

PROCEDURE FOR FORECASTING, SCHEDULING, DEVIATION
CHARGES COMPUTATION OF SOLAR WIND HYBRID
GENERATION PROJECTS

1. Introduction –

This procedure has been prepared and issued in compliance to the provisions of regulation 10(B) of Second Amendment of MPERC (Forecasting, Scheduling, Deviation Settlement Mechanism and related matters of Wind and Solar Generating Stations) Regulations 2018. This procedure shall be read in conjunction with MPERC (Forecasting, Scheduling, Deviation Settlement Mechanism and related matters of Wind and Solar Generating Stations) (FSDSM) Regulations 2018, Madhya Pradesh Electricity Grid Code (Revision-III), 2024 and MPERC (Terms and Conditions for Intra-State Open Access in Madhya Pradesh) (Revision-I) Regulations 2021 and subsequent amendments issued thereof.

2. Scope & Applicability –

The scope includes forecasting, scheduling, Deviation Charges computation and related matters of Solar Wind Hybrid Power Project. The procedure shall be applicable to:

- i. All Solar Wind Hybrid Power Projects having a combined installed capacity of 10 MW and above connected directly or via pooling station to State Grid and selling power within the State.
- ii. All Solar Wind Hybrid Power Projects having a combined installed capacity of 1 MW and above connected directly or via pooling station to State Grid and selling power outside the State under open access.
- iii. The Solar Wind Generators connected directly or via pooling station with the State Grid at the same location (co-located) or maximum at two different locations shall be considered as Solar Wind Hybrid Project. In case of connectivity at two different points, the connection with grid shall be through dedicated feeder only.

3. Appointment of QCA by Generators –

- i. The Solar Wind Generators of Hybrid Project (more than one legal owner) connected directly or via pooling stations to State Grid shall appoint a common Qualified Coordinating Agency (QCA) with a consensus and mutually agreed terms & conditions amongst the Generators. Any one of the lead Generator may also act as a QCA with the consensus among the generators connected via pooling stations to State Grid and shall be registered as a QCA at SLDC.
- ii. Solar Wind generators of the Hybrid Project (single legal owner) connected directly or via pooling station to State Grid may appoint a QCA or may act as a QCA and shall be registered as a QCA at SLDC.
- iii. If Solar Wind Generators of the Hybrid Project fail to appoint a common QCA within a period of two (2) month from the date of issue of notice by SLDC, then SLDC shall advise the concerned licensee for disconnection of defaulting generators. The licensee shall take action accordingly under intimation to SLDC.
- iv. In case more than 50% of the installed capacity of Solar Wind Generators of the Hybrid Project have consented for a particular QCA, then remaining generators shall have to appoint same agency as a QCA. In case of non-compliance of SLDC instructions, SLDC shall advise the concerned licensee to disconnect the defaulting generators from the grid. The licensee shall comply with the instructions of SLDC under intimation to SLDC.
- v. Solar Wind generators of Hybrid Project (more than one legal owner) connected directly or via pooling stations to State Grid shall submit a consent letter as per format **Annexure-I** and copy of agreement made with QCA clearly specifying the "QCA" who shall be responsible for coordinating on behalf of all the generators connected directly or via Pooling Station to State Grid on issues like forecasting, scheduling, deviation charges, metering, SCADA, and other responsibilities assigned to QCA in the MPERC (FSDSM) Regulations 2018 and subsequent amendments thereof. All wind and solar generators of Hybrid Project shall provide all the required support to the Qualified Coordinating Agency (QCA).
- vi. QCA shall be the single point of contact with SLDC on behalf of its coordinated generator(s).

4. Registration of QCA with SLDC –

- a. The QCA shall submit the consent letters and copy of agreement with Generators who have appointed him as a QCA and then apply for registration with SLDC.
- b. The QCA shall apply for registration with SLDC by submitting dully filled up application form as per the format (**Annexure-II**), Undertaking as per format (**Annexure-III**), Declaration as per format (**Annexure-IV**).
- c. The eligible QCA will be registered with SLDC and Registration No. will be provided by the SLDC. After registration with SLDC, QCA shall be treated as State Entity for the purpose of MPERC (FSDSM) Regulations 2018.
- d. Each Solar Wind Hybrid Project shall have one QCA. However, one QCA can be registered for many Hybrid Projects. In case a Solar Wind Hybrid Project (single legal owner) is connected directly or via pooling station to the State Grid, then such Project Owner can also act as a QCA and get registered with SLDC by submitting the dully filled up Application form, Undertaking & Declaration.
- e. In case QCA has obtained registration on the basis of false information or by suppressing material information, the registration of such entity shall be revoked.
- f. The registration of the QCA will be revoked on the request of majority generators who have appointed the QCA.
- g. The QCA may get their Registration cancelled from SLDC by submitting No Objection Certificate (NOC) from the concerned Generators. The Generators shall choose another QCA and get it registered before issuing NOC to old QCA.
- h. In the event of non-compliance of any of the terms / conditions / rules outlined under regulation 2(1)(s) of MPERC (FSDSM) Regulations 2018 and amendment thereof by QCA, then the registration of the QCA will be revoked by the SLDC.

5. Roles and Responsibilities of QCA –

QCA shall be the single point of contact with SLDC on behalf of all the Generators of Solar Wind Hybrid Project for the following purpose:

- i. QCA shall provide 15 minutes block wise Available Capacity and Forecasted Generation on day ahead basis with Intraday periodic revisions of the same to SLDC on behalf of all the Solar Wind Generators connected to the pooling station(s) of Hybrid Project and also coordinate with SLDC for scheduling.
- ii. QCA shall be responsible for coordination with STU / Discoms / SLDC for installation of Special Energy Meters (SEM) alongwith AMR facility (modem, antenna & SIM) and integration of SEM with AMR Server of SLDC for meter data downloading remotely at SLDC.
- iii. QCA shall ensure periodical testing and calibration of SEMs as per CEA (Installation and Operation of Meters) Regulations and M.P. Electricity Grid Code.
- iv. QCA shall undertake commercial settlement of deviation charges which includes payment / receipt of deviation charges to / from the State Deviation Pool Account on behalf of Generators.
- v. QCA shall undertake de-pooling of amount (payable / receivable) on behalf of the generators from the State Deviation Pool Account and settling them with the individual generators.
- vi. QCA shall undertake commercial settlement of all other charges on behalf of the generators as specified under these Regulations as amended from time to time.
- vii. QCA shall submit details of contracts entered by Wind and Solar Generators connected to a pooling station. QCA shall obtain PPA rates on affidavit from Generators supported by the copy of PPA and submit the same to SLDC for computation of deviation charges.

Provided that such information will not be shared to any party by SLDC without prior consent of Generators.

- viii. QCA must have a designated and qualified operator available for twenty-four (24) hours every day for contact and Communication with the SLDC, in accordance with SLDC instructions and other communication policies and protocols.
- ix. QCA shall provide Turbine / Inverter wise and pooling stations details (Static data) as per REMC format available at SLDC website www.sldcmpindia.com → RE Generator Info → REMC Format, or as required by SLDC.

- x. QCA shall co-ordinate and transmit the data of operation of Low Voltage Ride Through (LVRT) on monthly basis to SLDC.
- xi. The QCA shall maintain historical data, all turbine / inverter wise and pooling station wise SCADA data and forecasting & scheduling data of pooling station and other necessary records, registers and accounts and shall furnish the same to SLDC on request.
- xii. QCA shall ensure Available Capacity (AvC) and data exchange of other parameters from QCA to SLDC and will also ensure data transfer of Available Capacity (AvC) of individual Turbines / inverters and maintenance schedules invariably, for use of SLDC in producing power forecasts and Deviation calculations.
- xiii. QCA shall ensure transfer of turbine / inverter level SCADA data to Pooling Station in real time and from the Pooling Station to the connected Grid Substation shall be transmitted to SLDC without any interruption. The guidelines for providing telemetry data shall be as per **Annexure-V.**
- xiv. QCA shall be treated as a State Entity and shall be registered with SLDC.

6. Pre-conditions for participation in Deviation Settlement Mechanism:

Necessary preconditions and covenants for participation in Deviation Settlement Mechanism by Solar Wind Hybrid project shall be as under: -

- i. Solar Wind Hybrid Project and their QCA shall have equal and non-discriminatory treatment as regards the 'Deviation Settlement Mechanism.
- ii. Solar Wind Hybrid Project through their QCA shall inform the SLDC of all contracts they have entered into for exchange of energy.
- iii. SLDC shall take all decisions with regard to the despatching of stations after evaluating all possible network parameters, constraints, congestions in the transmission network and in the eventuality of any such network aberration, the instructions by the SLDC with regard to despatch shall be binding on all Solar Wind Hybrid Projects / QCA.

- iv. Solar Wind Hybrid Projects shall operate their equipment and loads in a manner that is consistent with the provisions of the Indian Electricity Grid Code (IEGC) and the MP Electricity Grid Code 2024 as amended from time to time.
- v. Solar Wind Hybrid Projects shall enter into BPTA (Bulk Power transmission agreement) and Connection Agreement with the transmission licensee, which shall specify the physical and operational requirements for a reliable operation and gain physical access and connection to the Intra-State Transmission System (InSTS) or enter into Connection and Use Agreement with concerned Distribution Licensee for use of distribution system, as the case may be.
- vi. SLDC shall publish all such information as required for implementation of MPERC (FSDSM) Regulations 2018 and amendment thereof for Solar Wind Hybrid Projects on its website.
- vii. All Solar Wind Hybrid Projects shall make necessary arrangements for putting up suitable SEM, capable of recording energy flows at 15-minutes intervals alongwith AMR facility (Modem, Antena & SIM) for data downloading at SLDC, at the points of injection as per CEA Regulations and MP Electricity Grid Code, as amended from time to time. Any new SEM to be installed in future shall be capable of recording the data both in 5 minutes and 15 minutes time interval.
- viii. In case of Solar Wind Hybrid Projects as state entities undertaking intra-state transactions and inter-state transactions simultaneously from their Solar Wind Hybrid Projects, then inter-state as well as intra-state transactions shall be allowed provided that such transactions are done through separate feeders connected at Lower Voltage side of the Pooling Substation and metering, scheduling, energy accounting and deviation settlement account for such feeders are maintained separately. In case of such transactions, the Lower Voltage side feeders connected at pooling substation shall be considered as pooling station for Inter and Intra State transactions.

7. Declaration of Available Capacity (AvC), Forecasting, Scheduling and Despatch:

- i. The Declaration of Available Capacity (AvC), forecasting and Scheduling of Solar Wind Hybrid Projects shall be as per the provision of MPERC (FSDSM) Regulations 2018 and Madhya Pradesh Electricity Grid Code and subsequent amendments thereof.

- ii. The scheduling period shall comprise of 96 time blocks, each of 15 minutes duration starting from 00:00 hours (IST) ending with 24:00 hours (IST). The first-time block of scheduling period shall commence from 00:00 hours (IST) to 00:15 hours {1ST}, second time block of scheduling period shall commence from 00:15 hours {1ST} to 00:30 hours (IST) and so on. Provided that from the date to be notified by the Hon'able MPERC, the scheduling period may be revised to 288 time blocks, each of 5-minutes duration starting from 00:00 hours (1ST) ending with 24:00 hours (IST). Accordingly, the Interface Metering, Energy Accounting and Deviation Settlement should be capable to undertake transactions with 5 minutes duration. All future resource planning, IT and communication system requirement and infrastructure development shall be undertaken to cater to this requirement.
- iii. QCA shall declare the AvC and forecasted generation in 15 minutes time block for each Solar Wind Hybrid Projects on behalf of Generators connected to pooling stations. The AvC and Forecast shall be declared on day ahead basis and can be revised during the real time operation. In case, Solar Wind Project is connected at same location i.e. co-located, then QCA shall declare the AvC and forecast at the pooling station of the project. In case of Solar Wind Hybrid Project connected at maximum two different locations through dedicated feeders, then QCA shall declare the aggregate AvC and forecast by combining the Avc and forecast of two different locations for the Solar Wind Hybrid Project.
- iv. QCA shall submit the Day ahead AvC and Forecast in a time block of 15 minutes for the next day to SLDC upto 06:00Hrs in the proforma (**Annexure-VI**).
- v. The schedule by such Solar Wind Hybrid Projects which are State Entities supplying Intra / Inter State power under long-term or medium term or short-term open access may be revised by giving advance notice to SLDC. The revisions can be made in accordance with the provisions of Madhya Pradesh Electricity Grid Code 2024 and amendment thereof.
- vi. QCA shall submit the Available Capacity (AvC) and forecast of Solar Wind Hybrid Projects based on availability of the generator, weather forecasting, solar insolation / irradiance, season and normal solar generation curve. The QCA shall declare AvC considering the cumulative capacity rating of the wind turbines and solar inverter that are capable of generating power in a time block but not exceeding the quantum in MW for which connectivity permission is granted and for the same transmission agreement has been executed with Licensee.

- vii. Revision in schedules by the Solar Wind Hybrid Projects selling power through collective transactions shall not be allowed.
- viii. SLDC shall create a web portal for directly uploading the AvC and Forecast by QCA. Each QCA shall be provided login ID and password. After logging-in, QCA shall be able to submit the AvC and Forecast on day ahead basis and submits revisions during real time operations. The QCA shall have to submit the AvC and Forecast through this web portal and also at mail id – **sldc.abt@mptransco.nic.in**.
- ix. QCA shall submit separate AvC and Forecast for Intra State and Inter State Transactions of Solar Wind Hybrid Projects.
- x. The forecasting of Solar Wind Hybrid Projects shall also be done by SLDC through Renewable Energy Management Centre (REMC) to facilitate safe, secure and reliable grid operation. QCA shall provide all static data, real time power system parameters and weather-related data as applicable at Turbine / Inverter Level and at pooling stations along-with turbine/inverter outage plan for forecasting by SLDC. The forecasting of Solar Wind Hybrid Projects done through REMC shall be published at SLDC website.
- xi. QCA shall have the option of accepting SLDC forecast or providing their own for scheduling by SLDC. Any commercial impact on account of deviation from schedule based on forecast chosen by the Solar Wind Hybrid Projects or QCA shall be borne by the respective Generators of Solar Wind Hybrid Projects / Pooling Stations.
- xii. On receipt of day ahead forecast of Solar Wind Hybrid Projects from QCA, SLDC shall issue the despatch schedule of Solar Wind Hybrid Projects and the same shall be uploaded on SLDC website.
- xiii. In the event of contingencies, transmission constraints, congestion in the network, threat to system security, the schedule of Solar Wind Hybrid Projects shall be curtailed by SLDC as per provisions of MPERC (FSDSM) Regulations 2018 as amended from time to time for ensuring secure and reliable grid operation.
- xiv. In case of any planned curtailment / shutdown / system constraint necessitated in certain time blocks of a day by the SLDC, Solar Wind Hybrid Projects / QCA shall be responsible to restrict the generation at site as per the directions of the SLDC and accordingly the QCA / Solar Wind Hybrid Projects shall revise the schedule.

- xv. In case of any unplanned curtailment / shutdown / tripping of transmission elements or removal of curtailment / restoration of transmission elements, the generation capacities thus reduced or increased by the Solar Wind Hybrid Projects for the immediate time blocks shall be exempted from DSM calculations (scheduled generation shall be deemed to have been revised to be equal to their actual generation) till the 4th time block after communication with SLDC, the first block being the one in which the communication to SLDC has been made.
- xvi. SLDC shall prepare 15 minutes block-wise implemented schedules of the Solar Wind Hybrid Projects (pooling station-wise) based on Forecasting and Intra-day revisions provided by QCA and shall publish the same on SLDC website within three days. The implemented Schedules issued by SLDC, shall be open to QCA's for checking / verification, for a period of five (5) days. In case of any omission / mistake is intimated by QCA, the SLDC shall forthwith make a complete check and rectify the same.
- xvii. Solar Wind Hybrid Projects are required to declare combined Available Capacity (AvC) of their project as well as Available Capacity (AvC) of individual Pooling Stations of the project correctly. If any discrepancy in declaration of AvC is noticed by SLDC during the real time operation, the same shall be treated as Gaming and reported to State Commission.

8. Metering, data collection / transmission and Communication:

- i. In case of non-receipt of meter data through AMR system installed at SLDC, it shall be responsibility of concerned Licensee to ensure and arrange manual downloading of the meter data and provide to SLDC on email ID **abtmpsem@gmail.com** within two days from the date of intimation by the SLDC. Discoms and STU shall nominate a Nodal Officer responsible for providing meter data to SLDC.
- ii. In Solar Wind Hybrid Projects, where there is no separate pooling station and feeder is directly connected at Grid Substation, Interface meter installed at the metering yard before the Grid Substation or at Grid Substation shall be considered for computation of deviation charges of Solar Wind Hybrid Project.

9. Computation of Deviation Charges:

- i. SLDC shall compute the deviation charges of qualified Solar Wind Hybrid Projects, based on the forecast submitted by the QCA / Schedules issued by SLDC and SEM data received by SLDC from concerned Discoms / STU or through AMR System.
- ii. The Deviation Charges for Solar Wind Hybrid Power Project connected at two different locations with the State Grid shall be computed by considering total aggregated meter data of Pooling Stations and total aggregated Avc & Schedule of the Solar Wind Hybrid Power Project. Provided that total transaction of power is either Inter State or Intra State from both the connected locations i.e pooling stations.
- iii. The Deviation Charges for Solar Wind Hybrid Power Project connected at two different locations with the State Grid and transacting power Inter State from one location and Intra State from another location i.e pooling station, then the Deviation Charges shall be computed separately for each type of transaction at pooling stations.
- iv. The Deviation Charges for Solar Wind Hybrid Power Project connected at only one location i.e. co-located with the State grid and transacting power Inter State as well as Intra State from the same pooling station, then the Deviation Charges shall be computed separately for each type of transaction considering the schedule and meter data of Lower Voltage side feeder(s) connected at the pooling station.
- v. The Deviation Charges of Solar Wind Hybrid Projects shall be computed on a weekly basis coinciding with the mechanism followed for Solar and Wind Generating Stations Deviation Charges Accounts.
- vi. SLDC shall publish the Deviation Charges Account of Solar Wind Hybrid Stations along with Wind and Solar Generating Stations as per MPERC (FSDSM) Regulations 2018 on SLDC website which shall be open to the respective entities for checking / verification for a period of 15 days. In case of any discrepancy is pointed out by QCA, SLDC shall forthwith make a complete check and rectify the mistake and re-publish the Deviation Charges Account on SLDC website.

- vii. In case Qualified Coordinating Agency (QCA) or Solar Wind Hybrid Stations do not furnish the available capacity and forecasted generation to SLDC. The Deviation Charges of such pooling stations shall be computed considering the available capacity and forecasted generation as Zero '0'.
- viii. The computation of Deviation Charges of Solar Wind Hybrid Stations undertaking Inter-State transactions shall be done in accordance with Table -IA and IB and that of taking Intra-State transactions shall be done in accordance with Table -III of Second amendment to MPERC (FSDSM) Regulations 2018 and amendments thereof in accordance with the provisions as outlined under following sub-clauses:
- a. Solar Wind Hybrid Generating Stations undertaking Inter-State transactions:**
- i. The Solar Wind Hybrid Stations which are state entities undertaking Inter-State transactions shall be paid as per schedule generation.
- ii. In the event of actual generation being lesser than the scheduled generation, the deviation charges for shortfall in generation shall be payable by such Solar Wind Hybrid Stations which are state entities into State Deviation Pool Account as given in Table-1A enclosed at the end of the procedure.
- iii. In the event of the actual generation being more than the scheduled generation, the Deviation Charges for excess generation shall be payable to the Solar Wind Hybrid Stations from State Deviation Pool Account as given in Table-IB enclosed at the end of the procedure.
- iv. The Fixed Rate referred under Table IA & IB is the PPA rate as determined by the Commission under section 62 of the Electricity Act 2003 or as adopted by the Commission under section 63 of the Electricity Act 2003. In case of multiple PPAs, the weighted average of the PPA rates shall be taken as the Fixed Rate. The Solar Wind Generators shall furnish the PPA rates on affidavit for the purpose of deviation charges account preparation to SLDC supported by copy of the PPA.
- v. Fixed Rate for Open Access participants where no PPA rate is available shall be the

Average Power Purchase Cost (APPC) rate at the National level, as may be determined by the Central Commission from time to time through separate order.

- vi. Regarding inter-state wheeling transactions of Solar Wind Hybrid Generating Stations as State Entities, for balancing of deemed renewable purchase obligation (RPO) compliance of buyers with respect to schedule, deviations by all Solar Wind Hybrid Generating Stations shall first be netted off for the entire pool on a monthly basis and any remaining shortfall in renewable energy generation must be balanced through purchase of equivalent Other Renewable Energy Certificates (RECs), as the case may be, by SLDC or agency maintaining the pool account by utilizing funds from the Pool Account. For positive balance of renewable energy generation, equivalent notional RECs shall be credited to the DSM Pool and carried forward for settlement in future.

b. Solar Wind Hybrid Generating Stations undertaking Intra-State transactions:

- i. The Solar Wind Hybrid Generating Stations which are State Entities undertaking Intra State transactions shall be paid as per actual generation.
- ii. In the event of actual generation of a generating station or a pooling station, as the case may be, being less or more than the scheduled generation, the deviation charges for shortfall or excess generation shall be payable by the Solar Wind Hybrid Generating Stations or the QCA, as the case may be, to the State Deviation Pool Account, as given in Table - III enclosed at the end of the procedure.
- iii. SLDC shall maintain separate records and account of time-block wise schedules, actual generation, deviations and deviation charges for all Solar Wind Hybrid Generators.
- iv. All Solar Wind Hybrid Generators shall be treated together as a virtual pool within the State Deviation Pool Account. Deviations for and within this virtual pool could be settled first at the rates and methodology stipulated above for Solar Wind Hybrid Generators.

10. Settlement of Deviation Charges:

The Settlement of Deviation Charges of Solar Wind Hybrid Generating Stations shall be done as per the provisions specified in MPERC (FSDSM) Regulations 2018 and amendment thereof, for

Wind and Solar Pooling Stations.

11. Payment Security towards Deviation Charges:

QCA shall be required to submit to SLDC the payment security in the form of a Bank Guarantee (BG) towards settlement of DSM charges of Solar Wind Hybrid Generating Stations with State Deviation Pool Account:

- i. For Solar Wind Hybrid Generation Projects- Rs.25,000/- per MW for combined installed capacity of Solar Wind Hybrid Generating Stations or for the quantum in MW for which connectivity permission is granted whichever is less.
- ii. The BG submitted shall be valid for a period of 3 years and issued by any Scheduled Commercial Bank and shall be extended from time to time as required. The payment security shall be reviewed by the SLDC every year by the end of May based on actual incidence of DSM charges during the previous financial years.
- iii. In case of failure to pay into the "State Deviation Pool Account" within the specified time of 12 days from the date of issue of statement of charges for Deviation, and payment is not made even after laps of 60 days from the date of issuance of DSM account the SLDC shall encash the BG of the concerned QCA and the concerned QCA shall recoup the same within a period of 15 days.

12. Compliance of SLDC Instructions:

Notwithstanding anything specified in these procedures, the Solar Wind Hybrid Generators and QCA shall strictly follow the instructions issued by State Load Despatch Centre on injection in the interest of grid security and grid discipline.

13. Event of default and consequences thereof:

Following events shall constitute event of default by QCA / Generators:

a) Non-payment or delay in payment of Deviation Charges by QCA/Generators.

b) Non-compliance of any of the terms / conditions / rules outlined under this

Procedure and FSDSM Regulations 2018 and amendment thereof.

Procedure for Forecasting, Scheduling and Deviation Charges computation Solar Wind Hybrid Generation Projects –

By SLDC, MPPTCL, Jabalpur.

- c) Non-compliance of any of the directives issued by SLDC, so long as such directives are not inconsistent with any of the provisions of FSDSM Regulations 2018 and amendment thereof.
- d) Obtained registration on the basis of false information or by suppressing material information.

Consequences thereof:

- a) The SLDC shall provide 15 days time to the QCA / Generators to present its case before serving the Notice for disconnection from the Grid.
- b) In case QCA/Generator fails to address/rectify the default expressed by the SLDC in the Notice within stipulated time period of 14 days, the SLDC shall proceed with revocation of registration of QCA and disconnection from grid.

14. Removal of difficulties:

In case of any difficulty in implementation of this procedure, SLDC may approach the Commission for review or revision of the procedure with requisite details for removal of difficulties.

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Table - IA: Deviation Charges in case of under injection by Solar Wind Hybrid Generating Stations as State Entities undertaking Inter-state transactions.

Sr. No.	Absolute Error in 15-minute time block.	Deviation Charges payable to State Deviation Pool Account
1.	$\leq 10\%$	At the Fixed Rate for the shortfall energy for absolute error upto 10%.
2.	$>10\%$ but $\leq 15\%$	(At the Fixed Rate for the shortfall energy for absolute error upto 10%) + (110% of the Fixed Rate for balance energy beyond 10% and upto 15%)
3.	$>15\%$	(At the Fixed Rate for the shortfall energy for absolute error upto 10%) + (110% of the Fixed Rate for balance energy beyond 10% and upto 15%) + (150% of the Fixed Rate for balance energy beyond 15%).

Table -IB: Deviation Charges in case of over injection by Solar Wind Hybrid Generating Stations as State Entities undertaking Inter-state transactions.

Sr. No.	Absolute Error in 15-minute time block.	Deviation Charges receivable from State Deviation Pool Account
1.	$\leq 10\%$	At the Fixed Rate for the excess energy upto 10%.
2.	$>10\%$ but $\leq 15\%$	(At the Fixed Rate for the excess energy upto 10%) + (90% of the Fixed Rate for excess energy beyond 10% and upto 15%)
3.	$>15\%$	(At the Fixed Rate for the excess energy upto 10%) + (90% of the Fixed Rate for excess energy beyond 10% and upto 15%) + Zero for excess energy beyond 15%)

Table -III: Deviation Charges in case of under-injection or over injection by Solar Wind Hybrid Generating Stations for sale of power within State i.e. Intra State.		
Sr. No.	Absolute Error in 15-minute time block.	Deviation Charges payable to State Deviation Pool Account
1.	$\leq 10\%$	None
2.	$> 10\%$ but $\leq 15\%$	(At the Rs 0.50 per unit for shortfall or excess energy for Absolute Error beyond 10% and upto 15%)
3.	$> 15\%$ but $\leq 20\%$	(At the Rs 0.50 per unit for shortfall or excess energy for Absolute Error beyond 10% and upto 15%) + (At the Rs 0.75 per unit for balance energy beyond 15% and upto 20%)
4.	$> 20\%$	(At the Rs 0.50 per unit for shortfall or excess energy for Absolute Error beyond 10% and upto 15%) + (At the Rs 0.75 per unit for balance energy beyond 15% and upto 20%)+(At the Rs 1.00 per unit for balance energy beyond 20%)

Consent Letter Proforma

To,

The Chief Engineer,
State Load Dispatch Centre,
MPPTCL, Nayagaon,
Jabalpur-482008.

Sub: Appointment of QCA as per MPERC (Forecasting, Scheduling, Deviation settlement Mechanism and related matters for Wind and Solar Generating Stations) Regulation, 2018 as amended from time to time.

Dear Sir,

I/We would like to inform you that I/we as the Solar Wind Hybrid Generator at (name) pooling stations have decided to exclusively appoint only as the Qualified Coordinating Agency (QCA) for Forecasting, Scheduling and Commercial Settlement, as per MPERC (Forecasting, Scheduling, Deviation settlement Mechanism and related matters for Wind and Solar Generating Stations) Regulation, 2018 as amended from time to time.

Kindly find below the details of our capacity at (Name) pooling station having MW.

Sr. No.	Customer Name	No. of WTGs / Invertors	Contact Person	Mail ID & Contact No.	Capacity in MW
1	Name	Y	Name	Mail ID and contact No.

We would like to state that henceforth the role of QCA at (Name) Pooling station will be taken care by.....

Contact Person 1.....

Address:

Phones (o)....., (M):..... (E-mail):.....

Contact Person 2:.....

(M):....., (E-mail).....

Contact Person 3:.....

(o):....., (E-mail):.....

This is for your kind information and records.

Regards,

<< Signing Authority Name >>

<< Signing Authority Designation>>

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**APPLICATION FOR REGISTRATION OF QUALIFIED COORDINATING AGENCY (QCA) WITH
SLDC**

Sr. No	Particulars	
1	Applied for - Tick the relevant	New Registration / Change of Registration / Cancel Registration
2	Name of the Qualified Coordinating Agency(QCA)	
3	Registered Address	
4	Phone No./Fax/E-mail Id of Office	
5	Phone No./Fax/E-mail Id of Control Room	
6	Nodal Officer / Contact Person - Name, Designation, Address, Mobile, Fax & Email.	
7	Pooling Station wise total Wind / Solar Generating Capacity for which QCA registration is required.	
8	Pooling Stations wise list of Generators alongwith Consent letter & Agreement with Generators is enclosed. The list includes - Pooling Station (Name & Address), Capacity in MW, Type, Voltage in KV, Grid Substation Name, Name of Generators connected with Capacity in MW).	
9	Date of Commencement of agreement between QCA and Generators.	
10	Period of agreement with Generators.	
11	Details of Registration Fee payable to SLDC (Mode / No / Date)	
12	Bank Account Details of QCA for handling DSM mechansim-	
(i)	Bank A/C No. -	
(ii)	Bank IFSC Code -	
(iii)	Name of Bank -	
(iv)	Bank Address -	
13	Undertaking:	
(i)	We hereby undertake to abide by the instructions issued by the SLDC for compliance of regulatory provisions of MPERC(Forecasting, Scheduling, Deviation Settlement Mechansim and related matters of Wind and Solar Generating Stations) Regulations 2018 and subsequent amendments thereof.	
(ii)	We also undertake to inform SLDC regarding termination / breach of the agreement if any and shall not discharge the QCA functions without valid authorisations by Generators.	
(iii)	We also agree to pay the registration fee as approved by MPERC from time to time.	
		Signature of the Authorised Officer

UNDERTAKING TO BE GIVEN BY PROSPECTIVE QCA AT THE TIME OF REGISTRATION

Name: M/s..... (Name of QCA), (Postal address)
.....

[To be provided by the QCA on a 100 Rs. stamp paper]

1. We, as a QCA will be regulated by MPERC (Forecasting, Scheduling, Deviation Settlement and related matters of Solar and Wind Generating Stations) Regulations, 2018 and subsequent amendments thereof.
2. We as a QCA shall be responsible for settlement of Deviation Charges as per the MPERC regulations for the Solar Wind Hybrid pooling station / RE Generators for which we represent as a QCA.
3. As per the MPERC Regulations, we as a QCA, agree to provide the forecasting schedules to SLDC on day-ahead basis on behalf of Solar Wind Hybrid pooling station / RE Generators connected to STU / DISCOM substations.
4. We as a QCA agree to provide the consent letter from all the generators connected to the pooling station / RE Generator for being appointed as the QCA.
5. We understand that we can revise schedules as per the Madhya Pradesh Electricity Grid Code-2024.
6. We agree that if there is any deviation from the schedule, then for such Energy, Deviation charges will be applicable as per the MPERC regulations and amended from time to time.
7. We shall be responsible for commercial settlements with the SLDC on behalf of solar wind generators connected to the Hybrid pooling station.
8. We understand that SLDC will compute the Deviation charges of pooling stations as per MPERC FSDSM Regulations 2018 and as amended and publish the same on its website on a weekly basis.
10. We as QCA will abide by MPERC (Forecasting, Scheduling, Deviation Settlement Mechanism and related matters for Wind and Solar Generating Stations) Regulation, 2018, as amended from time to time for all transactions.

11. We shall establish necessary SCADA data of the turbine / inverter and pooling station for the purpose of monitoring and billing as per procedure.

12. In the event of any fault in generating system resulting in lower generation then, we will revise the forecast and the same shall be intimated to SLDC as per the procedure.

13. We agree to pay a Bank Guarantee for the amount equivalent to Rs.25,000 per MW for Solar Wind Hybrid Generating stations.

14. We agree to provide WTG's/ Inverter wise static data and pooling stations details as per the formats specified by SLDC.

15. We agree, if payments against the Charges for Deviation Charges are delayed by more than two days i.e., beyond twelve (12) days from the date of issue of DSM account by SLDC, the defaulting QCA shall have to pay simple interest@ 0.04% for each day of delay. We further agree that in case the payment is not made by us even after a lapse of 60 days from issuance of DSM account, process to invoke BG shall be initiated by SLDC.

We are agreeing for the above terms and conditions for registering as QCA with SLDC, MPPTCL Jabalpur, Madhya Pradesh.

Details of Bank Guarantee is enclosed.

(Name and Postal address of QCA)

.....
.....

for Pooling station:

MPPTCL/DISCOM Substation Station:

Voltage level at injecting point:

List of generators connected to the pooling station along with installed capacity for which consent is obtained:

1.

2.

Declaration: All that is stated in the above is true and correct.

QCA Authorized Signatory

.....

DECLARATION

(Declaration to be signed by the M.D. /CEO/Authorised Signatory of the Applicant (QCA))

I/ We certify that all information furnished is / are true to the best of my/ our knowledge and belief.

I/We shall abide by such term and conditions that the MPERC, SLDC may impose to participate in the Forecasting, Scheduling and DSM for Solar Wind Hybrid Generating Stations from time to time.

I/ We hereby also confirm that:

I/We have obtained consent from all the generators connected to the Solar Wind Hybrid Pooling Stations as QCA and the copy of agreement is attached herewith.

S.No.	Name of Pooling Station	Name of Generator	No. of turbines / Inverters	Capacity of Each turbine/Inverter	Total Capacity	Accepted as QCA
1.						
2.						
Total capacity of Pooling Station						

INDEMNIFICATION

The Solar Wind Energy generators of Hybrid Project and QCA shall keep SLDC indemnified at all times and shall undertake to indemnify, defend and save the SLDC harmless from any and all damages, losses, claims and actions, including those relating to injury to or death of any person or damages 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 Solar Wind Energy generators of Hybrid Project and QCA shall keep SLDC indemnified at all times and shall undertake to indemnify, defend and save the SLDC harmless from any and all damages, losses, claims and actions, arising out of disputes with SLDC, as well as with generators and QCA inclusive of confidentiality issues.

Date:

Signature of the QCA.

GUIDELINES FOR PLANNING OF TELEMETRY AND VOICE COMMUNICATION

The guidelines for planning of telemetry and voice communication for Solar Wind Hybrid Project shall be same as specified in Annexure-VI (Guidelines for Planning of Telemetry and Voice Communication) of First amendment to the Madhya Pradesh Electricity Regulatory Commission (Forecasting, Scheduling, Deviation Settlement Mechanism and related matters of Wind and Solar generating Stations) Regulations, 2018.



STATE LOAD DESPATCH CENTRE - JABALPUR

AVAILABLE CAPACITY (AvC) AND FORECASTED GENERATION OF -- MW SOLAR WIND HYBRID POWER
PROJECT OF M/s ----- AT POOLING STATION IN MW

FOR DATE:
REV. NO.
TIME
REMARKS

BLK NO.	FROM TIME	TO TIME	POOLING STATION NAME	
			AVAILABLE CAPACITY (AvC) IN MW	FORECASTED GENERATION IN MW
1	0:00	0:15		
2	0:15	0:30		
3	0:30	0:45		
4	0:45	1:00		
5	1:00	1:15		
6	1:15	1:30		
7	1:30	1:45		
8	1:45	2:00		
9	2:00	2:15		
10	2:15	2:30		
11	2:30	2:45		
12	2:45	3:00		
13	3:00	3:15		
14	3:15	3:30		
15	3:30	3:45		
16	3:45	4:00		
17	4:00	4:15		
18	4:15	4:30		
19	4:30	4:45		
20	4:45	5:00		
21	5:00	5:15		
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.	.	.		
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.	.	.		
90	22:15	22:30		
91	22:30	22:45		
92	22:45	23:00		
93	23:00	23:15		
94	23:15	23:30		
95	23:30	23:45		
96	23:45	24:00		