE F&S Amendment Regulations and the Letters dated 3 October 2024 and 23 December 2024 received from MSLDC seeking extension for software deployment for implementation of RE F&S Amendment Regulations.

In this context, I am directed to inform you that the Commission has approved the said Procedure and same is enclosed herewith (**Annexure 1**). Further, it is also informed that said procedure needs to be uploaded on the website of MSLDC at the earliest.

Further, I am directed to inform you that MSLDC may file a separate Petition for relaxation of timelines regarding commencement of trial mode operation as envisaged under the amended RE F&S Regulations after making all the distribution Licensees Parties to the Petition and the Commission will take a view on MSLDC's extension request after hearing MSLDC and other stakeholders.

Further, views of the Commission on few suggestions made by MSLDC for smooth implementation of the RE F&S Amendment Regulations are also annexed to this letter as **Annexure 2** to this letter.



Yours faithfully,

*Praveen*  
(Dr. Prafulth Varhade)

Director (Technical), MERC



**Procedure for  
Forecasting, Scheduling and Deviation  
Settlement of Solar and Wind Generation  
2<sup>nd</sup> Amendment**

In accordance with  
The Maharashtra Electricity Regulatory  
Commission  
(Forecasting, Scheduling and Deviation  
Settlement of Solar and Wind Generation) (First  
Amendment) Regulations, 2024

Prepared by

**Maharashtra State Load Despatch Centre**

**12<sup>th</sup> September, 2024**



## TABLE OF CONTENTS

1. OUTLINE: .....	4
2. QUALIFYING CRITERIA FOR THE QCA: .....	5
3. ROLES AND RESPONSIBILITIES OF THE QCA: .....	6
4. ROLES AND RESPONSIBILITIES OF GENERATORS: .....	11
5. ROLES AND RESPONSIBILITIES OF MSLDC: .....	21
6. ROLES AND RESPONSIBILITIES OF DISTRIBUTION LICENSEES: .....	23
7. ROLES AND RESPONSIBILITIES OF STU/TRANSMISSION LICENSEES: .....	26
8. REGISTRATION PROCEDURE OF QCA: .....	28
9. DE-REGISTRATION PROCEDURE OF QCA: .....	33
10. MSLDC FEES & CHARGES AND OTHER CHARGES: .....	47
11. COMMUNICATION MODE AND PROTOCOL: .....	48
12. FORECASTING AND SCHEDULING: .....	50
13. PROTOCOL FOR CURTAILMENTS: .....	61
14. METER DATA ACQUISITION IN THE ABSENCE OF AMR FACILITY: .....	62
15. ENERGY ACCOUNTING: .....	62
16. DEVIATION CHARGES PAYMENT MECHANISM: .....	66
17. DEVIATION CHARGES METHODOLOGY: .....	67
18. DEVIATION CHARGES PAYMENT MECHANISM: .....	94
19. MECHANISM FOR MONITORING COMPLIANCE: .....	98
20. MARKET SUSPENSION: .....	104
21. GRIEVANCE REDRESSAL: .....	106
22. REMOVAL OF DIFFICULTIES: .....	106
23. GENERAL: .....	106
24. ANNEXURES & FORMATS: .....	108





## PROCEDURE FOR FORECASTING, SCHEDULING AND DEVIATION SETTLEMENT OF SOLAR AND WIND GENERATION

### 1. **OUTLINE:**

- 1.1. This Procedure is in accordance with the various provisions of MERC (Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation) Regulations, 2018, hereinafter referred as "the Principal Regulations" and MERC (Forecasting, Scheduling and Deviation Settlement of Solar and Wind Generation) (First Amendment) Regulations, 2024 hereinafter referred as "the Amendment Regulations". All applicants shall abide by the provisions of the Regulations.

### 1.2. **APPLICABILITY OF THE PROCEDURE:**

- 1.2.1. All Wind and Solar Energy Generators in Maharashtra connected to the Intra-State Transmission System, on or after the date notified by the Commission of coming into force of the Regulations, including those connected through Pooling Sub-Stations and using the power generated for self-consumption or sale within or outside the State.

Provided that the combined installed capacity of the Solar or Wind Generators connected to a particular Pooling Sub-Station, or that of an individual Generator connected to some other Sub-Station, shall not be less than 5 MW.

Provided further that in accordance with the Regulation No. 5.1 of the Amendment Regulations, this procedure shall be applicable to the Solar power generation projects developed under 'Mukhyamantri Sour Krishivahini Yojana' or MSKVY 2.0 from the date notified by Hon'ble Commission.

- 1.2.2. As per the State DSM regime, all the Distribution Licensees shall anticipate the generation from various Wind/Solar Generators having capacity less than 5 MW including capacity commissioned under MSKVY/MSKVY2.0 which are contracted by them or by their consumers while submitting Demand forecast to MSLDC.

- 1.3. The trial mode operation, commercial implementation and modalities of Trial mode shall be in accordance with the Amended Regulations.



## **2. QUALIFYING CRITERIA FOR THE QCA:**

- 2.1. As per Regulation 6.1 of the Principal Regulations, Generators at Pooling Substation shall appoint one amongst themselves or any other entity as QCA. The QCA shall be a company incorporated in India under the Companies Act 1956/2013.
- 2.2. In case of appointment of entity other than Generator(s) at Pooling Substation, the Generators shall consider following guiding principles for appointment of QCA. Adherence to these guiding principles for appointment of QCA would be in the interest of Generators and would facilitate smooth implementation of F&S framework in the state.
  - 2.2.1. The QCA shall have the capabilities of Modeling wind energy generation potential on seasonal time scales with impact surfaces, a tool to visualize the wind energy generation potential in "Climate Space".
  - 2.2.2. The QCA shall have the experience in the field of Wind/Solar Power forecasting and scheduling in different terrain and regions for minimum period of one (1) year including pilot project work with appropriate accuracy levels in forecasting.
  - 2.2.3. The financial strength of the QCA must be such that it should be able to handle the risk of penalties due to deviation charges applicable to generator. Considering this, the Average Net Worth of the QCA for forecasting & scheduling services shall be in positive amounting to at least Rs.1.50 Crores (Net worth = Share Capital + Reserve - Revaluation Reserve - Intangible Asset - Misc. Expenditure to the extent not written off - Carried Forward Losses - Liabilities) in the current financial year which should reflect from its audited balance sheet or CA's certificate.
  - 2.2.4. QCA should have established team of:
    - a. Renewable resource analyst,
    - b. Modeling statisticians,
    - c. Energy modelers,
    - d. Software developers
    - e. 24 x 7 operation and monitoring team,



The corresponding supporting certificates/documents justifying qualification should be submitted along with the application for registration.

- 2.3. It is envisaged that Generators acting as QCA themselves, shall comply the provisions specified above at clause no. 2.2.1, 2.2.3 & 2.2.4 and also build requisite skillsets, capacity and technical competence adhering to qualification requirements over the period of one (1) year.
- 2.4. The QCA shall possess/provide authorization as per **Annexure - 1** from at least 51 % of the Generators connected in the Pooling Sub-Station in terms of their combined installed capacity for appointment as QCA. (Not applicable if Generator is connected through dedicated inter-connection facility with the Grid) at the time of Registration.

The authorization shall be strictly as per the prescribed format as per **Annexure - 1** only. The Authorization letter shall not have any validity period and/or conditions between QCA and Generator. In such case, the authorization letter shall be treated as invalid and shall not be considered for calculating percentage authorization.

### **3. ROLES AND RESPONSIBILITIES OF THE QCA:**

- 3.1. In accordance with these Procedures and Regulations, the QCA shall be the State Entity.
- 3.2. The QCA shall be the single point of contact between the MSLDC and the Generators to whom it is representing in the Pooling Sub-Station.
- 3.3. The QCA shall verify the total installed capacity of the Pooling Sub-Station based on the installation of individual WTG/Solar Modules at the time of submission of QCA Registration Application to MSLDC.

In case of any discrepancy in the total installed capacity, the revision application shall be accompanied by following documents:

- a. synchronization permissions granted by DISCOMs/MSETCL,
- b. information of PPA from DISCOMs / OA consumer with which RE generator has PPA,
- c. Commissioning certificates issued by concerned DISCOM,
- d. MEDA Infrastructure clearances.



- 3.4. Once QCA is registered with MSLDC for a particular Pooling Sub-Station, it shall not apply for De-registration at least for the period of 2 years without providing any valid reasons as mentioned in the Own De-Registration clause mentioned in subsequently in the said procedure.
- 3.5. The QCA shall establish a Control Center round the clock and shall have complete control over Wind/Solar injection feeders connected to Pooling Sub-Stations. The Control Centre shall have facilities of voice communication with MSLDC and Wind/Solar Generators with voice recording facilities, Fax machine and internet connection available for all the 24 hours. The QCA shall comply the instructions of the System Operator in normal condition as well as during emergencies, appropriate decisions taken by the System Operators in view of Grid security and safety.
- 3.6. The QCA shall have established alternate voice and data communication with MSLDC.
- 3.7. The QCA shall establish protocol for communication with individual generators to implement the instructions of System Operators and MSLDC.
- 3.8. Declaration of Available Capacity of the Generating Station to MSLDC to which it is representing.
- 3.9. Provide Generating Company-wise including individual Unit-wise (WTG/Invertor) Technical & Static data as per **ANNEXURE - 2**.
- 3.10. Provide Generating Company-wise along with individual generating Unit-wise (WTG, Invertor), Contract-wise, Buyer-wise as well as aggregated Intra Day, Day ahead & Week ahead forecast (based on their own forecast or on the forecast done by MSLDC), Schedule and AvC through a web-based application maintained by MSLDC. (Illustration given in Clause 4.10.1 and Clause 12.12 of this procedure)

Provided that if the QCA is representing on behalf of the multiple Pooling Sub-Stations, the Scheduling, Energy accounting and Deviation monitoring for each Pooling Sub-Station of wind and/or solar power generation shall be undertaken separately.

- 3.11. Consider schedules, revision of schedules, AvC, Planned/forced Outages, etc. submitted by generators through Dynamic Web-Application operated by MSLDC while submitting schedules to MSLDC.



- 3.12. QCA in coordination with Generator & Developer shall provide PSS-wise as well as Generating Company-wise along with individual Unit-wise (WTG, Inverter) real time data of power generation parameters and real time weather data as per **Annexure - 3** as per protocol defined by MSLDC.
- 3.13. Be Responsible for meter reading and data collection and its communication, and co-ordination with STU/Transmission Licensee/Distribution Licensee/Wind & Solar Generators/MSLDC, and other agencies as per IEGC and CERC/MERC Regulations.
- 3.14. Be responsible for uploading weekly block-wise SEM meter data for the previous week in respect of all the Wind & Solar Generators under respective PSS on web-based QCA Portal by 00.00 Hrs on Thursday.
- 3.15. Undertake commercial settlement of all deviation-settlement charges as per applicable MERC and CERC DSM Regulations.
- 3.16. Maintain records and accounts of the time block-wise Schedules, the actual generation injected and the deviations, for the Pooling Sub-Station and the individual Generators separately in accordance with the provisions of the Amended Regulations and submit analysis report to MSLDC on monthly basis.
- 3.17. Be responsible for de-pooling of amounts payable/receivable on behalf of the constituent Generator of the Pooling Sub-Station from/to the State Deviation Pool Account and settling them with each Generator.
- 3.18. Be responsible for settlement of Deviation Charges specified in these Regulations with MSLDC on behalf of the Generators.
- 3.19. Prepare deviation accounts on weekly basis as per regulation 15 of the Principal Regulations.
- 3.20. QCA shall submit an undertaking to MSLDC wherein it is mentioned that QCA shall undertake all operational and commercial responsibilities on behalf of the Constituents as per the prevalent MERC Regulations. The format of undertaking shall be as per **ANNEXURE - 4**.
- 3.21. Use Automatic meter reading (AMR) technologies for transfer, analysis and processing of interface meter data to MSLDC in line with Metering /AMR protocol and Metering/AMR standards to be finalised by STU in accordance with provisions of Metering Code and



CEA Metering Regulations, as amended from time to time. STU/MSLDC/Transmission Licensee/Distribution Licensee, as the case may be, shall co-ordinate, facilitate and provide necessary support to Generators/QCA for installation of Meters and AMR facilities as per the Orders/directions of the Commission from time to time.

- 3.22. Perform commercial settlement beyond the connection point (De-pooling arrangement among each generator in the Pooling Sub-Station) and technical coordination amongst the generators within the Pooling Sub-Station and up to the connection point as the case may be.

Further the QCA must make the de-pooling accounting data available on Web-Based QCA Portal within two (2) days from issuance of RE-DSM bill by MSLDC.

- 3.23. Certify final Implemented Schedules of Generating Company-wise along with individual generating unit-wise (WTG, Invertor) & buyer-wise, contract-wise through dynamic web-application operated by MSLDC for energy settlement between generators & Buyers.
- 3.24. The QCA shall pay/receive the amount of Deviation charges to/from the SLDC, and collect/distribute it from the concerned generators in proportion to their Actual generation/Absolute Error as specified in the Principle /Amended Regulations. If the de-pooling is done based on Absolute error, the rate for de-pooling of the block-wise deviation charges shall be the rate at which MSLDC has calculated deviation charges for respective time block.
- 3.25. Shall collect Ex-Bus PPA rates on notarized affidavit as per **ANNEXURE - 5** along with copies of PPA/EPA from Generators and submit the same to MSLDC within 3 months from the date of notification of the Amended Regulations, for the purpose of Deviation charge account preparation.

Provided that the updated information shall be furnished to MSLDC on the same day as and when updated by Sellers & Buyers for contract updating/creation.

- 3.26. The QCA, within seven (07) days, shall inform the details to MSLDC in case there is any change in the following but not limited to:
- The Generating Station Capacity (in case of individually connected stand-alone generator),

- Pooling Sub-Station Capacity,
- Individual generators in the Pooling Sub-Station,
- Notice issued by any Generator for withdrawal of Authorization,
- AvC due to dismantling/scraping of the generating unit (WTG/Invertor),
- Reduction in authorization from generators in a Pooling Sub-Station below 51 % of the total installed Capacity of the Pooling Sub-Station,
- Modification of PPA details of Generators to whom it is representing,
- Change of ownership of Generating Company including individual generating Unit (WTG/Invertor),
- Any changes in IED, RTU, Modem, Router, Firewall, Communication Devices, etc. if any,
- Metering Arrangements/Replacements at PSS Level & Individual Generating Unit Level along with CT, PT, Polarity, Ratio, MF, etc,
- Insolvency process initiated/declared by any Generating Company

3.27. If generator(s) fail to comply the provisions of the Regulations & Procedure, QCA shall intimate the details of such Generators to MSLDC within (7) days which shall be intimated to the Discoms/STU/Transmission Licensees for initiating actions as follows:

- i. SLDC to stop Scheduling of such generators.
- ii. Generator having PPA with Discoms: Stoppage of Energy Payments, Blocking of Generation Credit notes (GCN) for the default period, Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.
- iii. Generator Opting Open Access: Suspension of Open Access by STU (LTOA/MTOA)/SLDC (STOA) and Disconnection from Grid & blocking of Generation Credit notes (GCN) for the default period, by the Discom in whose area, generator unit is connected to avoid unscheduled injection.



- iv. Generator selling power outside Maharashtra and Power Exchanges: Suspension of NoC/Consent issued by STU/SLDC and Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.

If QCA observes that the default generator(s) is not disconnected & injecting in the grid, such details should be submitted to MSLDC, which shall be taken up with concerned Distribution Licensee for resolution/action.

- 3.28. Keep MSLDC indemnified at all times and shall undertake to indemnify, defend and save the MSLDC harmless from any and all damages, losses including commercial losses due to forecasting error, 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 undertaken by the Generators. The QCA shall submit the indemnity bond (**ANNEXURE - 6**) on Non-Judicial Stamp Paper of value notified from time to time by the State Government at the time of registration.

#### **4. ROLES AND RESPONSIBILITIES OF GENERATORS:**

- 4.1. The Generator(s) in the Pooling Sub-Station shall appoint QCA and give authorization as per **Annexure - 1**, for registration of QCA at MSLDC.
- 4.2. The Generator(s) shall not appoint and authorize multiple QCAs for a particular Pooling Sub-Station. In such case, the authorization provided by the Generator(s) shall be treated as invalid & MSLDC shall process the application of the QCA as per the provisions of this procedure and the decision of MSLDC on registration of QCA shall be binding on such generator(s).
- 4.3. In case of non-consensus among the generator(s) connected through a common feeder for appointment of QCA, then such generator(s) shall take separate connectivity from STU/DISCOM and furnish the schedules by appointing separate QCA in accordance with these regulations and procedure.



- 4.4. Once the QCA is registered, the generator(s) shall not re-appoint another QCA, at least within two (2) years from the date of successful registration of the QCA at MSLDC.

Provided that in case of defaults by the QCA, the generator(s) can re-appoint another QCA by giving prior notice of One (1) month to MSLDC and the process of registration of new QCA shall be carried in accordance with these regulations and procedures.

- 4.5. All the generators shall save and store the block-wise generator injection data or any other data desired by MSLDC and make available the same to their respective QCA so that it could be sent to MSLDC within (7) days from the date of demand from MSLDC.
- 4.6. In case of Change of Ownership of Generation capacity either full or partly (Individual WTG/Invertor), the generating Company shall submit the letters received from MEDA & distribution licensee in whose area generation is located, to MSLDC through QCA within (7) days from the date of change of ownership.
- 4.7. Since QCA is a State Entity & single point contact between MSLDC and Generators, any data such as technical details of WTGs/Solar Modules/Invertors and commercial data (PPA, Contract rates, Period, etc), etc. sought by MSLDC to QCA, shall be provided by the Generators to QCA for onward submission to MSLDC.

Provided that such data of generating units shall be submitted through dynamic web-application operated by MSLDC.

- 4.8. Shall submit individual unit-wise (WTG/Invertor) & Contract wise schedules, revision of schedules, AvC, Generator unit outages with reasons in the dynamic web-application operated by MSLDC, for consideration by the QCA while submission of schedules to MSLDC.

Provided that, at the time of QCA appointment & registration of PSS, generators through consent letter issued, has authorized QCA to undertake forecasting & scheduling activities on behalf of them with MSLDC. Hence, the schedules submitted by QCA shall be considered by MSLDC.

- 4.9. Submit individual Generating unit (WTG/Invertor) wise meter data through MSLDC Dynamic Web-portal, for de-pooling activity to be undertaken by the QCA on weekly basis by every Thursday 24:00 hrs for the previous week.



In case of any discrepancies observed by the QCA, corrected meter data to be submitted by Sunday 24:00 hrs for the previous week.

- 4.10. Install individual unit-wise (WTG/Inverter) Special Energy Meters (SEM) capable of recording the energy in 15-minute time block as per the CEA regulations within three (3) months from the date of notification of the Amended Regulations.

Provided that a PSS having single generator, which is having single/multiple individual units (WTG/Invertors) having single/multiple contracts having same rate and same buyer may install common SEM.

Provided further that a PSS having single generator which is having single/multiple individual units (WTG/Invertors) having single/multiple contracts having same rate, however different buyers may install buyer-wise common SEM.

Provided further that a PSS having multiple generators which are having single/multiple individual units (WTG/Invertors) having single/multiple contracts having same/different rate and same/different buyer shall install unit-wise SEM.

The generator shall bear the cost of metering arrangement, its communication arrangements for its integration in to QCA Control centre, MSLDC Control centre, dynamic web-application operated by MSLDC.

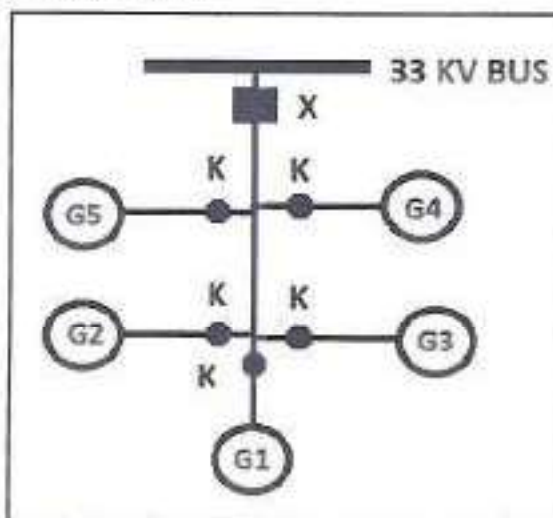
Non-compliance to the said clause shall be treated in accordance with the provisions of the regulations & this procedure.

- 4.10.1. The details of individual metering arrangement along with scheduling is detailed below:



**Case-1:**

**Single Generator having multiple Generating units connected to single/common 33 kV feeder:**



Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	X	X
G2	A	R1	D1	X	X
G3	A	R1	D1	X	X
G4	A	R1	D1	X	X
G5	A	R1	D1	X	X

Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	K	K
G2	A	R1	D1	K	K
G3	A	R1	D2	K	K
G4	A	R1	D2	K	K
G5	A	R1	D2	K	K



Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	K	K
G2	A	R1	D1	K	K
G3	A	R2	D1	K	K
G4	A	R2	D1	K	K
G5	A	R2	D1	K	K

Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	K	K
G2	A	R1	D1	K	K
G3	B	R1	D1	K	K
G4	B	R1	D1	K	K
G5	B	R1	D1	K	K

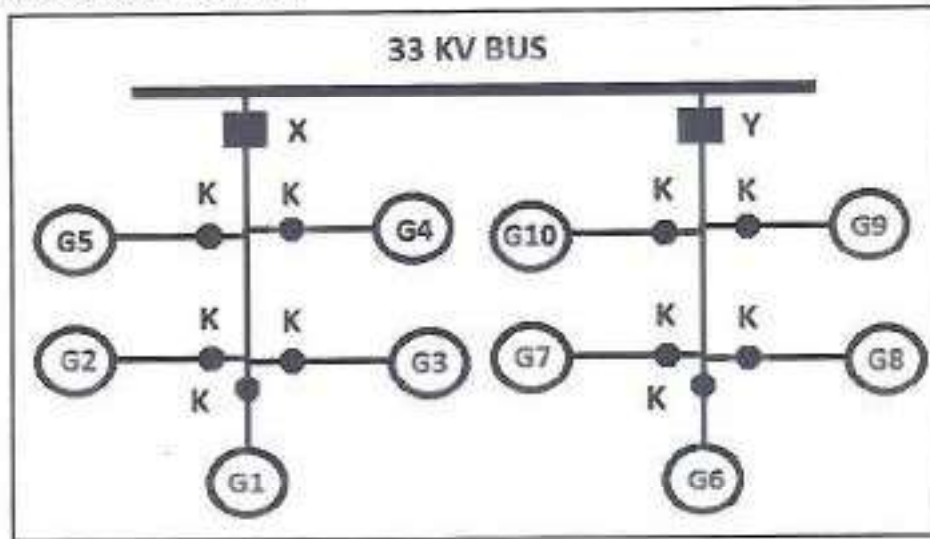
Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	K	K
G2	A	R2	D2	K	K
G3	B	R1	D1	K	K
G4	B	R2	D1	K	K
G5	B	R1	D2	K	K





**Case-2:**

**Single Generator having multiple Generating units connected to different 33 kV feeders:**



Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	X	X
G2	A	R1	D1	X	X
G3	A	R1	D1	X	X
G4	A	R1	D1	X	X
G5	A	R1	D1	X	X
G6	A	R1	D1	Y	Y
G7	A	R1	D1	Y	Y
G8	A	R1	D1	Y	Y
G9	A	R1	D1	Y	Y
G10	A	R1	D1	Y	Y

In above case, if common meter at transformer LV is available, then same can also be used instead of 'X' & 'Y'.



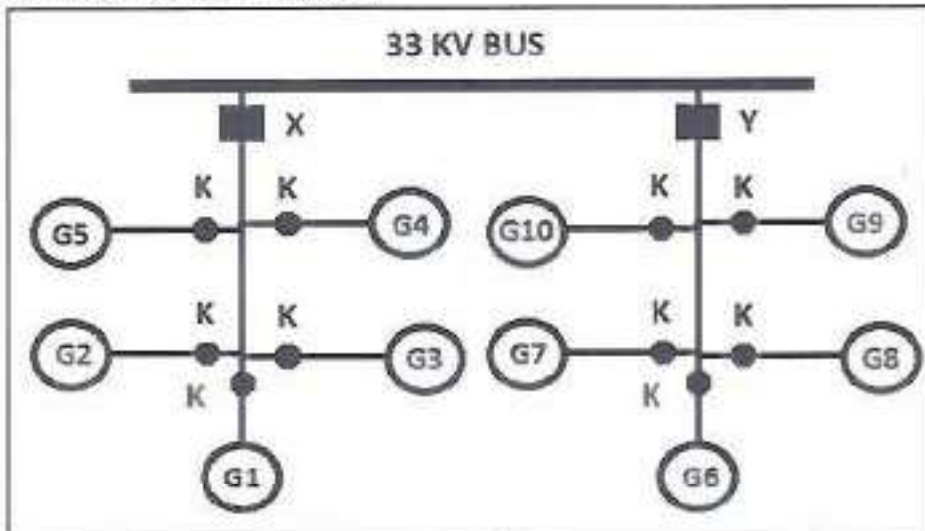
Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	X	X
G2	A	R1	D1	X	X
G3	A	R1	D1	X	X
G4	A	R1	D1	X	X
G5	A	R1	D1	X	X
G6	A	R2	D1	Y	Y
G7	A	R2	D1	Y	Y
G8	A	R2	D1	Y	Y
G9	A	R2	D1	Y	Y
G10	A	R2	D1	Y	Y

Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	X	X
G2	A	R1	D1	X	X
G3	A	R1	D1	X	X
G4	A	R1	D1	X	X
G5	A	R1	D1	X	X
G6	A	R1	D2	Y	Y
G7	A	R1	D2	Y	Y
G8	A	R1	D2	Y	Y
G9	A	R1	D2	Y	Y
G10	A	R1	D2	Y	Y

Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	K	K
G2	A	R2	D1	K	K
G3	A	R1	D1	K	K
G4	A	R1	D1	K	K
G5	A	R2	D1	K	K
G6	A	R1	D1	K	K
G7	A	R1	D1	K	K
G8	A	R2	D1	K	K
G9	A	R1	D1	K	K
G10	A	R1	D1	K	K

**Case-3:**

**Multiple Generators having multiple Generating units connected to common 33 kV feeders:**



Generating Unit	Owner/Generator	Contract Rate	Buyer	Generator-wise Metering Location	Generator-wise Scheduling Location
G1	A	R1	D1	K	K
G2	B	R2	D1	K	K
G3	B	R1	D1	K	K
G4	A	R3	D1	K	K
G5	A	R1	D1	K	K
G6	A	R2	D2	K	K
G7	B	R1	D2	K	K
G8	A	R3	D2	K	K
G9	B	R1	D2	K	K
G10	B	R4	D2	K	K

- 4.11. Install IED, RTU, Weather parameter sensing devices, modems or any other device capable of recording real time power & weather parameters specified in this procedure at individual generating unit (WTG/Solar PV Invertor), at its own cost, within (3) months from the date of notification of the Amended Regulations.
- 4.12. Establishment of communication system, integration of the data at MSLDC SCADA, Dynamic Web-application, providing Real Time data visibility along with maintaining communication link availability as per MEGC 2020, in accordance with the protocol defined by MSLDC. The cost of the same shall be borne by the generator.



Non-compliance to the said clause shall be treated in accordance with the provisions of the regulations & this procedure.

- 4.13. All the generators shall save and store the weekly block-wise SEMs meter data and make available the same to their respective QCA Control Centre by establishing communication arrangements so that it could be uploaded on Web Based QCA Portal by 00.00 Hrs on the Thursday for the previous week by the respective QCA.
- 4.14. All the Generating Companies shall get itself registered with MSLDC through Web-based Dynamic Portal operated by MSLDC, to undertake various activities in accordance with these regulations and procedure.

After registration, login credentials shall be issued by MSLDC.

There are multiple Generating Companies which are a part of one parent Generating Company. Such multiple generating companies may intend to carry out all the activities on web-based dynamic portal through single parent generating company by having single login. In such case, such multiple generating companies and parent generating company shall register itself on the web portal. All the multiple generating companies shall authorize the parent company for undertaking required activities on behalf of them which shall be approved by the parent generating company.

- 4.15. Shall submit Ex-Bus PPA rates on notarized affidavit as per **ANNEXURE - 5** along with copies of PPA/EPA to QCA with copy to MSLDC within 3 months from the date of notification of the Amended Regulations. If existing PPAs are not having Ex-bus PPA rates then Generators shall calculate Ex-Bus rate and submit the same to MSLDC.

– Provided that the updated information shall be furnished to MSLDC on the same day as and when updated by Sellers & Buyers for contract updating/creation and deviation accounting.

Further, it shall be the responsibility of the concerned Distribution Licensee(s) & Generator(s) to verify whether contract(s) have been mapped by MSLDC. Any discrepancies shall be reported by the Distribution Licensee(s) to MSLDC for rectification. Generator(s) shall submit discrepancies through concerned Distribution Licensee(s).

- 4.16. In most of the cases, Group of generators are operating the Generating Plant and implementing modifications in the Generation

(through pitch control, hand-tripping of feeder, etc.). In such case, Generator(s) shall establish a protocol for implementation of the curtailments & restoration instructions issued by MSLDC and ensure implementation of the instructions of MSLDC.

As per the said regulations, QCA being State Entity, shall be part of said protocol and necessary communications shall be routed by the Generator(s) through QCA. Such protocol shall be prepared and intimated to MSLDC through QCA within one (1) month from the date of publication of the said procedure.

- 4.17. Generators shall nominate at least two Nodal Officers for communication with MSLDC (if required, as QCA is single point contact) and inform the contact details such as Name, Designation, Mobile No., alternate contact No., E-mail ID, Address, etc to MSLDC within one (1) month from the date of publication of the said procedure.

In case of any changes in contact details, the same shall be communicated to MSLDC within seven (7) days.

- 4.18. It shall be binding on all the Generator(s) in the concerned Pooling Sub-Station to enter in to an agreement with their respective QCA and pay share of Corpus amount/registration fee, QCA's Forecasting & Scheduling Charges, Deviation Charges, technical & commercial details of the generation, compliance of the CEA Technical Standards regulations-2019 & its amendments, etc to MSLDC through QCA for modelling in Forecasting & Scheduling Software of MSLDC.

If generator(s) fail to comply the provisions of the Regulations & Procedure, QCA shall intimate the details of such Generators to MSLDC within (7) days which shall be intimated to the Discoms/STU/Transmission Licensees for initiating actions as follows:

- i. SLDC to stop Scheduling of such generators.
- ii. Generator having PPA with Discoms: Stoppage of Energy Payments, Blocking of Generation Credit notes (GCN) for the default period, Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.
- iii. Generator Opting Open Access: Suspension of Open Access by STU (LTOA/MTOA)/SLDC (STOA) and Disconnection from Grid



& blocking of Generation Credit notes (GCN) for the default period, by the Discom in whose area, generator unit is connected to avoid unscheduled injection.

- iv. Generator selling power outside Maharashtra and Power Exchanges: Suspension of NoC/Consent issued by STU/SLDC and Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.

If QCA observes that the default generator(s) is not disconnected & injecting in the grid, such details should be submitted to MSLDC, which shall be taken up with concerned Distribution Licensee for resolution.

4.19. In case of the scrapping/dismantling of the generator (turbine/invertor), the generator should intimate to MSLDC through the respective QCA at least ten (10) working days prior to stoppage of the generation with all relevant information. The Meter data till the last date of operation shall be maintained by Generator & QCA on dynamic web-application operated by MSLDC.

4.20. The generator shall collect certificate of dismantling/scrapping from the respective distribution licensee in whose area it is situated as per **ANNEXURE - 7**.

Provided that the certificate shall be submitted to MSLDC through respective QCA for modification of AvC and initiating refund of Corpus amount after verification of any payment dues.

4.21. Each generator shall comply with the CEA (Technical Standards) Regulations, 2019 and its amendments thereof.

The simulation study reports, all relevant documents/files shall be submitted to MSLDC through respective QCA in accordance with the timelines specified in the CEA Regulations, Working Group report and notification published by MSLDC as and when amended.

## **5. ROLES AND RESPONSIBILITIES OF MSLDC:**

5.1. MSLDC shall develop a dynamic web-application for use by QCA, Generating Companies & Buyers to provide following facilities:

- Online Registration/De-Registration/Re-Registration of QCA & Generating Company.



- Uploading of Aggregated & Generating Company-wise, Contract wise along with individual generating Unit-wise (WTG/Invertor) Day ahead and Week ahead Generation Forecasts along with AvC by QCAs & Generating Companies.
- Uploading of Aggregated & Generating Company-wise, Contract wise along with individual generating Unit-wise (WTG/Invertor) intra-day revisions in Schedules in accordance with the Principal & Amendment Regulations along with AvC by QCAs & Generating Companies.
- To enable the SLDC to access the live data of all Schedules & Deviations and facilitate the timely billing and payment of Deviation Charges.
- Technical & Commercial data of Generators, outages & reasons of outages thereof.
- Communication of Grid Constraints, curtailments if any and restorations thereof.
- Mechanism for monitoring deviations in Scheduled & Actual generation along with commercial impact for MSLDC and QCAs' along with acquisition of Meter Reading of all the Nodes in the State & Generating Company-wise including individual generating unit-wise (WTG/Invertor) Meter data, PPA rates for calculation of Deviations and Charges thereof.

5.2. MSLDC shall maintain web based dynamic common registry of all Wind & Solar Generators covered under the ambit of these regulations. All the Distribution Licensees and STU shall submit all relevant information of connectivity & synchronization/PTC in the format as prescribed by MSLDC as per **ANNEXURE - 8** from time to time. MSLDC shall maintain & update the dynamic Common Registry based on the information submitted by Distribution Licensees and STU.

MSLDC shall verify the application submitted by QCA as per the information available in the registry and accord approval for QCA registration.

5.3. The MSLDC shall be responsible for scheduling, communication, coordination with QCAs'. Forecasting of the renewable energy generation shall be done by the MSLDC and the forecast will be available on the website. The generation forecast shall be done



based on the weather data provided by IMD or based on other methods used by the Forecasting Agency whose service may be availed. However, the forecast by the MSLDC shall be with the objective of ensuring secure grid operation.

- 5.4. The MSLDC shall maintain records and accounts of the time block-wise Schedules, the actual generation injected, contract rates and the deviations, for the Pooling Sub-Station and the individual Generators separately.

Provided that the de-pooling data along with Generator-wise meter data & schedules shall be uploaded by the QCAs & Generators.

- 5.5. Maintain State Deviation Settlement Account for Wind and Solar Generations.

## **6. ROLES AND RESPONSIBILITIES OF DISTRIBUTION LICENSEES:**

- 6.1. All the Distribution Licensees shall timely ensure the registration of Generators contracted by them and by the Consumers availing Open Access under their control area.
- 6.2. Distribution Licensee shall submit the details of all the generators connected to the Pooling Sub-stations under their ownership to MSLDC.
- 6.3. As Distribution Licensees are issuing permission for Commissioning of each WTG/Solar Module/Invertor connected to any Pooling Sub-Station under their control area irrespective of ownership, the details of generators connected to all the Pooling Sub-Stations, including projects commissioned under MSKVY/MSKVY2.0 scheme, shall be provided by Distribution Licensees. The details shall be as per **ANNEUXRE - 8** within 15 days from the publication of the said procedure.
- 6.4. Ensure QCA registration of Wind & Solar Generators covered under the ambit of these regulations connected to PSS owned by it, with MSLDC prior to issuance of permission to Commission (PTC).
- 6.5. Submit Pooling Sub-Station-wise, Generating Unit-wise Power Purchase Agreement details including Contract rate, through dynamic web-application, as per **ANNEUXRE - 9** on monthly basis by 27<sup>th</sup> of every month or as and when contract is updated for



modelling in the Scheduling Software developed by MSLDC. However, for the month of February, the date shall be 25<sup>th</sup> day.

In case of non-submission of the updated details, the details available at MSLDC/submitted earlier shall be considered for modelling and Scheduling shall be carried out accordingly. In case of any errors in the calculations due to non providing of information & disputes in energy settlement with generators due to non-scheduling of generation, the concerned distribution licensee shall be responsible.

In case of any conflicts observed between multiple Distribution Licensees after consolidation of information from all the distribution licensees, the same shall be reported by MSLDC and it shall be the responsibility of concerned Distribution Licensees to submit corrected information immediately. In case corrected information is not submitted to MSLDC, such capacity under conflict shall not be considered for scheduling and concerned distribution licensees shall be responsible for any commercial impacts.

Further, it shall be the responsibility of the concerned Distribution Licensee(s) & Generator(s) to verify whether contract(s) have been mapped by MSLDC. Any discrepancies shall be reported by the Distribution Licensee(s) to MSLDC for rectification. Generator(s) shall submit discrepancies through concerned Distribution Licensee(s).

- 6.6. Ensure availability of ABT metering arrangement with AMR facility at Common Inter-connection Point for each Pooling Sub-Station owned by concerned DISCOM, including integration of the same in Meter data module/Dynamic Web-application operated by MSLDC as per the needs to MSLDC. Ensure availability of the SEM at each individual generator unit level (WTG/Invertor) in accordance with the provisions of the Amended Regulations & as amended from time to time.

Metering & its calibration arrangements shall be as per the State Grid Code, 2020 and any other Code/Regulations governing metering arrangements notified by Hon'ble Commission or CEA, as amended from time to time.

- 6.7. Use Automatic meter reading (AMR) technologies for transfer, analysis and processing of interface meter data to MSLDC in line with Metering /AMR protocol and Metering/AMR standards finalised



by STU in accordance with provisions of Metering Code and CEA Metering Regulations, as amended from time to time, for the Pooling Sub-Stations under their control area.

- 6.8. As per the State DSM regime, all the Distribution Licensees shall anticipate the generation from various Wind/Solar Generators having combined installed capacity less than 5 MW which are not covered under the ambit of the Principal & Amended Regulations, contracted by them or by their consumers while submitting Demand forecast to MSLDC.

The Demand of Distribution Licensee is forecasted by Distribution Licensees at T<>D interface point in the State Scheduling Software which is scheduled by MSLDC. The schedules of Wind & Solar Generators connected to PSS owned by Distribution licensee having contract with same Distribution licensee shall not be counted while computation of Sources Available for respective Discom in the Scheduling Process. Hence, Distribution Licensees shall consider the impact of same generation while submitting Demand forecasts to MSLDC.

- 6.9. Distribution Licensee shall co-ordinate with MSLDC Control Room for real time operations in case of any tripping/outage (planned/forced)/overloading of evacuation infrastructure resulting in to curtailment/backing down of generation and implement the instructions of MSLDC.
- 6.10. Distribution Licensees shall nominate at least two Nodal Officers for communication with MSLDC and inform the contact details such as Name, Designation, Mobile No. alternate contact No., E-mail ID, Address, etc to MSLDC within one (1) month from the date of publication of the said procedure.

In case of any changes in contact details, the same shall be communicated to MSLDC within seven (7) days.

- 6.11. Distribution Licensees are issuing Commissioning Certificates to Wind & Solar Generators irrespective of ownership of PSS & Voltage level. Hence, the Certificate of dismantling/Scrapping of any Generating unit (WTG/Solar Inverter) which is impacting total installed capacity of the PSS shall be issued by the distribution licensee in whose area the generator is situated in the format attached as per **ANNEXURE - 7**.



Also, the Distribution Licensee shall issue letter in case of Change of Ownership of the Generating Unit/s.

- 6.12. Distribution Licensees provide information in case of change of ownership of Wind & Solar Generators with supportive documents
- 6.13. Disconnection of the non-complying/non-contracted generators located within its area, reported by QCAs through MSLDC to avoid unscheduled injection irrespective of ownership of PSS & Voltage level and submission of the compliance to the MSLDC within (10) days from the date of instructions are issued.
- 6.14. All the Generators shall install SEM to its individual generating unit (WTG/Invertor) at their own cost. It shall be the responsibility of the Distribution Licensee in whose area such generating unit is located irrespective of voltage level of the PSS, to issue technical specifications of the SEM arrangement along with its inspection after installation, Meter testing & calibration, data fetching, etc. Such meters shall be under the ownership of respective Distribution Licensees, however, it should authorize generators to retrieve meter data for uploading on MSLDC Web Portal for de-pooling activity.

## **7. ROLES AND RESPONSIBILITIES OF STU/TRANSMISSION LICENSEES:**

- 7.1. STU/Transmission Licensee shall ensure availability of ABT metering arrangements at all the Pooling Sub-Stations.

Metering & its calibration arrangements shall be as per the State Grid Code, 2020 and any other Code/Regulations governing metering arrangements notified by Hon'ble Commission & CEA, as amended from time to time.

- 7.2. STU/Transmission Licensee shall install Automated Meter Reading (AMR) facility at each Pooling Sub-Station under their control area and ensure meter data transfer to MSLDC for accounting purpose.
- 7.3. STU shall submit all relevant information of connectivity & synchronization in the format as prescribed by MSLDC as per **ANNEXURE - 8** from time to time. MSLDC shall maintain & update the dynamic Common Registry based on the information submitted by Distribution Licensees and STU.



7.4. MSLDC shall intimate the details of defaulting generators received from QCA to STU/Transmission Licensees for initiating actions as follows:

- i. Generator Opting Open Access: Suspension of Open Access by STU (LTOA/MTOA).
- ii. Generator selling power sale outside Maharashtra and Power Exchanges: Suspension of NoC/Consent issued by STU.
- iii. Disconnection from Grid by the Transmission Licensee, if all the generators connected to PSS are defaulting generators to avoid unscheduled injection.

7.5. STU, through Grid Connectivity Letter shall instruct the RE Developer to:

- Comply the CEA Technical Standards for Connectivity to the Grid, 2019 and Working Group report, as amended from time to time.
- Install IED/RTU/Communication infrastructure at individual generating unit level (WTG/Invertor) and integrate with MSLDC System for monitoring real time AvC.
- Install Weather Sensing devices at individual generating unit level (WTG/Invertor) and integrate with MSLDC System for accurate Forecasting in accordance with the directives issued by CEA.

The compliance shall be ensured prior to the issuance of the Final Grid Connectivity.

7.6. STU/Transmission Licensee shall co-ordinate with MSLDC Control Room for real time operations in case of any tripping/outage (planned/forced)/overloading of evacuation infrastructure resulting in to curtailment/backing down of generation and implement the instructions of MSLDC.

7.7. STU/Transmission Licensees shall nominate at least two Nodal Officers for communication with MSLDC and inform the contact details such as Name, Designation, Mobile No. alternate contact No., E-mail ID, Address, etc to MSLDC within one (1) month from the date of publication of the said procedure.

In case of any changes in contact details, the same shall be communicated to MSLDC within seven (7) days.

## **8. REGISTRATION PROCEDURE OF QCA:**

- 8.1. The application for Registration as a Qualified Co-ordinating Agency (QCA) should be submitted online through MSLDC's web-based Software.
- 8.2. The QCA shall submit separate application for each Pooling Sub-Station. For each Pooling Sub-Station only one application shall be accepted from the QCA.
- 8.3. The application for Registration shall be made as per the application format for registration (**ANNEXURE - 10**) and shall contain details such as,
  - Location of the generation (Village, Taluka, District)
  - Total Capacity of the Generation and inter-connection arrangement with InSTS.
  - Authorization from at least 51 % of the Generators connected in the Pooling Sub-Station in terms of their combined installed capacity for appointment as QCA. (Not applicable if Generator is connected through dedicated inter-connection facility with the Grid)
  - Names along with individual installed capacity of generation of the constituents to whom QCA is representing
  - Metering arrangement at PSS level and Generating Company-wise including individual generating unit level (WTG/Invertor).
  - Communication arrangements with MSLDC for Real time Generation, Meter reading for accounting etc.
- 8.4. The Application for Registration shall be accompanied by a non-refundable & non-transferable processing fee of Rs. 20,000/- (Twenty Thousand Rupees Only) or any amount as amended as per prevailing the MERC MYT Regulations, payable through NEFT or online. In case of online payment through payment gateway, the charge of service provider & taxes, if any, shall be borne by the applicant. The bank details have been uploaded on MSLDC website.
- 8.5. The scanned copies of the required documents shall be uploaded while submitting application through web-based dynamic portal operated by MSLDC.



- 8.6. Once the application is submitted, the printout of online application with sign and seal along with required documents in original, shall be submitted to MSLDC. Without receipt of the hard copy for verification purpose, MSLDC shall not process the online application for registration.
- 8.7. The details of Nodal Officers from MSLDC for processing applications for Registration and day to day activities towards forecasting, Scheduling and Revisions thereof shall be displayed on MSLDC's website for smooth implementation of these procedures.
- 8.8. An incomplete Application, and/or an Application not found to be in conformity with these Procedures and Regulations, shall be rejected.
- 8.9. The time period for registration of QCA shall be (15) working days from the date of receipt of all the documents in hard copy & information in complete to MSLDC.
- 8.10. QCA shall submit an undertaking to MSLDC wherein it is mentioned that QCA shall undertake all operational and commercial responsibilities on behalf of the Constituents as per the prevalent MERC Regulations. The format of undertaking shall be as per **ANNEXURE - 4**.
- 8.11. The QCA shall deposit corpus amount along with the QCA registration application.

In case of capacity addition in already registered PSS, Generator, through QCA shall pay corpus amount to MSLDC prior to seeking Synchronization permission from MSLDC/PTC from Distribution licensee.

The details of the Corpus amount shall be in accordance with the Clause No. 18.3, of the said procedure.

- 8.12. Once the QCA is registered, MSLDC shall issue a 'username' and 'password' to QCA, for accessing the web-based Dynamic Portal for further activities such as uploading of day ahead/week ahead forecasts, revisions to existing schedules etc.

Provided that if QCA & Generator is already registered, details of PSS & generation details shall be mapped in the login credentials issued earlier.

- 8.13. In case QCA registration is processed with possession of 51% authorization from the connected generators in accordance with the provisions of the Principal Regulations, it shall be binding on the

remaining generators which have not provided authorization to the registered QCA for the respective PSS to provide authorization along with all technical & commercial settlements to the registered QCA.

In the event of non-authorization by the remaining generators to the QCA, the QCA shall intimate the details of such Generators to MSLDC which shall be intimated to the Discoms/STU/Transmission Licensees for initiating actions as follows:

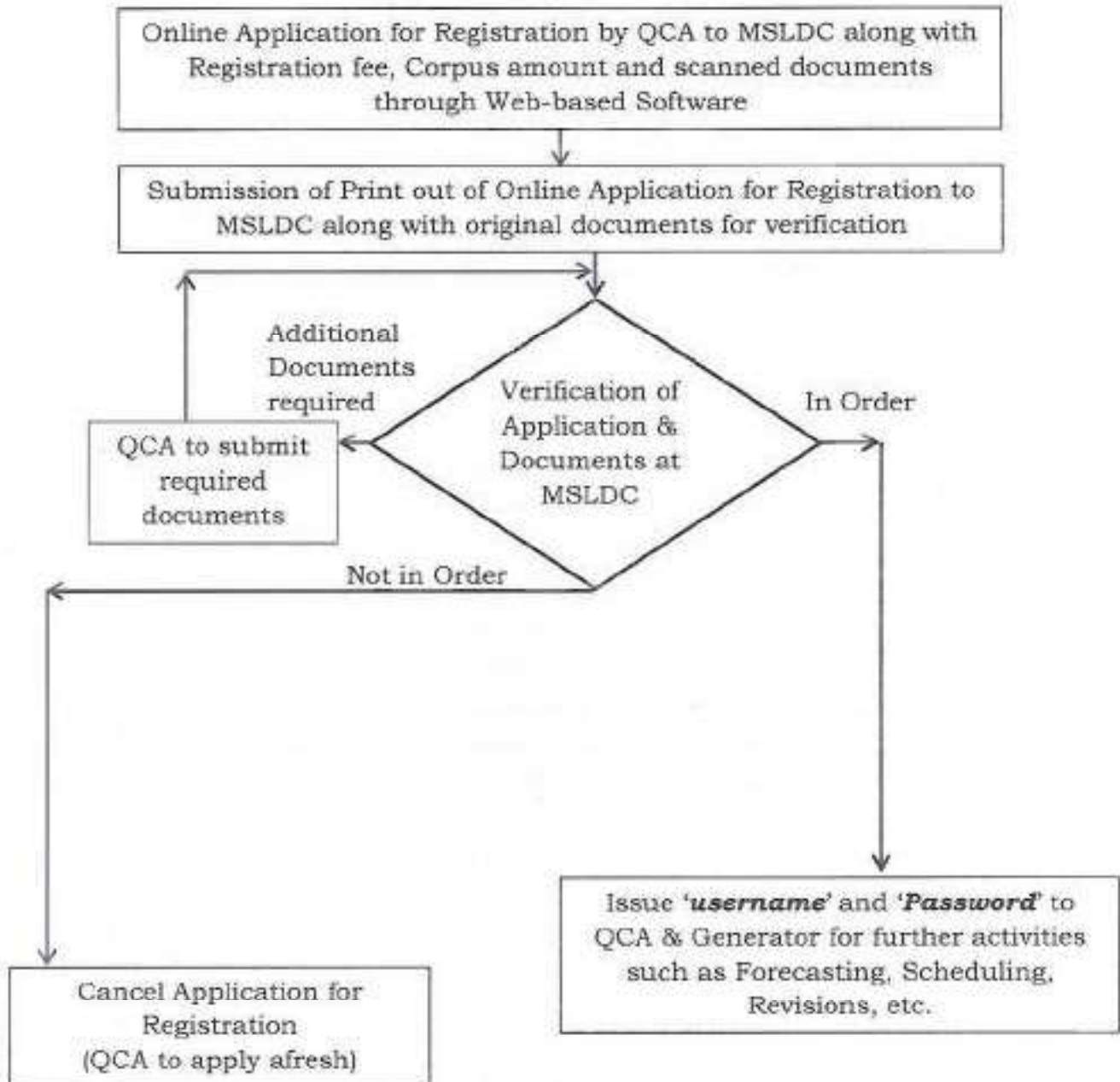
- i. SLDC to stop Scheduling of such generators.
- ii. Generator having PPA with Discoms: Stoppage of Energy Payments, Blocking of Generation Credit notes (GCN) for the default period, Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.
- iii. Generator Opting Open Access: Suspension of Open Access by STU (LTOA/MTOA)/SLDC (STOA) and Disconnection from Grid & blocking of Generation Credit notes (GCN) for the default period, by the Discom in whose area, generator unit is connected to avoid unscheduled injection.
- iv. Generator selling power outside Maharashtra and Power Exchanges: Suspension of NoC/Consent issued by STU/SLDC and Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.

Provided that such generators may seek & establish separate grid connectivity from STU/Distribution Licensee to form a sperate PSS and authorize other QCA and ensure its registration with MSLDC.

8.14. The above procedure is depicted below in the form of Flow chart for easy understanding.



### Flow Chart for Registration of QCA





**A. Methodology for registration of QCA in case of Non-availability of 51 % authorization:**

- 8.15. MSLDC shall identify the geographically/electrically nearest registered Pooling Sub-Station having QCA to the Pooling Sub-Station for which QCA is to be allotted.
- 8.16. MSLDC shall inform the details of such un-registered Pooling Sub-Station to the QCA and seek undertaking as per the **ANNEXURE – 11** and direct the QCA to apply for registration with MSLDC. The procedure for registration shall be as per Clause No. 8 (A) above, however, submission of authorizations from the generators shall not be mandatory.
- 8.17. Based on the undertaking received from the QCA, MSLDC shall issue QCA registration letter to the concerned QCA.
- 8.18. It shall be binding on all the Generators connected to the concerned Pooling Sub-Station to enter in to an agreement with registered QCA and pay Corpus amount/share of registration fee, QCA's Forecasting & Scheduling Charges, Deviation Charges, along with technical details of the Generation & commercial details to MSLDC through QCA.

If generators fail to comply the provisions of the Regulations & Procedure, QCA shall intimate the details of such Generators to MSLDC which shall be intimated to the Discoms/STU/Transmission Licensees for initiating actions as follows:

- i. SLDC to stop Scheduling of such generators.
- ii. Generator having PPA with Discoms: Stoppage of Energy Payments, Blocking of Generation Credit notes (GCN) for the default period, Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.
- iii. Generator Opting Open Access: Suspension of Open Access by STU (LTOA/MTOA)/SLDC (STOA) and Disconnection from Grid & blocking of Generation Credit notes (GCN) for the default period, by the Discom in whose area, generator unit is connected to avoid unscheduled injection.
- iv. Generator selling power outside Maharashtra and Power Exchanges: Suspension of NoC/Consent issued by STU/SLDC



and Disconnection from Grid by the Discom in whose area, generator unit is connected to avoid unscheduled injection.

- 8.19. This arrangement shall be valid till the appointment of new QCA by the generators and it's registration with MSLDC as per clause no. 8.1 to 8.14.
- 8.20. In the event of appointment of separate QCA by the generators, the De-registration of MSLDC allotted QCA shall be initiated by MSLDC and shall be carried out in accordance with the provisions detailed in De-Registration Process below.

## **9. DE-REGISTRATION PROCEDURE OF QCA:**

### **A. Case - 1: Own De-registration:**

- 9.1. The QCA may request MSLDC for de-registration as QCA, however, in such case, it shall be the responsibility of the QCA to provide Forecasting & Scheduling services and settle all the commercial obligations of both MSLDC and Generators to whom it is representing till the expiry of notice period.
- 9.2. Prior notice to be served to all the generators to whom it is representing for de-registration with copy to MSLDC. The notice period shall be of 4 billing weeks following the week in which such notice has been issued by the QCA.
- 9.3. It shall be the responsibility of all the Generating Companies within the concerned PSS to appoint new QCA and ensure its registration with MSLDC before expiry of the notice period, failing which generation shall not be scheduled and generator(s) will be disconnected from the grid by the Distribution Licensee in whose area the generator(s) is connected to avoid unscheduled injection.

Provided that upon expiry of notice period, the old QCA shall not be liable to provide Forecasting & Scheduling services for the concerned Pooling Sub-Station.

- 9.4. De-Registration shall be considered based on the following issues:



- a. Default by a group or single Generator(s), having installed capacity of more than 51 % while payment of Deviation Charges.
- b. Consistent Default by the Generators or single Generator, having installed capacity of more than 51 % in non-complying the instructions issued by MSLDC either directly or through QCA.
- c. In a group of Generators or single generator, having installed capacity of more than 51 % in a Pooling Sub-Station or a Generator connected to an individual Pooling Sub-Station has become insolvent.

9.5. Once the application for de-registration is received by MSLDC, billing process shall be carried out by MSLDC to ensure timely de-registration & commercial settlement activities.

Sr. No.	Action	Responsibility	Timeline
1	Meter data of the last week of commercial operation starting Monday 00:00 hrs to Sunday 24:00 Hrs pertaining to the PSS undergoing de-registration to be made available for deviation billing at MSLDC.	QCA	Following Monday or by latest 00:00 hrs every Tuesday
2	MSLDC to process Meter data, Final Schedules & declared Available Capacity and prepare Pooling Sub-Station-wise deviation Account Statement for a Week and upload for verification of QCA.	MSLDC	Thursday by 24:00 Hrs. for the week under consideration.
3	QCA to submit details of discrepancies, if any, in deviation Account Statement to MSLDC.	QCA	Within (7) days from uploading of Statement.
4	MSLDC to verify discrepancies reported by QCA and upload final deviation Account Statement & Bill	SLDC	Within (2) days from receipt of discrepancies.
5	QCA to process data for de-pooling among generators to whom it is representing and upload Statement for information of MSLDC.	QCA	Within two (2) days from finalization of RE DSM bill by MSLDC.
6	RE-DSM Bill Payment to State Deviation Pool Account.	QCA	Within ten days from issuance of RE-DSM Bill



8	In case of default in payment by QCA even after 10 days from issuance of RE-DSM Bill, SLDC shall forfeit the Corpus and settle the Bill very next day.	SLDC	11 <sup>th</sup> day from the due date of RE-DSM Bill.
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- 9.6. Registration of new QCA shall be in accordance with the provisions specified at clause No. 8 above.
- 9.7. The corpus amount collected from the QCA is against the payment security mechanism, hence, during registration of new QCA, it shall be responsibility of the all Generating Companies to deposit corpus amount through new QCA.
- 9.8. If new QCA is registered within notice period of 4 weeks, then it shall start forecasting & scheduling activities from the Monday of the 5<sup>th</sup> week.

Further, if new QCA is registered after 4 week notice period, then forecasting & scheduling activities shall be started from the next date of its registration with MSLDC.

Provided that the generation of the generating companies which have not deposited corpus amount through new QCA shall not be scheduled and action of disconnection from the grid to avoid un-scheduled injection shall be initiated.

- 9.9. Once the defaulting generators, if any, are identified at the end of billing cycle of the last week of notice period, the corpus amount of generating companies which have paid deviation charges & corpus amount through new QCA and are not having any dues with MSLDC, shall be returned to such generating companies through new QCA as the corpus amount submitted through old QCA is available with MSLDC.

Provided that in case any generating company which has not deposited corpus through new QCA, however, have paid deviation charges & not having any due with MSLDC, the corpus amount of such generating company submitted through old QCA shall be retained and carry forwarded with new QCA. However, such generating company shall enter in to an agreement with the new QCA, failing which it shall be considered as non-compliance towards registration and action as per Clause No. 4.16 specified above.

The corpus amount of defaulting generators shall be adjusted against pending deviations charges & dues if any. In such case, surplus amount, if available shall be returned to such Generating Companies through new QCA. In case of short fall in the corpus amount, it shall be the responsibility of concerned generating company to top-up the corpus amount through new QCA within timelines specified in this procedure, failing which action shall be initiated in accordance with clause no. 19 of this procedure.

- 9.10. De-registration letter to the old QCA shall be issued by MSLDC, after end of the billing cycle of the last week of the notice period and submission of confirmation from all the generators towards completion of settlement of all the financial accounts like De-Pooling of deviation charges, corpus amount where ever applicable, QCA charges, etc between QCA & Generators.

Provided that it shall be the responsibility of Generators to provide confirmation to QCAs within seven (7) days from the request from the QCA and failure to which it shall be presumed as confirmation from Generators.

- 9.11. The application for De-Registration shall be supported by the documentary evidences towards above mentioned default conditions.
- 9.12. After de-registration of the QCA, it shall be the responsibility of generators & new QCA to undertake commercial settlements if any, due to changes in the deviation accounts & deviation bills for the past period for which old QCA has been de-registered.

In case of non-settlement of such amount, default action shall be initiated against such defaulting generators in accordance with the provisions of this procedure.

- 9.13. In case QCA registration is processed with possession of 51% authorization from the connected generators in accordance with the provisions of the Principal Regulations, it shall be binding on the remaining generators which have not provided authorization to the registered QCA for the respective PSS to provide authorization along with all technical & commercial settlements.

In the event of non-authorization by the remaining generators to the QCA, the provisions specified in the roles & responsibilities of Generators in this procedure shall be applicable.



9.14. The process illustration is as below:

Activity	Date	Remarks
Notice for De-registration	28-06-2024 (Friday)	To be served by QCA/Generators as the case may be, with copy to MSLDC.
Notice Period (4 weeks)	01-07-2024 (Monday) to 28/07/2024 (Sunday)	
Old QCA to stop Scheduling activities from	28-07-2024; 24:00 hrs	
New QCA to start scheduling from (if registered within notice period)	29-07-2024; 00:00 hrs	For 28-07-2024; 00:00 hrs, day ahead schedules for 29-07-2024
New QCA to start scheduling from (if registered after notice period)	The next day on which QCA is registered with MSLDC	Complete PSS will be disconnected from the Grid from 29-07-2024, 00:00 hrs till new QCA registered
Energy Accounting & Billing cycle for last week of notice period i.e. 22-07-2024 to 28-07-2024		
Meter data acquisition	30-07-2024	By Transcos/Discoms/QCAs/Generators
Publishing of Deviation Accounting Statement	01-08-2024	By MSLDC
Submission of Comments/observations on Deviation Accounting Statement	07-08-2024	By QCAs
Publishing Final Deviation Accounting Statement and Bill	09-08-2024	By MSLDC
Due date for payment of Deviation Charges	19-08-2024	By Generators through QCA
Submission of list of Defaulting Generators to MSLDC	20-08-2024	By Old QCA
Settlement of Deviation	23-08-2024	By MSLDC

bills through corpus amount		
Refund of Corpus amount of Generators who have paid Deviation charges, Corpus through new QCA & no dues with MSLDC	29-08-2024	By MSLDC through new QCA
Submission of list of Generators who have not registered & deposited corpus amount through with new QCA	28-07-2024; 24:00 hrs	New QCA (if registered)
Action on defaulting generators informed by new QCA	29-07-2024; 00:00 hrs	MSLDC, STU, Discoms

**B. Case - 2: De-registration due to non-authorization by Generator(s):**

- 9.15. The generator/s can initiate the process of de-registration, subject to Clause No. 4.4 of this procedure.
- 9.16. Prior notice to be served by the generators to the QCA for de-registration with copy to MSLDC. The notice period shall be of 4 billing weeks following the week in which such notice has been issued by the Generator/s.
- 9.17. It shall be the responsibility of all the Generating Companies within the concerned PSS to appoint new QCA and ensure its registration with MSLDC before expiry of the notice period, failing which generation shall not be scheduled and generator(s) will be disconnected from the grid by the Distribution Licensee in whose area the generator(s) is connected to avoid unscheduled injection.

Provided that upon expiry of notice period, the old QCA shall not be liable to provide Forecasting & Scheduling services for the concerned Pooling Sub-Station.

- 9.18. Once the application for de-registration is received by MSLDC, billing process shall be carried out by MSLDC to ensure timely de-registration & commercial settlement activities.



Sr. No.	Action	Responsibility	Timeline
1	Meter data of the last week of commercial operation starting Monday 00:00 hrs to Sunday 24:00 Hrs pertaining to the PSS undergoing de-registration to be made available for deviation billing at MSLDC.	QCA	Following Monday or by latest 00:00 hrs every Tuesday
2	MSLDC to process Meter data, Final Schedules & declared Available Capacity and prepare Pooling Sub-Station-wise deviation Account Statement for a Week and upload for verification of QCA.	MSLDC	Thursday by 24:00 Hrs. for the week under consideration.
3	QCA to submit details of discrepancies, if any, in deviation Account Statement to MSLDC.	QCA	Within (7) days from uploading of Statement.
4	MSLDC to verify discrepancies reported by QCA and upload final deviation Account Statement & Bill	SLDC	Within (2) days from receipt of discrepancies.
5	QCA to process data for de-pooling among generators to whom it is representing and upload Statement for information of MSLDC.	QCA	Within two (2) days from finalization of RE DSM bill by MSLDC.
6	RE-DSM Bill Payment to State Deviation Pool Account.	QCA	Within ten days from issuance of RE-DSM Bill
8	In case of default in payment by QCA even after 10 days from issuance of RE- DSM Bill, SLDC shall forfeit the Corpus and settle the Bill very next day.	SLDC	11 <sup>th</sup> day from the due date of RE-DSM Bill.

9.19. Registration of new QCA shall be in accordance with the provisions specified at clause No. 8 above.

9.20. The corpus amount collected from the QCA is against the payment security mechanism, hence, during registration of new QCA, it shall be responsibility of the all Generating Companies to deposit corpus amount through new QCA.





- 9.21. If new QCA is registered within notice period of 4 weeks, then it shall start forecasting & scheduling activities from the Monday of the 5<sup>th</sup> week.

Further, if new QCA is registered after 4 week notice period, then forecasting & scheduling activities shall be started from the next date of its registration with MSLDC.

Provided that the generation of the generating companies which have not deposited corpus amount through new QCA shall not be scheduled and action of disconnection from the grid to avoid un-scheduled injection shall be initiated.

- 9.22. Once the defaulting generators, if any, are identified at the end of billing cycle of the last week of notice period, the corpus amount of generating companies which have paid deviation charges & corpus amount through new QCA and are not having any dues with MSLDC, shall be returned to such generating companies through new QCA as the corpus amount submitted through old QCA is available with MSLDC.

Provided that in case any generating company which has not deposited corpus through new QCA, however, have paid deviation charges & not having any due with MSLDC, the corpus amount of such generating company submitted through old QCA shall be retained and carry forwarded with new QCA. However, such generating company shall enter in to an agreement with the new QCA, failing which it shall be considered as non-compliance towards registration and action as per Clause No. 4.16 specified above.

The corpus amount of defaulting generators shall be adjusted against pending deviations charges & dues if any. In such case, surplus amount, if available shall be returned to such Generating Companies through new QCA. In case of short fall in the corpus amount, it shall be the responsibility of concerned generating company to top-up the corpus amount through new QCA within timelines specified in this procedure, failing which action shall be initiated in accordance with clause no. 19 of this procedure.

- 9.23. De-registration letter to the old QCA shall be issued by MSLDC, after end of the billing cycle of the last week of the notice period and submission of confirmation from all the generators towards completion of settlement of all the financial accounts like De-Pooling



of deviation charges, corpus amount where ever applicable, QCA charges, etc between QCA & Generators.

Provided that it shall be the responsibility of Generators to provide confirmation to QCAs within seven (7) days from the request from the QCA and failure to which it shall be presumed as confirmation from Generators.

9.24. The application for De-Registration shall be supported by the documentary evidences towards above mentioned default conditions.

9.25. After de-registration of the QCA, it shall be the responsibility of generators & new QCA to undertake commercial settlements if any, due to changes in the deviation accounts & deviation bills for the past period for which old QCA has been de-registered.

In case of non-settlement of such amount, default action shall be initiated against such defaulting generators in accordance with the provisions of this procedure.

In case QCA registration is processed with possession of 51% authorization from the connected generators in accordance with the provisions of the Principal Regulations, it shall be binding on the remaining generators which have not provided authorization to the registered QCA for the respective PSS to provide authorization along with all technical & commercial settlements.

In the event of non-authorization by the remaining generators to the QCA, the provisions specified in the roles & responsibilities of Generators in this procedure shall be applicable.

9.26. The process illustration is as below:

Activity	Date	Remarks
Notice for De-registration	28-06-2024 (Friday)	To be served by QCA/Generators as the case may be, with copy to MSLDC.
Notice Period (4 weeks)	01-07-2024 (Monday) to 28/07/2024 (Sunday)	
Old QCA to stop Scheduling activities from	28-07-2024; 24:00 hrs	
New QCA to start scheduling from (if	29-07-2024; 00:00 hrs	For 28-07-2024; 00:00 hrs, day ahead

registered within notice period)		schedules for 29-07-2024
New QCA to start scheduling from (if registered after notice period)	The next day on which QCA is registered with MSLDC	Complete PSS will be disconnected from the Grid from 29-07-2024, 00:00 hrs till new QCA registered
Energy Accounting & Billing cycle for last week of notice period i.e. 22-07-2024 to 28-07-2024		
Meter data acquisition	30-07-2024	By Transcos/Discoms/QCAs/Generators
Publishing of Deviation Accounting Statement	01-08-2024	By MSLDC
Submission of Comments/observations on Deviation Accounting Statement	07-08-2024	By QCAs
Publishing Final Deviation Accounting Statement and Bill	09-08-2024	By MSLDC
Due date for payment of Deviation Charges	19-08-2024	By Generators through QCA
Submission of list of Defaulting Generators to MSLDC	20-08-2024	By Old QCA
Settlement of Deviation bills through corpus amount	23-08-2024	By MSLDC
Refund of Corpus amount of Generators who have paid Deviation charges, Corpus through new QCA & no dues with MSLDC	29-08-2024	By MSLDC through new QCA
Submission of list of Generators who have not registered & deposited corpus amount through with	28-07-2024; 24:00 hrs	New QCA (if registered)



new QCA			
Action on defaulting generators informed by new QCA	29-07-2024; 00:00 hrs	MSLDC, Discoms	STU,

**C. Case – 3: De-registration due to event of default:**

9.27. The MSLDC shall initiate the process of de-registration, in case of default conditions mentioned at Clause No. 19.1 & 19.2 of the said procedure.

9.28. It shall be the responsibility of all the Generating Companies within the concerned PSS to appoint new QCA and ensure its registration with MSLDC before expiry of the notice period, failing which generation shall not be scheduled and generator(s) will be disconnected from the grid by the Distribution Licensee in whose area the generator(s) is connected to avoid unscheduled injection.

Provided that upon expiry of notice period, the old QCA shall not be liable to provide Forecasting & Scheduling services for the concerned Pooling Sub-Station.

9.29. Once the process of de-registration is initiated by MSLDC, billing process shall be carried out by MSLDC to ensure timely de-registration & commercial settlement activities.

Sr. No.	Action	Responsibility	Timeline
1	Meter data of the last week of commercial operation starting Monday 00:00 hrs to Sunday 24:00 Hrs pertaining to the PSS undergoing de-registration to be made available for deviation billing at MSLDC.	QCA	Following Monday or by latest 00:00 hrs every Tuesday
2	MSLDC to process Meter data, Final Schedules & declared Available Capacity and prepare Pooling Sub-Station-wise deviation Account Statement for a Week and upload for verification of QCA.	MSLDC	Thursday by 24:00 Hrs. for the week under consideration.
3	QCA to submit details of discrepancies, if any, in deviation Account Statement to MSLDC.	QCA	Within (7) days from uploading of Statement.
4	MSLDC to verify discrepancies	SLDC	Within (2) days

	reported by QCA and upload final deviation Account Statement & Bill		from receipt of discrepancies.
5	QCA to process data for de-pooling among generators to whom it is representing and upload Statement for information of MSLDC.	QCA	Within two (2) days from finalization of RE DSM bill by MSLDC.
6	RE-DSM Bill Payment to State Deviation Pool Account.	QCA	Within ten days from issuance of RE-DSM Bill
8	In case of default in payment by QCA even after 10 days from issuance of RE- DSM Bill, SLDC shall forfeit the Corpus and settle the Bill very next day.	SLDC	11 <sup>th</sup> day from the due date of RE-DSM Bill.

9.30. Registration of new QCA shall be in accordance with the provisions specified at clause No. 8 above.

9.31. The corpus amount collected from the QCA is against the payment security mechanism, hence, during registration of new QCA, it shall be responsibility of the all Generating Companies to deposit corpus amount through new QCA.

9.32. If new QCA is registered within notice period of 4 weeks, then it shall start forecasting & scheduling activities from the Monday of the 5<sup>th</sup> week.

Further, if new QCA is registered after 4 week notice period, then forecasting & scheduling activities shall be started from the next date of its registration with MSLDC.

Provided that the generation of the generating companies which have not deposited corpus amount through new QCA shall not be scheduled and action of disconnection from the grid to avoid un-scheduled injection shall be initiated.

9.33. Once the defaulting generators, if any, are identified at the end of billing cycle of the last week of notice period, the corpus amount of generating companies which have paid deviation charges & corpus amount through new QCA and are not having any dues with MSLDC, shall be returned to such generating companies through new QCA as the corpus amount submitted through old QCA is available with MSLDC.



Provided that in case any generating company which has not deposited corpus through new QCA, however, have paid deviation charges & not having any due with MSLDC, the corpus amount of such generating company submitted through old QCA shall be retained and carry forwarded with new QCA. However, such generating company shall enter in to an agreement with the new QCA, failing which it shall be considered as non-compliance towards registration and action as per Clause No. 4.16 specified above.

The corpus amount of defaulting generators shall be adjusted against pending deviations charges & dues if any. In such case, surplus amount, if available shall be returned to such Generating Companies through new QCA. In case of short fall in the corpus amount, it shall be the responsibility of concerned generating company to top-up the corpus amount through new QCA within timelines specified in this procedure, failing which action shall be initiated in accordance with clause no. 19 of this procedure.

- 9.34. De-registration letter to the old QCA shall be issued by MSLDC, after end of the billing cycle of the last week of the notice period and submission of confirmation from all the generators towards completion of settlement of all the financial accounts like De-Pooling of deviation charges, corpus amount where ever applicable, QCA charges, etc between QCA & Generators.

Provided that it shall be the responsibility of Generators to provide confirmation to QCAs within seven (7) days from the request from the QCA and failure to which it shall be presumed as confirmation from Generators.

- 9.35. The application for De-Registration shall be supported by the documentary evidences towards above mentioned default conditions.
- 9.36. After de-registration of the QCA, it shall be the responsibility of generators & new QCA to undertake commercial settlements if any, due to changes in the deviation accounts & deviation bills for the past period for which old QCA has been de-registered.

In case of non-settlement of such amount, default action shall be initiated against such defaulting generators in accordance with the provisions of this procedure.

In case QCA registration is processed with possession of 51% authorization from the connected generators in accordance with the provisions of the Principal Regulations, it shall be binding on the

remaining generators which have not provided authorization to the registered QCA for the respective PSS to provide authorization along with all technical & commercial settlements.

In the event of non-authorization by the remaining generators to the QCA, the provisions specified in the roles & responsibilities of Generators in this procedure shall be applicable.

9.37. The process illustration is as below:

Activity	Date	Remarks
Notice for De-registration	28-06-2024 (Friday)	To be served by QCA/Generators as the case may be, with copy to MSLDC.
Notice Period (4 weeks)	01-07-2024 (Monday) to 28/07/2024 (Sunday)	
Old QCA to stop Scheduling activities from	28-07-2024; 24:00 hrs	
New QCA to start scheduling from (if registered within notice period)	29-07-2024; 00:00 hrs	For 28-07-2024; 00:00 hrs, day ahead schedules for 29-07-2024
New QCA to start scheduling from (if registered after notice period)	The next day on which QCA is registered with MSLDC	Complete PSS will be disconnected from the Grid from 29-07-2024, 00:00 hrs till new QCA registered
Energy Accounting & Billing cycle for last week of notice period i.e. 22-07-2024 to 28-07-2024		
Meter data acquisition	30-07-2024	By Transcos/Discoms/QCAs/Generators
Publishing of Deviation Accounting Statement	01-08-2024	By MSLDC
Submission of Comments/observations on Deviation Accounting Statement	07-08-2024	By QCAs
Publishing Final Deviation Accounting	09-08-2024	By MSLDC



Statement and Bill		
Due date for payment of Deviation Charges	19-08-2024	By Generators through QCA
Submission of list of Defaulting Generators to MSLDC	20-08-2024	By Old QCA
Settlement of Deviation bills through corpus amount	23-08-2024	By MSLDC
Refund of Corpus amount of Generators who have paid Deviation charges, Corpus through new QCA & no dues with MSLDC	29-08-2024	By MSLDC through new QCA
Submission of list of Generators who have not registered & deposited corpus amount through with new QCA	28-07-2024; 24:00 hrs	New QCA (If registered)
Action on defaulting generators informed by new QCA	29-07-2024; 00:00 hrs	MSLDC, STU, Discoms

#### 10. MSLDC FEES & CHARGES AND OTHER CHARGES:

- 10.1. MSLDC fee and charges including scheduling fee and re-scheduling fee shall be payable by QCA as specified in the MSLDC ARR approved by the Commission time to time. Scheduling and re-scheduling charges shall be applicable per Pooling Sub-Station. The other charges, if any shall be levied as per the applicable MERC Regulations/Orders.





## 11. COMMUNICATION MODE AND PROTOCOL:

- 11.1. The Real time data of the Turbine/Inverter level and Pooling Sub-Station along with interface point shall be provided by QCA on behalf of Generators. The SCADA data from the Turbine/Inverter level and Pooling Sub-Station directly to MSLDC shall be transmitted on IEC:104 protocol along with communication on dedicated and uninterrupted MPLS link by QCA.
- 11.2. As per IEGC 2023 and MEGC 2020, CEA (Technical Standards for communication systems in Power System operations) and CERC (Communication systems for inter-state transmission of Electricity) Regulations 2017 and Regulations amended from time to time, all IPP/ CPP/RE Generators stations have to make real-time data available at MSLDC Airoli, ALDC Ambazari & other control centres if any, as per the directives of MSLDC. As per MEGC 2020 Regulation, clause no. 62.1, all users of InSTS shall maintain communication system availability at 99.9% annually and with backup communication system, the availability of the communication system shall be 100%.

The requirements for data visibility and interfacing requirements are as detailed below:

- 11.2.1. The Remote Terminal Unit under the proposed scheme shall be capable of communication with MSLDC, ALDC and other control centres if any, as per the directives of MSLDC on IEC-104 Protocol and the same should be tested for Cyber Security conformance from designated laboratories in accordance with the Annexure-B (Annexure 1 & 2) provided in the CEA guidelines 2021 for Cyber Security in Power Sector.
- 11.2.2. The Primary Communication media shall be on OPGW and Secondary (backup) shall be on MPLS leased circuit via VSAT with latency less than 800ms. The typical bandwidth requirement for real-time Point to point data inter-connection bandwidth of 128 kbps communication between Pooling Sub-Station/ Generator (in case of individual generator) and MSLDC which shall be upgraded depending upon data volume.
- 11.2.3. Wind/Solar Generators shall submit request letter along with following documents to MSLDC for data points:
- (A) Latest Valid Grid Connectivity Letter issued by STU Maharashtra.



- (B) Approved Plant End switchyard diagram approved by Electrical Inspector up to the inverter Transformer, as well as individual generating unit-wise (Turbine (WTG/Solar Generator Unit-wise)
- (C) Assured checklist for standard data points for Real time WTG/ Inverter wise power generation parameters and Weather data as per **ANNEXURE - 3 A**.
- (D) Undertaking from RE Developer as per **ANNEXURE - 3 B**.
- (E) Substation feeder (assigned) connection - Approved by Authorized Signatory of connected Transmission/ Distribution licensee.
- (F) Authority letter from IPP/ CPP/RE Generators/Developer to appointed Integrator.

11.2.4. It is mandatory for all the New Integrated Generators to carry out 'Point to Point Testing' jointly with REMC SCADA Engineer before synchronization for confirmation of Visibility Status as per list of data points issued.

11.2.5. Cyber security policy in accordance with the CEA Guidelines 2021 for Cyber Security in power sector along with all prevailing relevant Acts, Regulations, Guidelines & amendments thereof, shall be applicable. Also system logs of router/ firewall shall be provided to MSLDC as and when required. Compliance report shall be submitted timely by Generators/RE Developer to MSLDC.

11.2.6. QCA/RE Generators shall submit complete proposal along with architecture for RTU installation and data communication link with MSLDC Airoli, ALDC Ambazari and other control centres if any, as per the directives of MSLDC with the above confirmations/clarifications for approval by this office from communication point of view.

11.2.7. Integration of Wind/Solar Generators station and pooling station data into the SCADA systems, Dynamic Web Application at MSLDC Airoli, ALDC Ambazari and other control centres if any, as per the directives of MSLDC on IEC 104 protocol or any other protocol defined by MSLDC will have to be carried out by QCA on behalf of Generators at their own cost.

11.2.8. Completion of all above is under the scope and responsibility of Wind/Solar Generators Station.



- 11.2.9. Integration of Real time data from RTU of any make in IEC-104 Protocol is to be done in MSLDC SCADA system and Dynamic Web Application. The work of integration shall be carried out by Generator through respective prevailing SCADA integration agency at MSLDC as per prevailing Rate Contract published on MSLDC website.
- 11.2.10. The data visibility should be at MSLDC Airoli, ALDC Ambazari and other control centres if any, as per the directives of MSLDC.
- 11.2.11. IPP/CPP/RE Generators/Developer to make necessary technical changes of equipment installed at their end and at receiving end as per MSLDC guidelines in future, at ALDC and MSLDC at their own cost.
- 11.3. QCA shall be responsible for providing a redundant and reliable communication link between Pooling Sub-Station and MSLDC shall be made and maintained by the QCA on behalf of Generators.

## **12. FORECASTING AND SCHEDULING:**

- 12.1. Forecasting of Wind/Solar injection on Pooling Sub-Station basis shall be done by the MSLDC for overall planning of resource requirements on day ahead basis in view of secure grid operation. The MSLDC may engage a forecasting agency to undertake forecasting for Wind & Solar Generators/Solar Parks /Wind Parks connected to InSTS.
- 12.2. The QCA shall provide Pooling Sub-Station wise forecasting for the Wind/Solar generators connected to Pooling Sub-Station to MSLDC based on their own forecast or may adopt forecast carried out by MSLDC.
- 12.3. In the event of QCA adopting forecast provided by MSLDC, charges amounting to Rs. 3,000/- per Pooling Sub-Station per day, shall be paid by the QCA to MSLDC. The consequences of any error in such forecast provided by MSLDC which results in a deviation from scheduling shall be borne by the concerned Generators through their QCA and QCA shall indemnify MSLDC on account of the commercial impact.

Provided that the daily Forecasting Charges shall be recovered through weekly bills generated along with the weekly deviation bills.

- 12.4. The MSLDC shall consolidate and forecast, based on various parameters and weather data obtained from IMD or from any other



forecast service provider (which could be different from that provided by QCA)

- 12.5. The submission of Pooling Sub-Station wise day ahead forecast shall be in accordance with the time lines specified in Scheduling & Despatch Code & as amended from time to time.

Provided that the timelines shall be in line with the MSLDC Procedure formulated under Scheduling & Despatch Code and DSM Regulations, as amended from time to time.

- 12.6. The Generating Company-wise including individual Generating unit (WTG/Invertor) schedule submitted by the QCA to MSLDC shall be considered by MSLDC.

- 12.7. The Pooling Sub-Station wise & Generating Company-wise including individual Generating unit (WTG/Invertor) forecast submitted by QCA & Generator(s) shall be on 15 min time block basis in MW up three Decimal places. The fourth Decimal place shall be rounded off to 3<sup>rd</sup> Decimal place as per standard practice. Deviation Volume and Value shall be calculated accordingly.

- 12.8. The Generating Company/ies may submit the AvC, Schedules & revisions to QCA in accordance with the contracts and authorize QCA to submit the AvC, Schedules & revisions to MSLDC.

Provided that it shall be sole responsibility of the QCA to consider the schedule revisions submitted by Generating Company/ies prior to submission to MSLDC.

Provided further that the AvC, Schedules & revisions submitted by QCA to MSLDC shall be considered as final.

- 12.9. The QCA may revise schedules for the InSTS (excluding collective and inter-state bi-lateral transactions) by giving advance notice to the MSLDC;

Provided that, such revisions shall be effective from the fourth (4<sup>th</sup>) time block counting the time block in which notice was given.

- 12.10. Provided further that, there may be one revision for each time slot of one and half hours starting from 00.00 hours of a particular day, subject to a maximum of 16 revisions during the day **Methodology for Contract Creation for submission of Schedules:**

There are single/multiple generating companies connected to common feeder/PSS having single/multiple contracts with single/multiple buyers. Hence, following methodology shall be

adopted for contract creation in MSLDC Scheduling Software for the scheduling process.

12.10.1. Buyer-wise (Distribution Licensee-wise) contracts at PSS level:

- a. For a PSS, individual generating units (WTG/Invertor) contracted by same buyer shall be identified.
- b. The contracted capacity of such individual units shall be added according to its contract period i.e. Long Term, Medium Term & Short term.
- c. Addition shall be irrespective of contract rate.
- d. QCA shall submit schedules against such buyer-wise aggregated capacity contracts.
- e. Validation while schedule submission shall be as below:
  - AvC shall be equal to or less than the sum of total contracted capacity of the PSS.
  - Schedule for all the time blocks for a Buyer-wise contract shall be less than or equal to the contracted capacity of the respective contract.
  - The summation of all the schedules of buyer-wise contracts shall be less than or equal to the AvC.

12.10.2. Generating Company-wise, individual generating unit (WTG/Invertor) wise contracts at PSS level:

- a. For a PSS & for a Generating Company, individual generating units (WTG/Invertor) contracted by same buyer with same contract rate shall be identified.
- b. The contracted capacity of such individual units shall be added.
- c. QCA shall submit schedules against such individual contracts.
- d. Validation while schedule submission shall be as below:
  - AvC shall be equal to or less than the sum of total contracted capacity of the individual contract.
  - Schedule for all the time blocks for a individual contract shall be less than or equal to the contracted capacity of the respective contract.
  - The summation of all the schedules of individual contracts for a respective Buyer shall be equal to the aggregated schedules of respective Buyer at PSS-level.
  - The summation of all the AvC of individual contracts shall be equal to the AvC at PSS-level.



12.10.3. Detailed illustration of Contract creation:

**Case - 1:**

Contract (PPA) details of Generating Company-wise including individual generating unit-wise (WTG/Invertor) for a PSS:

Generator Name	Unique No	Installed Capacity (MW)	Buyer	Rate	From Date	To Date
Gen-1	1234512341	2	B-1	3	01-08-2024	31-08-2024
Gen-1	1234512342	2	B-1	3	01-08-2024	31-08-2024
Gen-1	1234512343	2	B-2	3	01-08-2024	31-08-2024
Gen-2	1234512344	2	B-2	3	01-08-2024	31-08-2024
Gen-2	1234512345	2	B-2	3	01-08-2024	31-08-2024
Gen-3	1234512346	2	B-3	3	01-08-2024	31-08-2024
Gen-4	1234512347	2	B-3	3	01-08-2024	31-08-2024
Gen-5	1234512348	2	B-4	3	01-08-2024	31-08-2024
Gen-5	1234512349	2	B-1	3	01-08-2024	31-08-2024
Gen-5	1234512350	2	B-5	3	01-08-2024	31-08-2024

Buyer-wise (Distribution Licensee-wise) Contracts:

Approval No.	Buyer	From Date	To Date	Max. Schedulable Capacity (MW)
PSS/S/1/B-1	B-1	01-08-2024	31-08-2024	6
PSS/S/1/B-2	B-2	01-08-2024	31-08-2024	6
PSS/S/1/B-3	B-3	01-08-2024	31-08-2024	4
PSS/S/1/B-4	B-4	01-08-2024	31-08-2024	2
PSS/S/1/B-5	B-5	01-08-2024	31-08-2024	2

Generating Company-wise including individual generating unit-wise (WTG/Invertor) Contracts:

Approval No.	Buyer	From Date	To Date	Max. Schedulable Capacity
PSS/Gen-1/1/B-1	B-1	01-08-2024	31-08-2024	4
PSS/Gen-5/1/B-1	B-1	01-08-2024	31-08-2024	2
PSS/Gen-1/1/B-2	B-2	01-08-2024	31-08-2024	2
PSS/Gen-2/1/B-2	B-2	01-08-2024	31-08-2024	4
PSS/Gen-3/1/B-3	B-3	01-08-2024	31-08-2024	2
PSS/Gen-4/1/B-3	B-3	01-08-2024	31-08-2024	2
PSS/Gen-5/1/B-4	B-4	01-08-2024	31-08-2024	2
PSS/Gen-5/1/B-5	B-5	01-08-2024	31-08-2024	2

**Case - 2:**

Contract (PPA) details of Generating Company-wise including individual generating unit-wise (WTG/Inverter) for a PSS:

Generator Name	Unique No	Installed Capacity (MW)	Buyer	Rate	From Date	To Date
Gen-1	1234512341	2	B-1	3	01-08-2024	31-08-2024
Gen-1	1234512342	2	B-1	4	01-08-2024	15-08-2024
Gen-1	1234512342-1	2	B-4	3	16-08-2024	31-08-2024
Gen-1	1234512343	2	B-2	2	01-08-2024	31-08-2024
Gen-2	1234512344	2	B-2	3	16-08-2024	31-08-2024
Gen-2	1234512344-1	2	B-5	2	01-08-2024	15-08-2024
Gen-2	1234512345	2	B-2	2	01-08-2024	31-08-2024
Gen-3	1234512346	2	B-3	5	01-08-2024	31-08-2024
Gen-4	1234512347	2	B-3	4	01-08-2024	31-08-2024
Gen-5	1234512348	2	B-4	6	01-08-2024	31-08-2024
Gen-5	1234512349	2	B-1	8	01-08-2024	31-08-2024
Gen-5	1234512350	2	B-5	3	01-08-2024	31-08-2024

**Buyer-wise (Distribution Licensee-wise) Contracts:**

Approval No.	Buyer	From Date	To Date	Max. Schedulable Capacity
PSS/S/1/B-1	B-1	01-08-2024	31-08-2024	4
PSS/S/2/B-1	B-1	01-08-2024	15-08-2024	2
PSS/S/1/B-2	B-2	01-08-2024	31-08-2024	4
PSS/S/2/B-2	B-2	16-08-2024	31-08-2024	2
PSS/S/1/B-3	B-3	01-08-2024	31-08-2024	4
PSS/S/1/B-4	B-4	01-08-2024	31-08-2024	2
PSS/S/2/B-4	B-4	16-08-2024	31-08-2024	2
PSS/S/1/B-5	B-5	01-08-2024	31-08-2024	2
PSS/S/2/B-5	B-5	01-08-2024	15-08-2024	2



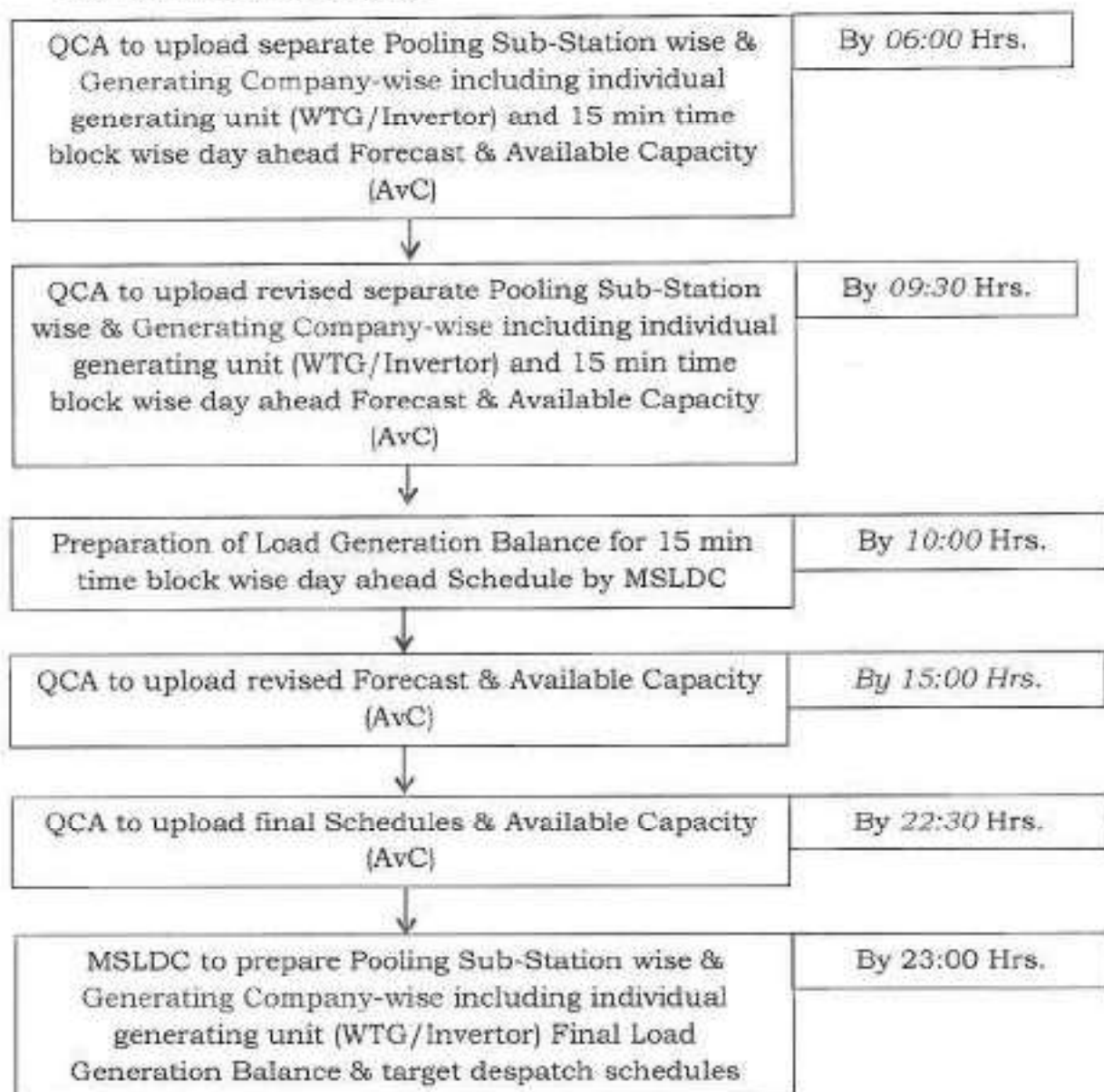
Generating Company-wise including individual generating unit-wise (WTG/Invertor) Contracts:

Approval No.	Buyer	From Date	To Date	Max. Schedulable Capacity
PSS/Gen-1/1/B-1	B-1	01-08-2024	31-08-2024	2
PSS/Gen-1/2/B-1	B-1	01-08-2024	15-08-2024	2
PSS/Gen-5/1/B-1	B-1	01-08-2024	31-08-2024	2
PSS/Gen-1/1/B-2	B-2	01-08-2024	31-08-2024	2
PSS/Gen-2/1/B-2	B-2	16-08-2024	31-08-2024	2
PSS/Gen-2/2/B-2	B-2	01-08-2024	31-08-2024	2
PSS/Gen-3/1/B-3	B-3	01-08-2024	31-08-2024	2
PSS/Gen-4/1/B-3	B-3	01-08-2024	31-08-2024	2
PSS/Gen-1/1/B-4	B-4	16-08-2024	31-08-2024	2
PSS/Gen-5/1/B-4	B-4	01-08-2024	31-08-2024	2
PSS/Gen-2/1/B-5	B-5	01-08-2024	15-08-2024	2
PSS/Gen-5/1/B-5	B-5	01-08-2024	31-08-2024	2





12.11. Process for submission of a day ahead Forecast for Intra-State Transactions is as follows:



Note: No revision in Forecast shall be accepted after 22:30 Hrs.

Above timelines shall be modified in accordance with the timelines set as per the State DSM Regulations & applicable MERC & CERC Regulations.

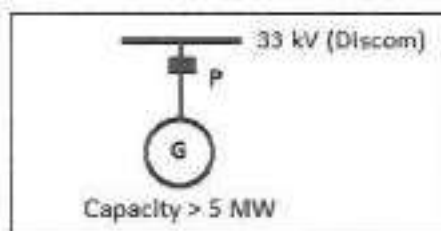


12.12. The various cases indicating point of Forecast and Scheduling are as follows:

**Inter-connection at Distribution Level:**

**Case - 1:**

**Single Generator or group of generators having capacity of 5 MW & above connected at 33 kV level of Discom's Pooling Sub-Station, selling power within the State:**

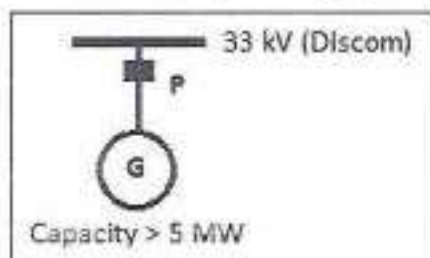


In this case, the Forecasting shall be provided by the QCA at Point 'P'. Scheduling and Accounting shall be done by MSLDC at Point 'P'.

The QCA shall de-pool the deviation charges among respective generators separately based on the mechanism specified in the Amended Regulations & as amended from time to time.

**Case - 2:**

**Single Generator or group of generators having capacity of 5 MW & above connected at 33 kV level of Discom Pooling Sub-Station, selling power outside the State:**



In this case, the Forecasting shall be provided by the QCA at Point 'P'. Scheduling and Accounting shall be done by MSLDC at Point 'P'.

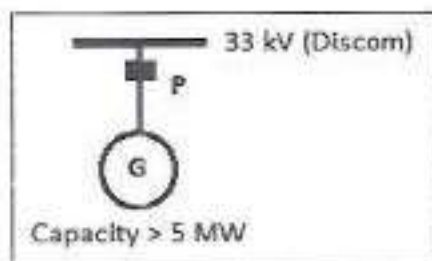
The Distribution losses and Transmission losses up to State Periphery as approved by Hon'ble MERC shall be applicable.

The QCA shall de-pool the deviation charges among respective generators separately based on the mechanism specified in the Amended Regulations & as amended from time to time.



### Case - 3:

**Single Generator or group of generators having capacity of 5 MW & above connected at 33 kV level of Discom Pooling Sub-Station, partly selling power within & outside the State (During Scheduled generation Settlement regime):**



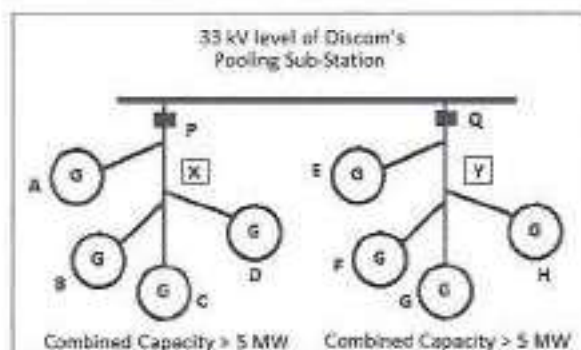
In this case, the Forecasting shall be provided by the QCA at Point 'P'. Scheduling and Accounting shall be done by MSLDC at Point 'P'. In such case, there shall be two separate schedules for Intra-State & Inter-State transactions.

The Distribution losses and Transmission losses up to State Periphery as approved by Hon'ble MERC shall be applicable for Inter-State Transactions.

The QCA shall de-pool the deviation charges among respective generators separately based on the mechanism specified in the Amended Regulations & as amended from time to time.

### Case - 4:

**Multiple Generators connected at 33 kV level of Discom's 33 kV Pooling Sub-Station and selling power within and Outside the State through dedicated feeder:**



In such case, generators 'A' to 'D' are connected through a common & dedicated feeder 'X' having inter-connection point at 'P', selling power within the State.

Generators 'E' to 'H' are connected through a common & dedicated feeder 'Y' having inter-connection point at 'Q', selling power outside the State.

In such case, the QCA shall submit separate forecast at Point 'P' and 'Q' i.e. for Intra-State and Inter-State transactions. MSLDC shall Schedule at Point 'P' being Intra-State and at State Periphery for Point 'Q' by applying Transmission losses as approved by Hon'ble MERC.



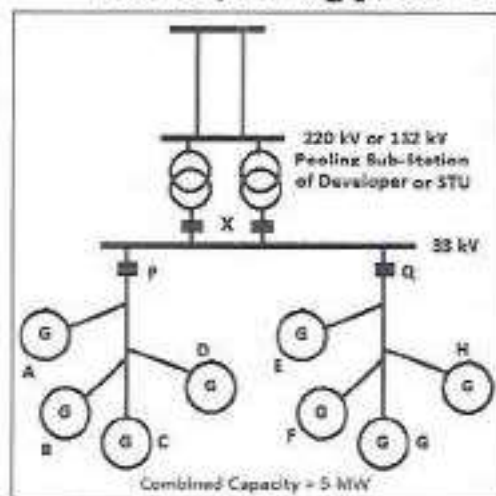
The QCA shall de-pool the deviation charges among respective generators separately based on the mechanism specified in the Amended Regulations & as amended from time to time.

During Scheduled Generation based Settlement regime as well as during the trial period, QCA shall submit separate generator-wise as per Contract rate & Procurer-wise schedules for Intra-State & Inter-State transactions as per the illustrations provided in earlier part of this procedure. The Distribution losses and Transmission losses up to State Periphery as approved by Hon'ble MERC shall be applicable for Inter-State Transactions.

#### Inter-connection at Transmission Level:

##### Case - 5:

**Single Generator or group of generators having capacity of 5 MW & above connected at 33 kV level of EHV Pooling Sub-Station, selling power within the State:**



In this case, a group of generators ('A' to 'H') are connected at 33 kV level of the EHV Pooling Sub-Station through common 33 kV feeders.

In such case, the Forecast shall be done by the QCA at Point 'X'. Scheduling and Accounting shall be done by MSLDC at Point 'X'.

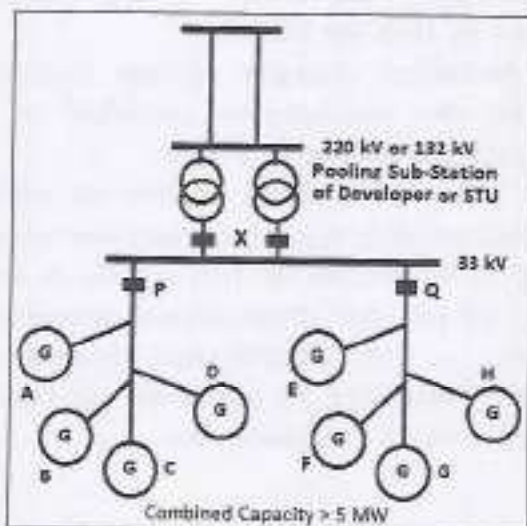
The QCA shall de-pool the deviation charges among respective generators separately based on the mechanism specified in the Amended Regulations &

as amended from time to time.



**Case - 6:**

**Single Generator or group of generators having capacity of 5 MW & above connected at 33 kV level of EHV Pooling Sub-Station, selling power Outside the State:**



In this case, a group of generators ('A' to 'H') are connected at 33 kV level of the EHV Pooling Sub-Station through common 33 kV feeders.

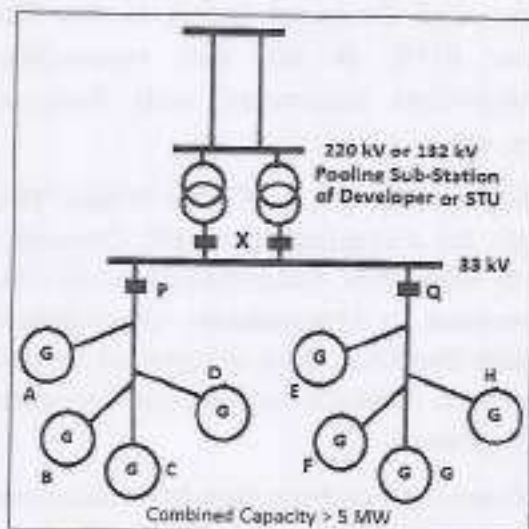
In such case, the Forecast shall be done by the QCA at Point 'X'. Scheduling and Accounting shall be done by MSLDC at State Periphery by applying Transmission Losses as approved by Hon'ble Commission as per Point 'X'.

The QCA shall de-pool the deviation charges among respective generators

separately based on the mechanism specified in the Amended Regulations & as amended from time to time.

**Case - 7:**

**Multiple Generators connected at 33 kV level of EHV Pooling Sub-Station and selling power within and Outside the State through dedicated feeder:**



In this case, multiple generators ('A' to 'D') are connected at 33 kV level of the EHV Pooling Sub-Station through common 33 kV feeders selling power within the State.

The Generators 'E' to 'H' are connected at 33 kV level of the EHV Pooling Sub-Station through common 33 kV feeders selling power outside the State.

In such case, the QCA shall submit separate forecast at Point 'P' and 'Q' i.e. for Intra-State and Inter-State



respectively. MSLDC shall Schedule at Point 'P' being Intra-State transaction and at State Periphery for Point 'Q' by applying Transmission losses as approved by Hon'ble MERC.

The QCA shall de-pool the deviation charges among respective generators separately based on the mechanism specified in the Amended Regulations & as amended from time to time.

During Scheduled Generation based Settlement regime as well as during the trial period, QCA shall submit separate generator-wise as per Contract rate & Procurer-wise schedules for Intra-State & Inter-State transactions at point 'X' as per the illustrations provided in earlier part of this procedure. . The Distribution losses and Transmission losses up to State Periphery as approved by Hon'ble MERC shall be applicable for Inter-State Transactions.

### **13. PROTOCOL FOR CURTAILMENTS:**

- 13.1. In-spite of having 'MUST RUN' status for Wind & Solar Generation, during real time operations there are chances for issuing curtailment / backing down instructions to such generators even though all the efforts for accommodating RE generation is taken by the System Operators.
- 13.2. The need for curtailment may arise due to planned/forced outages on the evacuation infrastructure and Demand crash in the State with heavy under-drawl from ISTS & all the conventional generations are running at technical minimum with frequency beyond higher permissible limits, etc.
- 13.3. In accordance with the Regulation No. 28.2 of the MEGC'2020, MSLDC has developed Procedure for curtailment of RE Generation in the State. The said procedure with due consultation with Stake holders in the State was deliberated in Operational Co-ordination Committee (OCC) Meeting wherein the OCC has discussed in detail & ratified the same and forwarded to Grid Co-ordination Committee (GCC) for further ratification & approval.

Accordingly, the RE Curtailment procedure has been discussed in depth and GCC has accorded approval for implementation of the same in the state. Based on the consent issued by GCC Core Group, the said procedure has been implemented in the state w.e.f. 31.12.2021 and has been submitted to Hon'ble MERC vide letter No. MSLDC/TECH/OP/REMC/MEGC-2020/2647 dated 31.12.2021 for information.

As the said procedure has been developed by following consultation process, the same shall be part of the said procedure as amended from time to time.

**14. Meter Data Acquisition in the absence of AMR facility:**

- 14.1. QCA in co-ordination with STU/Transmission Licensee/Distribution Licensee shall download the weekly meter data using Meter Reading Instrument (MRI) of each Pooling Sub-Station and upload the encrypted file on MSLDC Web-Portal on or before Tuesday 24:00 Hrs for the preceding week.

Provided that if the meter data is not submitted to MSLDC, Actual Generation shall be considered as 'ZERO' & deviation accounting and billing shall be carried out accordingly. In such case, it shall be the responsibility of the QCA to carry out commercial settlement of deviation charges with MSLDC.

- 14.2. QCA, STU, Transmission Licensee & Distribution Licensee shall nominate Pooling Sub-Station-wise representatives for joint meter reading and submit the contact details to MSLDC for further co-ordination. In case of changes in the contact details, the same shall be intimated to MSLDC immediately within two (2) days.

Provided that after operationalization of AMR facility, the meter data shall be directly available with MSLDC.

In case of non-availability of AMR facility due to any technical reasons, above mentioned process of meter data acquisition shall be followed by all the stake holders i.e. QCA, STU, Transmission Licensee & Distribution Licensee.

**15. ENERGY ACCOUNTING:**

- 15.1. The energy accounting shall be undertaken based on the data recorded by the Special Energy Meters (SEM) provided at interface points such as EHV/HV feeders or LV side of Power Transformers at STU/Distribution Licensee's Pooling Sub-Stations capable of recording the energy in 15-minute time blocks. The SEMs shall be under the control of STU & Distribution Licensee for EHV & 33 kV Pooling Sub-Stations respectively.
- 15.2. The recorded data of Special Energy Meters (SEM) at interface location points mentioned in 15.1 only shall be considered for deviation settlement at PSS level. No other meter data such as SCADA meter



data, Generator meter data at (WTG/Inverter) or any other location shall be considered for deviation settlement and commercial settlement of bills. In the event of failure/bad data from the Main meter, its reading will be substituted by the data from Check/Standby Meter using transmission loss approved by the Commission. In case, data from check/standby is also not available, then any case of totally or partially missing data is found, the affected interface point shall have its entire month/week/day data substituted using the Profiled Data Substitution Module.

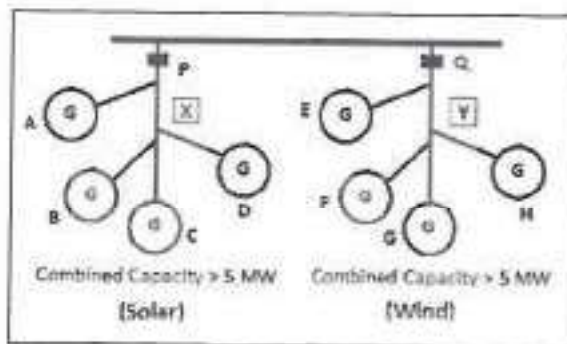
- 15.3. The deviation accounting is based on the meter data fetched from MSLDC-MDAS which is also used for deviation accounting in accordance with the MERC DSM Regulations, 2019 and the procedure there under. Also, the impact at State periphery is to be computed as per regulation No. 12 of Principal Regulations for which WRPC deviation bill is required. Hence the Deviation Accounting and billing cycle is made in line with the cycle followed and approved for DSM Billing.
- 15.4. Every Monday or by latest 00:00 hrs every Tuesday, all SEM data at PSS level of the previous week starting Monday 00:00 hrs to Sunday 24:00 Hrs would reach to MSLDC through AMR facility in MDAS Software for data processing.
- 15.5. In case of non-availability of meter data or partial data, the STU, concerned Distribution Licensee & QCA shall submit missing meter data for the week under consideration by 24:00 Hrs of following Wednesday.
- 15.6. MSLDC shall be prepare time block-wise deviation at PSS level, and prepare a Deviation account, based on the actual meter readings made available by STU & Distribution Licensee in MDAS software at State Energy Account Centre at MSLDC and the implemented schedule.
- 15.7. MSLDC shall prepare the Deviation account Statement by Tuesday and issue the same to all QCAs for period of seven days ending on the penultimate Sunday mid-night.
- 15.8. All computations carried out by MSLDC shall be open to all QCAs for checking/verifications and reporting to MSLDC for a period of 15 days. If any discrepancies reported by QCA, the MSLDC shall forthwith make a complete check and rectify the same within a period of 6 (Six) days and issue final bills along with the final deviation account statements.



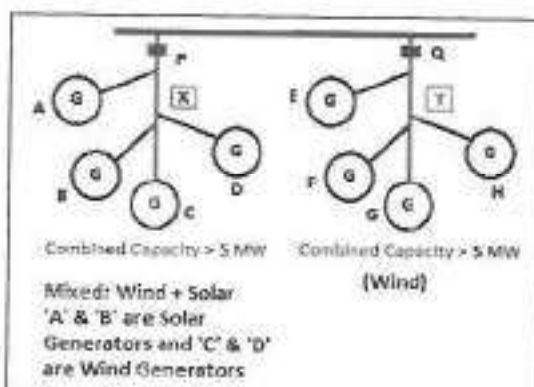
- 15.9. Any of the discrepancies reported by QCA after (15) days shall not be considered by MSLDC and in such case, the Statement prepared by MSLDC shall be final.
- 15.10. In case a new discom feeder (drawl feeder) is introduced to an existing RE PSS then the AMR metering arrangement shall be at feeder level instead of transformer LV.
- 15.11. In case of hybrid Pooling Sub-Stations i.e. combination of Wind & Solar Generation through common or separate interconnection facility, the QCA shall submit separate AvC and buyer-wise & Contract-wise Schedules for Wind & Solar Generation.

The deviations shall be calculated for total aggregated capacity of Wind & Solar Generation for each time block. However, the AvC & Schedule for Solar Generation during night hours i.e. 18:30 Hrs. to 06:15 Hrs. shall be considered as 'ZERO' as it is a well-known fact that solar plants do not generate power during night hours.

The schematic diagrams of Hybrid Pooling Sub-Stations are depicted below:



**Dia. - A**



**Dia. - B**



In above diagrams, Solar & Wind Generation is connected either through separate feeders 'X' & 'Y' having separate metering arrangement at 'P' & 'Q' as per Dia. - A or mixed generation connected on same feeder 'X' in Dia. - B.

In such cases, QCA shall submit separate schedules for Wind & Solar Generation for the Pooling Sub-Station. Energy Accounting and Deviation Charges shall be calculated by aggregating the Schedules & Actual Generation of Solar & Wind capacity.

15.12. All accounts relating to de-pooling of deviations charges shall be prepared by the QCA based on;

- i. Pooling Sub-Station level deviation charges from the MSLDC,
- ii. % Absolute Error of Individual Generator computed on basis of Actual, Schedule & AvC.

The de-pooling account shall be accessible to the MSLDC on dynamic Web Portal.

15.13. Process for deviation accounting:

Sr. No.	Action	Responsibility	Timeline
1	Meter data of the previous week starting Monday 00:00 hrs to Sunday 24:00 Hrs pertaining to all PSS to be made available for deviation billing at MSLDC.	STU/ Transmission Licensee/ Distribution Licensee/QCA	Every Monday or by latest 00:00 hrs of every Tuesday
2	Upload Generator(s) SEM meter data at WTG/Inverter location in requisite format in web portal.	Generators	Every Monday or by latest 00:00 hrs of every Tuesday
3	MSLDC to process Meter data, Final Schedules & declared Available Capacity and prepare Pooling Sub-Station-wise deviation Account Statement for a Week and upload for verification of QCA.	MSLDC	Every Tuesday by 24:00 Hrs. for penultimate week.
4	QCA to submit details of discrepancies, if any, in deviation Account Statement to MSLDC.	QCA	Within (15) days from uploading of Statement.
5	MSLDC to verify discrepancies reported by QCA and upload final deviation Account Statement & Bill	SLDC	Within (6) days from receipt of discrepancies.
6	QCA to process data for de-pooling among generators to whom it is representing and upload Statement for	QCA	Within two (2) days from finalization of RE DSM bill by

Sr. No.	Action	Responsibility	Timeline
	information of MSLDC.		MSLDC.
7	RE-DSM Bill Payment to State Deviation Pool Account.	QCA	Within ten days from issuance of RE-DSM Bill
8	Late Payment Surcharge payable @1.25 % per month (0.04% per day) in case of RE-DSM payment default at PSS level.	QCA	Shall be applicable at the time of payment against respective week
9	In case of default in payment by QCA even after due date from issuance of RE-DSM Bill, SLDC shall forfeit the Corpus and settle the Bill.	SLDC	2 <sup>nd</sup> day from the due date of RE-DSM Bill.
10	Make up the forfeited Corpus.	QCA	Within seven days from forfeiture of Corpus.

#### 16. DEVIATION CHARGES PAYMENT MECHANISM:

- 16.1. MSLDC shall consider the deviation charges for the State as a whole at the periphery of the State as issued by WRPC weekly DSM bills.
- 16.2. MSLDC shall determine the impact of deviation of Wind & Solar injection at Pooling Sub-Station from schedule and its contribution on the total deviation charges at the State periphery as per WRPC weekly DSM bills.
- 16.3. MSLDC shall compute the absolute error for each Pooling Sub-Station and shall calculate the deviation charges in accordance with the regulations.
- 16.4. Any shortfall in the aggregate amount of Deviation Charge payable by Solar and Wind Energy Generators at the State periphery and the amount receivable from them by the Pool Account shall be paid by the respective QCAs in proportion to their deviation reflected at the State periphery, subject to the directives of Hon'ble MERC in the matter of State Periphery Charges.



16.5. MSLDC shall compute the deviation charges and issue bills to the QCAs' on every Tuesday for the penultimate week.

16.6. If Tuesday falls on Public/Declared Holiday then MSLDC shall compute the deviation charges and issue bills to the QCAs' on next working day.

#### **17. DEVIATION CHARGES METHODOLOGY:**

17.1. All EHV Pooling Sub-Stations shall be classified in three categories i.e.

- a. **Intra-State Pooling Sub-Station:** where all wind & solar generators connecting through HV feeders are having delivery point within the State.
- b. **Inter-State Pooling Sub-Station:** where all the wind & Solar generators connecting through HV feeders are having delivery point out-side the State.
- c. **Mixed Pooling Sub-Station:** where some of the feeders are having delivery point outside the State and balance within the State.

#### **17.2. Methodology for Intra-State Transactions (Actual Base Payment):**

17.2.1. Charges towards sale of Energy shall be settled by the Procurer based on their actual generation during the Trial Mode Operation, whereas the charges towards deviation of Energy from its given schedule shall be settled by the QCA on behalf of Generator(s).

17.2.2. In respect of sale or self-consumption of power within Maharashtra, if the actual injected energy generation of a stand-alone Solar/Wind-Solar Hybrid Generator or the aggregate of such Solar/Wind-Solar Hybrid energy generation at a Pooling Sub-Station, as the case may be, differs from the scheduled Solar/Wind-Solar Hybrid energy generation, the Deviation Charge for the excess or shortfall shall be payable by the QCA to the State DEVIATION Pool Account, through the SLDC, as specified in Table 1 below:-



**Table - 1**

Sr. No.	Absolute Error in %age terms	Deviation Charge payable to Pool Account for Solar
1	$\leq 10\%$	None*
2	$>10\%$ but $\leq 12\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 10% and up to 12%
3	$>12\%$ but $\leq 15\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 10% and up to 12% + Rs. 0.50 per unit for the balance energy beyond 12% and up to 15%
4	$>15\%$ but $\leq 25\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 10% and up to 12% + Rs. 0.50 per unit for the shortfall or excess beyond 12% and up to 15% + Rs. 0.75 per unit for the balance energy beyond 15% and up to 25%
5	$>25\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 10% and up to 12% + Rs. 0.50 per unit for the shortfall or excess beyond 12% and up to 15% + Rs. 0.75 per unit for the shortfall or excess beyond 15% and up to 25% + Rs. 1.00 per unit for the balance energy beyond 25%

[\*: subject to the conditions specified in Regulation 12]

17.2.3. In respect of sale or self-consumption of power within Maharashtra, if the actual injected energy generation of a stand-alone Wind Generator or the aggregate of such Wind energy generation at a Pooling Sub-Station, as the case may be, differs from the scheduled Wind energy generation, the Deviation Charge for the excess or shortfall shall be payable by the QCA to the Pool Account, through the SLDC, as specified in Table 2 below:



**Table - 2**

Sr. No.	Absolute Error in %age terms	Deviation Charge payable to Pool Account for Wind energy generation
1	$\leq 12\%$	None*
2	$>12\%$ but $\leq 15\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 12% and up to 15%
3	$>15\%$ but $\leq 20\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 12% and up to 15% + Rs. 0.50 per unit for the balance energy beyond 15% and up to 20%
4	$>20\%$	At Rs. 0.25 per unit for the shortfall or excess beyond 12% and up to 15% + Rs. 0.50 per unit for the shortfall or excess beyond 15% and up to 20% + Rs. 1.00 per unit for the balance energy beyond 20%

[\*: subject to the conditions specified in Regulation 12]

17.2.4. Even though there are no deviation charges for the deviation within +/- 10 % for Solar/Wind-Solar Hybrid Generator and +/- 12% for Wind Generator, the charges on account of impact on State periphery due to deviation shall be computed but not levied.

17.2.5. During Trial Mode operations the % error shall be calculated on the basis of available capacity and deviation as actual - schedule and % error shall be calculated by rounding up to second decimal place.

17.2.6. Illustrative examples for calculation of deviation and its apportionment of deviation charges for five Pooling Sub-Stations is as under in **Table-3, Table-4, Table-5 & Table-6** are briefed subsequently.



**Table - 3**

Pooling Sub-Station wise deviation charge calculation (for One Time block) For Solar Generation or Wind-Solar Hybrid energy generation						
Solar or Wind-Solar Pooling Sub-Station	Available Capacity (kWh)	Schedule (MWh) (kWh)	Actual Injection (kWh)	Deviation (KWh)	% Deviation	Dev. Charges payable by Individual Pooling Sub-Stations (F)
	(A)	(B)	(C)	(D)	(E)	(F)
W.P.S.	AvC	Sch.	Act. Inj.	Dev.	Dev.	Deviation Charges (Rs.)
P.S. - 1	35000	25000	32500	7500	21.43%	2,388
P.S. - 2	80000	50000	52500	2500	3.13%	-
P.S. - 3	120000	75000	90000	15000	12.50%	900
P.S. - 4	90000	50000	47500	-2500	-2.78%	-
P.S. - 5	55000	37500	20000	-17500	-31.82%	8,976
Grand Total	380000	237500	242500	ABS	11.84%	12,264
				45000		
Net Exch. With Grid	380000	237500	242500	5000		

**Table - 4**

Apportionment of deviation charges For Solar Generation or Wind-Solar Hybrid energy generation Deviation Charge (Rs/kWh) as per the MERC F&S Regulations						
Rs. /kWh	0	0.25	0.5	0.75	1.00	Deviation charges (Rs.)
Deviation (%)	10%	12%	15%	25%	>25%	
21.43%	3500	700	1050	2250	0	2388
3.13%	2500	0	0	0	0	0
12.50%	12000	2400	600	0	0	900
-2.78%	2500	0	0	0	0	0
-31.82%	5500	1100	1650	5500	3750	8976



**Table - 5**

Pooling Sub-Station wise deviation charge calculation (for One Time block) For Wind Energy Generation						
Wind Pooling Sub-Station	Available Capacity (kWh)	Schedule (MWh) (kWh)	Actual Injection (kWh)	Deviation (KWh)	% Deviation	Dev. Charges payable by Individual Pooling Sub-Stations (F)
	(A)	(B)	(C)	(D)	(E)	
W.P.S.	Av.C	Sch.	Act. Inj.	Dev.	Dev.	Deviation Charges (Rs.)
P.S. - 1	35000	25000	32500	7500	21.43%	2,950
P.S. - 2	80000	50000	52500	2500	3.13%	-
P.S. - 3	120000	75000	90000	15000	12.50%	900
P.S. - 4	90000	50000	47500	-2500	-2.78%	-
P.S. - 5	55000	37500	20000	-17500	-31.82%	10,350
Grand Total	380000	237500	242500	ABS	11.84%	14,200
				45000		
Net Exch. With Grid	380000	237500	242500	5000		

**Table - 6**

Apportionment of deviation charges For Solar Generation or Wind-Solar Hybrid energy generation Deviation Charge (Rs/kWh) as per the MERC F&S Regulations					
Rs. /kWh	0	0.25	0.5	1.00	Deviation charges (Rs.)
Deviation (%)	12%	15%	20%	>20%	
21.43%	3500	700	1050	2250	2950
3.13%	2500	0	0	0	0
12.50%	12000	2400	600	0	900
-2.78%	2500	0	0	0	0
-31.82%	5500	1100	1650	9250	10350



- 17.2.7. To calculate the impact of RE deviation at State Periphery, a virtual pool of all Intra-State Pooling Sub-Stations and Intra-State part of mixed Pooling Sub-Stations shall be formed.
- 17.2.8. To determine the impact of RE deviation at State periphery, the part of DSM weekly bill issued by the WRPC shall be apportioned to the net deviation of Intra-State RE based on applicable composite per unit rate (inclusive of additional DSM or capping DSM charge, excluding charges towards sign violation) for a particular time block.
- 17.2.9. Based on the net deviations of RE DSM Pool, total deviation charges for each time block shall be calculated at a rate arrived from the WRPC weekly bill.
- 17.2.10. Deviation charges for individual Pooling Sub-Station shall be calculated based on the permissible band as specified in Table - 1 & Table - 2.
- The charges arrived through deviations based on individual deviations shall be deducted from the total charges arrived as per Clause No. 16.2.8 and balance amount shall be considered for apportionment as State Periphery impact on all the Pooling Sub-Stations, subject to the directives of Hon'ble MERC in the matter of State Periphery Charges.
- 17.2.11. The apportionment of deviations of RE Pooling Sub-Stations shall be carried out for absolute deviation. Deviation percentage of each Pooling Sub-Station shall be carried out in percentage basis with respect to total absolute deviation depending upon whether State drawl and corresponding Injection of the RE Generators in State DSM Pool.
- 17.2.12. Absolute deviation applicable for calculating impact of RE at State level shall be carried out by way of considering deviations of all the Pooling Sub-Stations together.
- 17.2.13. The RE Pooling Sub-Stations having deviations within +/- 10 % for Solar/Wind-Solar Hybrid Generator and +/- 12% for Wind Generator may not contribute to Pooling Sub-Station level deviation, however, this Pooling Sub-Station shall impact the deviation at State Periphery.
- 17.2.14. As per the CERC Deviation Settlement Mechanism and related matters, Regulations, 2014 as amended from time to time, following scenarios for state periphery impact shall be applicable:
- a. State Overdrawing -> State Payable



- b. State Overdrawing -> State Receivable (Not possible under existing CERC regulations)
- c. State Under-drawing -> State Receivable (Within permissible frequency band)
- d. State Under-drawing -> State Payable (Frequency above permissible frequency band)

17.2.15. In Case (a) i.e. State is Overdrawing and Deviation charges at State Periphery are payable by the State, any Over-Injecting Generation within the State shall be supporting the State. Hence, impact of State periphery deviations shall not be made applicable to such Pooling Sub-Stations which are Over-Injecting. The Impact shall be made applicable to those Pooling Sub-Stations which are Under-Injecting in proportion to the absolute deviations of all the Under-Injecting Pooling Sub-Stations.

17.2.16. The Case (b) i.e. State is Overdrawing and Deviation charges at State Periphery are receivable by the State, is not possible under existing CERC DSM regime. Hence, this case is not considered in Wind/Solar Deviation Settlement.

17.2.17. Case (c) i.e. State is Under-drawing and Deviation charges at State Periphery are receivable by the State. In this case, deviations charges are receivable by the State with a cap of 250 MW and frequency is within permissible band i.e. below 50.05 Hz. In such case, any Under-Injecting Generation within the State shall be supporting the State. However, the energy injected by Over Injecting Generators is injected at State Periphery, hence, impact of State periphery deviations shall be made applicable to such Pooling Sub-Stations which are Over-Injecting, i.e. the amount shall be paid to such Pooling Sub-Stations in proportion to the absolute deviations of all the Over-Injecting Pooling Sub-Stations. The Impact shall not be made applicable to those Pooling Sub-Stations which are Under-Injecting.

17.2.18. Case (d) i.e. State is Under-drawing and Deviation charges at State Periphery are payable by the State. In this case, deviations charges are payable by the State irrespective of the under-drawl Cap of 250 MW when frequency is above 50.05 Hz. In such case, any Under-Injecting Generation within the State shall be supporting the State. Hence, impact of State periphery deviations shall not be made applicable to such Pooling Sub-Stations which are Under-Injecting.

The Impact shall be made applicable to those Pooling Sub-Stations which are Over-Injecting in proportion to the absolute deviations of all the Over-Injecting Pooling Sub-Stations.

17.2.19. In all the above cases, if the deviations of such Pooling Sub-Stations are beyond applicable band of  $\pm 15\%$ , the deviation charges as per Table - 1 mentioned above shall be made applicable.

17.2.20. The illustrative examples are tabulated below:

**Case (a - 1) State Overdrawing -> State Payable**

Block No.	1	Net Deviation @ Periphery	1000	Total Deviation Charges @ PSS	825	Total Deviation Charges due to RE	-5000				
Block DSM Rate (Rs.)	5.00	Absolute Deviation @ Periphery	21000	Deviation Charges @ Periphery	1	DO NOT CHANGE COLOUR FIELDS					
Date	01.07.2019	DRAWAL STATUS	O/D					DRAWAL STATUS			
		SLAB	12%	15%	15%	-25%	O/D				
		RATE	1	0.25	1.5	1.5	O/D				
Sr. No.	Name of Pooling Sub-Station	Schedule (kWh)	Actual (kWh)	AVC (kWh)	Deviation (kWh)	Absolute Deviation (kWh)	% Deviation	% Contribution @ Periphery	Deviation Charges @ PSS	Deviation Charges @ Periphery	Total Deviation Charges
1	PSS-1 (O)	2500	6000	10000	3500	3500	85.00%	25.67%	1825	0	1825
2	PSS-2 (O)	3000	6000	10000	3000	3000	70.00%	14.29%	1325	1	1325
3	PSS-3 (O)	3500	6000	10000	2500	2500	35.00%	11.90%	825	1	825
4	PSS-4 (O)	4000	6000	10000	2000	2000	20.00%	8.57%	525	1	525
5	PSS-5	5000	5000	10000	0	0	0.00%	0.00%	0	0	0
6	PSS-6 (U)	6000	5000	10000	-1000	-1000	-10.00%	4.76%	0	0	0
7	PSS-7 (U)	7000	5000	10000	-2000	-2000	-20.00%	9.52%	325	0	325
8	PSS-8 (U)	8000	5000	10000	-3000	-3000	-30.00%	14.29%	1325	0	1325
9	PSS-9 (U)	9000	5000	10000	-4000	-4000	-40.00%	19.05%	2325	0	2325
Total (ABS Deviation)		48000	43000	30000	1000	21000	1.11%		825	0	3275
					U/D DEVIATION	10000					
					O/D DEVIATION	11000					

**Case (a - 2) State Overdrawing -> State Payable**

Block No.	1	Net Deviation @ Periphery	4000	Total Deviation Charges @ PSS	11275	Total Deviation Charges due to RE	-20000				
Block DSM Rate (Rs.)	5.00	Absolute Deviation @ Periphery	24000	Deviation Charges @ Periphery	870	DO NOT CHANGE COLOUR FIELDS					
Date	01.07.2019	DRAWAL STATUS	O/D					DRAWAL STATUS			
		SLAB	12%	15%	20%	>20%	O/D				
		RATE	0 <td>0.25</td> <td>0.5</td> <td>1.0</td> <td>O/D</td>	0.25	0.5	1.0	O/D				
Sr. No.	Name of Pooling Sub-Station	Schedule (kWh)	Actual (kWh)	AVC (kWh)	Deviation (kWh)	Absolute Deviation (kWh)	% Deviation	% Contribution @ Periphery	Deviation Charges @ PSS	Deviation Charges @ Periphery	Total Deviation Charges
1	PSS-1 (O)	1000	6000	10000	5000	5000	50.00%	20.83%	3525	0	3525
2	PSS-2 (O)	2000	6000	10000	4000	4000	40.00%	16.67%	1525	0	1525
3	PSS-3 (O)	3000	6000	10000	3000	3000	30.00%	12.50%	1125	0	1125
4	PSS-4 (O)	4000	6000	10000	2000	2000	20.00%	8.33%	525	0	525
5	PSS-5	5000	5000	10000	0	0	0.00%	0.00%	0	0	0
6	PSS-6 (U)	6000	5000	10000	-1000	-1000	-10.00%	4.17%	0	875	875
7	PSS-7 (U)	7000	5000	10000	-2000	-2000	-20.00%	8.33%	325	1745	2070
8	PSS-8 (U)	8000	5000	10000	-3000	-3000	-30.00%	12.50%	1325	2018	3343
9	PSS-9 (U)	9000	5000	10000	-4000	-4000	-40.00%	16.67%	2325	3490	5815
Total (ABS Deviation)		45000	43000	30000	4000	24000	4.44%		11275	8725	0
					U/D DEVIATION	10000					
					O/D DEVIATION	14000					



### Case (c) State Under-drawing -> State Receivable

Block No.	1	Net Deviation @ Periphery	-1750	Total Deviation Charges @ PSS	8825	Total Deviation Charges due to RE	8750				
Block DSM Rate (%)	5.00	Absolute Deviation @ Periphery	20250	Deviation Charges @ Periphery	8750	DO NOT CHANGE COLOUR FIELDS					
Date	01-07-2019	DRAWAL STATUS	U/D				DRAWAL STATUS				
		SLAB	1%	15%	30%	>30%	O/D				
		RATE	0	0.25	0.5	1.0	U/D				
Sr. No.	Name of Pooling Sub-Station	Schedule (kWh)	Actual (kWh)	AvC (kWh)	Deviation (kWh)	Absolute Deviation (kWh)	% Deviation	% Contribution @ Periphery	Deviation Charges @ PSS	Deviation Charges @ Periphery	Total Deviation Charges
1	PSS-1 (01)	1150	5000	10000	8750	8750	37.50%	23.72%	2375	-3547	-1472
2	PSS-2 (01)	1150	5000	10000	3250	3250	32.50%	16.05%	1375	-3074	-1499
3	PSS-3 (01)	3150	5000	10000	1750	1750	17.50%	8.64%	200	-1655	-1455
4	PSS-4 (01)	4100	5000	10000	500	500	5.00%	2.47%	0	-473	-473
5	PSS-5	5000	5000	10000	0	0	0.00%	0.00%	0	0	0
6	PSS-6 (U)	6000	5000	10000	-1000	1000	-10.00%	4.76%	0	0	0
7	PSS-7 (U)	8000	5000	10000	-1000	3000	-30.00%	14.81%	1325	0	1325
8	PSS-8 (U)	8000	5000	10000	-1000	3000	-30.00%	14.81%	1325	0	1325
9	PSS-9 (U)	9000	5000	10000	-4000	4000	-40.00%	19.76%	2325	0	2325
Total (ABS Deviation)		46750	43000	90000	-1750	30250	-1.94%		8825	-8750	8825
					U/D DEVIATION	11000					
					O/D DEVIATION	9250					

### Case (d-1) State Under-drawing -> State Payable

Block No.	1	Net Deviation @ Periphery	2000	Total Deviation Charges @ PSS	3275	Total Deviation Charges due to RE	-3200				
Block DSM Rate (%)	5.00	Absolute Deviation @ Periphery	21000	Deviation Charges @ Periphery	0	DO NOT CHANGE COLOUR FIELDS					
Date	02-07-2019	DRAWAL STATUS	U/D				DRAWAL STATUS				
		SLAB	1%	15%	30%	>30%	O/D				
		RATE	0	0.25	0.5	1.0	U/D				
Sr. No.	Name of Pooling Sub-Station	Schedule (kWh)	Actual (kWh)	AvC (kWh)	Deviation (kWh)	Absolute Deviation (kWh)	% Deviation	% Contribution @ Periphery	Deviation Charges @ PSS	Deviation Charges @ Periphery	Total Deviation Charges
1	PSS-1 (01)	2500	6000	10000	3500	3500	35.00%	16.97%	1825	0	1825
2	PSS-2 (01)	3000	6000	10000	3000	3000	30.00%	14.28%	1325	0	1325
3	PSS-3 (01)	3500	6000	10000	2500	2500	25.00%	11.90%	625	0	625
4	PSS-4 (01)	4000	6000	10000	2000	2000	20.00%	9.52%	325	0	325
5	PSS-5	5000	5000	10000	0	0	0.00%	0.00%	0	0	0
6	PSS-6 (U)	6000	5000	10000	-1000	1000	-10.00%	4.76%	0	0	0
7	PSS-7 (U)	7000	5000	10000	-2000	2000	-20.00%	9.52%	325	0	325
8	PSS-8 (U)	8000	5000	10000	-3000	3000	-30.00%	14.28%	1325	0	1325
9	PSS-9 (U)	9000	5000	10000	-4000	4000	-40.00%	19.05%	2325	0	2325
Total (ABS Deviation)		48000	43000	90000	2000	21000	1.11%		3275	0	3275
					U/D DEVIATION	10000					
					O/D DEVIATION	11000					



### Case (d-2) State Under-drawing -> State Payable

Block No.	1	Net Deviation @ Periphery	2250	Total Deviation Charges @ PSS	11775	Total Deviation Charges Due to RE	-12200				
Block DDM Rate (Rs)	5.00	Absolute Deviation @ Periphery	24250	Deviation Charges @ Periphery	0	DO NOT CHANGE (COLOUR FIELDS)					
Date	01-07-2019	DRAWAL STATUS	WD	DRAWAL STATUS							
		SW	10%	10%	10%	0/0					
		WV	0	0.25	0.1	0/0					
Sl. No.	Name of Pooling Sub-Station	Schedule (kWh)	Actual (kWh)	Avc (kWh)	Deviation (kWh)	Absolute Deviation (kWh)	% Deviation	% Contribution @ Periphery	Deviation Charges @ PSS	Deviation Charges @ Periphery	Total Deviation Charges
1	PSS-1 (U)	1250	6000	10000	-4750	-4750	-47.50%	19.59%	1075	0	1075
2	PSS-2 (U)	1750	6000	10000	-4250	-4250	-42.50%	17.52%	2075	0	2075
3	PSS-3 (U)	5250	6000	10000	-3750	-3750	-37.50%	11.44%	1075	0	1075
4	PSS-4 (U)	4500	6000	10000	-5500	-5500	-55.00%	6.19%	75	0	75
5	PSS-5 (U)	5000	5000	10000	0	0	0.00%	0.00%	0	0	0
6	PSS-6 (U)	6000	5000	10000	-1000	-1000	-10.00%	4.12%	0	0	0
7	PSS-7 (U)	8000	5000	10000	-3000	-3000	-30.00%	12.37%	1325	0	1325
8	PSS-8 (U)	9000	5000	10000	-5000	-5000	-50.00%	13.37%	1325	0	1325
9	PSS-9 (U)	9000	5000	10000	-5000	-5000	-50.00%	16.49%	2325	0	2325
Total (ABS Deviation)		44750	49000	90000	2250	24250	2.50%		11775	0	525
					WD DEVIATION	11000					
					SW DEVIATION	13250					

### 17.3. Methodology for Intra-State Transactions (Schedule Base Payment):

17.3.1. In respect of sale or self-consumption of power within Maharashtra, if the actual injected energy generation of a stand-alone Solar/Wind-Solar Hybrid Generator or the aggregate of such Solar/Wind-Solar Hybrid energy generation at a Pooling Sub-Station, as the case may be, differs from the scheduled Solar/Wind-Solar Hybrid energy generation, the Deviation Charge for the excess shall be paid back from the Pool Account to the QCA, through the SLDC, as specified in Table-7 below:



**Table - 7: Deviation Charge for over-injection for sale or self-consumption of Solar or Wind-Solar Hybrid Generation within Maharashtra.**

Sr. No.	Absolute Error in %age terms in 15-minute time block	Deviation Charge for over-injection Solar or Wind-Solar Hybrid payable from Pool Account subject to ceiling rate (#) in the respective Absolute Error band
1	< = 10%	At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 10%*
2	>10% but <=12%	(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 10% and (+) (ii) At 90% of the Contract rate, or in the absence of the contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 10% and upto 12%



3	> 12% but ≤15%	<p>(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 10%</p> <p>and (+)</p> <p>(ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 10% and upto 12%</p> <p>and (+)</p> <p>(iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 12% and upto 15%</p>
4	>15%	<p>(i) At Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess up to 10%</p> <p>and (+)</p> <p>(ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 10% and upto 12%</p> <p>and (+)</p> <p>(iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 12% and up to 15%</p> <p>and (+)</p> <p>(iv) At Nil rate for the respective time block for the balance excess beyond 15%</p>

[\* : subject to the conditions specified in Regulation 12]

[# : No ceiling rate to be applied during Trial Mode, however, after completion of Trial Mode the Commission may notify such ceiling rate as deemed appropriate.]

17.3.2. In respect of sale or self-consumption of power within Maharashtra, if the actual injected energy generation of a stand-alone Solar/Wind-



Solar Hybrid Generator or the aggregate of such Solar/Wind-Solar Hybrid energy generation at a Pooling Sub-Station, as the case may be, differs from the scheduled Solar/Wind-Solar Hybrid energy generation, the Deviation Charge for the shortfall shall be payable by the QCA to the Pool Account, through the SLDC, as specified in Table-8 below:—

**Table - 8: Deviation Charge for under-injection for sale or self-consumption of Solar or Wind-Solar Hybrid Generation within Maharashtra.**

Sr. No.	Absolute Error in %age terms in 15-minute time	Deviation Charge for under-injection Solar or Wind-Solar Hybrid payable to Pool Account.
1	< = 10%	None*
2	>10% but <=12	At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 10% and upto 12%
3	> 12% but <=15%	(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 10% and upto 12% and (+) (ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 12% and upto 15%





4	>15%	<p>(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 10% and upto 12% and (+)</p> <p>(ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 12% and upto 15% and (+)</p> <p>(iii) At 50% of the Contract rate, or in the absence of the Contract rate, at 50% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 15%</p>
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[\* : subject to the conditions specified in Regulation 12]

Provided that such QCA shall pay back to the Pool Account for the total shortfall in Solar/Wind-Solar Hybrid energy generation against its schedule in any time block due to under injection, at the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges, for the respective time block.

17.3.3. In respect of sale or self-consumption of power within Maharashtra, if the actual injected energy generation of a stand-alone Wind Generator or the aggregate of such Wind energy generation at a Pooling Sub-Station, as the case may be, differs from the scheduled Wind energy generation, the Deviation Charge for the excess shall be paid back from the Pool Account to the QCA, through the SLDC, as specified in Table-9 below:—



**Table - 9: Deviation Charge for over-injection for sale or self-consumption of Wind Generation within Maharashtra.**

Sr. No.	Absolute Error in %age terms in 15-minute time block	Deviation Charge for over-injection Wind Generation payable from Pool Account subject to ceiling rate (#) in the respective Absolute Error band
1	≤ 12%	At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 12%*
2	>12% but ≤15%	(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 12% and (+) (ii) At 90% of the Contract rate, or in the absence of the contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 12% and upto 15%
3	> 15% but ≤20%	(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 12% and (+) (ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 12% and upto 15% and (+) (iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 15% and upto 20%



4	>20%	<p>(i) At Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess up to 12%</p> <p>and (+)</p> <p>(ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 12% and upto 15%</p> <p>and (+)</p> <p>(iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 15% and up to 20%</p> <p>and (+)</p> <p>(iv) At Nil rate for the respective time block for the balance excess beyond 20%</p>
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[\* : subject to the conditions specified in Regulation 12]

[# : No ceiling rate to be applied during Trial Mode, however, after completion of Trial Mode the Commission may notify such ceiling rate as deemed appropriate.]

17.3.4. In respect of sale or self-consumption of power within Maharashtra, if the actual injected energy generation of a stand-alone Wind Generator or the aggregate of such Wind energy generation at a Pooling Sub-Station, as the case may be, differs from the scheduled Wind energy generation, the Deviation Charge for the shortfall shall be payable by the QCA to the Pool Account, through the SLDC, as specified in Table-10 below:—



**Table - 10: Deviation Charge for under-injection for sale or self-consumption of Wind Generation within Maharashtra.**

Sr. No.	Absolute Error in %age terms in 15-minute time	Deviation Charge for under-injection Wind Generation payable to Pool Account.
1	$\leq 12\%$	None*
2	$>12\%$ but $\leq 15\%$	At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 12% and upto 15%
3	$> 15\%$ but $\leq 20\%$	(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 12% and upto 15% and (+) (ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 15% and upto 20%



4	>20%	<p>(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 12% and upto 15% and (+)</p> <p>(ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 15% and upto 20% and (+)</p> <p>(iii) At 50% of the Contract rate, or in the absence of the Contract rate, at 50% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 20%</p>
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[\* : subject to the conditions specified in Regulation 12]

Provided that such QCA shall pay back to the Pool Account for the total shortfall in Wind energy generation against its schedule in any time block due to under injection, at the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges, for the respective time block.

- 17.4. Calculation of impact of Wind/Solar generators at State Periphery shall be subject to revision in case the WRPC post facto revise DSM bill for concern week at any time.
- 17.5. In case of calculation of impact of Wind/Solar generators at State periphery, an amount payable to Wind/Solar generators shall be paid if sufficient balance amount is available in RE DSM pool account. However, in case sufficient balance amount is not available, payment to Wind/Solar generators on account of impact at State periphery shall be paid when sufficient balance is made up in RE DSM pool account, subject to the directives of Hon'ble MERC in the matter of State Periphery Charges.



**17.6. Methodology for Inter-State Transactions:**

17.6.1. Inter-State transactions at a Pooling Sub-Station shall be permitted only if the concerned Generator or group of generators is connected through a separate feeder.

Provided that, the Inter-State transaction(s) at a Pooling Sub-station may be permitted even when the concerned Generator is not connected through a separate feeder, if the sale of power by all other Generators connected to such Pooling Sub-station is actually settled on the basis of Scheduled Generation.

17.6.2. The Generator/s, through the QCA, shall submit a separate Schedule for its energy injection at Pooling Sub-Station, in accordance with these Regulations, to the MSLDC.

17.6.3. The Inter-State Schedule submitted by the QCA shall be grossed-up to State Periphery by applicable transmission losses at par with conventional scheduling & settlement mechanism and further shall be forwarded to Regional Load Despatch Centre (RLDC) to incorporate in the State drawl schedule.

17.6.4. The MSLDC shall prepare the deviation settlement account for such Generator on the basis of measurement of the deviation in the energy injected as specified in the amended Regulations.

17.6.5. The rate for deviation settlement shall be based on the Contract rate, or in the absence of the contract rate, weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block.

17.6.6. The Generator shall pay the Deviation Charges applicable within Maharashtra in case of deviations in the State Deviation Pool Account, the consequences of such deviation at the Inter-State level being governed by the CERC Regulations governing the Deviation Settlement Mechanism and related matters.

17.6.7. The Deviation Charges for under- or over-injection by Generators connected to the Intra-State Transmission Network and selling or consuming power outside Maharashtra shall be as specified in the Tables- A, B, C & D. The accounting for which shall be done by the SLDC limited to the Deviation in the Intra-State Transmission Network resulting from such under- or over-injection.

17.6.8. If the actual Solar/Wind-Solar Hybrid generation is lower than the scheduled Solar/Wind-Solar Hybrid generation, the Deviation

Charges for the shortfall shall be payable by the Generator through the QCA to the State Deviation Pool Account as given in Table - A below:

**Table A: Deviation Charge in case of under-injection of generation of Solar generation or Wind-Solar Hybrid generation.**

Sr. No.	Absolute Error in %age terms in 15-minute time block	Deviation Charge for under-injection of Solar generation or Wind-Solar Hybrid generation payable to State Deviation Pool Account
1	$\leq 10\%$	None
2	$>10\%$ but $\leq 12\%$	At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 10% and upto 12%
3	$>12\%$ but $\leq 15\%$	(i) At 10% of the Contract rate, or in the absence of the Contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 10% and upto 12% and (+) (ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 12% and upto 15%



4	>15%	<p>(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 10% and upto 12%</p> <p>and (+)</p> <p>(ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 12% and upto 15%</p> <p>and (+)</p> <p>At 50% of the Contract rate, or in the absence of the Contract rate, at 50% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 15%</p>
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Provided that such QCA shall pay back to the State Deviation Pool Account for the total shortfall Solar/Wind-Solar Hybrid in energy generation against its schedule in any time block due to under injection, at the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges, for the respective time block.

17.6.9.If the actual Wind generation is lower than the scheduled Wind generation, the Deviation Charges for the shortfall shall be payable by the Generator through the QCA to the State Deviation Pool Account as given in Table - B below:





**Table-B Deviation Charge for under-injection of Wind Generation.**

Sr. No.	Absolute Error in %age terms in 15-minute time block	Deviation Charge for under-injection Wind Generation payable to State Deviation Pool Account
1	$\leq 12\%$	None
2	$>12\%$ but $\leq 15\%$	At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 12% and upto 15%
3	$> 15\%$ but $\leq 20\%$	(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 12% and upto 15% and (+) (ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 15% and upto 20%
4	$>20\%$	(i) At 10% of the Contract rate, or in the absence of the contract rate, at 10% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the shortfall beyond 12% and upto 15% and (+) (ii) At 20% of the Contract rate, or in the absence of the Contract rate, at 20% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 15% and upto 20% and (+) (iii) At 50% of the Contract rate, or in the absence of the Contract rate, at 50% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance shortfall beyond 20%

Provided that such QCA shall pay back to the State Deviation Pool Account for the total shortfall Wind energy generation against its schedule in any time block due to under injection, at the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges, for the respective time block.



17.6.10.If the actual Solar/Wind-Solar Hybrid generation is higher than the scheduled Solar/Wind-Solar Hybrid generation, the Deviation Charges for the excess generation shall be payable to the Generator through the QCA from the State Deviation Pool Account, as given in Table - C below:

**Table - C: Deviation Charge for over-injection for sale or self-consumption of Solar or Wind-Solar Hybrid Generation.**

Sr. No.	Absolute Error in %age terms in 15-minute time block	Deviation Charge for over-injection of Solar generation or Wind-Solar Hybrid generation payable from State Deviation Pool Account subject to ceiling rate (#) in the respective Absolute Error band.
1	< = 10%	At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 10%
2	>10% but <=12%	(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 10% and (+) (ii) At 90% of the Contract rate, or in the absence of the contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 10% and upto 12%



3	> 12% but <=15%	<p>(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 10% and (+)</p> <p>(ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 10% and upto 12% and (+)</p> <p>(iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 12% and upto 15%</p>
4	>15%	<p>(i) At Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess up to 10% and (+)</p> <p>(ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 10% and upto 12% and (+)</p> <p>(iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 12% and up to 15% and (+)</p> <p>(iv) At Nil rate for the respective time block for the balance excess beyond 15%</p>

[# : No ceiling rate to be applied during Trial Mode, however, after completion of Trial Mode the Commission may notify such ceiling rate as deemed appropriate.]

17.6.11.If the actual Wind generation is higher than the scheduled Wind generation, the Deviation Charges for the excess generation shall be payable to the Generator through the QCA from the State Deviation Pool Account, as given in Table - D below:



**Table - D: Deviation Charge for over-injection for sale or self-consumption of Wind Generation.**

Sr. No.	Absolute Error in %age terms in 15-minute time block	Deviation Charge for over-injection Wind Generation payable from Pool Account subject to ceiling rate (#) in the respective Absolute Error band
1	< = 12%	At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 12%
2	>12% but <=15%	(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 12% and (+) (ii) At 90% of the Contract rate, or in the absence of the contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 12% and upto 15%
3	> 15% but <=20%	(i) At the Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess upto 12% and (+) (ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 12% and upto 15% and (+) (iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 15% and upto 20%



4	>20%	<p>(i) At Contract rate, or in the absence of the Contract rate, at the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block, for excess up to 12% and (+)</p> <p>(ii) At 90% of the Contract rate, or in the absence of the Contract rate, at 90% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the excess beyond 12% and upto 15% and (+)</p> <p>(iii) At 80% of the Contract rate, or in the absence of the Contract rate, at 80% of the weighted average ACP of the Day Ahead Market segments of all Power Exchanges for the respective time block for the balance excess beyond 15% and up to 20% and (+)</p> <p>(iv) At Nil rate for the respective time block for the</p>
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[# : No ceiling rate to be applied during Trial Mode, however, after completion of Trial Mode the Commission may notify such ceiling rate as deemed appropriate.]

17.6.12. During Trial mode operations the deviations in respect of Inter-State and Intra-State transactions shall be accounted separately at each Pooling Sub-Station.

17.6.13. During Trial mode operations the MSLDC shall provide separate DSM accounts for Inter-State and Intra-State transactions to the QCA, who shall settle the Deviation Charges with the concerned Generators.

17.6.14. During Trial mode operations the generator or group of generators selling power outside the State shall not be the part of apportionment of impact at State Periphery and shall not form part of virtual pool in order to avoid double settlement.



17.7. Illustrations for calculation of weighted average rate for a PSS having multiple contracts with different contract rates is as below:

PSS	01		02		03		04		05		Weighted Average Rate (Rs./kWh)
	Contracted Capacity (MW)	Contract Rate (Rs./kWh)	Contracted Capacity (MW)	Contract Rate (Rs./kWh)	Contracted Capacity (MW)	Contract Rate (Rs./kWh)	Contracted Capacity (MW)	Contract Rate (Rs./kWh)	Contracted Capacity (MW)	Contract Rate (Rs./kWh)	
P.S. - 1	10	5.00	20	4.00	30	3.00	40	2.50	5	3.50	3.21
P.S. - 2	10	3.50	30	3.50							3.25
P.S. - 3	100	3.50									3.5
P.S. - 4	50	3.00	20	3.00	5	4.00	10	3.50	20	4.50	4.04
P.S. - 5	40	7.00	30	5.00	30	5.50	10	4.50			5.82

17.8. Illustration for deviation accounting during Scheduled Generation based mechanism is as below:

Solar or Wind-Solar Pooling Sub-Station	Available Capacity (kWh)	Schedule (kWh)	Actual Injection (kWh)	Deviation (kWh)	% Deviation	Dev. Charges payable (+)/receivable (-) by Individual Pooling Sub-Stations
	(A)	(B)	(C)	(D)	(E)	(F)
W.P.S.	AvC	Sch.	Act. Inj.	Dev.	Dev.	Deviation Charges (Rs.)
P.S. - 1	35000	25000	32500	7500	21.43%	-15,954
P.S. - 2	80000	50000	52500	2500	3.13%	-8125
P.S. - 3	120000	75000	90000	15000	12.50%	-51240
P.S. - 4	90000	50000	47500	-2500	-2.78%	10100
P.S. - 5	55000	37500	20000	-17500	-31.82%	61,488
<b>Grand Total</b>	<b>380000</b>	<b>237500</b>	<b>242500</b>	<b>ABS 45000</b>	<b>11.84%</b>	<b>-3,730</b>
Net Exch. With Grid	380000	237500	242500	5000		

Absolute Error (%)	10%	12%	15%	>15%	Total Deviation
P.S. - 1	3500	700	1050	2250	7500
P.S. - 2	2500	0	0	0	2500
P.S. - 3	12000	2400	600	0	15000
P.S. - 4	2500	0	0	0	2500
P.S. - 5	5500	1100	1650	9250	17500



Rs. /kWh	Contract Rate (CR) for OI / NIL for UI	0.90*(CR) for OI / 0.10*(CR) for UI	0.80*(CR) for OI / 0.20*(CR) for UI	NIL for OI / 0.50*(CR) for UI	Deviation charges (Rs.)
Deviation (%)	10%	12%	15%	>15%	
P.S. - 1 (OI)	-11235	-2022.3	-2696.4	0	-15953.7
P.S. - 2 (OI)	-8125	0	0	0	-8125
P.S. - 3 (OI)	-42000	-7560	-1680	0	-51240
P.S. - 4 (UI)	10100	0	0	0	10100
P.S. - 5 (UI)	32010	640.2	1920.6	26917.5	61488.3

(+) Payable by QCA;

(-) Receivable by QCA

### 18. DEVIATION CHARGES PAYMENT MECHANISM:

- 18.1. All the commercial transactions shall be through Electronic Clearance System (ECS). Payments should be made through payment gateway (both ways during Schedule based regime) only.
- 18.2. The QCA shall open Bank Account in any Nationalized Bank and intimate the details of the same to MSLDC.
- 18.3. The amount of the corpus shall be the interest free amount equivalent to Rs. 25,000/- (Twenty-Five Thousand Rupees only) per MW for Solar Generation and Rs. 50,000/- (Fifty Thousand Rupees only) per MW for Wind Generation which shall be paid only by the QCA to MSLDC.
- 18.4. No corpus shall be received from individual Generators in the Pooling Sub-Stations. The QCA may enter into suitable back-to-back arrangements to avail payment security from Wind/Solar Generators that they are representing.
- 18.5. The Deviation Charges shall be paid by the QCA within ten (10) days from the issue of the accounts and billing by the MSLDC.
- 18.6. If the QCA fails to pay charges within time frame, a late payment surcharge (LPS) amounting to 1.25% per month (0.04% per day) shall be levied for the period of delay (See **ANNEXURE - 12** for LPS computation).
- 18.7. The responsibility of ensuring the payment of the Deviation Charges to the MSLDC by the QCA shall remain to that of the concerned Generators.



- 18.8. In case of Wind/Solar Generators which are State owned PSUs and the Wind/Solar Generators whose cases are currently pending before NCLT, such generators may deposit corpus amount or irrevocable revolving non-transferable e-LC to MSLDC through their QCA. The QCA may enter in to suitable back-to-back arrangements to avail payment security from RE Generators that they are representing.
- 18.9. If the QCA fails to pay deviation charges within due date from the issue of the accounts and billing, MSLDC shall utilize the corpus deposited by the QCA during registration process for payment of deviation charges on the 12<sup>th</sup> days from issue of final weekly bill.
- 18.10. In case of insufficient/exhausted corpus, QCA shall make up corpus amount within seven (7) days from receipt of such information from MSLDC. Failure to make up corpus amount within prescribed time limit, the Wind/Solargeneration which QCA is representing shall not be scheduled.
- 18.11. Set off or cross claim / counter claim for RE-DSM charges payable to the State Deviation Pool cannot be claimed by QCA / Generators for any other charges held by the SLDC against any another mechanism.
- 18.12. Recovery of RE-DSM charges: The weekly RE-DSM charges shall be recovered in any of the following manners.

**A. Payment from QCA to MSLDC:**

The payments shall be done through Electronic Clearance System (ECS) payment gateway provided on Dynamic Web Portal. The payment options available shall be a) NEFT & b) RTGS mode only.

**B. Payment from Generator to QCA:**

The payments shall be done through Direct Debit Bank (Generator Account) to Bank (QCA Account) transfer. Generator has to provide an E-Mandate/Standing instruction limited to Rs. 5000/- per MW to the QCAs bank.

Provided that QCAs & Generators shall make any alternate arrangement as per their mutual agreement to ensure timely payment from Generators to QCAs.

**C. Payment from QCA to Generator:**





The payments shall be done through Electronic Clearance System (ECS) payment gateway provided on Dynamic Web Portal. The payment options available shall be a) NEFT & b) RTGS mode only.

**D. Payment from MSLDC to QCA:**

The payments shall be done through Electronic Clearance System (ECS) payment gateway provided on Dynamic Web Portal. The payment options available shall be a) NEFT & b) RTGS mode only.

**18.13. Disbursement of RE-DSM Charges**

**General**

- a. After receipt of payment and information from the payable entities (QCAs), SLDC shall disburse the amount to receivable entities (QCAs) in their designated account within five (5) working days after the bill due date.
- b. Shortfall in collection against any bill shall result in Pro-rata reduction in disbursement to QCAs.

**18.14. Tax Deducted at Source (TDS)**

All QCAs are obligated to submit TDS certificate for any tax deducted at source from payment against any bill. The TDS certificate shall be issued by QCAs as per applicable provisions of Income Tax Act, 1961 as amended from time to time.

Provided that in case the TDS certificates are not furnished within six months after the end of the quarter, such TDS amount deducted by DIC shall be treated as outstanding amount.

**18.15. Modality of disbursements**

- a. The SLDC shall arrange to credit the disbursements to the bank accounts of QCAs directly through NEFT/RTGS. SLDC shall enter into appropriate arrangements with its bank to facilitate such disbursements. Any delays by the bank in relation to such disbursements shall not be attributable to the SLDC.

Provided that the payment shall be made by MSLDC to the QCA depending up on the availability of funds in the pool



account and no LPS shall be applicable in case of delay in payment from the State Deviation Pool Account.

- b. All disbursements by SLDC shall be executed through NEFT/RTGS. The SLDC shall, notify the QCAs of the payments made to their respective bank accounts in the form of a detailed Disbursement Advice furnishing the details of payments against the bills, based on which periodical reconciliation shall be done.
- c. The cost of NEFT/RTGS transactions or any other charges for such transactions, shall be paid from the State Deviation Pool Account.

#### 18.16. Change of Bank Account

On request of the QCAs in the prescribed format as per **ANNEXURE - 13**, SLDC shall change the Bank account details of QCAs in its records within seven (7) days of receipt of such request for disbursement of payments.

#### 18.17. Reconciliation

Quarterly Reconciliation between SLDC and QCAs

- a. After the end of the quarter, SLDC shall prepare and submit the quarterly reconciliation to the QCAs for their verification and signing.
- b. In case no observation/objection is received from the QCAs within the time after submission of reconciliation by SLDC, reconciliation shall be treated as final statement.
- c. In case, observations are received, SLDC shall review the same and submit the revised Reconciliation, if required, incorporating the observations of the QCAs along with explanation for non-consideration of QCAs observations/objections, if any.
- d. QCAs shall return the duly signed reconciliation to SLDC after final submission of reconciliation by SLDC.
- e. Any bill dispute which has not been intimated by QCAs shall not be considered in the reconciliation.
- f. Process of quarterly reconciliation shall be completed in a time bound manner as per timelines given below:



Sr. No.	Description	Timeline
1	Submission of Reconciliation Statement by SLDC	By 30 <sup>th</sup> day after each Quarter
2	Observations to be submitted by QCA's	Within next 10 days
3	Submission of revised reconciliation along with clarification to observations of QCAs (if required)	Within next 7 days
4	Signing of reconciliation by QCA's	Within next 7 days of receipt of final statement

#### 18.18. Adjustment of Payment

- a. The payment received from a QCAs shall be first adjusted towards late payment surcharge on the outstanding dues and thereafter, towards other outstanding bills, starting from the longest overdue bill (FIFO method).
- b. Payment made by QCAs shall be adjusted against the outstanding bills on First-In First-Out (FIFO) principle i.e. oldest bills shall be cleared first.

18.19. Upon gaining the experience of F&S regime and RE-Deviation Pool operation at State level, after one (1) year MSLDC may review the existing payment security mechanism and approach Hon'ble MERC for modifications in the existing mechanism.

#### 19. MECHANISM FOR MONITORING COMPLIANCE:

- 19.1. **The event of breach or default by QCA shall be as follows:**
- 19.1.1. Obtaining registration based on false information or by suppressing material information.
  - 19.1.2. Non-payment of RE DSM charges to State Deviation Pool by QCA for consecutive three (3) bills.
  - 19.1.3. Failing to top-up the forfeited Corpus Amount by QCA after receipt from Generating Company/ies within specified time lines specified in the said procedure.
  - 19.1.4. Failing to provide schedules continuously for 10 days.
  - 19.1.5. Failing to provide metering data (PSS-wise & Generator-wise) continuously for 2 billing cycles.



- 19.1.6. In case the Available Capacity (AvC) is intentionally and repeatedly mis-declared by the QCA, MSLDC shall develop appropriate system and procedure to monitor and identify mis-declaration in a timely manner.
- 19.1.7. Non-submission of accounts to MSLDC relating to de-pooling of deviations charges prepared by the QCA.
- 19.1.8. Non-submission of details of defaulting Generating Company/ies to MSLDC.
- 19.1.9. Non-compliance of any of the terms/conditions/rules outlines under this procedure.
- 19.1.10. Non-compliance of any of the directives by MSLDC as per the provisions of this regulation, procedure & any other regulation(s), rules issued by MERC & other relevant authorities from time to time.
- 19.1.11. In case of continued default for statutory compliance leading to declaration of wilful defaulter by the Judiciary & Quasi Judiciary Authority/ies.
- 19.1.12. In case the QCA has become insolvent.

**19.2. The event of breach or default by Generating Companies shall be as follows:**

- 19.2.1. Non-payment of RE DSM charges to QCA for consecutive three (3) bills.
- 19.2.2. Failing to top-up the forfeited Corpus Amount to QCA within specified time lines specified in the said procedure.
- 19.2.3. Non-Installation of SEM Meters at Individual Generating Unit (WTG/Inverter) in accordance with prevailing Regulations.
- 19.2.4. Non submission of Contract rates on duly notarized affidavit to the QCA by solar and wind generators.
- 19.2.5. Failing to provide metering data (Generating unit-wise (WTG/Invertor)) continuously for 2 billing cycles.
- 19.2.6. Non-Installation of IEDs, RTU, Communication Infrastructure, Non-Maintenance of communication link availability as per MEGC-2020.



- 19.2.7. Non-availability of real time data visibility and/or real time weather parameters continuously for three (3) days.
- 19.2.8. Obtaining registration based on false information or by suppressing material information.
- 19.2.9. Non-compliance of any of the terms/conditions/rules outlines under this procedure.
- 19.2.10. Non-compliance of any of the directives by MSLDC as per the provisions of this regulation, procedure & any other regulation(s), rules issued by MERC & other relevant authorities from time to time.
- 19.2.11. In case the Available Capacity (AvC) is intentionally and repeatedly mis-declared by the Generator to QCA.
- 19.2.12. In case Generating Company has become insolvent.
- 19.2.13. In case of continued default for statutory compliance leading to declaration of wilful defaulter by the Judiciary & Quasi Judiciary Authority/ies.

**19.3. The event of breach or default by Transmission Licensees & Distribution Licensees shall be as follows:**

- 19.3.1. Non-installation of ABT Meters having AMR facility at PSS connected to its network and submission of meter data within timelines specified in the said procedure.
- 19.3.2. Not taking actions against defaulting generators communicated by MSLDC in accordance with the provisions of the said Regulations & procedure.
- 19.3.3. Non submission of compliance report by Distribution Licensees in case of disconnection of defaulting generators communicated by MSLDC in accordance with the provisions of the said Regulations & procedure.
- 19.3.4. Non-submission of updated information of contracts (PPA/EPA) executed with Wind & Solar Generators and Open Access permission granted to the consumers in its control area having contracts with Wind & Solar Generation within timelines specified in the said procedure.

**19.4. Consequences for event of default by QCAs:**



19.4.1. In case of default for acts covered under as per 19.1 above, without prejudice to other actions as may be taken by MSLDC, the MSLDC shall issue a notice of period not less than 15 days for revocation of registration of QCA and non- scheduling of Pooling Sub-Station to which said QCA represents. Adequate opportunity shall be given to QCA to present its case before MSLDC during the notice period.

In case QCA fails to address/rectify the breach expressed by MSLDC in the Notice within stipulated time of notice, MSLDC shall proceed with revocation of registration of QCA.

In such conditions, it shall be the responsibility of the Generators connected to such PSS to appoint another QCA and ensure its registration with MSLDC. If QCA is not registered within specified timelines, complete PSS shall be disconnected from the Grid to avoid un-scheduled generation till appointment of QCA.

19.4.2. In case of default as per clause no. 19.1.4, if schedule is not provided by the QCA up to 10 days, then the previous day's final implemented schedule (d-1) for those non-submission days shall be considered and deviation charges shall be computed accordingly. The non-submission of schedule shall attract scheduling charges as per the provisions of the MSLDC's ARR approved by Hon'ble MERC as amended from time to time.

After 10 days, action as per clause no. 19.4.1 shall be initiated by MSLDC.

19.4.3. In case of default as per clause no. 19.1.6, action specified in the prevailing Regulations shall be initiated.

19.4.4. In case of default as per clause no. 19.1.8, QCA shall be responsible for erroneous computation of deviation charges from such defaulting generators and disputes arisen between QCA, Generating Companies & Distribution Licensees, if any.

19.4.5. In case of 19.1.11 & 19.1.12, it shall be the responsibility of the QCA to inform to MSLDC prior to submission of application to concerned authorities. The Corpus amount & LC, if available shall be forfeited by MSLDC.

**19.5. Consequences for event of default by Generating Companies:**

19.5.1. In case of 19.2.1 & 19.2.2, concerned Generating Company shall submit irrevocable revolving LC to MSLDC. The amount of such LC

shall be Rs.50,000/- per MW for Solar & Rs.1,00,000/- per MW for Wind Generation. The format for LC is as per **ANNEXURE – 14**.

- 19.5.2. In case of clause no. 19.2.3, action specified in the Amended Regulations, i.e. non-consideration of schedules for despatch and disconnection from the grid to avoid un-scheduled generation shall be taken by MSLDC.
- 19.5.3. In case of clause no. 19.2.4, the rates provided by Distribution Licensees shall be considered by MSLDC. Further, if no rate is made available from Distribution Licensee, then the power shall not be scheduled till submission of Contract rates on notarized affidavit by the Generating Company.
- 19.5.4. In case of clause no. 19.2.6 & 19.2.7, penalty of Rs. 5,000/- per day shall be levied to concerned Generating Company for the 1<sup>st</sup> 15 days of default. Even after 15 days default is not resolved, then action of stoppage of Schedules and disconnection from grid shall be initiated against such Generating Company. Alternatively, the generators may request STU to take necessary steps for ensuing real time visibility on behalf of the generators and the cost incurred by STU along with 15% supervision charges thereof shall be paid by the concerned generators.

However, in case of clause no. 19.2.7, if issue is in the MSLDC System then generator(s) will not be liable for specified Penalty.

- 19.5.5. In case of clause no. 19.2.11, QCA shall be liable to pay a penalty of three time the Deviation Charges that would have been applicable has the AvC been correctly declared.

The penalty shall be collected by the QCA from concerned Generating Company/ies and deposited to State Deviation Pool Account through QCA.

In case of repeated event of mis-declaration, action of stoppage of schedule & disconnected from the grid shall be initiated against such generating company/ies.

- 19.5.6. In case of consistent default for acts covered under as per 19.2 above by 51 % of the Generation Capacity in terms of combined installed capacity, without prejudice to other actions as may be taken by MSLDC, the MSLDC shall issue a notice of period not less than 15 days for revocation of registration of QCA and non-scheduling of Pooling Sub-Station to which said QCA represents & fulfilling default condition, adequate opportunity shall be given to



Generating Companies through QCA to present its case before MSLDC.

In case Generating Companies fails to address/rectify the breach expressed by MSLDC in the Notice within stipulated time of notice, MSLDC shall proceed with revocation of registration of QCA.

In such conditions, it shall be the responsibility of the Generators connected to such PSS to appoint another QCA and ensure its registration with MSLDC. If QCA is not registered within specified timelines, complete PSS shall be disconnected from the Grid to avoid un-scheduled generation till appointment of QCA.

- 19.5.7. In case of default as per clause no. 19.2.8, QCA shall be responsible for erroneous computation of deviation charges due to un-scheduled injection from such defaulting generators and disputes arisen between QCA, Generating Companies & Distribution Licensees, if any.
- 19.5.8. In case of 19.2.12 & 19.2.13, it shall be the responsibility of the QCA to inform the details of such Generating Company/ies to MSLDC. The Corpus amount & LC, if available shall be forfeited by MSLDC.

**19.6. Consequences for event of default by Transmission & Distribution Licensees:**

- 19.6.1. In case of clause no. 19.3.1, MSLDC shall carry out deviation accounting considering actual generation as 'zero' (0). Under such conditions, concerned Transmission/Distribution Licensee shall be responsible for commercial disputes arising between QCA & Generating Companies.
- 19.6.2. In case of clause no. 19.3.2 & 19.3.3, concerned Transmission/Distribution Licensee shall be responsible for commercial impact arising due to unscheduled injection and erroneous computation of deviation charges. Further, such instances shall be reported to MSPC.
- 19.6.3. In case of clause no. 19.3.4, the capacity for which contract information is available with MSLDC shall be considered for scheduling. In such case, any disputes between Generating Companies, QCAs & Distribution Licensees shall be the sole





responsibility of concerned Distribution Licensee. Such instances shall be reported to MSPC.

## **20. MARKET SUSPENSION:**

20.1. In case of any grid disturbance, the scheduled generation of concerned generating stations shall be deemed to have been revised to be equal to their actual generation for all the time blocks affected by the grid disturbance. The exact duration and certification of such grid disturbance would be declared by WRLDC or SLDC as the case may be.

Following is the list of general conditions which will qualify to be the event of Grid disturbance.

- a) Failure of National/ Regional Grid (to be notified by NLDC/ WRLDC).
- b) Failure of complete State Grid (InSTS)

Once the event is marked as Grid disturbance, MSLDC will take following actions:

- a) MSLDC shall publish the notification of market suspension mentioning the reason along with start time block and end time block on MSLDC website. Market suspension shall be declared within 72 hrs from the restoration of occurrence by the MSLDC.

During the period of Grid disturbance, the scheduled generation of concerned generating stations and scheduled drawal of concerned beneficiaries shall be deemed to have been revised to be equal to their actual generation/drawal for all the time blocks affected by the grid disturbance.

- b) Whenever the market is suspended by NLDC/WRLDC as the case may be, then only market shall be suspended for the State entities and in case of disturbances for which market suspension is not applied at regional/national level, the market suspension shall not be applied to State entities.

Further, the procedure for the settlement in the event of grid disturbance is provided under Regulations (49) (5) in IEGC-2023. During event of Market suspension, SLDC shall follow the IEGC-2023 Regulations & amendments and Procedures thereof.

## **20.2. Non-availability of MSLDC Dynamic Web-based Software:**



There is a possibility that server of MSLDC Dynamic Web-based software is not available due to planned maintenance activities or failure to all the QCAs. Also, there may be non-availability of scheduling module due to certain technical problems pertaining to scheduling module only to all the QCAs. .

The latest available schedules issued through the scheduling software before its unavailability shall be followed by the QCAs & Generating Companies, provided that any real time instruction is not issued by SLDC. Further, if any instructions provided by SLDC following steps will be followed:

**a. Software Planned shutdown:**

- Any instructions given by SLDC in real time shall be incorporated in scheduling software in post facto.
- All QCAs & Generating Companies shall be well prepared for the down period and accordingly plan their AvC & Forecasts/Schedules before start of down time of software. Further any AvC & Schedule revisions shall not be considered for the planned down time period.

Provided that in case of complete tripping of PSS, revision in AvC & Schedules shall be considered only if communicated to MSLDC in real time. In such case, the AvC & Schedules shall be revised by MSLDC from 4<sup>th</sup> time block counting the time block in which communication has been made with MSLDC and the same effect shall be passed on to the contracted beneficiary Discom in post facto.

**b. Un-planned software failure condition resulting in to non-availability of Software to all the QCAs:**

- In such case, it shall be the responsibility of all QCAs to intimate the non-availability of the System to MSLDC.
- With due verification, MSLDC shall issue notification mail to all the QCAs about non-availability of the software.

Provided that such non-availability of the system shall not be less than 4 time blocks.

- Once system is made available to all the QCAs, MSLDC shall issue notification mail to all the QCAs about availability of the System.

- Once MSLDC declares about non-availability of the System, all the schedules shall be replaced by actual generation post-facto for the duration for which system was not available. Same effect shall be passed on to the contracted beneficiary Discom in post facto.

## **21. GRIEVANCE REDRESSAL:**

- 21.1. MSLDC shall refer the Complaints regarding unfair practices, delays, discrimination, lack of information, supply of wrong information or any other matters to the Commission for redressal.
- 21.2. Any disputes between QCA and concern generators shall be governed as per the dispute resolution mechanism under their Agreement, failing which same shall be taken up before the Maharashtra State Power Committee for necessary resolution. Pending the decision of the Maharashtra State Power Committee, the directions of the MSLDC shall be complied by the QCA and concerned generator(s).

## **22. REMOVAL OF DIFFICULTIES:**

- 22.1. In case of any difficulty in implementation of this procedure, MSLDC may approach MSPC and/or the Commission for review or revision of the procedure with requisite details.

## **23. GENERAL:**

- 23.1. All costs/expenses/charges associated with the application, including bank charges, Affidavits etc. shall be borne by the applicant.
- 23.2. The Generators and QCA shall abide by the provisions of the Electricity Act, 2003, the MERC Regulations and Indian Electricity Grid Code and MERC (State Grid Code) Regulation - 2020, and applicable CERC and MERC regulations as amended from time to time.
- 23.3. This procedure aims at easy and pragmatic Forecasting, Accounting and Settlement of Deviations for Wind and Solar Generations. However, some teething problems may still be experienced. The various implications would be known only after practical experience



is gained by way of implementing these procedures. To resolve the same, this procedure shall be reviewed or revised by the MSLDC with prior approval of Commission.

During or after completion of the Trial Mode, the SLDC may re-submit the updated Detailed Procedure, stipulating the revised plan for data telemetry, revised formats of forecast submission and other revised modalities and requirements, which Commission shall endeavour to approve within fifteen (15) days thereafter.

Provided that, SLDC shall undertake stakeholder consultation by referring the updated draft procedure to the Maharashtra State Power Committee before submission to the Commission for approval.



## 24. ANNEXURES & FORMATS:

24.1. List of Annexures and Formats are listed below:

Sr. No.	Particulars	Submitted by	Annexure/Format No.
1	Consent/Authorization Letter from Generator for appointment of QCA	Generating Companies	ANNEXURE - 1
2	Generating Company-wise including individual Unit-wise (WTG/Invertor) Technical & Static data	Generating Companies & QCAs	ANNEXURE - 2
3	Real-time Data Telemetry requirement	Generating Companies, QCAs & RE Developers	ANNEXURE - 3
4	Undertaking by QCA	QCAs	ANNEXURE - 4
5	Notarized affidavit for PPA rates by Generators to QCA & MSLDC	Generating Companies & QCAs	ANNEXURE - 5
6	Format for Indemnity Bond to be submitted by QCA	QCAs	ANNEXURE - 6
7	Format for certification of Dismantling/Scrapping	Distribution Licensees	ANNEXURE - 7
8	Details of existing Wind/Solar generators connected to PSS	STU, Distribution Licensees	ANNEXURE - 8
9	Common Registry-Contract details	STU, Distribution Licensees	ANNEXURE - 9
10	Application for Registration of QCA	QCAs	ANNEXURE - 10
11	Undertaking for providing QCA services	QCAs	ANNEXURE - 11
12	LPS Calculations	---	ANNEXURE - 12
13	Change of Bank Account	QCAs	ANNEXURE - 13
14	Format for Letter of Credit (LC)	Generating Companies	ANNEXURE - 14



## **ANNEXURES AND FORMATS**



*[On the letter head of Generating Company]*

**Consent/Authorization Letter from Generator for appointment of  
QCA**

**Proforma Consent Letter**

Date :-

To,  
The Chief Engineer,  
Maharashtra State Load Despatch Centre,  
Thane-Belapur Road, P.O. Airoli,  
Navi Mumbai - 400708.

**Sub:** Appointment of M/s. <QCA Name> as a QCA for our      MW  
Solar/Wind Generation Capacity connected to      Pooling Sub-Station.

Dear Sir/Madam,

In reference to above, it is to inform you that, we M/s. <Generator Name>, hereby appoint M/s. <QCA Name> as a QCA for our      MW Solar/Wind Generation Capacity connected to <PSS Name> Pooling Sub-Station.

Further, we M/s. <Generator Name> hereby authorize M/s. <QCA Name> to provide contract wise as well as generator wise schedules and adhere to all the provisions of the MERC (Forecasting, Scheduling & Deviation Settlement for Solar & Wind Generation) Regulations, 2018 and procedures formulated therein as amended from time to time.

The details of nodal officers from our side are as follows:

Name of representative (Generator): \_\_\_\_\_

Designation: \_\_\_\_\_

Mobile No: \_\_\_\_\_

Email address: \_\_\_\_\_

Thanking you.

Yours faithfully,

Name:

Designation:

Mobile No.

E-Mail ID:

(Authorized Signatory & Seal)



**Acknowledgment by QCA:**

We, M/s. \_<QCA Name>\_, hereby acknowledge the receipt of QCA appointment Letter from M/s. \_<Generator Name>\_ for \_<PSS Name>\_. Further, we hereby undertake to coordinate with the Generator for providing any documents required by MSLDC towards QCA registration.

Sign & Seal of QCA representative: \_\_\_\_\_

Designation: \_\_\_\_\_

Mobile No: \_\_\_\_\_

Mail ID: \_\_\_\_\_





**ANNEXURE - 2****Technical Details to be submitted by the Generating Companies through QCA**

Technical Details		
Pooling station Name:		
Name of QCA:		
Name of Generator		
Sr. No.	Particulars	Details
1	Latitude (In decimal format 5 decimal- Don't add 'N' thereafter)	
2	Longitude (In decimal format 5 decimal- Don't add 'N' thereafter)	
3	Elevation and Orientation angles of arrays or concentrators	
4	The generation capacity of the Generating Facility	
5	Elevation above Mean Sea level (MSL)	
6	COD Details	
7	Rated Voltage	
8	Details of Type of Mounting: (Tracking Technology if used, single axis or dual axis, auto or manual)	
9	Manufacturer and Model: WTG: Inverter: PV Module: Transformer: Cables:	
10	DC installed Capacity	
11	PV Module Cell Technology	
12	I-V Characteristic of the Module	
13	Inverter Rating at different temperature	
14	Inverter Efficiency Curve	
15	Transformer Capacity & Rating, evacuation voltage, distance from injection point	

(\*) to be submitted in excel format.







Control Type: Stall/Pitch			
Compliant to Technical Standards as per CEA Regulations, 2019 viz. LVRT, HVRT, Frequency, Reactive Power, etc. (Yes/No)			
Power Curve (Theoretical)			
Power Curve (Manufacturer Tested)			
Individual Generator Main Meter Make			
Individual Generator Main Meter Number			
Individual Generator Check Meter Make			
Individual Generator Check Meter Number			
Feeder Number to which connected			
Voltage Level of Feeder (kV)			
Feeder Name (As per approved Single Line diagram of PSS)			
Feeder Meter (Main) Make			
Feeder Meter (Main) Number			
Feeder Meter (Check) Make			
Feeder Meter (Check) Number			
<b>PSS Details</b>			
Pooling Substation (PSS) Name			
Latitude of PSS (In decimal format 5 decimal-Don't add 'N' thereafter)			
Longitude of PSS (In decimal format 5 decimal-Don't add 'N' thereafter)			
Voltage Level of PSS (kV)			
Inter-connection point Voltage[kV]			

**Note:**

**To be submitted in excel format.**



Static Data of Solar Generation			
Name of PSS			
Name of Generator			
Name of Developer			
PV Panel Make			
PV Panel Model			
PV Panel Material			
Capacity of each Panel (Watt Peak)			
No of PV Panels			
Total DC Capacity (Watt Peak)			
Total AC Capacity			
Performance Ratio of the PV Panel in %			
DC/AC Ratio			
Orientation in degrees			
Mounting Type (Fixed/Single Axis Tracking/etc.)			
Tilt Angle of Panels (Month wise for case(s) of variable tilt) (Clubbed Information is allowed)			
Albedo			
Latitude (In decimal format 5 decimal-Don't add 'N' thereafter)			
Longitude (In decimal format 5 decimal-Don't add 'N' thereafter)			
Inverter Make & Model (Provide information separately for different make/model)			
No of Inverters			
No of Solar Modules per inverter			
Type of CSP			
Heat Transfer Fluid (Water/Molten Salt/Etc.)			
Solar Field Aperture			
Expected date of Commissioning (dd/mm/yyyy)			
I-V Characteristic of the Module			
Inverter Rating at different temperature			
Inverter Efficiency Curve			
Transformer Capacity & Rating,			



evacuation voltage, distance from injection point			
Compliant to Technical Standards as per CEA Regulations, 2019 viz. LVRT, HVRT, Frequency, Reactive Power, etc. (Yes/No)			
Power Curve (Theoretical)			
Power Curve (Manufacturer Tested)			
Individual Generator Main Meter Make			
Individual Generator Main Meter Number			
Individual Generator Check Meter Make			
Individual Generator Check Meter Number			
Feeder Number to which connected			
Voltage Level of Feeder (kV)			
Feeder Name (As per approved Single Line diagram of PSS)			
Feeder Meter (Main) Make			
Feeder Meter (Main) Number			
Feeder Meter (Check) Make			
Feeder Meter (Check) Number			
<b>PSS Details</b>			
Pooling Substation (PSS) Name			
Latitude of PSS (In decimal format 5 decimal-Don't add 'N' thereafter)			
Longitude of PSS (In decimal format 5 decimal-Don't add 'N' thereafter)			
Voltage Level of PSS (kV)			
Inter-connection point Voltage(kV)			

**Note:**

**To be submitted in excel format. Please fill details separately for different PV Module, Invertor make & models.**



## ANNEXURE - 3A

**Checklist of Standard data points for RE Generators for providing real time data in REMC, MSLDC Airoli, ALDC Ambazari & other control centres, if any.**

Sr. No.	Details of RE Generators (Wind / Solar)	Remark
1)	Name of RE Developer	
2)	Location (Village, Tal, District)	
3)	Total Installed Capacity	
4)	Total Number of Units with details	
5)	Name of PSS	
	i) Address and Contact Details with email id:	
	ii) RE Developers	
	iii) QCA	
	iv) Number of Generating Units/WTG	
	v) Integrator	

### Standard Data Points parameters

Sr No.	Parameter Type	400kV/220kV/132kV/33kV/11kV Wind/Solar	
1	Analog Data	Active Power (MW)	All Feeder, T/F, Generation unit wise
		Reactive Power (MVar)	All Feeder, T/F, Generation unit wise
		Voltage (kV)	All Bus Voltage, Voltage at interconnection point
		Frequency (Hz)	All Bus Frequency
2	Digital Data	Breaker Status (CB)	All Feeder, T/F (HV & LV), Turbine, Inverter
		Isolator status (ISO)	All Feeder, T/F Isolator Status (ISO) (HV & LV), Turbine, Inverter (above 11kV)
3	Trip Alarms	Master Trip, Dist Main, OC/EF Alarms	All Feeder, T/F (HV & LV), Turbine, Inverter
4	Point to Point Testing	It is mandatory for all the new RE Generators to be carry out point to point testing of each parameter as per SLD (single line diagram).	
5	Parameters for Wind turbine generating plants	<ul style="list-style-type: none"> <li>• Turbine Generation (MW/MVAR)</li> <li>• Wind Speed (meter/second)</li> <li>• Generator Status (on/off-line)- this is required for calculation of availability of the WTG</li> <li>• Wind Direction (degrees from true north)</li> <li>• Voltage (Volt)</li> <li>• Ambient air temperature (°C)</li> </ul>	



		<ul style="list-style-type: none"> <li>• Barometric pressure (Pascal)</li> <li>• Relative humidity (in percent)</li> <li>• Air Density (kg/m<sup>3</sup>)</li> </ul>
6	Parameters for Solar Generating Plants	<ul style="list-style-type: none"> <li>• Solar Generation unit/ Inverter-wise (MW and MVAR)</li> <li>• Voltage at interconnection point (Volt)</li> <li>• Generator/Inverter Status (on/off-line)</li> <li>• Global horizontal irradiance (GHI) (Watt/m<sup>2</sup>)</li> <li>• Ambient temperature (°C)</li> <li>• Diffuse Irradiance (Watt/m<sup>2</sup>)</li> <li>• Direct Irradiance (Watt/m<sup>2</sup>)</li> <li>• Sun-rise and sunset timings</li> <li>• Cloud cover (Okta)</li> <li>• Rainfall (mm)</li> <li>• Relative humidity (%)</li> <li>• Performance Ratio</li> </ul>

Note: I/O signal list will be conveyed on the basis of Electrical Inspector approved SLD (single line diagram) of respective station.

Seal & Signature





**UNDERTAKING from RE Developer**

I \_\_\_\_\_ aged about \_\_\_\_\_ years, residing at \_\_\_\_\_, is an authorized representative of M/s \_\_\_\_\_ and is working as \_\_\_\_\_ in the said organization, herein after for the sake of brevity be called "Applicant" (which includes its heirs, representatives, assignees etc). That there is a need of providing real time data for our plant located at \_\_\_\_\_ taluka \_\_\_\_\_ District \_\_\_\_\_, thus, applicant has approached MAHARASHTRA STATE LOAD DISPATCH CENTRE (SLDC).

In this regards, it is required to issue concurrence/approval from MSLDC for providing real time data to ALDC & MSLDC as per the regulations. According Applicant has applied to Chief Engineer, MSLDC, Airoli seeking permission to provide RTU and receiving equipment at MSLDC for providing Real time data to MSLDC.

I, the applicant is fully Authorized on behalf of my aforesaid firm for executing this irrevocable and unconditional undertaking, which I do hereby undertake, for making arrangements for providing real time data at SLDC, as under:

1. At present, RTU and allied equipment(s) is installed at applicant's premises, which is mandatory and should be functioning properly as per prevailing regulation to facilitate MSLDC in real time monitoring.
2. I hereby agree to make payment for the expenses towards integration of real time data of my aforesaid firm toward 128 Kbps communication channel including router at MSLDC end and CAT6 cables from router to SCADA system.
3. I hereby agree to make necessary technical changes of equipment installed at our end and receiving end as per MSLDC guidelines in future for technical upgradation at ALDC and MSLDC at our own cost.
4. I hereby agree to make necessary arrangements to provide real time data visibility at Both Main Control Center (MSLDC) & Backup Control Center (ALDC) at our cost.

In case our firm/Applicant is unable to comply and/or have defaulted in fulfilling any of the above conditions, then MSLDC shall



have right to take further action as per regulations, our firm/Applicant shall have no rights in any manner to raise any dispute/claim/compensation etc of whatsoever manner in this regard, & it shall be acceptable to us unconditionally.

I, execute this undertaking on this \_\_\_ day of \_\_\_ month, \_\_\_ year at \_\_\_\_\_

Seal & Signature



**Format for undertaking**

**(To be submitted by QCA on notarized affidavit on non-judiciary Stamp Paper)**

M/s. \_\_\_\_\_ (name of QCA) \_\_\_\_\_, hereby undertake that:

- 1) We shall abide by all the provisions of the MERC (Forecasting, Scheduling & Deviation Settlement for Solar & Wind Generation) Regulations, 2018, and its subsequent amendments and Procedure thereof.
- 2) We shall abide by all the instructions issued by MSLDC and act accordingly as per the specified timelines.
- 3) We shall submit PSS-wise and Individual Generator-wise and individual generating unit (WTG/Invertor)-wise schedules to MSLDC on behalf of the Generating Companies to whom we are representing as a QCA.
- 4) We shall undertake all the operational & commercial responsibilities for a PSS to which we have registered as a QCA on behalf of the Generating Companies to whom we are representing as a QCA.
- 5) Any disputes between us & Generating Companies shall be resolved as per our inter-se agreement with the Generating companies and we hereby keep MSLDC indemnified at all time and shall undertake to indemnify, defend, and save the MSLDC harmless from any of such disputes.
- 6) We shall maintain all the information of Schedules, Deviations, information (Technical & Commercial) of Generating Companies, etc confidential.
- 7) We shall not hold any payments received from Generating Companies made towards Corpus amount, Deviation charges, any other charges as levied by MSLDC, etc.

Name of Pooling Sub-Station: \_\_\_\_\_

Date: \_\_\_\_\_

Sign: \_\_\_\_\_

Place: \_\_\_\_\_

Authorized Signatory

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Name of QCA: \_\_\_\_\_

Seal: \_\_\_\_\_



**ANNEXURE - 5**

**(To be submitted on Notarized Affidavit)**

**Pooling Sub-Station Name:** \_\_\_\_\_

**Pooling Sub-Station No.:** \_\_\_\_\_

**Name of QCA:** \_\_\_\_\_

Sr. No.	Name of Generator	Installed Capacity (MW)	Contracted Capacity (MW)	Type of Sale (Discom/ Third Party/ Captive)	Name of Discom in whose area power is withdrawn	Contract Type LTDA/MTOA /STOA)	Ex-Bus PPA Rate (Rs.)	Effective Date of Contract	Expiry Date of Contract
1									
2									
3									

**Date:** \_\_\_\_\_

**Place:** \_\_\_\_\_

**Sign:** \_\_\_\_\_

**Authorized Signatory**

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Name of Generator:** \_\_\_\_\_

**Seal:**



(On the Non-Judiciary Stamp Paper)

**INDEMNIFICATION**

The Renewable Energy generator and QCA shall keep MSLDC indemnified at all time and shall undertake to indemnify, defend and save the MSLDC 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 Registration of QCA under DSM Mechanism.

The Renewable Energy generator and QCA shall keep MSLDC indemnified at all time and shall undertake to indemnify, defend and save the MSLDC harmless from any and all damages, losses, claims and actions, arising out of disputes with MSLDC, as well as with generators and QCA inclusive of confidentiality issues.

Name of Pooling Sub-Station: \_\_\_\_\_

Type of Generation: Wind / Solar

Installed Capacity (MW): \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Sign: \_\_\_\_\_

Authorized Signatory

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Name of QCA: \_\_\_\_\_

Seal:



**ANNEXURE - 7**

*[On the letter head of Distribution Licensee in whose area  
Generating unit (WTG/Invertor) is located]*

**Certificate of Dismantling Scrapping of Wind / Solar  
Generator**

This is to certify that the following generator is dismantled/scrapped  
(Strike out which is not applicable). The details for the generator are as  
follows.

PSS Name :  
Unique ID in Common Registry :  
Name of Generator :  
Generator Location No. :  
Capacity of Generator :  
Feeder Name & Code :  
Reason for dismantling/scrapping :  
Name of the QCA :  
Date of dismantling/scrapping :

The said generator will not be in service from the date mentioned above.

Date :

Place :

Signature & Seal of Discom  
authority

(Not below the rank of Ex. Engineer)



## ANNEXURE - 8

(To be submitted by STU & Distribution Licensees in excel format)

**Pooling Sub-Station Name:** \_\_\_\_\_

**Type of Generation (Wind/Solar/Hybrid):** \_\_\_\_\_

**Total Installed Capacity:** \_\_\_\_\_ MW (Wind: \_\_\_\_; Solar: \_\_\_\_)\*

(\* In case of hybrid Pooling Sub-Station)

Sr. No.	Name of PSS	Name of Generator	E-mail ID of Generator	Phone No. of Generator	WTG/Solar Module ID	Capacity of each WTG/Solar Module	Latitude of each WTG/Solar Module	Longitude of each WTG/Solar Module	Make of WTG/Solar Module	Date of Commissioning of WTG/Solar Module	Feeder No. to which connected



**ANNEXURE - 9**

**Format for Dynamic Common Registry**

**(To be provided/updated by STU & Distribution Licensees on monthly basis and as & when contract/Open Access is updated)**

Index No.	SR No.	Voltage Level (KV)	Name of PS	Name of Generator	TURBINE ID / Location No.	Output Paid 1 (MW)	RE-PSM Paid 2 (MW)	Payment Security Mechanism (M)	UNIT	UNIT	DISCOM	Validity from	Validity To	VALIDITY DAYS	TYPE OF CONTRACT	Name	Capacity (MW)	Date of Commission	Developer Name





**ANNEXURE - 10**

**Application to be submitted for Registration as a Qualified Co-ordinating Agency (QCA) under the MERC (Forecasting, Accounting and Deviation Charge Settlement of Solar & Wind Generation) Regulations, 2018 & amendments thereunder.**

Sr. No.	Name of the QCA	
1	Type of Generation	Wind / Solar / Hybrid (Wind + Solar)
2	Pooling Sub-Station (PSS) details	
	Name of PSS	
	Location of PSS	
	Village	
	Taluka	
	District	
	Latitude of PSS (In decimal format 5 decimal-Don't add 'N' thereafter)	
	Longitude of PSS (In decimal format 5 decimal-Don't add 'N' thereafter)	
	SLD of PSS indicating metering Arrangement	
Total Installed Capacity of Generation (MW)		
3	Generation Details	
	Single/Multiple Generating Companies	Single / Multiple
	In case of Multiple, total No. of Generating Companies	
	Whether Authorization received for 100 % capacity or less from Generating Companies	100 % / below 100 %
	In case, authorization is below 100 %, capacity for which authorization is received	<i>(Provide capacity of authorization in terms of MW &amp; %)</i>
Whether Consent Letters attached?	YES / NO <i>(If consent letters are not attached, application shall not be processed)</i>	
4	Metering Details at PSS level Meter Make & No.	Main Meter:
		Check Meter:
5	Contact Details of the Nodal Person	Name: Designation: Landline Number:



		Mobile Number: Fax Number: E - Mail Address:
	Contact Details of the Alternate Nodal Person	Name: Designation: Landline Number: Mobile Number: Fax Number: E - Mail Address:
	Contact Details of Control Room for Communication on Forecasting, Scheduling, Revisions, event of Curtailments etc.	Landline Number: Mobile Number: Fax Number: E - Mail Address:
6	Payment Details of QCA Registration fees paid to MSLDC:	
7	Payment Details of Corpus Amount deposited with MSLDC	
8	List of attachments as per Procedure	<i>(Please add details of attachments in separate row)</i>

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Sign: \_\_\_\_\_

Authorized Signatory

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Name of QCA: \_\_\_\_\_

Seal:



**Undertaking for providing QCA services at same rate to  
Generating Companies**

**(To be submitted by QCA on letter head in case of QCA allotment to  
un-registered PSS)**

Date:

To,  
The Chief Engineer,  
Maharashtra State Load Dispatch Centre,  
Thane-Belapur Road, P.O. Airoli,  
Navi Mumbai - 400 708.

Sub : Undertaking for providing various Services as per the MERC  
(Forecasting, Scheduling and Deviation Settlement for Solar and  
Wind Generation) Regulations, 2018 & amendments thereunder.

Ref: 1) Letter from MSLDC No. \_\_\_\_\_, dated \_\_\_\_\_.

Dear Sir/Madam,

In response to letter received from your office, M/s. \_\_\_\_\_ (Name of  
QCA) hereby undertake that for \_\_\_\_\_ (Name of PSS) \_\_\_\_\_, shall provide all  
the required services entrusted to QCA by the Regulations and  
procedures to all the Generators connected to said PSS.

Further, we undertake to the generators of \_\_\_\_\_ (Name of PSS) \_\_\_\_\_ that, we  
shall charge same rate for various activities as charged to the generators  
connected to the \_\_\_\_\_ (Name of PSS) \_\_\_\_\_ adjacent to the said PSS.

We shall abide by the provisions of the said regulations and procedures  
and in case the generations appoint another QCA at any stage of time, we  
shall smoothly handover the details to newly appointed QCA or  
Generators.

Within (3 days) we shall submit application for Registration as a QCA for  
the said \_\_\_\_\_ (Name of PSS) \_\_\_\_\_ to MSLDC.

This is for your kind information and records.

Regards,

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Sign: \_\_\_\_\_

Authorized Signatory

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Name of Generator: \_\_\_\_\_

Seal: \_\_\_\_\_



**Late Payment Surcharge (LPS) computation for a PSS**

Name of Pooling Station	Bill Period	Bill Reference Number	Billed Amount	Billing Date (original/ revised)	Due Date	Amount Paid	Payment Date	UTR	No. of delayed days	DPC on balance @1.25%	Balance amount for DPC calculation
PSS-1	08/07/2024 to 14/07/2024	MSLDC/TECH/PEDSM/99/2024/34	₹ 10,000.00	25-07-2024	04-08-2024	₹ 5,000.00	04-08-2024	com423115035363	0	₹ 0.00	₹ 5,000.00
PSS-1	08/07/2024 to 14/07/2024	MSLDC/TECH/PEDSM/99/2024/34	₹ 10,000.00	25-07-2024	04-08-2024	₹ 2,000.00	24-08-2024	com523198560414	20	₹ 46.00	₹ 3,000.00
PSS-1	08/07/2024 to 14/07/2024	MSLDC/TECH/PEDSM/99/2024/34	₹ 10,000.00	25-07-2024	04-08-2024	₹ 500.00	31-12-2024	com223199852738	133	₹ 159.60	₹ 2,500.00
PSS-1	08/07/2024 to 14/07/2024	MSLDC/TECH/PEDSM/99/2024/34	₹ 10,000.00	25-07-2024	04-08-2024	₹ 1,200.00	23-04-2025	com323271505501	250	₹ 258.00	₹ 1,300.00
PSS-1	08/07/2024 to 14/07/2024	MSLDC/TECH/PEDSM/99/2024/34	₹ 10,000.00	25-07-2024	04-08-2024	₹ 300.00	03-08-2025	com313287234264	364	₹ 189.28	₹ 1,000.00
<b>Total DPC</b>										<b>₹ 638.88</b>	



(To be submitted by QCA on letter head)

**Format for Change in Bank Account**

Request for change of Account for Disbursement RE-DSM charges to QCA			
Sr. No.	Particulars	Details	Remarks
1	Name of QCA:		
2	Address of QCA :		
3	Existing Account Information:		
3.1	Account No.		
3.2	Bank		
3.3	Branch & IFSC Code		
4	New Account Information:		
4.1	Account No.		
4.2	Bank		
4.3	Branch & IFSC Code		
4.4	Branch Address:		
5	Details of Authorised Person for Change of Account		
5.1	Name:		
5.2	Designation:		
5.3	Contact No.		
6	Support Documents:		
6.1	Board Resolution Ref. (copy enclosed)		
6.2	Reason for change of Account		

(Authorized Signatory with Stamp)

Name:.....

Designation:.....



**SPECIMEN OF INLAND IRREVOCABLE REVOLVING DOCUMENTARY LETTER OF CREDIT**

Name of the Bank :-  
 Name of the Branch :-  
 Address :-  
 Fax No :-  
 Phone No :-

**BENEFICIARY COPY**

<b>BENEFICIARY</b>	:	<b>CHIEF ENGINEER (SLDC), MAHARASHTRA STATE LOAD DISPATCH CENTER, Thane-Belapur Road, P.O. Airoli Navi Mumbai Pin - 400 708. Email : cesldc@mahatransco.in Bank Details:</b>
<b>OPENERS</b>	:	<b>Name of the QCA / State Entity Address :-</b>
<b>INLAND IRREVOCABLE REVOLVING DOCUMENTARY LETTER OF CREDIT NO.</b>	:	
<b>ISSUING DATE</b>	:	
<b>EXPIRY DATE</b>	:	
<b>ADVISING BANK</b>	:	<b>BANK OF MAHARASHTRA, 01283 AIROLI, RAJKAMAL BLDG. 1ST FLOOR, 105 PLOT NO.17, SECTOR 03, NAVI MUMBAI-400708 (IFS CODE MAHB0001283)</b>
<b>LC RESTRICTED FOR NEGOTIATION WITH ADVISING BANK.</b>		
<p>THE NEGOTIATING BANK SHOULD CERTIFY THAT THE TERMS OF CREDIT HAVE BEEN FULFILLED AND PRESENT THE DOCUMENTS DIRECTLY TO US AND CLAIM REIMBURSEMENT FROM BANK _____, BRANCH _____ (NAME OF THE ISSUING BRANCH).</p>		

**AUTHORISED SIGNATORY**



**AUTHORISED SIGNATORY**

We have pleasure in advising you that we have established an **Inland Irrevocable REVOLVING Documentary Letter of Credit** in your favour (i.e. **BENEFICIARY as mentioned above**) on account of the openers, named above for a sum not exceeding **Rs. \_\_\_\_\_ (RUPEES IN WORDS)** available by beneficiary invoice for Weekly Deviation Settlement Mechanism charges at **sight** accompanied by the following documents.

<b>DOCUMENTS REQUIRED</b>
1 Weekly Invoice for Deviation Settlement Charges

Negotiating Bank (i.e. Advising Bank Branch) must send the original documents to (Name of the Bank) \_\_\_\_\_ (Name of the Branch) \_\_\_\_\_ (i.e. Issuing Bank) by Registered Mail, and certify that presentation is in accordance with the terms of this credit. We hereby engage with the drawers, endorsers and bonafide holder that the said Weekly Invoices for Deviation Settlement Mechanism charges shall be duly honoured on sight. Except as otherwise expressly stated, this credit is subject to uniform customs and practice for documentary credits (2007 Revision) international chamber of commerce Publication no. 600 ("UCP").

**SPECIAL INSTRUCTION:**

Letter of Credit will be for Rs. \_\_\_\_\_ (Rs. in words) revolving once in a month.

**GENERAL**

1. The opening, maintenance and negotiation charges of INLAND IRRECOVABLE REVOLVING DOCUMENTARY LETTER OF CREDIT shall be borne by the openers (i.e. Transmission System).
2. Chief Engineer (SLDC), MAHARASHTRA STATE LOAD DISPATCH CENTER will certify the correctness of the Weekly Deviation Settlement Mechanism charges.
3. Chief Engineer (SLDC), MAHARASHTRA STATE LOAD DISPATCH CENTER shall submit invoice for Weekly Deviation Settlement Mechanism charges for 100% amount in duplicate with a certificate stating that the bill claimed remained unpaid.

**AUTHORISED SIGNATORY**

**AUTHORISED SIGNATORY**



**Abstract of Payments to be made to MSLDC by the QCA**

Sr. No.	Reason for Payment	Amount (Rs.)	Time of Payment
1	Registration Charges	20,000/-	For each Pooling Sub-Station during Application for Registration
2	Scheduling Charges	2,250/- (#)	For every day. As per Hon'ble MERC Order dated 18.03.2019, charges have been deferred till further orders.
3	Revision in Schedules	1,000/- (#)	For every revision. As per Hon'ble MERC Order dated 18.03.2019, charges have been deferred till further orders.
4	Forecasting services	3,000/-	Per day, if availed
5	Corpus	25,000/- per MW for Solar	During Registration
		50,000/- per MW for Wind	
6	Top-up of Corpus	As required	Within 7 days from the date MSLDC issued notice for top-up
7	Any other charges	As required	As required

(#) Charges not applicable till further notification issued by Hon'ble MERC.





**Views of the Commission on separate Suggestions submitted by MSLDC along with the draft RE F&S Procedure**

**Suggestion 1: Contract Rate to be considered for Captive Transactions:-** MSDLC has stated that for Captive transactions, there is no Energy settlement rate available and hence in such case, rate needs to be specified. MSLDC has provided some alternatives for the rate to be considered.

**Commission's view:** It is observed that during consultation procedure of the draft Regulations, MSLDC has already raised this issue and the Commission has already covered its ruling on the same in the SoR. Relevant extract of the SoR is produced below:

*" 15.1 comments received*

*SLDC submitted that clarity on applicable rates in case of transactions under third party Open Access and Captive use may be provided, i.e. Contract rate between Seller and Buyer or weighted average ACP rate is to be used.*

**15.2 Analysis and Commission's Decision**

*As regards applicable rates in case of transactions under third party Open Access and Captive use may be provided, EM has already clarified that weighted average ACP of Day Ahead Market to be considered to ensure neutrality. SLDC should submit its views after Trial Mode implementation to ensure that there is no gaming."*

Thus, there is enough clarity in the SoR on this issue and SLDC needs to submit its views after Trial Mode implementation to ensure that there is no gaming.

**Suggestion 2:- Weighted average rate computation if major capacity is in exchange:** MSLDC has stated that there are chances that within a Pooling Substation (PSS) having multiple generators, major capacity is being transacted in power exchanges whereas small quantum is being transacted within the State at low fixed contract rate. Under such circumstances, the total weighted average rate at PSS at which deviations are calculated will become high as at a PSS, weighted average rate is to be computed considering all the contracts.

**Commission's view:** This issue, if arises, may be monitored by MSLDC during the trial run period of one year. Further, MSLDC, itself has stated that such situation will be monitored in the trial period. Accordingly, MSLDC needs to monitor such situation during the trial



period and carry out needful changes in the RE F&S procedure to be submitted after completion of trial run period.

**Suggestion 3:-Methodology for De-pooling:-** MSLDC has stated that as per the RE F&S Amendment Regulations, de-pooling is to be carried out based on absolute error. There are chances that while de-pooling of deviation charges within a PSS, QCA may observe surplus or deficit. MSLDC suggested that there should be methodology for de-pooling of deviation charges. MSLDC has given three alternatives for the same.

**Commission's view:** MSLDC has stated that the methodology suggested in Alternative - I & Alternative – II, will add on complexity in the de-pooling methodology, hence, Alternative – III may be considered for de-pooling. As far as Alternative III is concerned, it is observed that MSLDC has suggested the CERC's methodology which states that the de-pooling arrangement will be as per the methodology mutually agreed upon between QCA & and Generators. It is observed that since MERC RE F&S Regulations provide De-pooling based on absolute error, allowing de-pooling as per methodology mutually agreed upon between QCA & and Generators would not be consistent with the Regulations.

Further, the issue regarding methodology for de-pooling had been raised at the time public consultation of the draft regulations and in its SoR, the Commission has held as follows:

*" 20.3 ..... The Trial Mode is envisaged to gain experience on operating scheduled generation based settlement regime and its impact on Pool Account, State Deviation Pool Account and QCA/Generators, as the aggregation at Pooling Sub-Station (QCA) level and de-pooling at individual generators may not be a zero-sum game. Further, the Commission is of the opinion that providing options on 'de-pooling principle' during Trial Mode itself may defeat the purpose of Trial Mode, thereby necessitating the same de-pooling principle is followed by all QCAs at least during Trial Mode. Hence, the proposed Regulations envisage that during Trial Mode de-pooling shall be on the basis of the Absolute Error among the constituent generators at each Pooling Sub-station. During or after completion of the Trial Mode, SLDC shall suggest to the Commission specific 'de-pooling principle' to be adopted based on Trial Mode implementation results. "*

Accordingly, MSLDC may suggest specific 'de-pooling principle' to be adopted based on Trial Mode implementation results.

**Suggestion 4:- Treatment for Storage facility in Wind & Solar Projects:** MSLDC has stated that various Wind & Solar PSS will come up with storage facility. In the existing Amendment Regulations, there is no provision for such hybrid PSS. Hence, there is need to consider methodology for scheduling & deviation accounting for such Projects having storage facility.



**Commission's view:** -During public consultation of the draft Regulations, there was a suggestion to incorporate Wind and Solar Hybrid and Energy Storage system in the definition of 'New RE Projects' and to introduce separate deviation bands for wind, Solar, Wind - Solar Hybrid systems, with and without storage, etc.

While finalizing the Amendment Regulations, the Commission, in its SoR, has held as under:

*" Since, the Battery ESS/Storage technologies are at nascent stage, the Commission has decided to exclude standalone BESS/Storage from the F&S Regulations, at present. Generator at its own discretion may opt for Battery ESS to manage its deviation and deviation charges, however, in such cases respective Solar or Wind Error Bands would prevail/applicable.*

Hence, the issue has already been clarified by the Commission in its SoR.

**Suggestion 5: Intra-Day revision in Schedules:-** MSLDC has stated that as per the Regulations, total Intra-Day revisions for a PSS are restricted to 16 Nos As generators have been given responsibility of submission of schedule revisions to it's QCA, it will become difficult for the QCA to accommodate each generator's revision request while submitting final schedule to MSLDC. In such case there will be disputes among QCA & Generators.

MSLDC further stated that in the IEGC, 2023, there is no such restriction for schedule revision for WS Sellers, however, implementation time block is 7/8th depending up on submission of schedule revision request. If similar mechanism is implemented in the State, then, QCA will be able to accommodate requests received from all the generators before submitting final schedule to MSLDC.

**Commission's view:** MSLDC's suggestion cannot be accepted as it would amount to amendment to the Regulations and said suggestion may be considered and examined at the time future amendment to RE F&S Regulations.

\*\*\*\*\*XXXXXXXX\*\*\*\*\*

