



**Procedure for Deviation Settlement of State Entities and Energy
Accounting of the State**

In accordance with
The Maharashtra Electricity Regulatory Commission
(Deviation Settlement Mechanism and related matters) Regulations,
2019

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Approved by
Maharashtra Electricity Regulatory Commission
(Vide Letter dated 11 November, 2019)

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[Note: These Procedures for Implementation of Deviation Settlement Mechanism in Maharashtra have been formulated in pursuance of MERC (Deviation Settlement Regulations and related matter) Regulations, 2019 and the same shall be finalised upon regulatory process and approval by Hon'ble MERC. The provisions and procedures stipulated under Procedures shall be read along with MERC State Grid Code Regulations, 2006 and its amendment thereof, IEGC 2010 and its amendment thereof, MERC (Deviation Settlement Regulations and related matter) Regulations, 2019 and MERC (Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) Regulations, 2018. In case of interpretation, variation, deviation in the operating framework, if any, observed in this document, the provisions of applicable Regulations, Orders, Practice Directions and Guidelines as issued by Hon'ble MERC from time to time, shall prevail.]

Procedure for Deviation Settlement of State Entities and Energy Accounting of the State

1 Background

The Maharashtra Electricity Regulatory Commission (MERC) had issued a Suo Moto Order in case number of 42 of 2006 on 17th May, 2007 whereby it introduced the Weighted Average System Marginal Pricing (WASMP) based Balancing and Settlement Mechanism in Maharashtra. In accordance with the provisions of the Balancing and Settlement Mechanism the Maharashtra State Load Despatch Centre (MSLDC) had prepared the Balancing and Settlement Code (BSC) 4th July, 2009 and submitted to the approval of the Commission. The Commission had approved BSC vide its letter dated 26 August, 2009. The BSC was operationalised in the state from 1st August, 2011.

The Commission has reviewed its Balancing and Settlement Mechanism and introduced Deviation Settlement Mechanism (DSM) in the State vide its MERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2019, dated 1 March, 2019, hereafter referred as MERC DSM Regulations.

The MERC DSM Regulations, 2019 entrusts the responsibility of implementation of DSM framework in the State on MSLDC. As per the provisions of MERC DSM Regulations, MSLDC is required to prepare the procedure for Scheduling and Despatch and procedure for the computation of Charges for Deviation and Additional Charges for Deviation and Energy Accounting as per Principles specified in the MERC DSM Regulations, 2019. Accordingly, MSLDC prepared draft procedure for Deviation Settlement of State Entities and Energy Accounting of the State and published for stakeholder's consultation. Based on the comments received from stakeholders, MSLDC revised the draft procedure and submitted for approval of the Commission. The Commission has reviewed the draft and stakeholder's comments and MSLDC's views on it in line with provisions of MERC DSM Regulations. Accordingly, the Commission approves the DSM Procedure with some changes.

2 Definitions and Interpretations

- a) 'Act' means the Electricity Act, 2003 (36 of 2003);
- b) 'Actual drawal' in a time-block means electricity drawn by a Buyer, as the case may be, and measured by the interface meters;
- c) 'Actual injection' in a time-block means electricity generated or supplied by the Seller, as the case may be, and measured by the interface meters;
- d) 'Area Clearing Price (ACP)' means the price of a time block electricity contract established on the Power Exchange after considering all valid purchase and sale bids in particular area(s) after market splitting, i.e. dividing the market across constrained transmission corridor(s);
- e) 'Buyer' means a person, including distribution licensee, deemed distribution licensees or open access consumer, purchasing electricity through a transaction scheduled in

accordance with the Regulations applicable for short-term open access, medium-term open access and long-term access;

- f) 'Connectivity Regulations' means the Maharashtra Electricity Regulatory Commission (Transmission Open Access) Regulations, 2016 and Maharashtra Electricity Regulatory Commission (Distribution Open Access) Regulations, 2016 as amended from time to time and shall include any subsequent amendment thereof;
- g) 'Commission' means the Maharashtra Electricity Regulatory Commission referred to in sub-section (1) of section 82 of the Act;
- h) 'Day Ahead Market (DAM)' means a market where physical delivery of electricity occurs on the next day (T+1) of the date of transaction (T) and is governed by the Central Electricity Regulatory Commission (Power Market) Regulations, 2010 (as amended from time to time), the Rules and Bye-Laws of the Power Exchanges as approved by the Central Commission;
- i) 'Despatch Schedule' means ex-power plant net MW and MWh output of a generating station, scheduled to be exported to the Grid from time to time;
- j) 'Deviation' in a time-block for a Seller means its total actual injection minus its total scheduled generation and for a Buyer means its total actual drawal minus its total scheduled drawal and shall form part of the State Energy Accounts to be prepared by the State Load Despatch Centre;
- k) 'Deviation Settlement Mechanism' shall mean and include the framework for energy accounting, deviation accounting, rules for pricing of deviation(s) payable and receivable by the State entities and other design parameters as specified under Regulation 6 of MERC (Deviation settlement Mechanism and Related Matters) Regulations,2019;
- l) 'Full Open Access Consumer' shall mean Open Access Consumer connected to transmission system or distribution system but not having any contract demand with the distribution licensee within the state;
- m) 'Gaming' in relation to MERC (Deviation settlement Mechanism and Related Matters) Regulations,2019 shall mean an intentional mis-declaration of declared capacity by any Seller or intentional mis-declaration of drawal schedule by any Buyer in order to make an undue commercial gain through Charge for Deviations;
- n) 'Grid Code' means the Grid Code specified by the Commission under clause (h) of subsection (1) of Section 86 of the Act;
- o) 'Indian Electricity Grid Code' (or 'IEGC') shall mean the Grid Code specified by the Central Electricity Regulatory Commission under section 79(1)(h) of the Act;
- p) 'Interface Meters' means interface meters as defined by the Central Electricity Authority under the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time;

- q) 'Implemented schedule for Seller' means the final schedule of Seller at the end of the day (24:00hrs) after incorporating all intra-day revisions, which shall be considered for Deviation Settlement calculation;
- r) 'Implemented schedule for Buyer' means the final schedule of Buyer at the end of the day (24:00hrs) after incorporating all intra-day revisions, which shall be considered for Deviation Settlement calculation.
- s) 'Inter-State Generating Station (ISGS)' means a Central/other generating station in which two or more than two States have a share and whose scheduling is to be coordinated by RLDC;
- t) 'Intra State Generating Station (InSGS)' means a generating station connected to intra-State Transmission System whose scheduling is to be coordinated by MSLDC;
- u) 'Load Despatch Centre' means National Load Despatch Centre, Regional Load Despatch Centre or State Load Despatch Centre, as the case may be, responsible for coordinating, scheduling of the Buyers and the Sellers in accordance with the provisions of Grid Code;
- v) 'MERC DSM Regulations' refers to the regulations MERC (Deviation Settlement Mechanism and Related Matters) Regulation, 2019 notified by the Commission for the State of Maharashtra and its amendment thereof;
- w) 'MERC F&S Regulations' refers to the regulations MERC (Forecasting, Scheduling and Deviation Settlement and related matters for wind and solar) Regulations, 2018 notified by the Commission for the State of Maharashtra and its amendment thereof;
- x) 'Open Access Regulations' means the Maharashtra Electricity Regulatory Commission (Transmission Open Access) Regulations, 2016 and Maharashtra Electricity Regulatory Commission (Distribution Open Access) Regulations, 2016 as amended from time to time and shall include any subsequent amendment thereof;
- y) 'Partial Open Access Consumer' shall mean Open Access Consumer connected to transmission system or distribution system and having part of his contract demand with the distribution licensee within the state;
- z) 'Reference Frequency' for DSM computation means the frequency as recorded by WRLDC and used by WRPC for regional Deviation Settlement Mechanism for that particular time block;
- aa) 'Regional Load Despatch Centre (RLDC)' means the Centre established under sub-section (1) of Section 27 of the Act;
- bb) 'Scheduled Generation' at any time or for a time block or any period means schedule of generation in MW or MWh ex-bus given by the concerned Load Despatch Centre;
- cc) 'Scheduled Drawal' at any time or for a time block or any period time block means schedule of despatch in MW or MWh ex-bus given by the concerned Load Despatch Centre;

- dd) ‘Seller’ means a person, including a generating station or unit of generating station supplying electricity through a transaction scheduled in accordance with the Regulations applicable for short term open access, medium-term open access and long-term open access;
- ee) “Special Energy Meter” or SEM means such meters, of not less than 0.2S class accuracy, as are capable of:-
- i. Recording time-differentiated measurements of active energy and voltage differentiated measurement of reactive energy, at intervals of fifteen (15) minutes or any other shorter interval as specified by the Commission;
 - ii. Storing such measurements as specified by the State Grid Code; and
 - iii. Communication of such measurements at such intervals as may be specified by the Commission or required by the MSLDC for deviation settlement of energy transactions;
 - iv. Shall be DLMS protocol compliant, Communicable and have the intelligence to synchronize the time with GPS (Local GPS/CDCS GPS) signal.
- ff) ‘State RE Deviation Pool Account’ means the State Account for receipts and payments on account of deviations by Wind and/or Solar Energy Generators;
- gg) ‘State Deviation Pool Account’ means the State Account for receipts and payments on account of deviations by Buyers and Sellers including Wind and/or Solar Energy Generators;
- hh) ‘State Entity’ means such person who is in the MSLDC control area and whose metering and energy accounting is done at the state level;
- ii) “State Periphery” means the periphery of electrical power system and its components thereof under operational supervision and under control area jurisdiction of Maharashtra State Load Despatch Centre covering Intra-State Transmission System;
- jj) ‘Time-Block’ means a time block of 15 minutes or any such shorter duration as may be notified by Central Commission and State Commission, for which specified electrical parameters and quantities are recorded by special energy meter, with first time block starting at 00.00 hours.

Save as aforesaid and unless repugnant to the context or the subject-matter otherwise requires, words and expressions used in these Procedures and not defined, but defined in the Act, or the Grid Code or any other Regulations of this Commission shall have the meaning assigned to them respectively in the Act or the Grid Code or any other regulation as the case may be.

3 General

3.1 Objective

Objective of this Procedure is to implement commercial mechanism for Deviation Settlement through drawal and injection of electricity by users of the grid by computing

Charges for Deviation and Additional Charges for Deviation for users and preparation of State Energy Account as per Principles specified in the MERC DSM Regulations, 2019.

3.2 Applicability of Procedure

This Procedure shall be applicable for Deviation Settlement of

- A. All Seller(s) having installed generating capacity of Unit or Combined capacity of all units in the generating station above 25 MW (or such other threshold capacity), including renewable energy generators, open access generators, captive generators (excluding in-situ captive generators) connected to intra-state transmission system but excluding wind and solar generating stations(s). Forecasting, scheduling and deviation settlement related matters regarding wind and solar generation shall be governed as per the provisions of “Maharashtra Electricity Regulatory Commission (Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) Regulations, 2018” and its amendments thereof.
- B. All Buyer(s) including distribution licensee(s), deemed distribution licensee(s) located in the state and full open access consumers connected to intra-state transmission system. Deviation Settlement of partial open access consumers connected to intra-state transmission system and all open access consumers connected to distribution network shall be in accordance with the provisions of Maharashtra Electricity Regulatory Commission (Transmission Open Access) Regulations, 2016 and Maharashtra Electricity Regulatory Commission (Distribution Open Access) Regulations, 2016 and its amendment thereof.
- C. The Commercial arrangements specified under Clause (9) and (10) of MERC DSM Regulations, and the related provisions regarding Deviation Charges, Additional Charge for Deviation and penal actions if any, shall come into force from date to be notified separately through Order, which shall not be later than 1st April 2020.
- D. The Commission vide its MERC DSM Regulations has specified that, until notification of such date as referred hereinabove, the Final Balancing and Settlement Mechanism (FBSM) as approved by Commission under Order in Case 42 of 2006 along with relevant amendments from time to time shall be in operation for the purpose of energy accounting and deviation settlement in the State.

4 Roles and Responsibilities

4.1 State Entity

- 4.1.1 State Entity shall nominate a person(s) to coordinate and communicate with MSLDC for implementation of DSM framework and receipts and payments of Deviation Charges raised by MSLDC.
- 4.1.2 State Entities shall be responsible to coordinate and cooperate with MSLDC for data requirements to calculate Deviation and Energy Accounting.
- 4.1.3 State Entity shall coordinate and cooperate with MSLDC for timely payment for Deviation Charges raised by MSLDC within 10 days of the issue of statement of

Charges for Deviation including Additional Charges for Deviation into the “State Deviation Pool Account”.

4.2 Maharashtra State Load Despatch Centre (MSLDC)

- 4.2.1 MSLDC shall undertake development of appropriate DSM framework and Software for implementation of the MERC DSM Regulations.
- 4.2.2 MSLDC shall be responsible for time block-wise computation of deviation for all State Entities, based on the actual meter readings made available by State Transmission Utility (STU) at State Energy Accounting Centre at MSLDC by way of Automated Meter Reading (AMR) facilities and the implemented schedule of the state entities and preparation of State DSM Account and State Energy Account. **MSLDC shall maintain the available data of main and check meters used for DSM and Energy Accounting on its website**
- 4.2.3 MSLDC shall obtain the Regional Energy Account data for weekly DSM charges and ISGS scheduled generation from Western Region Load Despatch Centre (WRLDC).
- 4.2.4 **MSLDC shall maintain data of all schedules of Buyers and Sellers, on bar schedule, InSGS surplus etc on its website. MSLDC shall maintain all such information on its website considered for preparation of DSM bills and Energy accounting bills for the verification of bills by State Entities.**
- 4.2.5 MSLDC shall prepare weekly Deviation Account and monthly Energy Account statements.
- 4.2.6 On-line Payment facility shall be developed and maintained by MSLDC on its website for electronic payment of Deviation bills.
- 4.2.7 MSLDC shall maintain the data of deviation settlement bills and Energy Account on the MSLDC’s website and maintain the back up of data for at least 5 years.
- 4.2.8 MSLDC shall develop capability to store a repository of DSM related data for at least past 60 Months with suitable archive policy.
- 4.2.9 MSLDC shall develop detailed Manual for Meter data processing, verification and validation of the Meter data made available by STU through AMR/MRI and MDAS system, and shall publish various reports and make available relevant meter data for access by state entities on the lines of reports/procedures followed by WRLDC for regional energy accounts.

4.3 State Transmission Utility (STU)

- 4.3.1 STU shall install special energy meters including Automated Meter Reading (AMR) facilities on all G<>T and T<>D interface points for recording of actual MWh and MVARh interchanges. Installation, operation and maintenance of special energy meters shall be in accordance with Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and State Metering Code as amended from time to time.

- 4.3.2 State Transmission Utility (STU) shall make necessary arrangements for putting up suitable meters, capable of recording energy flows at 15-minute intervals or any other time interval as specified by the Commission, at the points of injection and drawal.
- 4.3.3 The time synchronisation of metering system shall be through Global Positioning System with check synchronisation with the State Energy Accounting Centre at MSLDC.
- 4.3.4 For the purpose of Meter Data processing, STU shall in consultation with MSLDC, develop, install and maintain the Meter Data Acquisition System (MDAS) software at State Energy Accounting Centre at MSLDC.
- 4.3.5 STU shall ensure that, all the interface points and interface meters are reporting in the MDAS software and share the meter data with MSLDC for DSM computation.
- 4.3.6 Any change in the interface metering infrastructure shall be carried out by STU with prior intimation to MSLDC.
- 4.3.7 STU shall ensure the availability of each interface meter data in the MDAS software at the State Energy Accounting Centre of MSLDC.
- 4.3.8 STU shall ensure upkeep, accuracy & completeness of Metering Data available to MDAS software.
- 4.3.9 STU shall ensure that, new generator/power transformer/distribution feeder shall not be charged unless it's metered data is registered and reported to MDAS software. Such new charging shall be done only after written approval from MSLDC in prescribed format.
- 4.3.10 Any SEM addition, replacement, testing and/or change in meter location shall be done with prior intimation to MSLDC.

4.4 Maharashtra State Power Committee (MSPC)

- 4.4.1 Co-ordinate and facilitate intra-state energy exchange for ensuring optimal utilisation of resources.
- 4.4.2 Monitor compliance of MERC DSM Regulations by the State Entities and submit annual compliance report to the MERC in the prescribed format within thirty days from close of financial year.
- 4.4.3 Guide the MSLDC for modification of procedure(s) to address the implementation difficulties, if any.
- 4.4.4 Provide necessary support and advice for suitable modifications/issuance of operating procedures as may be necessary.

5 Metering and Data Collection

- 5.1 STU shall install Special Energy Meters (SEM) at all G<>T and T<>D interface points of Intra-State Transmission System (InSTS) and interconnection with Inter-State Transmission System (ISTS) for recording of actual MWh and MVARh interchanges and shall be owned by STU.

The Interface Energy Meters shall be placed by STU at the interface points identified as per metering code.

- 5.2 Installation, operation and maintenance of SEMs shall be in accordance with Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 and Central Electricity Authority (Installation of Operation of meters) Amendment Regulation 2010 and Maharashtra State Grid Code including Metering Code as amended from time to time.
- 5.3 Type of meters to be installed, metering scheme, metering capability, testing and calibration requirements and scheme for collection and dissemination of meter data shall be in accordance with Indian Electricity Grid Code and Maharashtra State Grid Code.
- 5.4 All concerned entities having SEMs installed in their premises shall fully cooperate and extend necessary assistance for collecting the meter data for the purpose of Deviation Accounting as specified in this Procedure.
- 5.5 Any SEM addition, replacement, testing and/or change in meter location shall be done with prior intimation to MSLDC and MSLDC shall maintain the record of all such changes on its website.
- 5.6 Any Change/correction in CT/PT ratios to be informed immediately to MSLDC and MSLDC shall maintain the record of all such changes on its website.
- 5.7 STU shall carry out necessary time synchronisation of metering system through Global Positioning System with counter check from the State Energy Accounting Centre at MSLDC as per the procedure already in vogue/advice of MSLDC.
- 5.8 In the event of SEM meter not synchronised with MDAS, necessary time drift correction shall be made by STU in the meter within 24 hours
- 5.9 STU shall register all the interface points and interface meters in the MDAS software and share the meter data with MSLDC registry for DSM computation.
- 5.10 STU shall ensure the availability of each interface meter data in the MDAS software at the State Energy Accounting Centre of MSLDC.
- 5.11 STU shall ensure upkeep, accuracy & completeness of metering data available in MDAS software.
- 5.12 If there exists a problem in any SEMs installed in State Entity's premises, the matter shall be taken up with STU for necessary action with intimation to MSLDC.
- 5.13 In the event of not recording of correct data by SEM meter due to any technical problem, the assessment of block wise energy data shall be submitted by STU to MSLDC separately within two (2) days from the end of billing week and shall publish amendments in case of non-recording of data by Main meter.
- 5.14 Any new G<>T and T<>D interface points of Intra-State Transmission System (InSTS) and interconnection with Inter-State Transmission System (ISTS) must

confirm the installation of Special Energy Meters (SEMs) at interface points at least 7 days before charging of the new element.

- 5.15 Metered data will be made available on the Web based DSM application along with DSM Bill and it will be accessible to State Entities with login in to the system using authorised User ID and Password.

6 Alternative arrangement for availability of Meter Data:

- 6.1 In the absence of Automated Meter Reading (AMR) facility, STU and MSLDC shall jointly explore the options available for availability of meter data at MSLDC for DSM accounting.
- 6.2 The STU shall maintain the Meter Reading Interface (MRI) facility in the absence of or failure of AMR facility as the case may be.
- 6.3 The MSLDC shall develop and maintain the web-based application to upload the meter data of all interface points downloaded by sub-station in-charge through MRI facility.
- 6.4 The Sub-Station in-charge shall download the meter data of interface points and verify the data as per the detailed procedure prepared by MSLDC enclosed as **Annexure – IV** with this procedure and upload the encrypted file on the Web based Application maintained by MSLDC.
- 6.5 The MSLDC shall integrate the web-based application with the Meter Data Management (MDM) module to be developed by MSLDC under DSM Software.
- 6.6 The Meter Data processed in the MDM module shall be further considered for DSM computation in the DSM Software to be developed by MSLDC.
- 6.7 The alternate arrangement specified as above shall be maintained after development of AMR facility as back up option to facilitate the meter data availability in case of failure of AMR facility.
- 6.8 In case of delay in availability of Meter Data through MRI facility on weekly basis, the MSLDC may approach the Commission to change the DSM Billing Cycle to Monthly basis during the absence of AMR facility.

7 Data Processing

- 7.1 Every Monday or by latest 00:00 Hrs every Tuesday, all SEM data 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. In case of any problem, MSLDC could request STU to provide the SEM data. Each entity would therefore have necessary backup of downloaded meter data at their local PC level.
- 7.2 The computation of the net injection of each Seller and actual drawl of each Buyer shall be carried out in line with provisions of MERC DSM Regulations based on the above meter readings received at MSLDC.

- 7.3 For the purpose of Meter Data processing, STU shall develop, install and maintain the Meter Data Acquisition System (MDAS) software at the State Energy Accounting Centre at MSLDC.
- 7.4 The preparation of Deviation accounts and monthly State Energy Account shall be prepared by MSLDC on the basis of meter data made available by STU and implemented schedule.
- 7.5 Data related to the reactive energy between State Entities at the Interface Points shall be metered and maintained in the MDAS software. The Data of Reactive Energy exchange shall be considered for Reactive Energy Accounting as and when directed by the Commission.
- 7.6 **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.

8 Energy Accounting

- 8.1 MSLDC shall prepare statement of State Energy Account for each time block for the Buyers and Sellers on monthly basis.
- 8.2 Data required for the billing of partial open access consumers shall be passed on to the billing centre of the Distribution Licensee by MSLDC. The billing centre of the distribution licensee shall be responsible for energy accounting, raising and settlement of bills with partial open access consumers.
- 8.3 Payments of capacity and energy charges by the Buyers to the Sellers shall be as per the provisions in the respective Power Purchase Agreements or Agreement(s) with respect to transactions through power exchange and through Short Term Open Access, as the case may be.
- 8.4 Energy Account Statement for Deviation Settlement of Partial Open Access Consumers connected to the InSTS and all open access consumers connected to the Distribution network shall be in accordance with the provisions of MERC (Transmission Open Access) Regulations, 2016 and its amendments thereof and MERC (Distribution Open Access) Regulations, 2016 and its amendment thereof.
- 8.5 For the purpose of Energy Accounting, MSLDC shall consider the Metered Data made available by STU in MDAS software and the Data for Inter-State Energy Exchange shared by WRPC/WRLDC.
- 8.6 **MSLDC shall consider the Energy injected by Wind and Solar Generators as per the 'State RE Deviation Pool Account' maintained by MSLDC for deviations by Wind and/or Solar Energy Generators.**
- 8.7 **State Energy Account would contain:**
 - a. Energy Drawal at State periphery as per the WRPC DSM bill.

- b. Net Energy injected by Generators.
- c. Net Energy injected by Wind and Solar Generators.
- d. Net Energy drawn by buyers
- e. Net Energy drawn by EHV consumers.
- f. Scheduled energy of Intrastate & Interstate Bilateral & Power exchange Transactions.
- g. RE Generation Buyer & Seller Wise energy (including OA transactions)
- h. Declared Capacity or Availability of Generator within State
- i. Intra-State Transmission Loss based on total energy injected and total energy drawal.
- j. Account of exchange of surplus power capacity amongst the Buyers/Distribution licensees (if any) – Ref Reg. 6(B)(iii).
- k. Account of actions initiated by SLDC in the interest of grid operation or in compliance of WRLDC instructions.- Ref Reg. 6(B)(v)
- l. Report of exchange of power capacity, if any, amongst the State Entities resulting on account of SLDC interventions in the interest of grid operation or in compliance of WRLDC instructions. Ref Reg. 6(B)(v).
- m. Report of the incidences of violating the provision of Zero Crossing/Sign Change by the State Entities.

8.8 The format of State Energy Account is enclosed as **Format -5E** with this procedure.

9 Intra-State Transmission Losses

- 9.1 For scheduling purposes, intra-state transmission system losses as approved by the Commission shall be considered.
- 9.2 MSLDC shall calculate Energy Balance for each time block considering Drawal of Buyers and Injection of Sellers and Inter-State Energy Exchange provided by WRLDC/WRPC.
- 9.3 Based on the Energy Balance for each time block, the Intra-State transmission system loss (InSTS) shall be worked out for each time block.
- 9.4 MSLDC shall maintain account of actual Intra-State transmission system loss for each time block and publish reconciliation statement of monthly average intra-state transmission loss and 52-weekly average intra-state transmission vis-à-vis approved loss by the Commission on its website. Format for the same is **enclosed as Annexure -II with this procedure.**

10 MSLDC Fees and Charges

MSLDC fees and charges including amount towards Corpus shall be paid by the State Entity in advance as approved by the Commission from time to time. The other charges

shall be applicable as per relevant Orders/Regulations of the Commission. The prevalent charges are provided under **Annexure No. 1** with this Procedure.

11 Deviation Accounting

11.1 Deviation

11.1.1 Deviation for Seller:

‘Deviation’ in a time-block for a Seller means its total actual injection minus its total scheduled generation and shall be computed as below:

Time block wise Deviation for Seller = Actual Generation – Scheduled Generation

Where

Actual Generation = electricity generated or supplied by Seller and metered at Interface meter in MW or MWh.

Scheduled Generation = Implemented Schedule of electricity generation for Seller in MW or MWh ex-bus given by MSLDC;

Note: Deviation for Seller shall be computed by MSLDC for each time block and accounted on weekly basis. While computing deviation the Sellers whose Tariff / PPA/MoU/Bilateral Agreement or any contractual arrangement is Unit-wise, Deviation for such Seller(s) shall be computed Unit-wise. **In case of Sellers whose contractual arrangement is Station-wise, the Deviation for such Seller(s) shall be computed Unit-wise, however the deviation charges shall be computed Station-wise.**

However, while computing the block wise deviation of a generator including Renewable Energy generator having installed capacity of 25 MW or below and connected to InSTS, but excluding Wind and Solar generation, the block wise schedule data shall be replaced with the block wise actual generation made available through AMR facilities.

11.1.2 Deviation for Buyer:

‘Deviation’ in a time-block for a Buyer means its total actual drawal minus its total scheduled drawal and shall be computed as below:

Time block wise Deviation for Buyer = Actual Drawal – Scheduled Drawal

Where

Actual Drawal = Electricity drawn by Buyer and metered at T<>D Interface meter in MW or MWh. (Consolidated Drawal of Buyer at all T<>D Interface)

Scheduled Drawal = Implemented Schedule of drawal in MW or MWh for Buyer given by MSLDC;

The Deviation for Buyer shall be computed by MSLDC for each time block and accounted on weekly basis.

11.2 Price Vector Calculation

- 11.2.1 Computation of Deviation Charges for Sellers and Buyers for all the time-blocks shall be worked out on the average frequency of a time-block by considering the Price Vector for Deviation Charges as specified in the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and its amendments thereof.
- 11.2.2 Annexure-I of MERC DSM Regulations specifies the methodology for development of Price Vector for Deviation Charges applicable for average frequency of time block as provided under **Table No.1 below**.
- 11.2.3 For computation of Deviation the frequency recorded by WRLDC and used by WRPC for regional Deviation Settlement Mechanism for that particular time block shall be considered as Reference Frequency. The Reference Frequency shall be rounded off to nearest two (2) decimals places.
- 11.2.4 Deviation Settlement Mechanism Price Vector will have a dynamic slope determined by joining the identified price points at 50 Hz (daily simple average ACP), frequency of 49.85 Hz [800.00 Paise/kWh] and 50.05 Hz (zero) on a daily basis, as shown in Table 1 below, subject to cap rate equal to energy charge [394.3 Paise/kWh] of main fuel used by the generating stations and as determined by the Commission from time to time.
- 11.2.5 The linkage of Deviation Charges to frequency may be reviewed by the State Commission as and when revised by Central Commission keeping in view the changing power market conditions and shall be re-notified by the Commission accordingly.
- 11.2.6 Daily simple average Area Clearing Prices (ACP) in the day-ahead market (exclusive of any transmission charges and transmission losses) of the Power Exchange having a market share of 80% or more in energy terms on a daily basis shall be taken into consideration for linking to the DSM price vector.
- 11.2.7 If no single Power Exchange is having a market share of 80% or more, the weighted average day-ahead price shall be used for linking to the DSM price.
- 11.2.8 In case of non-availability of daily simple average ACP due to no-trade on a given day, daily simple average ACP of the last available day shall be considered for determining the DSM charge.
- 11.2.9 Deviation price in Paisa shall be rounded off to nearest two (2) decimal places.
- 11.2.10 National Load Despatch Centre (NLDC) shall declare the daily DSM rates and shall display all relevant information on its website.
- 11.2.11 The Deviation charges shall be Zero for frequency 50.05 Hz and above.

Table 1: Price vector calculation for Deviation calculation

Average frequency of time block(Hz)		Charges for Deviation (Paise / kWh)
Below	Not below	
	50.05	0.0
50.05	50.04	<i>Slope determined by joining the price at Not Below 50.05 Hz and identified price at 50.00 Hz, and as detailed in the note below this Regulation</i>
50.04	50.03	
50.03	50.02	
50.02	50.01	
50.01	50.00	
	50.00	<i>Daily (simple) average Area Clearing Price discovered in the Day Ahead Market segment of power exchange</i>
	49.99	<i>Slope determined by joining the price identified at 50.00 Hz and price at below 49.85 Hz, and as detailed in the note below this Regulation</i>
49.99	49.98	
49.98	49.97	
49.97	49.96	
49.96	49.95	
49.95	49.94	
49.94	49.93	
49.93	49.92	
49.92	49.91	
49.91	49.90	
49.90	49.89	
49.89	49.88	
49.88	49.87	
49.87	49.86	
49.86	49.85	
49.85		800.00

Daily Average Area Clearing Price (ACP) in Paise per kWh shall be as discovered in Day Ahead Market segment of Power Exchange for W2 –West region as considered by NLDC for declaring daily DSM rates on its website

Illustration to DSM Price Vector specified in the Annexure-III of MERC DSM Regulations, 2019 is as below:

Table 2: Illustration of Price vector for Deviation calculation

Average Frequency of the time block (Hz)		Charges for Deviation (Paise/kWh)
Below	Not Below	
	50.05	0.00
50.05	50.04	1xP/5
50.04	50.03	2xP/5
50.03	50.02	3xP/5
50.02	50.01	4xP/5
50.01	50.00	P
50.00	49.99	50.00+15xP/16
49.99	49.98	100.00+14xP/16
49.98	49.97	150.00+13xP/16
49.97	49.96	200.00+12xP/16
49.96	49.95	250.00+11xP/16
49.95	49.94	300.00+10xP/16
49.94	49.93	350.00+9xP/16
49.93	49.92	400.00+8xP/16
49.92	49.91	450.00+7xP/16
49.91	49.90	500.00+6xP/16
49.90	49.89	550.00+5xP/16
49.89	49.88	600.00+4xP/16
49.88	49.87	650.00+3xP/16
49.87	49.86	700.00+2xP/16
49.86	49.85	750.00+1xP/16
49.85		800.00

Where P is the Daily Average Area Clearing Price (ACP) in Paise per kWh discovered in Day Ahead Market segment of Power Exchange for W2 -West region as considered by NLDC for declaring daily DSM rates on its website.

For Illustration Purpose considering P = 309.98 Paisa per kWh (19 April, 2019) the dynamic price vector shall be as below:

Table 3: Illustration of Deviation charges considering P = 309.98 Paisa per kWh

Average Frequency of time- block (Hz)		Charges for Deviation	
Below	Not Below	(Paise/kWh)	
	50.05	0	0
50.05	50.04	1xP/5	62.00
50.04	50.03	2xP/5	123.99
50.03	50.02	3xP/5	185.99
50.02	50.01	4xP/5	247.98
50.01	50	P	309.98
50	49.99	50.00+15xP/16	340.61
49.99	49.98	100.00+14xP/16	371.23
49.98	49.97	150.00+13xP/16	401.86
49.97	49.96	200.00+12xP/16	432.49
49.96	49.95	250.00+11xP/16	463.11
49.95	49.94	300.00+10xP/16	493.74
49.94	49.93	350.00+9xP/16	524.36
49.93	49.92	400.00+8xP/16	554.99
49.92	49.91	450.00+7xP/16	585.62
49.91	49.9	500.00+6xP/16	616.24
49.9	49.89	550.00+5xP/16	646.87
49.89	49.88	600.00+4xP/16	677.50
49.88	49.87	650.00+3xP/16	708.12
49.87	49.86	700.00+2xP/16	738.75
49.86	49.85	750.00+1xP/16	769.37
49.85		800	800

11.3 Deviation Charges for Buyer

A) For Over-Drawal by Buyer

11.3.1 Deviation of Buyer shall be computed considering for implemented schedule at T<>D interface and consolidated actual drawal at T<>D interface for that Buyer.

11.3.2 The Charges for Deviation for all the time-blocks shall be payable for over-drawal by the Buyer and shall be worked out on the average frequency of a time-block by considering the Price Vector for Deviation Charges as specified under Paragraph 11.2 above subject to the conditions stipulated below.

11.3.3 The over-drawal electricity by any Buyer during a time block shall not exceed 12% of its scheduled drawal or Volume Limit as specified under paragraph No. 11.4 below, whichever is lower, when grid frequency is between the range of '49.85 Hz and above to below 50.05 Hz.

11.3.4 Deviation Charges are payable for Over Drawal by a Buyer when the frequency is between '49.85 Hz and above to below 50.05 Hz.'

11.3.5 No over-drawal of electricity by Buyer shall be permissible when grid frequency is "below 49.85 Hz."

11.3.6 The Deviation Charges shall be Zero for frequency 50.05 Hz and above.

B) For Under-Drawal by Buyer:

11.3.7 The Charges for Deviation for all the time-blocks shall be receivable for under-drawal by the Buyer when the frequency is between '49.85 Hz and above to below 50.05 Hz.', and shall be worked out on the average frequency of a time-block by considering the Price Vector for Deviation Charges as specified under Paragraph 11.2 above, subject to the conditions stipulated below.

11.3.8 The Charges for Deviation of under-drawal by the Buyer in a time block in excess of 12% of the schedule or Volume Limit as specified under paragraph No. 11.4 below, whichever is less, shall be zero.

11.3.9 The under-drawal of electricity by any Buyer during a time block shall not exceed 12% of its scheduled drawal or Volume Limit as specified under paragraph No. 11.4 below, whichever is lower, when grid frequency is between the range of '49.85 Hz and above to below 50.05 Hz.'

11.3.10 No under-drawal of electricity by Buyer shall be permissible when grid frequency is "50.05 Hz and above"

11.4 Volume Limit for Buyer

10.4.1 Buyer to ensure that it do not deviate from its implemented schedule, and remain within limits of 12% schedule or [X] MW, when frequency is between the range of '49.85 Hz and above to below 50.05 Hz.', where [X] for a Buyer is as defined under;

- i. Minimum of (12% of schedule, (Peak Demand of Distribution Licensee or Buyer / "NCPD) x State Volume Limit). Where, NCPD (Non-Coincident Peak Demand) represents the sum of Peak Demand of Distribution Licensee(s) and Buyer(s) and peak Demand of the Distribution Licensee(s) and Buyer(s) shall be recorded Peak Demand in the previous Calendar Year or Projected Peak Demand of Distribution Licensee(s) or Buyer(s) in ensuing, Calendar Year whichever is higher.

Provided that, the MSLDC shall prepare the details of applicable Volume Limits for Buyers for next financial year, considering data of previous Calendar Year and submit to the Commission for Approval by end of January of that year.

- ii. Further, from the date to be notified separately by the Commission, the total deviation from schedule in energy terms during a day shall not be in excess of 3% of the total schedule for the drawee entities and additional charge of 20% of the daily base DSM payable / receivable shall be applicable in case of said violation.

10.4.2 Volume Limit applicable to the State at regional periphery as per the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and its amendments

thereof shall form the basis for the distribution of volume limit within State Entities (Buyer) as allowed shall be linked to Volume Limit. Presently the State Volume Limit for the State is 250 MW and same shall be distributed among State Entities (Buyer) as per the methodology provided below.

10.4.3 Volume limits for each Buyer shall be worked out based on the above methodology specified in the MERC DSM Regulations. The NCPD as approved by the Commission in the Tariff Order of Intra-State Transmission System or any other Order as specified by the Commission shall be considered for Volume Limits of the subsequent year.

Table 4: Illustrative example for computation of Volume Limits for Buyers¹

State deviation volume limit (L)	250 MW			
State Peak Demand (NCPD)	20,468 MW			
DISCOMs/TOAs	Peak Demand	Cap. Limit	Ratio	Deviation Volume Limits
	(MW)	(MW)	(%)	MW
	(a)	(b) = 12% x (a)	(c)	
MSEDCL	16948	2034	83%	207
AEML	1475	177	7%	18
BEST	844	101	4%	11
TPC-D	822	99	4%	10
Railways (Deemed D.L.)	353	42	1.72%	5
MBPPL SEZ	15	2	0.07%	2
GEPL SEZ	4	0.5	0.02%	1
Nidar SEZ	7	1	0.03%	1
Total (NCPD for State)	20468		100%	255

10.4.4 Volume Limit for the Distribution Licensee or Buyer shall be rounded off to nearest integer value subject to condition that for Distribution Licensees or Buyers with Peak Demand upto 10 MW, minimum volume limit of 1 MW shall be applicable and for Distribution Licensees or Buyers with Peak Demand exceeding 10 MW but below 20 MW, volume limit of 2 MW shall be applicable.

11.5 Additional Deviation Charges for Buyers:

A) For Over-Drawal by Buyer:

10.5.1 Additional Deviation Charges shall be applicable for Buyers crossing Volume Limits specified in paragraph 11.4 above.

10.5.2 The Additional Charges for Deviation of over-drawal of electricity for each time block when grid frequency is “below 49.85 Hz” shall be as specified by the Commission as a percentage of the Charges for Deviation corresponding to the average grid frequency of the time block with due consideration to the behaviour of the Buyers towards grid discipline. The Commission may specify different rates for Additional Charges for Deviation of over-drawal and for different ranges of frequencies “below 49.85 Hz”.

10.5.3 Additional Charges for Deviation in excess of Deviation Charges, shall be applicable for over-drawal of electricity for each time-block in excess of the Volume Limits

¹Values considered are for illustrative example only. MSLDC shall publish the applicable volume limits for Buyers separately at the time of implementation of DSM procedure.

specified under paragraph No. 10.4 above, when average grid frequency of the time-block is “49.85 Hz and above” at the rate specified in Table I of Annexure –II of MERC DSM Regulations (reproduced as Annexure –II with this Procedure) in accordance with the methodology specified in Paragraph 10.5.4 below.

- 10.5.4 Additional Charges for Deviation for over-drawal of electricity for each time block in excess of the volume limit specified in paragraph 10.4 above when grid frequency is “49.85 Hz and above” shall be specified by the Commission as a percentage of the charges for the deviation corresponding to average grid frequency of the time block with due consideration to the behaviour of the Buyers and Sellers towards grid discipline. The Commission may specify different rates for additional Charges for Deviation for over-drawal depending upon different percentage of deviation from the schedule in excess of the volume limit specified in paragraph 10.4 above.
- 10.5.5 Additional Charges for Deviation, for time-block for crossing the volume limit by Buyer, shall not be applicable for over-drawal, upto a maximum of 6 time blocks in a day, when the State Deviation at Regional Periphery does not cross the State Volume Limit specified by CERC DSM Regulations or no additional Deviation Charges are payable for the State at State periphery as per Regional Deviation Pool Account. Beyond 6-time blocks in a day, Additional Charges for Deviation, for crossing volume limits shall be applicable irrespective of the condition that Deviation for State at state periphery is within Volume Limit (L) for State for the time-block or no Additional Deviation Charges are payable for the State at the State periphery.
- 10.5.6 Provision of Regulation 10 (D) of MERC DSM Regulations,2019 as amended from time to time shall be applicable for applicability of Additional Deviation Charges.
- 10.5.7 Additional Deviation charges for Over drawal when frequency is above 50.05 Hz would be zero.

B) For Under-Drawal by Buyer:

- 10.5.8 Additional Charges for Deviation, shall not be applicable for under-drawal by Buyer when frequency is “below 49.85 Hz.”
- 10.5.9 Additional Charges for Deviation shall not be applicable for under-drawal by Buyer, when frequency is between ‘48.95 Hz and above and below 50.05 Hz’.
- 10.5.10 Additional Charges for Deviation in excess of Deviation Charges, shall be applicable for under-drawal of electricity for each time block by Buyer, as the case may be when grid frequency is 50.05 Hz and above” at the rates equivalent to the charges of deviation corresponding to the grid frequency of “below 50.01 Hz but not below 50.0 Hz.

Table 5: Tabular representation of Deviation and Additional Deviation Charges for Buyer as per MERC DSM Regulations

Particulars	Volume Limit		Applicable DSM, Additional Charge for DSM for Buyer		
	% of schedule	MW	<49.85 Hz	>=49.85 Hz to <50.05Hz	>= 50.05 Hz
Over-drawal (by Buyer)	<=12%	<=X	No Over-drawal permitted	DSM Charges Payable by Buyer	Zero DSM Charges payable
	>12% to <=15%	>X to <=X+10	Additional DSM shall be specified by the Commission considering behaviour of Buyers	DSM +20% of DSM payable by Buyer	
	>15% to<= 20%	>X+10 to <= X+20		DSM +20% of DSM+40% DSM payable by Buyer	
	>20%	>X+20		DSM +20% of DSM+40% DSM+100% DSM payable by Buyer	
Under-drawal (by Buyer)	<=12%	<=X	DSM Charges receivable to Buyer	DSM Charges receivable to Buyer	No Under-drawal permitted
	>12% to <=15%	>X to <=X+10	Applicable DSM charges Zero for electricity above X	Zero DSM Charges applicable for electricity above X	Zero DSM Charges + ADSM at ACP (P) payable by Buyer
	>15% to<= 20%	>X+10 to <= X+20			
	>20%	>X+20			

Note :

1. X = Volume Limits for Buyers as specified under Paragraph 10.4 above.
2. For DSM Rates in Table I of Annexure –II of MERC DSM Regulations (reproduced as Annexure –II with this Procedure) shall be referred.

11.6 Deviation Charges for Seller

11.6.1 The Charges for Deviation of generating stations whose tariff is determined by the Commission, when actual injection is higher or lower than the scheduled generation, shall not exceed the Cap Rate [394.3]Paisa/kWh to be determined by the Commission from time to time.

11.6.2 The Charges for the Deviation for the generating stations other than those covered under clause 10.6.1 above, irrespective of the fuel source, when actual injection is higher or lower than the scheduled generation, shall not exceed the Cap Rate of [394.3] Paisa/kWh.

11.6.3 Charges for Deviation shall be zero at frequency 50.05 Hz and above.

11.6.4 The Intra-State hydroelectric generating stations are expected to respond to grid frequency changes and inflow fluctuations. They would, therefore, be free to deviate from the given schedule as long as they do not cause a grid constraint. While computing the deviation of intra-state hydro generating stations, the schedule of hydro generating stations shall be replaced with actual generation.

A) For Over-Injection by Seller

11.6.5 For Calculation of Deviation of Seller, the implemented Schedule at G<>T will be considered.

11.6.6 The Charges for Deviation for all the time-blocks shall be receivable for over-injection by the Seller, when the frequency is between '49.85 Hz and above to below 50.05 Hz.', and shall be worked out on the average frequency of a time-block by considering the Price Vector for Deviation Charges as specified under Paragraph 10.2 above, subject to the conditions stipulated below.

11.6.7 Seller to ensure that they do not deviate from their implemented schedule, and remain within limits of 12% schedule or [30] MW, whichever is lower, when frequency is between the range of '49.85 Hz and above to 50.05 Hz and below'.

11.6.8 No over-injection of electricity by any Seller shall be permissible when grid frequency is "50.05 Hz and above"

11.6.9 Deviation Charges are receivable for over-injection subject to cap rate of [394.3] Paisa/kWh, or as determined by Commission and as and when amended by the Commission.

11.6.10 Deviation Charges for over-injection by seller in excess of 12% of Schedule or [30]MW, whichever is lower shall be zero except in case of injection of infirm power, which shall be governed by provision of **Paragraph No. C** below.

B) For Under-Injection by Seller

11.6.11 The Charges for Deviation for all the time-blocks shall be payable for under-injection by the Seller, when the frequency is between '49.85 Hz and above to below 50.05 Hz.', and shall be worked out on the average frequency of a time-block by considering the Price Vector for Deviation Charges as specified under Paragraph 11.2 above, subject to the conditions stipulated below.

11.6.12 No under-injection of electricity by any Seller shall be permissible when grid frequency is "below 49.85 Hz."

11.6.13 Deviation Charges are payable by Seller for under injection subject to cap rate of [394.3] Paisa/kWh, or as determined by the Commission.

C) Treatment to Infirm Power and Start Up Power Prior to COD by Seller

11.6.14 The Charges for deviation of over-injection by the Seller in a time block in excess of 12% of the schedule or [30]MW, whichever is less, shall be zero, except in case of injection of infirm power, subject to the following condition i.e. 11.6.15, 11.6.16, 11.6.17 and 11.6.18.

11.6.15 The infirm power injected into the grid by a generating unit of a generating station during testing, prior to COD of the unit shall be paid at Charges for Deviation for infirm power injected into the grid, consequent to testing, for a period not exceeding six months or the extended time allowed by the Commission, subject to ceiling of Cap Rates as determined by the Commission used for such injection are as specified below:

11.6.16 The cap rates for infirm power as defined in MERC DSM Regulations, 2019 for a period not more than six months or as allowed by Commission, shall be as in the table below:

Table 6: Cap rates for infirm power by Seller

Domestic coal/ Lignite/Hydro	[342.5 ³] Paise/kWh sent out
APM gas as fuel	[232.4 ⁴] Paise/kWh sent out <i>up to the date of revision of price of APM gas by the Government of India and thereafter, at the rate to be notified by the Commission separately</i>
Imported Coal	[394.3 ⁵] kWh sent out
RLNG	[705.3 ⁶] kWh sent out

3,4,5,6 are Present Tariff Rate Determined by Commission

11.6.17 No under-injection of electricity by a Seller shall be permissible when the grid frequency is “below 49.85 Hz” and no over-injection of electricity by a Seller shall be permissible when the grid frequency is “50.05 Hz and above”.

11.6.18 Infirm injection of power prior to the COD shall be exempted from the volume limit specified by the Commission for a period not exceeding six months or the extended time allowed by the Commission.

11.7 Volume Limits for Seller

11.7.1 The under-injection or over-injection of electricity by Seller shall not exceed (i) 12% of the scheduled injection or [30] MW (volume limit for Seller), whichever is lower when grid frequency is “49.85 Hz and above and below 50.05 Hz.”

11.7.2 In case Schedule of a Seller, in a time block, is less than or equal to [40] MW, under-injection/over-injection in a time-block shall not exceed [5] MW (volume limit for Seller), when grid frequency is “49.85 Hz and above and below 50.05 Hz”.

11.7.3 Further, from the date to be notified separately by the Commission, the total deviation from schedule in energy terms during a day shall not be in excess of 1% for the generators and additional charge of 20% of the daily base DSM payable/receivable shall be applicable in case of said violation.

11.8 Additional Deviation Charges for Sellers

11.8.1 Additional Deviation Charges shall be applicable for Sellers crossing volume limits as mentioned in 11.7 above subject to Cap limit of [394.3] Paise/kWh or as further determined by the Commission.

A) Under-Injection by Seller

11.8.2 Additional Charges for deviation in excess of deviation charges, are applicable for under injection when frequency is between ‘49.85 Hz and above and 50.05 Hz and below’, when deviation of the State deviation at regional periphery crosses the State volume limit.

Provided that Additional Charges for Deviations for time-block shall not be applicable for Seller, in case, Deviation for state at state periphery does not exceed State Volume

Limit (L) for the time-block or no Additional Deviation Charges are payable for the state at the State periphery as per Regional Deviation Pool Account;

Provided further that Additional Deviation Charges shall not be applicable in case Seller exceeds its Volume Limit (X) upto six (6) time-blocks within a day, beyond which the Additional Deviation Charges shall be applicable for Seller irrespective of the condition that Deviation for State at state periphery is within Volume Limit (L) for the time-block or no Additional Deviation Charges are payable for the State at the State periphery.

11.8.3 Additional Charges for Deviation for under-injection in excess of the volume limit specified in Paragraph 11.7 above when grid frequency is “49.85 Hz and above” at the rates specified in Table I of Annexure –II of MERC DSM Regulations (reproduced as Annexure –II with this Procedure) in accordance with the methodology specified in Paragraph 10.8.5 below.

11.8.4 Additional Charges for Deviation for under-injection in excess of volume limits specified in Paragraph 11.7 above when grid frequency is “49.85 Hz and above” at the rates specified by the Commission as a percentage of the charges for the deviation corresponding to average grid frequency of the time block with due consideration to the behaviour of the Sellers towards grid discipline. The Commission may specify different rates for additional Charges for Deviation for under-injection depending upon different percentage of deviation from the schedule in excess of the volume limit specified in Paragraph 11.7 above.

11.8.5 However, Additional Charges for Deviation shall not be applicable for Seller, in case, Deviation for state at state periphery does not exceed State Volume Limit (L) specified in the CERC DSM Regulations for the time-block or no Additional Deviation Charges are payable for the state at the State periphery as per Regional Deviation Pool Account.

11.8.6 Further, Additional Deviation Charges shall not be applicable in case Seller exceeds its Volume Limit (X) upto six (6) time-blocks within a day, beyond which the Additional Deviation Charges shall be applicable for Seller irrespective of the condition that Deviation for State at state periphery is within Volume Limit (L) for the time-block or no Additional Deviation Charges are payable for the State at the State periphery.

11.8.7 The Additional Charges for Deviation of under-injection when grid frequency is “below 49.85 Hz” shall be as specified by the Commission as a percentage of the Charges for Deviation corresponding to the average grid frequency of the time block with due consideration to the behaviour of the Sellers towards grid discipline. The Commission may specify different rates for Additional Charges for Deviation of under-injection and for different ranges of frequencies “below 49.85 Hz”.

11.8.8 Additional Charges for Deviation for under-injection by seller, during the time-block when grid frequency is “below 49.85 Hz”, by the generating stations whose tariff is determined or adopted by the Commission using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel in accordance with the methodology specified by the Commission as a percentage of the Cap Rate or the Charges for

Deviation corresponding to the grid frequency of the time block, or both with due consideration to the behaviour of the generating stations regulated by the Commission towards grid discipline. This Cap Rate shall be equivalent to 100% of the Cap Rate of main fuel (imported coal) as determined by the Commission for deviations. [394.3] Paisa/kWh.

11.8.9 Additional Charges for Deviation for under-injection by a Seller, in excess of volume limits specified in Paragraph 11.7 above when grid frequency is “49.85 Hz and above”, by the generating stations whose tariff is determined or adopted by the Commission using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel shall be as specified by the Commission as a percentage of the Cap Rate or the Charges for Deviation corresponding to the grid frequency of the time block, or both with due consideration to the behaviour of the generating stations regulated by the Commission towards grid discipline.

11.8.10 Additional Deviation charges shall be applicable for under-injection when grid frequency is “below 49.85 Hz”, at rates that shall be notified by the Commission.

11.8.11 Provision of Regulation 10 (D) of MERC DSM Regulations, 2019 as amended from time to time shall be applicable for applicability of Additional Deviation Charges.

B) Over-Injection by Seller

11.8.12 Additional Charges for deviation in excess of deviation charges, are not applicable for over-injection when frequency is between ‘48.95Hz and above and 50.05 Hz and below’

11.8.13 Additional Deviation charges, in excess of Deviation charges shall not be applicable for over injection of electricity when grid frequency is “below 49.85 Hz”.

11.8.14 In addition to the Charges for Deviation, Additional Charges for Deviation shall be applicable for over-injection by a Seller when grid frequency is 50.05 Hz and above” at the rates equivalent to the charges of deviation corresponding to the grid frequency of “below 50.01 Hz but not below 50.0 Hz” (@P= ACP)

11.8.15 No over-injection of electricity by a Seller shall be permissible when the grid frequency is “50.05 Hz and above”

Table 7: Tabular representation of Deviation and Additional Deviation Charges for Seller as per MERC DSM Regulations

Particulars	Volume Limit		Applicable DSM, Additional Charge for DSM for Seller		
	% of schedule	MW	<49.85 Hz	>=49.85 Hz to <50.05Hz	>= 50.05 Hz
Over-Injection (by Seller)	<=12%	<=30	DSM Charges receivable subject to Cap-Rate	DSM Charges receivable subject to Cap-Rate	No Over-Injection permitted
	>12% to <=15%	>30 to <= 40	DSM Charges receivable subject to Cap-Rate + Zero for electricity above volume limits	DSM Charges receivable subject to Cap-Rate + Zero for electricity above volume limits	Zero and ADSM at ACP
	>15% to <= 20%	>40 to <=50			
	>20%	>50			

Particulars	Volume Limit		Applicable DSM, Additional Charge for DSM for Seller		
	% of schedule	MW	<49.85 Hz	>=49.85 Hz to <50.05Hz	>= 50.05 Hz
Under- Injection (by Seller)	<=12%	<30	No Under-Injection permitted	Payable by Seller at DSM charges	As per DSM Price Vector which is Zero
	>12% to <=15%	30 to 40	DSM Charges payable by Seller +ADSM to be specified by the Commission	Payable by Seller at DSM +20% of DSM	
	>15% to <= 20%	40 to 50		Payable by Seller at DSM +20% of DSM+40% DSM	
	>20%	>50		Payable by Seller at DSM +20% of DSM+40% DSM+100% DSM	

Note:

1. In case schedule of a Seller, is less than or equal to [40]MW, under-injection/over-injection in a time-block shall not exceed [5] MW, when grid frequency is "49.85 Hz and above and below 50.05 Hz"
2. For Additional DSM Rates in Table I of Annexure –II of MERC DSM Regulations (reproduced as Annexure – II with this Procedure) shall be referred.
3. For Additional DSM Rates for under-injection by Gen. stations using Coal or Lignite or Gas supplied under APM Table II of Annexure –II of MERC DSM Regulations (reproduced as Annexure –II with this Procedure) shall be referred.

11.9 Applicability of Additional Deviation Charges for failure of Sign Change by State Entity

11.9.1 Additional condition for a change in sign of the deviation shall be met once every 6-time blocks by Buyer/Seller, failing which, additional charges @20% of the Deviation Charges on daily base DSM payable/ receivable as the case may be shall be levied for the duration of continuance of violation.

Provided that the applicability of above prescribed additional charges for such failure by Buyer(s)/Seller(s) for meeting requirement of change in sign of deviation shall be applicable from date to be notified separately in stages over the period considering implementation aspects and based on report to be submitted by SLDC

11.9.2 In the event of sustained deviation from schedule in one direction (positive or negative) by any state entity, such State Entity (Buyer or Seller) shall have to make sign of their deviation from schedule changed, at least once, after every 6-time blocks.

11.9.3 To illustrate, if a state entity has positive deviation from schedule, i.e. from 07.30hours to 9.00 hours, sign of its deviation from schedule shall be changed in the 7th time block, i.e. 9.00 hours to 9.15 hours either from positive to negative or from negative to positive; as the case may be (L). The additional Charge for violation of sign change stipulation shall be leviable for each such violation during a day from the date to be notified separately by the Commission.

11.9.4 To illustrate, the change of sign should take place at least once after every six-time blocks. Accordingly, the entity, starting from time block t1, should change the sign after time block t6. In case, sign change does not take place immediately after time block t6, but takes place from time block t 7 up to time block t12, additional charge shall be

levied equivalent to one violation. In case, sign change does not take place immediately after time block t12, but takes place from time block t13 up to time block t18, additional charge shall be levied equivalent to two violations.

- 11.9.5 The applicability of above prescribed additional charges for such failure by Buyer(s)/Seller(s) for meeting requirement of change in sign of deviation shall be applicable from date to be notified separately in stages over the period considering implementation aspects and based on report to be submitted by MSLDC.

11.10 Preparation of Deviation Pool Account

- 10.10.1 Every Monday or by latest 00:00 hrs every Tuesday, all SEM data 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.
- 10.10.2 MSLDC shall be prepare time block-wise deviation of concerned state entities (Buyers/Sellers), and prepare a Deviation account, based on the actual meter readings made available by STU in MDAS software at State Energy Account Centre at MSLDC and the implemented schedule of the state entities.
- 10.10.3 By Thursday 24:00 hrs, MSLDC shall prepare the statement for Charges for Deviations including Additional Deviations and by next Tuesday, MSLDC shall issue the processed data to all constituents for period of seven day ending on the penultimate Sunday mid-night.
- 10.10.4 All computations carried out by MSLDC shall be open to all constituents for checking/verifications and reporting to MSLDC for a period of 15 days. If any mistake/omission is detected, the MSLDC shall forthwith make a complete check and rectify the same within a period of 6 (Six) days and upload the final statements.
- 10.10.5 MSLDC shall periodically review the actual deviation from the despatch and net injection/drawal schedules being issued, to check whether any of the State Entities are indulging in unfair gaming or collusion. In case any such practice is detected, the MSLDC shall initiate the investigation and shall approach to the Commission as per the provisions of the Regulation 8 of MERC DSM Regulations for initiating proceedings against State Entity.
- 10.10.6 MSLDC will forward the necessary data / schedules to regional level in line with Regulations formulated by Central Electricity Regulatory Commission.

12 Commercial Settlement of DSM Charges

- 12.1 All payments on account of Charges for Deviation including Additional Charges for Deviation levied under MERC DSM Regulations, 2019 and Interest, if any, received for late payment shall be credited to the funds called the “State Deviation Pool Account”, which shall be maintained and operated by the MSLDC in accordance with the provisions of MERC DSM Regulations, 2019.

However,

- i. The Commission may by Order direct any other entity to operate and maintain respective “State Deviation Pool Account”.
- ii. Separate books of accounts shall be maintained for the Principal component and Interest component of Charges for Deviation and Additional Charges for Deviation by the MSLDC.
- iii. The State entities shall comply with statutory requirements for payment of applicable statutory levies, including but not limited to Goods and Service Tax (GST), Tax deduction at source (TDS).
- iv. The State entities shall facilitate MSLDC in meeting with the reporting requirements of Statutory Authorities, as necessary.

12.2 MSLDC shall maintain separate Bank Account (current or saving as per prevailing Banking Rules) for commercial transaction under State Deviation Pool Account. This State Deviation Pool account shall be reconciled once in six months. All the transactions with these accounts are done through Electronic payment such as RTGS/NEFT or other modes of online payment transactions. MSLDC shall factor in all statutory compliance requirements and propose mechanism for recovery of associated costs, taxes, levies, if any for settlement of State Deviation Pool Account and any associated costs.

12.3 All payments received in the “State Deviation Pool Account” shall be considered in the following sequence:

- i. Any cost or expense or other charges incurred on recovery of Charges for Deviation.
- ii. Over dues or penal Interest, if applicable.
- iii. Normal interest.
- iv. Payment in Regional Deviation Pool Account.
- v. Charges for Deviation and Additional Charges for Deviation.

12.4 An amount of surplus funds in the State Deviation Pool Account at the end of the financial year shall be utilised for the purpose of improvements in power system operations, for undertaking such measures and studies for improvement in reliability, security and safety of grid operations, undertaking capacity building and training programs related to system operations and market operations and for such other purposes as may be specified by Commission or for other schemes as may be devised in consultation with National Load Despatch Centre, or Regional Load Despatch Centre with prior approval of the Commission.

12.5 Shortfall in funds in the State Deviation Pool Account, if any, at the end of the weekly settlement period shall be recovered by levy of additional charge from the State Entities in proportion to Net Deviation Charges Payable by concerned State Entity for the applicable weekly settlement period through supplementary bills.

12.6 The payment of Charges for Deviation shall have a high priority and the concerned State Entity shall pay the indicated amount within 10 days of the issue of statement of Charges for Deviation including Additional Charges for Deviation by the MSLDC into the “State Deviation Pool Account”. The State Entity shall make the payment

irrespective of any mistake/error in the Bill. Any revision or modification in the bill on account of mistake/error in the bill, shall be rectified and adjusted by MSLDC in the subsequent bills of the concerned State Entity.

- 12.7 If payment against Charges for Deviation including Additional Charges for Deviation are delayed by more than two days, i.e., beyond 12 days from the date of issue of the statement by the MSLDC, the defaulting State Entity shall pay simple Interest @ 0.04% for each day of delay.
- 12.8 In case, State Entity fails to make payment against Charges for Deviation including Additional Charges for Deviation for consecutive four (4) weeks bills, concerned State Entity shall not be scheduled by MSLDC and MSLDC shall approach the Commission with detailed report.
- 12.9 All Payment to the State Entities entitled to receive any amount on account of Charges for Deviation shall be made within two working days of the receipt of payments from paying State Entities in the “State Deviation Pool Account”.

However,

- i. In case of delay in the payment of Charges for Deviations into the State Deviation Pool Account and Interest beyond 12 days from the date of issue of the Statement of Charges for Deviations, the State entities receiving payment for Deviation or Interest thereon shall be paid from the balance available in the State Deviation Pool Account. In case the balance available is not sufficient to meet the payment to the State Entities, the payment from the State Deviation Pool Accounts shall be made on pro rata basis from the balance available in the State Deviation Pool Account.
 - ii. The liability to pay Interest for the delay in payments to the “State Deviation Pool Account” shall remain till Interest is not paid; irrespective of the fact that State Entities who have to receive payments, have been paid from the “State Deviation Pool Account” in part or full.
- 12.10 All the State entities which had at any time during the previous financial year failed to make payment of Charges for Deviation including Additional Charges for Deviation within the time specified in MERC DSM Regulations, 2019 shall be required to open a Letter of Credit (LC) equal to 110% of its average payable weekly liability for deviations in the previous financial year, in favour of the MSLDC within a fortnight from the date MERC DSM Regulations, 2019 come into force.

However,

- i. If any State entity fails to make payment of Charges for Deviation including Additional Charges for Deviation by the time specified in these Regulations during the current financial year, it shall open a Letter of Credit equal to 110% of weekly outstanding liability in favour of the MSLDC within a fortnight from the due date of payment.

- ii. LC amount shall be increased to 110% of the payable weekly liability for Deviation in any week during the year, if it exceeds the previous LC amount by more than 50%.

13 Commercial Settlement of the Power transacted on account of MSLDC actions for Grid Management

Procedure of Commercial Settlement in case MSLDC increment (Generation ramp Up)/decrement (Generation ramp down) for Grid Management

- i. During real time operation, MSLDC may require to Generation ramp Up (Increment)/ Generation ramp down (Decrement) to maintain the drawal of State within permissible limits at State Periphery or to comply with RLDC instructions or to adhere to any other condition specified in the Scheduling and Despatch Code or IEGC or State Grid Code.
- ii. As per the provisions of MERC DSM Regulations and State Grid Code, MSLDC shall follow the Centralised MoD principle during such real time operation to maintain the State periphery drawal within limits.
- iii. While revising the schedule of generator as per Centralised MoD principle, MSLDC shall not correspondingly revise the schedules of the contracted beneficiary of that generator i.e. the beneficiary with whom it has PPA or commercial arrangement.
- iv. The beneficiaries would continue to be scheduled based on their requisitions as per the scheduling and despatch procedure specified in the scheduling and despatch code.
- v. A Virtual State Entity (VSE) shall be created for State by the MSLDC for the purpose of scheduling process which shall act as a counter-party to such schedules of the generators. The Virtual State Entity, by its very nature, is not a physical entity bounded by meters and hence, shall not form a part of the State DSM Pool.
- vi. The quantum of generation dispatched by the MSLDC shall be directly incorporated in the schedule of the generator considered by MSLDC for Despatch in line with Centralised MoD principles. The schedule of such generator shall be revised by MSLDC depending on the real time system conditions.
- vii. For Increment (Generation Ramp Up) Service, power shall be scheduled from the generator considered by MSLDC for Despatch as per Centralised MoD principles to the VSE by the MSLDC and for Decrement (Generation Ramp Down) Service, power shall be scheduled from the VSE to the generator considered by MSLDC on Centralised MoD Principles.
- viii. The schedule of such generators will become effective earliest from the time block starting 15 minutes after issue of the dispatch instruction by the MSLDC and this shall be clearly specified in the dispatch instruction. However, the MSLDC may take the appropriate decision to consider the Despatch from any time block after

the abovementioned time block, if required, based on the anticipated system conditions.

- ix. The schedule of such generator shall be at ex-bus periphery. The injection loss (for Increment (Generation Ramp UP) service) and the withdrawal loss (for Decrement (Generation Ramp DOWN) service) shall be accounted for in kind in the schedule of the respective VSE.
- x. The schedules of such generators shall be considered as revised by the quantum scheduled by the MSLDC.
- xi. Any deviations from schedule by such generator shall be treated in accordance with the MERC DSM Regulations, 2019 and amendments thereof and the procedure formulated thereunder.
- xii. For any decrement in schedule of InSGS due to MSLDC actions, the such InSGS shall pay to the 'State Deviation Pool Account' for the decrement in generation at the applicable Deviation rate including Additional Deviation Charges, if any, for the state at the state periphery for the respective time block.
- xiii. For any increment in schedule of InSGS due to MSLDC actions, such InSGS shall be paid from the 'State Deviation Pool Account' for the increment in generation at the applicable Deviation rate including Additional Deviation Charges, if any, for the state at the state periphery for the respective time block, subject to Cap Rate as per MERC DSM Regulations.
- xiv. MSLDC shall maintain and publish separate account of such revision in the generation schedule (Ramp UP and Ramp DOWN) with reasons of actions initiated by MSLDC in the interest of grid operation alongwith applicable Rate of Deviation Charge and Additional Deviation Charge for respective time-block.

14 Compliance Monitoring

14.1 The following events would be considered event of breach or default:

- i. Non-payment or delay in Deviation/Additional Deviation charges
- ii. Non-compliance of procedures outlined in these procedures.
- iii. Non-compliance of any directives by MERC or MSLDC in this matter.
- iv. In case Available Capacity is wilfully mis-declared by any seller.
- v. Non availability of Meter data for calculation of charges
- vi. In case of continued default for statutory compliance leading to declaration of wilful defaulter.

14.2 Consequences of event of default

- i. In case of default of provisions stated this procedure without prejudice, MSLDC shall intimate the Entity for actions to be taken.

- ii. In case the entity fails to take corrective measures within stipulated time, the MSLDC may take decision under its Power and approached the Commission.

15 Governance Structure

15.1 The Maharashtra State Power Committee (MSPC) constituted under FBSM framework shall continue to operate under MERC DSM Regulations,2019 subject to the conditions outlined under the same.

The composition of the MSPC shall be modified to include adequate representation of the group of State Entities representing Generators, renewable energy generators, deemed distribution licensee(s) and Transmission Open Access User(s) through invitation and subject to conduct of business rules to be formulated by MSPC with the approval of the Commission.

The roles, powers and functions of MSPC as outlined under FBSM framework shall continue to be in operation only to the extent that the same is not inconsistent with the provisions under MERC DSM Regulations,2019. In such cases, the provisions of MERC DSM Regulations,2019 shall apply.

Table No.8: Proposed constitution of MSPC for adequate representation of Stakeholders

Sr.	Name of Representative	Role in MSPC
1	Managing Director, MSEB Holding Co. Ltd.	Chairperson
2	State Entity (Seller) having installed capacity of 1000MW and above as on date of implementation of DSM Regulations	Member representing Sellers
3	State Entity (Buyers) with Peak Demand more than 500MW as on date of implementation of DSM Regulations	Member representing Buyer
4	One Representative of Deemed Distribution Licensee on yearly basis in chronology of issuance of notification for Special Conditions of Licence for Deemed Distribution Licensee by the Commission	Member representing Deemed Distribution Licensee
5	Qualified Co-ordinating Agency (QCA) representing Wind and/or Solar Generators with installed capacity more than 500MW in the State	Member representing QCAs i.e. Wind and Solar Generators
6	Full Transmission Open Access Users having Open Access more than 100 MW	Member representing TOA users
7	Chief Engineer, State Transmission Utility (STU)	Member
8	Representative of WRLDC/WRPC	Special invitee as and when required
9	Chief Engineer, MSLDC	Member Secretary

MSLDC shall prepare and publish provisional monthly State Energy Account and Weekly State Deviation Pool Account Statement, which shall be published on its website for review by the State entities. The State entities shall provide suggestions for rectification (if any) within the stipulated period. Upon such scrutiny and rectification (if necessary), monthly State Energy Account and weekly State Deviation Pool Account Statement as prepared by the MSLDC shall be final and binding on all State entities.

15.2 The Maharashtra State Power Committee shall

- a. Co-ordinate and facilitate intra-state energy exchange for ensuring optimal utilisation of resources.
- b. Monitor compliance of MERC DSM Regulations, 2019 by the State Entities and submit annual compliance report in the prescribed format within thirty days from close of financial year.
- c. Guide the MSLDC for modification of procedure(s) to address the implementation difficulties, if any.
- d. Provide necessary support and advice to the Commission for suitable modifications/issuance operating procedures, practice directions, and amendment to the provisions of this Regulations, as may be necessary upon due regulatory process.

16 Grievance Redressal

16.1 MSLDC shall refer to complaints regarding unfair practices, delays, discrimination, lack of information supply of wrong information or any other matter to Commission for redressal.

17 Removal of Difficulties

17.1 In case of any difficulties in implementation of the procedures, MSLDC may approach the Commission for review or revision of the procedure with requisite data. In cases of any dispute between these Procedures and MERC DSM Regulations, 2019, the latter shall supersede these procedures and will be applicable.

18 General:

18.1 All costs/expenses/charges associated with the application, including bank charges, Affidavits etc. shall be borne by the applicant.

18.2 The State Entities shall abide by the provisions of the Electricity Act, 2003, the MERC DSM Regulations, MERC F&S Regulations and Indian Electricity Grid Code and MERC (State Grid Code), and applicable CERC and MERC regulations as amended from time to time and various Orders, Practice Directions, Code, Guidelines as may be issued by the Commission from time to time.

18.3 This procedure aims at outlining conditions and steps to streamline and facilitate the process of Scheduling, Despatch, Accounting and Settlement of deviations of Buyers and Sellers. 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. In order to resolve the same, this procedure shall be reviewed or revised by the MSLDC with prior approval of Commission.

- 18.4 After approval of procedure by the Commission, MSLDC shall undertake development of necessary Software for Scheduling and Despatch and Deviation Settlement for Buyers and Sellers. After go-live of Scheduling and Despatch and DSM software, there shall be trial run period upto two (2) months for ensuring implementation of DSM framework in the State as envisaged in the MERC DSM Regulation. Actual implementation of Scheduling and Despatch Procedure and commercial settlement under MERC DSM Regulations shall commence from the date to be notified by the Commission separately.

19 Annexure and Forms

Sr No	Particulars	Format No
1	Daily Deviation calculation of Buyers	Format 1D (B)
2	Daily Deviation Calculation of Sellers	Format 1D (S)
3	Daily Deviation Summary of State Entities	Format 2D
4	Weekly Deviation Summary of State Entities	Format 3D
5	Abstract Deviation Charge Summary	Format 4D
6	Format for Energy Accounting	Format 5E

Proposed Charges payable by Buyer/Seller to MSLDC

Sr. No.	Type of Charges	Parameter	Amount (Rs.)	Details of Payment
1	Registration Charges (Non-refundable)	0.01 – 100 MW	20,000.00	At the time of Application for Registration of Buyer/Seller For each Buyer considering NCPD of recent data For each Seller considering installed capacity of generating Station
		100.01 to 1000 MW	1,00,000.00	
		1000.01 to 10000 MW	2,00,000.00	
		>10000.01 MW	5,00,000.00	
2	Scheduling Charges	As and when approved by the Commission	2,250/-	For every day
3	Revision in Schedules if requested by Buyer/Seller	As and when approved by the Commission)	2,250/-	For every revision
4	Corpus fund for Seller		10,000/ per MW	During Registration and as and when installed capacity is added for Generating Station.
5	Corpus fund for Buyer		20,000/ per MW of NCPD	During Registration and as and when revised NCPD is approved by the Commission under InSTS Tariff Order. In case of Full OA and Captive consumers, the Capacity approved under OA shall be considered.
5	Top-up of Corpus		As required	In the event of reduction in Corpus
6	Any other charges		As required	As and when required

**Additional Charges for Deviation (for Sellers /Buyers) as per Annexure-II of MERC
DSM Regulations**

Annexure-II

TABLE – I : Additional Deviation Charge (for Seller/Buyer)

(A) When 12% of the Schedule is less than or equal to [10] MW		
1	For over-drawal of electricity by any Buyer in excess of 12% and upto 15% of the schedule in a time block.	Equivalent to 20% of Charge for Deviation corresponding to average grid frequency of the time-block.
2	For over-drawal of electricity by any Buyer in excess of 15% and upto 20% of the schedule in a time block.	Equivalent to 40% of Charge for Deviation corresponding to average grid frequency of the time-block.
3	For over-drawal of electricity by any Buyer in excess of 20% of the schedule in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid frequency of the time-block
4	For under-injection of electricity by any Seller in excess of 12% and upto 15% of the schedule in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid frequency of the time-block
5	For under-injection of electricity by any Seller in excess of 15% and upto 20% of the schedule in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid frequency of the time-block
6	For under-injection of electricity by any Seller in excess of 20% of the schedule in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid frequency of the time-block
(B) When 12% of the Schedule is more than [10] MW		
1	For over-drawal of electricity by any Buyer is above X MW and upto X+[10] MW in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid frequency of the time-block
2	For over-drawal of electricity by any Buyer is above X+[10] MW and upto X + [20] MW in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid frequency of the time-block
3	For over-drawal of electricity by any Buyer is above X + 20 MW in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid frequency of the time-block
(C) When 12% of the Schedule is more than [10] MW		
4	For under-injection of electricity by any Seller is above [30] MW and upto[40] MW in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid frequency of the time-block
5	For under-injection of electricity by any Seller is above [40] MW and upto [50] MW in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid frequency of the time-block
6	For under-injection of electricity by any Seller is above [50] MW in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid frequency of the time-block

Additional Deviation Charge for Under-Injection by Generating Stations Using Coal or Lignite or Gas Supplied Under Administered Price Mechanism (APM) as per Annexure-II of MERC DSM Regulations

TABLE – II : Additional Deviation Charge for Under-Injection by Generating Stations Using Coal or Lignite or Gas Supplied Under Administered Price Mechanism (APM)

(A) When 12% of the Schedule is less than or equal to [10] MW

1	For under-injection of electricity by any Seller in excess of 12% and upto 15% of the schedule in a time block	Equivalent to 20% of Cap Rate [394.3] Paise/kWh of the energy charges of main fuel (imported coal) as determined by the Commission or charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
2	For under-injection of electricity by any Seller in excess of 15% and upto 20% of the schedule in a time block	Equivalent to 40% of Cap Rate [394.3] Paise/kWh of the energy charges of main fuel (imported coal) as determined by the Commission or charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
3	For under-injection of electricity by any Seller in excess of 20% of the schedule in a time block	Equivalent to 100% of Cap Rate [394.3] Paise/kWh of the energy charges of main fuel (imported coal) as determined by the Commission or charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.

(B) When 12% of the Schedule is more than [10] MW

1	For under-injection of electricity by any Seller is above [30] MW and upto [40] MW in a time block	Equivalent to 20% of Cap Rate [394.3] Paise/kWh of the energy charges of main fuel (imported coal) as determined by the Commission or charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
2	For under-injection of electricity by any Seller is above [40] MW and upto [50] MW in a time block	Equivalent to 40% of Cap Rate [394.3] Paise/kWh of the energy charges of main fuel (imported coal) as determined by the Commission or charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
3	For under-injection of electricity by any Seller is above [50] MW in a time block	Equivalent to 100% of Cap Rate [394.3] Paise/kWh of the energy charges of main fuel (imported coal) as determined by the Commission or charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.

Format 1D (B)

Weekly Block-wise Computation of Deviation and Deviation Charges for Buyers

Weekly Block-wise Computation of Deviation and Deviation Charges for Buyers										Name of Buyer									
Week										Buyer Code									
Date of 7 days of week	Time block	Frequency in Hz	DSM Rate in Rs./kWh	Scheduled Drawal (kWh)	Actual Drawal (kWh)	Deviation Energy (kWh)	Volume Limit of Buyer			Deviation Volume in kWh				Deviation Charges upto Volume Limit in Rs.	Additional Deviation Charges in Rs.				Total Deviation Charges in Rs.
							12% of its Scheduled Drawal in MW	[X] MW as per Reg. 10(B)	Applicable V.L. Lowest of Column A & B in MW	Upto Volume Limit in kWh	>12% and upto 15% of Schedule in kWh	>15% and upto 20% of Schedule in kWh	>20% of Schedule in kWh		For Volume >12% and upto 15% of Schedule in Rs.	For Volume >15% and upto 20% of Schedule in Rs.	For Volume >20% of Schedule in kWh	Total Additional Deviation Charges in Rs.	
							A	B	C	(a)	(b)	(c)	(d)		D	i	ii	iii	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1																		
	2																		
	3																		
	96																		
TOTAL																			

Notes:

- (+) represents DSM charge Payable into the State Deviation Pool Account and (-) represents DSM Charges receivable from the State Deviation Pool Account
- Cap DSM rate for Buyer for as determined by Commission (till further notification is 800 Paisa/kWh)
- For Buyers having 12% schedule is less than 10 MW, Volume limit under Col.No.10 shall be equal to Col. No. 8.
- Minimum Volume limits for Buyer shall be applicable as per the provision of Regulation 10(B)(ii) of MERC DSM Regulations

Format 1D (S)
Weekly Block-wise Computation of Deviation and Deviation Charges for Sellers

																Name of Seller				
Week																Seller Code				
Date of 7 days of week	Time block	Frequency in Hz	DSM Rate in Rs./kWh	Scheduled Injection (kWh)	Actual Injection (kWh)	Deviation Energy (kWh)	Volume Limit of Seller			Deviation Volume in kWh				Deviation Charges upto Volume Limit in Rs.	Cap Rate (Rs/Kwh)	Additional Deviation Charges in Rs.				Total Deviation Charges in Rs.
							12% of its Scheduled Injection in MW	[X] MW as per Reg. 10(C)	Applicable V.L. Lowest of Column A & B in MW	Upto Volume Limit in kWh	>12% and upto 15% of Schedule in kWh	>15% and upto 20% of Schedule in kWh	>20% of Schedule in kWh			For Volume >12% and upto 15% of Schedule in Rs.	For Volume >15% and upto 20% of Schedule in Rs.	For Volume >20% of Schedule in kWh	Total Additional Deviation Charges in Rs.	
							A	B	C	(a)	(b)	(c)	(d)			D	E	i	ii	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	1																			
	2																			
	3																			
	96																			
TOTAL																				

Notes:

1. (+) represents DSM charge Payable into the State Deviation Pool Account and (-) represents DSM Charges receivable from the State Deviation Pool Account
2. Cap DSM rate for Seller as determined by Commission (till further notification is 393.4 Paisa/kWh).
3. Treatment to the infirm power shall be as per provisions of MERC DSM Regulations and DSM Procedure.
4. For Seller having 12% schedule is less than 40 MW, Volume limit under Col.No.10 shall be equal to 5MW instead of 30 MW

Format 2D

Daily Deviation Summary of State Entities

(A) Sellers

Daily Summary from			to				
Week No			Month and Year				
Date	Constituent Name	Scheduled Injection (in kWh)	Actual Injection (in kWh)	Deviation Charge (in Rs)	Additional Deviation charge for exceeding volume limit (in Rs)	Additional Deviation charge for Sign change Violation (in Rs)	Total Deviation Charges in Rs.
1	2	3	4	5	6	7	8=5+6+7
	Gen 1						
	REA						
	Gen 1						
	REA						
	Gen 1						
	REA						

(B) Buyers

Daily Summary from			to				
Week No			Month and Year				
Date	Constituent Name	Scheduled Drawal (in kWh)	Actual Drawal (in kWh)	Deviation Charge (in Rs)	Additional Deviation charge for exceeding volume limit (in Rs)	Additional Deviation charge for Sign change Violation (in Rs)	Total Deviation Charges in Rs.
1	2	3	4	5	6	7	8=5+6+7
	Buyer 1						
	REA						
	Buyer 1						
	REA						
	Buyer 1						
	REA						

(+) represents DSM charge Payable into the State Deviation Pool Account and (-) represents DSM Charges receivable from the State Deviation Pool Account

Format 3D
Weekly Deviation Summary of State Entities

(A) Sellers

	Seller	Schedule (kWh)	Actual (kWh)	Total Deviation Charges (Rs.)				
				Deviation Charge (in Rs) **	Additional Deviation charge for volume limit (in Rs)	Additional Deviation charge for sign change Violation (in Rs)	Adjustment (if any)	Total Deviation Charges(weekly)
1	2	3	4	5	6	7	8	9=5+6+7+8
For the week (Date :aa to bb)	Gen 1							
	Gen 2							
	REA							

(B) Buyers

	Buyer	Schedule (kWh)	Actual (kWh)	Total Deviation Charges (Rs.)				
				Deviation Charge (in Rs) **	Additional Deviation charge for volume limit (in Rs)	Additional Deviation charge for sign change Violation (in Rs)	Adjustment (if any)	Total Deviation Charges (weekly)
1	2	3	4	5	6	7	8	9=5+6+7+8
For the week (Date :aa to bb)	Buyer 1							
	Buyer 2							
	REA							

1. (+) represents DSM charge Payable into the State Deviation Pool Account and (-) represents DSM Charges receivable from the State Deviation Pool Account

Format 4D
Summary of Deviation Charges for the State Entities

Abstract of Deviation Account of State Entities	
Month and Year	
Week No	
For the period (Week)	
All figures in Rs.	
Utilities/Sellers and Deviation payable/receivable	
Gen 0	
Gen 1	
Gen 2	
Gen X	
Buy 0	
Buy 1	
Buy X	
WRLDC	
REA (Pool Account)	
TOTAL in Rs.	

1. (+) represents DSM charge Payable into the State Deviation Pool Account and (-) represents DSM Charges receivable from the State Deviation Pool Account

Format- 5E

Formats for Consolidated State Energy Account on monthly basis. (Format 5E -1 to Format 5E -9)

Format -5E -1 – Transmission Loss Summary Report

Transmission Loss Summary Report				
Month and Year	Energy Imported into InSTS Network of State	Energy Exported from InSTS Network of State	Energy Losses in InSTS Network of State Losses = Energy Import – Energy Export	% Losses in InSTS Network
	(in MUs)	(in MUs)	(in MUs)	
1	2	3	4	5
xxxx, Year				

Format -5E -2 –Monthly Summary Report of Net Energy Received in the InSTS

Total Net Energy Received in the InSTS from Various Category of Generators for Month – Year)	
Category of Generators	Total Energy received as per data collected from field in MUs
Thermal power stations	
Gas based power station	
Hydro Power station	
IPPs	
Central Sector	
Biomass	
Bagasse Co-Gen	
Small Hydro (SHPs)	
Solar	
Wind	
Others*	
Grand Total	

(*Connected to Distribution Network)

**Format -5E-3 –Monthly Summary Report of total Energy Drawn from InSTS Network
by Buyers**

Total Energy Drawn from InSTS Network by Buyers for the Month of ____ (month and Year)	
	Total Energy Drawn in MUs
Buyer 1	
Buyer 2	
Buyer 3	
Buyer 4	
Total	

Format -5E-4 – Monthly Report of Energy Received in the InSTS from various Sellers

Energy Received in the InSTS from Various Sellers for xxxx-Year		
No A	Station	Energy received from Seller as per data collected from SEM in MUs
1	Gen 1	
2	Gen 2	
3	Gen 3	
4	Gen 4	
Total of Seller		
No B	Station	Energy received from IPPs as per data collected from SEM in MUs
1	Gen 1	
2	Gen 2	
3	Gen 3	
4	Gen 4	
Total of IPPs		
No C	Station	Energy received from Central Sector as per data collected from SEM in MUs
Total of Central Sector		
No D	Station	Energy received from Bagasse Co-Gen as per data collected from SEMs in MUs
1	Gen 1	
2	Gen 2	
3	Gen 3	
4	Gen 4	
Total of Bagasse Co-Gen		
No E	Station	Energy received from Biomass as per data collected from SEM in MUs
1	Gen 1	
2	Gen 2	
3	Gen 3	
4	Gen 4	
Total of Biomass		
No F	Station	Energy received from SHPs as per data collected from SEMs in MUs
1	Gen 1	
2	Gen 2	
3	Gen 3	
4	Gen 4	
Total of SHPs		

No G	Station	Energy received from Solar as per data collected from SEMs in MUs
1	pooling station 1	
2	pooling station 2	
3	pooling station 3	
4	pooling station 4	
Total of Solar		
No H	Station	Energy received from Wind as per data collected from SEMs in MUs
1	pooling station 1	
2	pooling station 2	
3	pooling station 3	
4	pooling station 4	
Total of Wind		
Grant Total (A to H)		

Format -5E-5 – Monthly Report of Details of Energy Supplied by State Generators

ENERGY SUPPLIED BY GENERATING COMPANY POWER STATION FOR xxxx-Year					
STATION NAME:					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1(U1)				
2	Gen 2(U2)				
	TOTAL				
ENERGY SUPPLIED BY IPP POWER STATION FOR xxxx-Year					
STATION NAME:					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1(U1)				
2	Gen 2(U2)				
	TOTAL				
ENERGY SUPPLIED BY CPPs(OPEN ACCESS GENERATOR) POWER STATION FOR xxxx Year					
STATION NAME:					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1(U1)				
2	Gen 2(U2)				
	TOTAL				
ENERGY SUPPLIED BY BIOMASS & CO-GEN POWER STATION FOR xxxx-Year					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1				
2	Gen 2				
	TOTAL				
ENERGY SUPPLIED BY SHPs POWER STATION FOR xxxx-Year					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1				
2	Gen 2				
	TOTAL				
ENERGY SUPPLIED BY SOLAR POWER STATION FOR xxxx-Year					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1				
2	Gen 2				
	TOTAL				
ENERGY SUPPLIED BY WIND POWER STATION FOR xxxx-Year					
Sr No.	Name of Power Station	Name of Inter face meter location	Energy recorded in MUs (Export)	Energy recorded in MUs (Import)	Net Energy in MUs
1	Gen 1				
2	Gen 2				
	GRANT TOTAL				

Format -5E-6 – Report of Sub-Station wise Energy Details

for xxxx-Year (in MUs)		
Sub-Station wise Energy Supplied to DISCOM 1		
Circle Name		
Sl No	Name of Sub-station	Energy Supplied (in MUs)
1		
2		

Sub-Station wise Energy Supplied to DISCOM 2		
Circle Name		
Sl No	Name of Sub-station	Energy Supplied (in MUs)
1		
2		
Total		

EHV Consumer (MUs) for xxxx-Year			
Energy Supplied for xxxx-Year			
SL NO	Name of MSETCL Sub Station	Name of EHV Consumer	Total Energy Recorded (in MUs)
Circle Name			
1			
2			

Format -5E-7 – Report of No of instances of failure of Sign Change by State Entities (Month – Year)

		No of instances of failure of Sign Change by State Entities (Month-Year)				
		Seller 1	Seller 2	Buyer 1	Buyer 2	Total
Week 1	D 1					
	D 2					
	D 3					
	D 4					
	D 5					
	D 6					
	D 7					
Total W1						
Week 2	D 1					
	D 2					
	D 3					
	D 4					
	D 5					
	D 6					
	D 7					
Total W2						
Week 3	D 1					
	D 2					
	D 3					
	D 4					
	D 5					
	D 6					
	D 7					
Total W3						
Week 4	D 1					
	D 2					
	D 3					
	D 4					
	D 5					
	D 6					
	D 7					
Total W4						
Total W1 to W4						

**Format -5E-8 – Monthly Report of Exchange of Energy on account of actions initiated
by MSLDC**

Details of Exchange of Energy on account of actions initiated by MSLDC								
Sl. No	From	To	MUs Transacted	Day	Time Block		MSLDC action	Reasons for the action
					From	To		
1	Seller 1	Buyer 1		1				
2	Seller 2	Buyer 1		2				
3	Seller 3	Buyer 2		3				
4	Seller 4	Buyer 2		4				

Format -5E-9 – Report of Bilateral Exchange of Surplus Energy between Discoms

Details of Bilateral Exchange of Surplus Power between Buyers/DISCOMs						
Sl. No	From	To	MUs Transacted	Day	Time Block	
					From	To
1	Buyer 1	Buyer 1		1		
2	Buyer 2	Buyer 1		2		
3	Buyer 3	Buyer 2		3		
4	Buyer 4	Buyer 2		4		