

Bhopal, the 22nd December 2023

No. 2896/MPERC/2023 In exercise of the powers conferred by Section 181 read with sub-clause (i) of clause (d) of sub-section (2) of section 39, sub-clause (i) of clause (c) of section 40, section 66, and clause (i) of sub-section (2) and clause (c) of sub-section (1) of section 86 of the Electricity Act 2003 (No. 36 of 2003), the Madhya Pradesh Electricity Regulatory Commission, hereby, revises the Madhya Pradesh Balancing and Settlement Code, 2015 [(RG-34 (I) of 2015)]and makes the following Code, namely: -

MADHYA PRADESH ELECTRICITY BALANCING AND SETTLEMENT CODE, 2023

1. **Preamble:** -The National Electricity Policy (NEP) envisages implementation of the Availability Based Tariff (ABT) at State level to establish a credible settlement mechanism for Intra-day power transfers among State Entities. As per the Tariff Policy, this framework should be extended to Generating Stations (including Grid connected Captive Plants of capacities as determined by the State Electricity Regulatory Commission). The Balancing and Settlement Code, 2015 [Code, 2015 [(RG-34 (I))]]had been specified to give effect to the intentions of Section 5.7.1(b) and (d) of the National Electricity Policy as well as section 6.2(1) and 6.3 of the Tariff Policy. Central Electricity Regulatory Commission has subsequently notified CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 and repealed the CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2014. In view of the aforesaid, the Madhya Pradesh Electricity Balancing and Settlement Code, 2023 is hereby notified.
2. **Short title, extent of application and commencement**

- (1) This Code may be called the “**Madhya Pradesh Electricity Balancing and Settlement Code, 2023 [RG 34 (II) of 2023]**”
- (2) This Code shall apply within the geographical area of the State of Madhya Pradesh and shall apply to all Intra State Entities connected to Intra State

Transmission Network and selling power within / outside the State or purchasing power from within or outside the State in a manner as specified in this Code.

- (3) This Code shall come into force on such date as may be notified by the Commission separately.

3. (1) **Definitions:** -In this Code, unless the context otherwise requires:

- (a) **“Act”** means the Electricity Act, 2003 (36 of 2003);
- (b) **“Buyer”** means a person purchasing electricity through a transaction scheduled in accordance with Grid Code;
- (c) **“CERC”** means the Central Electricity Regulatory Commission referred to in section 76 of the Act;
- (d) **“CMRI”** means Common Meter Reading Instrument used for downloading and storage of data from electronic energy meters of multiple make;
- (e) **“Commission”** means the Madhya Pradesh Electricity Regulatory Commission (MPERC) constituted under Section 82 of the Act;
- (f) **“Day”** means a continuous period starting at 00.00 hours and ending at 24.00 hours;
- (g) **“Detailed Procedure”** means the detailed operating procedure issued by the State Load Despatch Centre under this code;
- (h) **“Deviation”** in a time-block for a seller of electricity means its total actual injection minus its total scheduled generation; and for a buyer of electricity means its total actual drawal minus its total scheduled drawal;

- (i) **“Deviation Charges”** means the charges computed as per the rates and methodology as specified by the Central Electricity Regulatory Commission from time to time;
- (j) **“Deviation Settlement Mechanism Regulations”** means Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2022 and subsequent amendments thereof;
- (k) **“Discom Control Centre (DCC)”** means the Control Room established at each Discom Headquarters with necessary Infrastructure and Human Resources for implementation of this Code, which shall be built, owned, operated and maintained by respective Discom;
- (l) **“Discom Energy Accounting Group (DEAG)”** means the group to be formed by each Discom at DCC, which would be responsible for implementation of this Code in coordination with State Load Despatch Centre (wherever required);
- (m) **“Distribution Licensee or Discom”** means a Licensee authorized to operate and maintain a Distribution System for supplying electricity to the consumers in his area of supply;
- (n) **“Drawal Schedule or Scheduled Drawal”** for a Buyer in a time block or any period means the Schedule of Drawal in MW or MWh Ex-bus given by the State Load Despatch Centre.;
- (o). **“Energy Accounting Group (EAG)”** means the group to be formed at the State Load Despatch Centre which would be responsible for implementation of this Code;
- (p). **“Entitlement”** means share of a Discom or an Open Access Customer (in Mega Watt and Mega Watt Hour) in the installed Capacity/output Capacity of an Electricity Generating Station;

- (q) **“Ex-Power Plant”** means net Mega Watt / Mega Watt hour output of an Electricity Generating Station, after deducting Auxiliary consumption and Transformation losses;
- (r) **“Generator Control Centre (GCC)”** means the control room established at Headquarters of the generating company with necessary Infrastructure and Human Resources for implementation of this Code, which shall be built, owned, operated and maintained by Madhya Pradesh Power Generating Company Limited;
- (s) **“Grid”** means the high Voltage backbone system of inter-connected Transmission lines, Sub-Stations and Generating plants;
- (t) **“Independent Power Producer (IPP)”** means an electricity generating company not owned or controlled by the Central / State Government;
- (u) **“Indian Electricity Grid Code (IEGC)”** means the Grid Code specified by the Central Electricity Regulatory Commission under Clause (h) of sub-section (1) of Section 79 of the Act;
- (v) **“Inter-State Generating Station (ISGS)”** means a Central/other Electricity Generating Station in which two or more States have shares and whose Scheduling is to be coordinated by the Regional Load Despatch Centre (RLDC);
- (w) **“Intra-State Entity”** means a person whose metering is done by the State Transmission Utility or the Distribution Licensee, as the case may be and the energy accounting is done by the State Load Despatch Centre or by any other authorized State Agency.
- (x) **“Madhya Pradesh Electricity Grid Code (MPEGC)”** means the Grid Code specified by the MPERC under Clause (h) of sub-section (1) of Section 86 of the Act;

- (y) **“Month”** means a Calendar month as per the Gregorian Calendar;
- (z) **“MPPMCL”** means Madhya Pradesh Power Management Company Ltd. constituted by the Government of Madhya Pradesh vide notification dated 29th June’ 2012;
- (z-a) **“Net Drawal Schedule”** means the Drawal Schedule of a Discom or an Open Access Customer after deducting the apportioned Transmission Losses (estimated);
- (z-b) **“Open Access Customer”** means a person permitted under Central Electricity Regulatory Commission (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022 as amended from time to time and Madhya Pradesh Electricity Regulatory Commission (Terms and conditions for intra state open access in Madhya Pradesh) Regulations, (Revision-I) 2021 as amended from time to time to receive supply of electricity from another person other than the Distribution Licensee of his area of supply, or a Generating Company (including Captive Generating Plant) or a licensee, who has availed of or intends to avail open access.
- (z-c) **“Scheduled Generation or Scheduled Injection”** for a Seller in a time block or any period means the schedule of generation or injection in MW or MWh Ex-Bus given by the State Load Despatch Centre;
- (z-d) **“Seller”** means a person, including an Electricity generating station, supplying electricity through a transaction scheduled in accordance with Central and State Grid Code;
- (z-e) **“State Load Despatch Centre (SLDC)”** means the Centre established under subsection (1) of Section 31 of the Act;
- (z-f) **“State”** means the State of Madhya Pradesh;

- (z-g) **“State Energy Account (SEA)”** means monthly State Energy Account prepared by State Load Despatch Centre for the billing and settlement of Capacity charges, Energy charges and incentives, if any, applicable;
- (z-h) **“State Reactive Account (SRA)”** means weekly State Reactive Energy Account prepared by State Load Despatch Centre for the billing and settlement of Reactive Energy Charges;
- (z-i) **“State Deviation Settlement Mechanism Account (SDSMA)”** means weekly State Deviation Settlement Mechanism Account prepared by State Load Despatch Centre for the billing and settlement of Deviation charges;
- (z-j) **“State Sector Generating Station (SSGS)”** means any Electricity Generating Station within the State including Pench hydro power station (operated by Madhya Pradesh Power Generating Company Limited), except Inter-State Generating Stations (ISGS) and Independent Power producer generating stations (IPPs) / Captive Power Producer (CPP) located within the State of MP in which state has its share;
- (z-k) **“State Transmission Utility (STU)”** means the Government Company notified so by the State Government under Sub-section (1) of Section 39 of the Act;
- (z-l) **“Time Block”** means time block as defined in the State Grid Code;
- (z-m) **“Transmission Licensee”** means a licensee authorised to establish or operate transmission lines; and
- (z-n) **“Week”** means a period of consecutive seven days commencing from 00.00 hours on the Monday and ending at 24.00 hours on following Sunday as per the Gregorian Calendar.

- (2) Words and expressions used in this Code and not defined herein but defined in the Act or CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 or Indian Electricity Grid Code or Madhya Pradesh Electricity Grid Code shall have the meaning assigned to them under the Act or CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2022 or Indian Electricity Grid Code or Madhya Pradesh Electricity Grid Code, as the case may be.

4. Infrastructure and Capability Requirements

- (1) Respective Intra State Entity shall ensure adequate Infrastructure and Capability Development to fully implement this Code.
- (2) Subject to provisions of this Code, the State Load Despatch Centre shall prepare amendment to existing detailed procedure covering relevant and residual matters not detailed in this Code on the following within 30 days from the notification of this Code and submit it before the Commission for approval: -
- (a) Detailed procedure for Scheduling and Despatch;
 - (b) Detailed procedure for Energy Metering (including data collection, data processing, data transfer, data archiving, etc.);
 - (c) Detailed procedure for Energy Accounting, Deviation Charges Accounting, Reactive Energy Charges Accounting and payment settlement of Deviation Charges and Reactive Energy Charges (including management of State Pool Account etc.);
 - (d) Detailed procedure for curtailment of power during the time of excessive supply / grid contingencies; and
 - (e) Any other procedure which State Load Despatch Centre feels necessary for the successful implementation of this Code.

- (3) Each Discom shall fully develop and equip Discom Energy Accounting Group (DEAG) at respective Discom Control Centre (DCC) for undertaking various activities such as computation of Deviation Charges of Discom embedded Open Access Customers (connected at Discom Network) and, energy settlement of Open Access Customers at time block level transacting power under short term open access and other activities required for implementation of this Code.

5. Scheduling and Despatch

- (1) The Scheduling and Despatch of all Intra State entities shall be in accordance with relevant provisions of M.P. Electricity Grid Code (MPEGC) (Revision-II), 2019 as amended or revised from time to time. All the scheduling shall be done at time block as defined in the State Grid Code. Presently, the time block is of 15 minutes duration and each day starting from 00.00 hrs. to 24.00 hrs. shall be divided into 96 equal time blocks. State Load Despatch Centre shall compile and intimate the Drawal Schedule to each Buyer and the Generation Schedule to each Seller.
- (2) While preparing Generation Schedules, State Load Despatch Centre shall keep in view the transmission system constraints and provision of operating margins (reserves) and limitations on generation as provided in the Indian Electricity Grid Code and Madhya Pradesh Electricity Grid Code as amended from time to time.
- (3) For calculating the Net Drawal Schedules of Buyers at their periphery, the weekly Point of Connection losses as computed by National Load Despatch Centre in accordance with Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 as amended from time to time and Weekly Computed Transmission Losses of Madhya Pradesh, State Discomswise transmission losses (applicable for State Discoms) and Distribution / Other losses, if applicable, shall be apportioned in proportion to their Drawal Schedules. Following process shall be adopted by SLDC to compute weekly M.P Transmission and Discom wise transmission losses: -

- (a) State Transmission loss for a given Week = (Total net injection into the State Grid in a week) - (Total net Drawal from the State Grid in a Week);
- (b) State Discom wise transmission loss for a given week = (Total net injection into the State Discom at M.P. Periphery in a week) - (Total net Drawal by the State Discom from the State Grid in a Week);
- (c) Loss of n^{th} Week shall be computed by the 5th day of the $(n+1)^{\text{th}}$ Week;
- (d) This loss figure shall then be used in the Scheduling process from the beginning of the $(n+2)^{\text{th}}$ Week;
- (e) State Load Despatch Centre shall round-off actual loss of n^{th} Week to nearest 0.01% for the purpose of Scheduling for the $(n+2)^{\text{th}}$ Week (e.g. 4.705% is rounded-off to 4.71%, 3.442% is rounded off to 3.44% and so on); and
- (f) Events in the Grid of an exceptional nature could result in abnormally high or low losses in any Week. This could be either a Load crash in the State due to a Weather disturbance or closure of any Major Hydro PowerStation during the monsoon for flushing of silt/debris from the Reservoir or Outage of any major Transmission Lines etc. The losses for these abnormal weeks shall generally be ignored as far as the Scheduling process is concerned. Decision of State Load Despatch Centre in this regard will be final.
- (4) State Load Despatch Centre shall upload all the Scheduling information on its Website including Station-wise foreseen Ex Power Plant capabilities advised by the Generating Stations, Entitlements in Inter State Generating Station, State Sector Generating Stations and IPPs, Injection and Drawal Schedules issued by the State Load Despatch Centre and all revisions.

- (5) The procedure for Scheduling and the final implemented Schedules issued by State Load Despatch Centre, shall be open to all Intra-State Entities for any checking/verification, for a period of five (5) days. In case any mistake/omission is pointed out, the State Load Despatch Centre shall forthwith make a complete check and rectify the mistake, if any.
- (6) All Hydro Power Stations of Madhya Pradesh Power Generating Company Limited shall furnish day ahead Declared Capacity (DC) as per Madhya Pradesh Electricity Regulatory Commission (Terms and conditions for determination of Generation Tariff) Regulations, 2020 and amendment from time to time.

6. Energy Metering

- (1) The State Transmission Utility shall install Special Energy Meters (SEMs) and AMR facility on all Interface points with intra-state entities connected at STU network and Discoms shall install Special Energy Meters on interface points with Discoms embedded (Open Access Customers & Renewable Energy Generating Stations) and Inter-Discom interface points for recording of actual net kwh Interchanges and kVArh injection / Drawls.

The cost of ABT meters (Main, Check and Standby) and AMR facility installed at the interface points of Generating Stations (Thermal, Hydel and Renewable), Railways, SEZ, & Open Access Customers shall be borne by these utilities. The type of meters to be installed, metering scheme, metering capability, testing and calibration requirements and the scheme for collection and dissemination of metered data shall be as specified under Madhya Pradesh Electricity Grid Code 2019 and Central Electricity Authority (Installation and Operation of Meters) Regulations 2006 as amended from time to time. All concerned Intra-State Entities (owners of interface meters) shall ensure all the time that AMR facility is functional and capable of transmitting data to State Load Despatch Centre. If the weekly data of Special Energy Meter is not received through AMR system installed at State Load Despatch Centre, the same may be downloaded and transmitted to the State Load Despatch Centre by the concerned Licensee or State Sector Generating Stations (SSGS) as the case

may be having interface with their network. The cost of providing such services by the Licensee may be recovered from the owner of the ABT meter.

On completion of week by Sunday mid-night, the SLDC shall download the meter data of interface points through AMR System installed at SLDC. The SLDC shall intimate the list of meters not read through AMR system to concerned Licensee or State Sector Generating Stations (SSGS) as the case may be through email by Tuesday of current week. On receipt of email from SLDC, concerned Licensee or State Sector Generating Stations (SSGS) as the case may be shall manually download the meter data through MRI and transmit the data to SLDC latest by Thursday of current week.

- (2) The State Load Despatch Centre shall be responsible for computation of actual net kWh Injection of each Seller and actual net Drawal of each Buyer on time block-wise, based on meter readings and for preparation of the State Deviation Charges Accounts and day-wise net Reactive Energy Injection /Drawal (kVArh) during low voltage and high voltage conditions for each Discom for preparation of State Reactive Account. All block wise actual energy in kWh figures (net Scheduled, actually metered and Deviation) and day-wise reactive energy in kVArh figures shall be rounded off to the Zero decimal places. All computations carried out by State Load Despatch Centre shall be open to all Intra-State Entities for checking/verification for a period of fifteen days. In case any discrepancy is pointed out regarding energy metering/State Energy Account/State Deviation Account/State Reactive Account, the State Load Despatch Centre shall check it comprehensively and rectify mistake(s), if any, within fifteen days.
- (3) In case of non-availability of data of main meter, check and standby meter due to failure of meter / metering equipment failure or non-receipt of data on time, State Load Despatch Centre shall assess the missing meter data as defined in clause 15 of Central Electricity Authority (Installation and Operation of meters) Regulations 2006 as amended from time to time. The State Load Despatch Centre shall assess the missing data on the following basis: -

- (i) For generating stations - On the basis of generation data available through SCADA at State Load Despatch Centre.
- (ii) For interface points of Discoms including Railways and SEZ -The data shall be assessed on the basis of SCADA data if available or on the basis of data available for previous week from the ABT meter installed at the same interface point, which shall be adjusted in line with load pattern of the adjoining transformers/feeder.
- (iii) For Open Access Customers (OAC) - The State Load Despatch Centre shall substitute the actual with schedule while calculating the deviation charges.

7. Energy Accounting and Settlement

State Energy Account (SEA)

- (1) The State Load Despatch Centre shall prepare and issue (to all Intra-State Entities) monthly State Energy Account (SEA) by 7th day of the next month or on later date after issue of Regional Energy Account (REA) by Western Region Power-Committee. The State Load Despatch Centre shall revise the State Energy Account as and when required. SEA shall broadly contain the following information:
 - (a) Details of PAFM (Plant Availability Factor achieved during the Month in %) foreach State Sector Generating Station, Independent Power Producer and any other Generating Station under Two Part Tariff:

Provided that in case IPPs having part capacity tied up with MPPMCL do not keep their unit on bar despite technical minimum schedule provided by the beneficiary for their contracted capacity, the unit shall be treated under forced outage and PAF shall be computed accordingly.

- (b) Details of mis-declaration of Declared Capacity by State Sector Generating Station, Independent Power Producer and any other Generating Station under Two Part Tariff (if any);
- (c) - Details of Energy scheduled to Discoms / MPPMCL on behalf of Discoms from Inter State Generating Station, State Sector Generating Station, Independent Power Producer and any other Generating Station under Two Part Tariff;
- (d) The details of energy injection of Renewable Energy Generators(REG) at common metering point, energy purchased by Madhya Pradesh Power Management Company Limited and energy wheeled to Discoms for own use / third party sale as furnished by respective Discoms/ Madhya Pradesh Power Transmission Company Limited; and
- (e) Any other details which State Load Despatch Centre feels necessary to complete the State Energy Account.
- (2) Discoms (through Madhya Pradesh Power Management Company Limited) shall pay to the respective Inter State Generating Station Capacity Charges corresponding to Plant Availability and Energy Charges and PLF incentives (if any) for the Scheduled Despatch (on ex-Power Plant basis), as per the relevant notifications and orders of Central Electricity Regulatory Commission. The bills for these charges shall be issued by the respective Inter State Generating Station to Madhya Pradesh Power Management Company Limited on monthly basis.
- (3) Madhya Pradesh Power Management Company Limited shall pay to the respective State Area Generating Station/Independent Power Producers Capacity Charges corresponding to Plant Availability and Energy Charges for the Scheduled Despatch (on ex-Power Plant basis), as per the relevant notifications and orders of Madhya Pradesh Electricity Regulatory Commission. The bills for these charges shall be issued by the respective State

Sector Generating Station / IPPs etc. to each Discom (through Madhya Pradesh Power Management Company Limited) on monthly basis.

State DSM Account (SDSMA)

- (4) The State Load Despatch Centre shall prepare and issue (to all Intra-State Entities) Weekly State Deviation Settlement Mechanism Account (DSMA) within ten days from the last day of the Week and shall revise the same at a later date if required. The Deviation Settlement Mechanism Account shall be prepared by State Load Despatch Centre in accordance with the methodology and Deviations Rates specified in Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations 2022 as amended from time to time. Deviation Settlement Mechanism Account shall broadly contain the following information:
- (a) Details of Deviation Settlement Mechanism Structure currently in force;
 - (b) Details of Day-wise and total Deviation Charges for each Entity (details shall include Scheduled Energy, Actual Energy, Deviation Charges (unadjusted) and Deviation charges (Adjusted);
 - (c) Summary table listing all Entities along with their Deviation Charges and Net Deviation Charges payable or receivable after pool balancing during the week;
 - (d) Details of time-blocks of suspension of Deviation due to Transmission constraints and Grid disturbances;
 - (e) Any other details which State Load Despatch Centre feels necessary to complete the Deviation Settlement Mechanism Account.
- (5) Composite Deviation amount payable/receivable by Madhya Pradesh in the Regional Deviation Settlement Mechanism Pool Account shall be obtained from

the Weekly Regional DSM Account prepared and circulated by Western Region Power Committee.

- (6) The Deviation in a time block and Charges for Deviation for each Buyer and Seller except for Wind and Solar Generating Stations shall be computed in accordance with CERC (Deviation Settlement Mechanism and Related Matters) Regulations 2022 as amended from time to time and any directives issued by CERC there under.
- (7) Following rules shall apply for Active Energy transactions in the State:
- (a) Amount payable (+) by Intra-State Entity for Over-Drawal;
 - (b) Amount receivable (-) by Intra-State Entity for Under-Drawal;
 - (c) Amount payable (+) by Intra-State Entity for Under-Generation;
 - (d) Amount receivable (-) by Intra-State Entity for Over-Generation.

Procedure for Imbalance Settlement of Deviation Charges:

- (8) The pool balancing of Deviation Charges shall be done in following three steps:
- i Pre pool balancing of Discoms (M.P. Madhya Kshetra Vidyut Vitaran Co. Ltd. (CZ), M.P. Poorv Kshetra Vidyut Vitaran Co. Ltd. (EZ), M.P. Paschim Kshetra Vidyut Vitaran Co. Ltd. (WZ) shall be done for total Deviation Charges. The total Deviation Charges (payable / receivable) of Discoms shall be matched at day level.
 - ii Pool balancing shall be done of all Intra State entities (under long term) excluding OACs.
 - iii Pool balancing shall be done of all Intra State entities (under long term) including OACs and Generators injecting infirm power.

The imbalance settlement of Deviation Charges of the Intra State entities shall be done by State Load Despatch Centre as per Appendix.

- (9) The charges for deviation for injection of infirm power and drawal of start-up power before COD of a Generating Unit shall be computed in accordance with CERC (Deviation Settlement Mechanism and related matters) Regulations as amended from time to time:

Provided that infirm power injected before the COD of a Generating Unit of MPPGCL Power Station shall be accounted as Deviation and paid from the State Deviation Pool Account at the applicable Deviation Rate.

- (10) In case of forced outage of Thermal Generating Unit (Seller), the charges for deviation shall be @ the energy charge rate, for a maximum duration of four-time block or until the revision of its schedule, whichever is earlier. No charges shall be payable for injection of power in the absence of Declared Capacity / Schedule.
- (11) The Hydro Power Generating Stations of Madhya Pradesh Power Generating Company Ltd., NHDC Limited (except ISP), Small Hydro, Municipal Solid Waste Plants and Biomass Generators (with installed capacity less than 15MW) are excluded from the ambit of Deviation Settlement Mechanism.
- (12) The Deviation Charges for each State Discom (East Discom, Central Discom and West Discom) shall be computed in accordance with the methodology specified in CERC (Deviation Settlement Mechanism and related matters) Regulations 2022 as amended from time to time for category of Buyer being an RE Rich State.
- (13) The Deviation Charges for Buyer other than buyer mentioned in sub-clause (12) above i.e. Railways & SEZ and Open Access Customers connected with the State network or having control area with SLDC and purchasing power from within or outside the State shall be computed in accordance with the methodology specified in CERC (Deviation Settlement Mechanism and related matters) Regulations 2022 as amended from time to time specified for category

of Buyer (other than the buyer with schedule less than 400 MW and the RE Rich State) or category of Buyer (with schedule upto 400 MW) as the case may be.

- (14) The Deviation Charges for MPPGCL Thermal Power Stations, IPPs, ISP(NHDC), Biomass Generators (with installed capacity more than 15MW) or any other Thermal Generator connected with State Network or having control area with SLDC and Open Access Customer connected with the State network or having control area with SLDC selling power within or outside the State shall be computed in accordance with the methodology specified in CERC (Deviation Settlement Mechanism and related matters) Regulations 2022 as amended from time to time for General Seller other than an ROR generating station or a generating station based on municipal solid waste.
- (15) The Deviation Charges for Generating Station based on municipal solid waste plants subjected to Merit Order Despatch Principles shall be computed in accordance with accordance with the methodology specified in CERC (Deviation Settlement Mechanism and related matters) Regulations 2022 as amended from time to time for General Seller being a generating station based on municipal solid waste.
- (16) The Deviation rate for computation of Deviation Charges of Open Access Customers shall be 105% (for Over-Drawal or Under-Generation) and 95% (for Under-Drawal or Over- Generation) of Deviation rate specified in CERC (Deviation Settlement Mechanism and related matters) Regulations 2022 at the periphery of Regional Entity.
- (17) The Deviation Charges for Wind and Solar Generating Stations shall be computed in accordance with MPERC(Forecasting, Scheduling, Deviation Settlement Mechanism and related matters of Wind and Solar Generating stations) Regulations 2018 as amended from time to time.
- (18) In case supply of power is required from State Discoms to run the auxiliaries of MPPGCL Generating Power Stations then Discoms should mandatorily supply such power. The energy supplied by the Discoms for running of auxiliaries of

Generating Power Stations of MPPGCL shall be treated as auxiliary power consumption of power station and same shall be deducted from the Drawal of respective Discom.

- (19) Settlement of Deviation charges shall be done through State DSM Pool Account to be operated by State Load Despatch Centre. The State Load Despatch Centre shall open and maintain a separate Bank Account with a Nationalized/Scheduled Commercial Bank having Branch Office in Jabalpur.
- (20) Payment of Deviation charges shall have a high priority and the concerned Entity shall pay the indicated amount, within 7 (seven) days from the date of issue of State Deviation Settlement Account by the State Load Despatch Centre, failing which late payment surcharge @ 0.04% shall be payable for each day of delay. Separate books of accounts shall be maintained for the principal and interest component of Charges for Deviation by the State Load Despatch Centre.
- (21) Any Intra State entity which at any time during the previous financial year fails to make payment of charges for deviation within the time specified in these Regulations, shall be required to open a Letter of Credit (LC) equal to 110% of their average payable weekly liability for deviations in the previous financial year in favour of the State Load Despatch Centre within a fortnight from the start of the current financial year.

Illustration: If the average payable weekly liability for Deviation of an intra state entity during 2020-21 is Rs. 2 crores, the intra state entity shall open Letter of Credit for Rs. 2.2 crore in 2021-22.

- (22) In case of failure to pay into the State Deviation Pool Account within 7 (seven) days from the date of issue of statement of charges for deviations, the State Load Despatch Centre shall be entitled to en cash the LC of the concerned entity to the extent of the default and the concerned State entity shall recoup the LC amount within 3 days.

State Reactive Account (SRA)

- (23) The State Load Despatch Centre shall prepare and issue to Discoms Weekly State Reactive Account (SRA) complying with the requirements of Indian Electricity Grid Code and Madhya Pradesh Electricity Grid Code within ten days from the last day of the Week or on later date after availability of state reactive charges amount in Western Regional Load Despatch Centre website. The State Load Despatch Centre shall revise the SRA as and when required.

State Reactive Account shall broadly contain the following information: -

- (a) Details of day-wise net Reactive Energy Injection/Drawal during low Voltage (<97%) and high Voltage (>103%) for each Discom;
 - (b) Summary of weekly total net Reactive Energy Injection/Drawal during low Voltage (<97%) and high Voltage (>103%) for each Discom;
 - (c) Summary of Reactive Charges payable/receivable by the Intra State entity (excluding RE Generators) [Note: Rate of reactive energy shall be taken as per Indian Electricity Grid Code as amended from time to time.
 - (d) Any other details which State Load Despatch Centre feels necessary to complete the State Reactive Account.
- (24) Following Rules shall apply for Reactive Energy transactions in the State:
- (a) Amount payable (+) by Discom for Drawal when $V < 97\%$;
 - (b) Amount receivable (-) by Discom for Injection when $V < 97\%$;
 - (c) Amount payable (+) by Discom for Injection when $V > 103\%$;
 - (d) Amount receivable (-) by Discom for Drawal when $V > 103\%$.

- (25) Notwithstanding the above, State Load Despatch Centre may direct a Discom to curtail its Reactive Drawal/ Injection in case the security of Grid or safety of any equipment is endangered. All the Generating Stations connected to State Grid shall generate / absorb Reactive power as per instructions of State Load Despatch Centre, within capability limits of the respective Generating Units.
- (26) The Reactive Energy Settlement shall be carried out as per following procedure:

Nomenclature:

RRC: Total of Regional Reactive Charges and Inter State Bilateral Reactive Charges payable (+) / receivable (-) by MP.

SRCP: Total State Reactive Charges payable (+) by Discoms.

SRCR: Total State Reactive Charges receivable (-) by Discoms.

RRA: Reactive Reserve Amount available in State Reactive Account (i.e. surplus balance amount after settlement of all earlier Reactive transactions)

- (a) Case-I: If Regional Reactive Charges is payable (+) by Madhya Pradesh and (Regional Reactive Charges + State Reactive Charge Receivable) < State Reactive Charge Payable: Balance amount shall be kept as reserve (Reactive Reserve Amount) after paying out Regional Reactive Charges and State Reactive Charges Receivable;
- (b) Case-II: If Regional Reactive Charges is payable (+) by MP and (Regional Reactive Charges + State Reactive Charges Receivable) > State Reactive Charge Payable: Surplus amount, if any, available in reserve (RRA) shall be withdrawn to match (Regional Reactive Charge + State Reactive Charge Receivable) and State Reactive Charge Payable. If there is no reserve or if it is inadequate to meet the gap, State Reactive Charge Receivable shall be reduced appropriately to match the total payables and total receivables;

- (c) Case-III: If Regional Reactive Charge is receivable (-) by MP and (Regional Reactive Charge + State Reactive Charge Payable) > State Reactive Charge Receivable: Balance amount shall be kept as reserve (RRA) after paying out SRCR;
- (d) Case-IV: If Regional Reactive Charges is receivable (-) by MP and (Regional Reactive Charges + State Reactive Charge Payable) < State Reactive Charge Receivable: Surplus amount, if any, available in reserve (RRA) shall be withdrawn to match (Regional Reactive Charges + State Reactive Charge Payable) and State Reactive Charge Receivable. If there is no reserve or if it is inadequate to meet the gap, State Reactive Charge Receivable shall be reduced appropriately to match the total payables and total receivables;
- (e) Case-V: If State Reactive Charges are receivable by Discoms and no Regional Reactive Charges (RRC) are receivable, and reserve(RRA) has no balance available then no Reactive Charges shall be payable to the Discoms.
- (27) Payment of Reactive Charges shall have a high priority and the concerned Entity shall pay the due amounts within 7 (seven) days of the issue of State Reactive Account Statement by the State Load Despatch Centre, failing which late payment surcharge @ 0.04% shall be payable for each day of delay. All the payment settlement of Reactive Energy Charges shall be done through State Reactive Account to be maintained and operated by the State Load Despatch Centre. SLDC may maintain a single bank-account for payment settlement of both Deviation Charges and Reactive Energy Charges, but books of accounts shall be maintained separately.
- (28) Separate books of accounts shall be maintained for the principal and interest component of Charges for Reactive Energy by State Load Despatch Centre.

8. Procedure for Imbalance Settlement of Deviation charges

Appendix to this Code provides the illustration of Imbalance Settlement of Deviation charges for Intra State entities.

9. Data Archiving Requirements

All Entities shall properly preserve respective records of documents /information/Data for the period as specified in following table. The records shall be easily retrievable at any time for the purpose of Audit by the Madhya Pradesh Electricity Regulatory Commission, or any other independent Audit Agency appointed by the Madhya Pradesh Electricity Regulatory Commission.

S. no.	Documents / information / data	Mode and period of	Responsibility
1	Short term Open Access and associated contracts / agreements by Intra-State Entities	Electronic -2 Years Paper - 12 months	State Load Despatch Centre
2	Declared Capacity of all State Area Generating Stations / Independent Power Producers / Renewable Energy Generators And Entitlements in all Inter State Generating Stations (all revisions)	Electronic -2 Years Paper - 12 months	State Load Despatch Centre, Generator Control Centre
3	Demand, Entitlement and Requisition of each Discom (all revisions)	Electronic -2 Years Paper - 12 months	State Load Despatch Centre, Delivery Control Centre
4	Short-term Open Access transactions: Bilateral transactions (direct and through Traders) and Collective transactions through Power	Electronic -2 Years Paper - 12 months	State Load Despatch Centre, Delivery Control Centre

	Exchanges		
5	Schedules of Inter State Generating Station, Seller and Buyer (all revisions)	Electronic -2 Years Paper - 12 months	State Load Despatch Centre, Delivery Control Centre, Generator Control Centre.
6	ABT meter data from Interfaces with Seller, & Buyer in 15-minute Time Block	Electronic -2 Years	State Load Despatch Centre
7	Details of State Load Despatch Centre instructions to Intra-State Entities	Electronic -2 Years	State Load Despatch Centre
8	Details of requests from Intra-State Entities to State Load Despatch Centre	Electronic -2 Years Paper - 12 months	State Load Despatch Centre
9	Any other information deemed necessary for Operational, Commercial Delivery Control Centre or Market Audit purpose	Electronic -2 Years Paper - 12 months	State Load Despatch Centre, Delivery Control Centre, Generator Control Centre.

10. Standing Committee for Market Audit

(1) The Commission may appoint a Standing Committee (SC) for independent review and audit of market transactions and behavior of Intra-State Entities to which Balancing and Settlement Code is applied. The Committee shall comprise of following members:

- (a) A Representative from State Load Despatch Centre (An officer working as Chief Engineer or equivalent) - Chairperson of the Standing Committee;

- (b) A Representative from State Transmission Unit (An officer working as Chief Engineer or equivalent);
- (c) A representative from Madhya Pradesh Power Management Company Limited (An officer working as Chief General Manager or equivalent);
- (d) A representative from Madhya Pradesh Power Generating Company Limited (An officer working as Chief Engineer or equivalent);
- (e) A representative from three discoms (An officer working as Chief General Manager or equivalent on rotation for one year);
- (f) A representative from NHDC Limited, Independent Power Producers (having installed capacity 250 Mega Watt. & above) and Renewable Energy Generators (having installed capacity of 50 Mega Watt & above at single location) on rotation for one year; and
- (g) A Certified Energy Auditor from State Load Despatch Centre /Discom/ Madhya Pradesh Power Generating Company Limited / Madhya Pradesh Power Management Company Limited / State Transmission Unit as nominated by the Standing Committee, to assist the Committee for preparation of energy audit report.

(2)The Audit may be conducted twice a Year and the Committee shall submit the Audit Report to the Commission within sixty days of the initiation of the Audit.

(3)The Committeeshall recommend modifications and suggestions (if any) to the Commission. The Commission may accordingly amend and notify, if required, the concerned Section or Order or Procedure.

11. Applicability of Code: -

This Code shall apply to all Sellers and Buyers connected to Intra-State Transmission Network and whose energy accounting is being done by State Load Despatch Centre

from the date of coming into force, as may be specified by the Commission separately by way of notification.

12. Powers to remove difficulties

- (1) If any difficulty arises in giving effect to any of the provisions of this Code, the Commission may, by general or special order, direct State Load Despatch Centre, State Transmission Unit and/or any of the Intra-State Entities to take suitable action, not being inconsistent with the provisions of the Act, which appears to the Commission to be necessary or expedient for the purpose of removing the difficulties.
- (2) State Load Despatch Centre, State Transmission Unit and/or any of the Intra-State Entities may also make an application to the Commission and seek suitable orders to remove any difficulties that may arise in implementation of this Code.

13. Power to amend: -The Commission may from time to time add, vary, alter, modify or amend any provisions of this Code after following the necessary procedure.

14. Savings

- (1) The Code namely "Madhya Pradesh Electricity Balancing and Settlement Code, 2015 [RG-34(I) of 2015] is hereby repealed.
- (2) Nothing in this Code shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary to meet the ends of justice and/or to prevent abuses of the process of the Commission.
- (3) Nothing in this Code shall bar the Commission from adopting, in conformity with the provisions of the Act, a procedure, which is at variance with any of the provisions of this Code, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient for dealing with such a matter or class of matters.
- (4) Nothing in this Code shall, expressly or impliedly, bar the Commission dealing with any matter or exercising any power under the Act for which no Regulations or Code have been framed, and the Commission may deal with such matters, powers and functions in a manner it thinks fit.

By order of the Commission,
UMAKANTA PANDA, Commission Secy.

APPENDIX**PROCEDURE FOR IMBALANCE SETTLEMENT OF DEVIATION CHARGES OF INTRA STATE ENTITIES**

<p>The pool balancing of Deviation Charges shall be done in three steps, in the first step pre pool balancing of State Discoms (CZ,EZ & WZ) total Deviation Charges and Regional DSM amount is done, the total Deviation Charges (payable / receivable) of Discoms are matched at day level to avoid unnecessary adjustment on other Intra State entities: in the second step pool balancing is done of all Intra State entities (under long term) excluding OACs and in the third step including OACs and Generators injecting infirm power. The objective of including the OACs and Infirm power in the third step is that nominal adjustment is done in OACs even if there is large amount of Regional Deviation amount payable / receivable by MP.</p>		
<p>Step -1 (Pre Pool Balancing of Total Deviation Charges of State Discoms (CZ,EZ & WZ) and Regional DSM amount)</p>		
<p>Blockwise Deviation charges of each State Discom (CZ, EZ & WZ) is calculated at the end of the week. The blockwise DSM Charges are added at a day level to make the total DSM charges payable / receivable by each Discom (CZ,EZ &WZ) for a day. The day wise total Regional Deviation Charges amount payable / receivable by Madhya Pradesh is obtained from the Regional DSM Account prepared by WRPC.</p>		
<p>Lets say in a day of week:</p>		
<p>The amount payable by each Discom say D1= 4500, D2=3000, D3=2000 and Regional DSM Amount is the Deviation Charges amount payable / receivable by MP=7000 where D1,D2,D3 are State Discoms (CZ,EZ & WZ).</p>		
<p>If total DSM charges payable / receivable by each Discom (CZ,EZ &WZ) for a day are in same direction (i.e. payable / receivable) and Regional DSM amount is also (payable / receivable) from State Pool, then, difference in total payable / receivable of Discoms and Region will be distributed to all Discoms in proportion to their DSM charges.</p>		
<p>Particular</p>		
<p>Adjusted amount = (Original DSM amount of Discom / Total DSM Amount of all Discoms) x Regional DSM amount</p>		
<p>Amount Payable by Discoms</p>		
Participants	Original Payable	Adjusted amount
D1	4500	$(4500/9500) \times 7000 = 3316$
D2	3000	$(3000/9500) \times 7000 = 2210$
D3	2000	$(2000/9500) \times 7000 = 1474$
Total Payables	9500	7000
<p>Pre Pool Balancing of Total Deviation Charges of State Discoms</p>		

Amount Payable by Participants		Amount Receivable by Participants	
Participants	Rs	Participants	Rs
D1	3316	Regional DSM amount	7000
D2	2210		
D3	1474		
Total Payables	7000	Total Receivables	7000
If total DSM charges payable / receivable by each Discom (CZ,EZ &WZ) for a day are not in same direction (i.e. payable / receivable). In order to match them, the average of the "Total Payables" and "Total Receivables" is taken as a base and payable / receivables are matched to average.			
Total Deviation Charges of Discoms (CZ, EZ & WZ) and Regional DSM amount (for a given day in a week)			
Amount Payable by Participants		Amount Receivable by Participants	
Participants	Rs	Participants	Rs
D2	3000	D1	4500
D3	2000	Regional DSM amount	7000
Total Payables	5000	Total Receivables	11500

The amount payable and receivable to / from State Deviation Pool does not match for a given day. In order to match them, the average of the "Total Payables" and "Total Receivables" is taken as a base and payable / receivables are matched to average.

Particular	Total Amount Payable	Total Amount Receivables
Sum Total	5000	11500
Average of the 'Total Amount Payable' and 'Total Amount Receivables'	8250	
Adjustment Ratio# AR_{P1} (=Average / Total Amount Payable)	1.650000	
Adjustment Ratio# AR_{R1} (=Average / Total Amount Receivable)	0.717391	
Amount Payable by Discoms		
Participants	Original Payable	Adjusted Payable
D2	3000	4950
D3	2000	3300

Total Payables	5000		8250
Amount Receivable by Discoms			
Participants	Original Receivable	Adjustment Ratio AR _{R1}	Adjusted Receivable
D1	4500	0.717391	3228
Regional DSM amount	7000	0.717391	5022
Total Receivables	11500		8250
Since regional DSM amount must be paid without any adjustments, difference between adjusted regional DSM amount and original Regional DSM amount shall be recovered from remaining participant in proportion to their their original amounts			
Difference between adjusted regional DSM amount and Actual Regional DSM amount		5022-7000=-1978	
Original Total receivables excluding Actual Regional DSM amount		11500-7000=4500	
Adjustment Ratio AR _{R2} for receivables		-1978/4500=-.439613527	

Second Stage Adjustment			
Participants	Original Receivable	Adjustment Ratio AR _{R2}	Adjusted Payable
D1	4500	-0.439613527	-1978
Regional DSM amount	7000		
Total Receivables	11500		-5056

Amount Receivable by Participants (for a given day in a week) - Final			
Participants	Amount after first Adjustment	Second adjustment Amount	Total (Final) Adjusted Amount
D1	3228	-1978	1250
Regional DSM amount	7000	0	7000
Total Receivables	10228		8250

Pre Pool Balancing of Total Deviation Charges of State Discoms

Amount Payable by Participants		Amount Receivable by Participants	
Participants	Rs.	Participants	Rs.
D2	4950	D1	1250
D3	3300	Regional DSM amount	7000
Total Payables	8250	Total Receivables	8250

Step -2 (Pool balancing of all Intra State entities (under long term) excluding OACs)

The daywise Total Deviation Charges of Discoms (CZ, EZ & WZ) as obtained from Step-1 are taken and Total Deviation Charges of other Long Term Intra State entities are included along with Regional Amount (Payable / Receivable) and Pool Balancing is done. The Blockwise Deviation charges of Other Intra State entities are added at a day level to make the total DSM charges payable / receivable for each participant for a day.

State DSM Pool Account (for a given day in a week / month)

Amount Payable by Participants		Amount Receivable by Participants	
Participants	Rs.	Participants	Rs.
D2	4950	D1	1250
D3	3300	D4	500
D5	1000	SSGS3	3500
SSGS1	3500	Regional DSM amount	7000
SSGS2	1500		
Total Payables	14250	Total Receivables	12250
Where,			
D4 & D5 other Discoms.(SEZ & RAILWAY)			
SSGS1, SSGS2, SSGS3 are State Setor Generating Stations.			

The amount payable and receivable to / from State Deviation Pool does not match for a given day. In order to match them, the average of the "Total Payables" and "Total Receivables" is taken as a base and payable / receivables are matched to average.

Particular	Total Amount Payable	Total Amount Receivables
Sum Total	14250	12250
Average of the 'Total Amount Payable' and 'Total Amount Receivables'	13250	
Adjustment Ratio# AR_{P1} (=Average / Total Amount Payable)	0.929825	

Adjustment Ratio# AR_{R1} (=Average / Total Amount Receivable)	1.081633		
First Stage Adjustment			
Amount Payable by Participants - First Adjustment			
Participants	Original Payable	Adjustment Ratio AR_{R1}	Adjusted Payable
D2	4950	0.929825	4603
D3	3300	0.929825	3068
D5	1000	0.929825	930
SSGS1	3500	0.929825	3254
SSGS2	1500	0.929825	1395
Total Payables	14250		13250

Amount Receivable by the Participants - First Adjustment			
Participants	Original Receivable	Adjustment Ratio AR_{R1}	Adjusted Receivable
D1	1250	1.081633	1352
D4	500	1.081633	541
SSGS3	3500	1.081633	3786
Regional DSM amount	7000	1.081633	7571
Total Receivables	12250		13250

Since regional DSM amount must be paid without any adjustments, difference "actual regional DSM amount" and adjusted DSM amount" shall be recovered from remaining participants in proportion to their their original amounts

Difference between adjusted regional DSM amount and Actual Regional DSM amount	$7571-7000=571$
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Original Total receivables excluding Actual Regional DSM amount	$12250-7000=5250$
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Adjustment Ratio AR_{R2} for receivables	$571/525=0.108844$
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Second Stage Adjustment

Participants	Original Receivables	Adjustment Ratio AR_{R2}	Adjusted Receivables
D1	1250	0.108844	136
D4	500	0.108844	54

SSGS3	3500	0.108844	381
Total Receivables	5250		571
Amount Receivable by Participants (for a given day in a week) - Final			
Participants	Amount after first Adjustm ent	Second adjustment Amount	Total (Final) Adjusted Amount
D1	1352	136	1488
D4	541	54	595
SSGS3	3786	381	4167
Regional DSM amount	7000	0	7000
Total Receivables	12679		13250
Balanced State DSM Pool Account of Long Term Entities			
Amount Payable by Participants		Amount Receivable by Participants	
Participants	Rs.	Participants	Rs.
D2	4603	D1	1488
D3	3068	D4	595
D5	930	SSGS3	4167
SSGS1	3254	Regional DSM amount	7000
SSGS2	1395		
Total Payables	13250	Total Receivables	13250
Step -3 (Stage I & II)			
After obtaining the balanced DSM pool account in step-2, the Open Access Generators / Open Access Consumers (under short term) and Generator injecting infirm power are included and same methodology is applied as of step-2 for obtaining the final balanced DSM pool account.			