



MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

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Bhopal, Dated: 19th November, 2008

No. 2478/MPERC-2008. In exercise of the powers conferred under Section 86(1)(h) read with Section 181(1) of the Electricity Act, 2003 (No. 36 of 2003) and all powers enabling it in that behalf, the Madhya Pradesh Electricity Regulatory Commission hereby makes the following amendment in the Madhya Pradesh Electricity Grid Code (Revision-I), 2005 notified vide No. 2506/MPERC/2005 dated 24th October, 2005.

**FOURTH AMENDMENT TO MADHYA PRADESH ELECTRICITY GRID CODE
(REVISION-I), 2005**

1. **Short Title, extent and commencement :** (i) This Code may be called the “Madhya Pradesh Electricity Grid Code (Revision-I), 2005 (Fourth Amendment) [A {RG-14 (I) (iv) of 2008}].

(ii) This amendment / addendum to the Code shall come into force from the date of its publication in the Official Gazette.

(iii) This code shall extend to the entire State of Madhya Pradesh.

2. **Amendment to Clause 5.10 of the said code :**

In the Madhya Pradesh Grid Code (Revision-I), 2005, hereinafter called the Principal Code, in clause 5.10 following shall be replaced, namely :

5.10 Communication Facilities:

Reliable and efficient speech and data communication systems shall be provided **by all the users** to facilitate necessary communication and data exchange, and supervision/control of the grid by the SLDC, under normal and abnormal conditions. All Users shall provide the required facilities at their respective ends **and SLDC** and this shall be indicated in the Connection Agreement.

3. **Amendment to Section 8 of said code :**

In the Madhya Pradesh Grid Code (Revision-I), 2005, in Section 8 (Scheduling and Despatch) following shall be replaced, namely :

8.1 INTRODUCTION

This section sets out the demarcation of responsibilities between various State utilities and SLDC in Scheduling & Despatch.

8.2 OBJECTIVE

The objective of this section is to deal with the procedures to be adopted for scheduling of ISGS, SSGS, Joint Ventures, CPPs and Open Access Customers in detail and responsibility of SLDC in preparing & issuing daily schedule of despatch / drawal of generator and Discoms. It also provides methodology of issuing real time despatch/drawal instructions and rescheduling if required to SSGS & Discoms along with the commercial arrangement from deviation from the schedules.

8.3 General Principles of SCHEDULING:

- 8.3.1 All the Scheduling will be done on 15 minutes time block. For this purpose of scheduling each day starting from 00.00 hrs to 24.00 hr is divided into 96 time blocks each of 15 minutes duration. SLDC compile and intimate each DISCOMs the Drawal Schedule and to each SGS the Generation Schedule in advance.
- 8.3.2 Merit Order Operation: DISCOMs, will give their requisitions based on the merit order i.e. on ascending order of cost of energy of ISGS/ SSGS/ Joint Ventures/IPP's and bilateral exchanges and collective transaction.
- 8.3.3 The net drawl schedule of any DISCOM issued by SLDC would be sum of ex-power plant schedules from different SSGS /IPP and joint sector project, share from ISGS and any bilateral exchange agreed by the DISCOMs with any other agency inside / outside the region and drawal / injection on behalf of Open Access Customers.
- 8.3.4 The generation schedule of each SSGS shall be sum of the requisitions made by each DISCOMs, restricted to their entitlement and subjected to maximum and minimum value criteria or any other technical constraints indicated by SLDC.
- 8.3.5 The DISCOMs shall endeavor to maintain their drawls in such a manner that they do not overdraw from the grid whenever the frequency is below normal value and do not under draw whenever frequency is above the normal value. Similarly each SSGS shall also endeavor to maintain their generation in such a manner that they do not generate above schedule during the period when the frequency is above the normal value and do not generate below schedule, whenever frequency falls below normal value.
- 8.3.6 Generation Schedules and Drawal Schedules issued/ revised by SLDC shall become effective from designated time block irrespective of communication success.
- 8.3.7 For any revision of Scheduled Generation of GENCO, including post facto deemed revision; there shall be a corresponding revision of Scheduled Drawals of the DISCOMs.
- 8.3.8 A procedure for recording the communication regarding changes to schedules duly taking into account the time factor shall be evolved by SLDC (voice recorder with time stamping).
- 8.3.9 Generator to ensure that Declared Capacity during peak should not be less than during off-peak period of the day.

Exception : Tripping / re-synchronization of units due to forced outage.

8.3.10 The following specific points would be taken into consideration while preparing the schedules.

- i. SLDC to check that the resulting power flows do not give rise to any transmission constraint. In case of any constraints SLDC has to moderate the schedule to the required extent, under intimation to concerned DISCOMs.
- ii. SLDC to check that schedules are operationally reasonable particularly in terms of Ramping up / Ramping down rates and ratio between minimum and maximum generation levels. SLDC to moderate the schedule to the required extent under intimation to concerned DISCOMs. The ramping up / ramping down rates in respect of different categories of stations would be based on the technical data as substantiated by generating stations and as mutually agreed by DISCOMs.

8.3.11 For calculating the net Drawl Schedules of DISCOMs, the transmission losses shall be apportioned in proportion to their drawal schedules.

8.4 SCHEDULING PROCESS:

- i. By 10.00 hrs everyday each SSGS will advise SLDC the station wise ex-power plant MW and MWH capabilities foreseen for the next day i.e. between 00.00 hrs to 24.00 hrs of the following day, at 15 minute interval.
- ii. By 10.00 WRLDC sends MW and MWH entitlement schedule in each 15 minutes block from ISGS stations to SLDC.
- iii. On the basis of above information SLDC will compile Generator availability for both ISGS & SSGS and MW and MWH entitlement of each DISCOMs during the following day at 15 minutes interval shall be intimated to MP Tradeco /DISCOMs by 12.00 hrs.
- iv. After receipt of information in regard to the availability from different SSGS and ISGS, all DISCOMs, on the basis of their demand pattern, will furnish requisition through MP Tradeco in each ISGS & SSGS stations to SLDC by 13.00 hrs. MP Tradeco / DISCOMs shall also indicate surplus/ deficit if any of other DISCOMs.
- v. By 13.30 hrs SLDC shall intimate to MP Tradeco / DISCOMs regarding surplus/ deficit if any to other DISCOMs
- vi. By 14.00 hrs the MP Tradeco / DISCOMs would advise SLDC their requisition in SSGS and ISGS along with bilateral exchanges of DISCOMs and Inter-DISCOMs/Inter-State Open Access transactions. While indicating their station wise requisitions DISCOMs must ensure that change is not more than 10% of the previous requisition, DISCOMs while finalizing their requisition from SSGS, shall also consider estimated losses that would be deducted from their ex-power plant schedules.
- vii. By 15.00 hrs SLDC will convey the MP requisition to WRLDC after that WRLDC will convey the schedule from ISGS for each State by 17.00 hrs.

- viii. By 18.00 hrs SLDC will finalize the generation schedule of SSGS and drawal schedule of DISCOMs.
- SLDC will intimate the Generation Schedule to SSGS i.e. ex-power plant dispatch schedule
 - SLDC will intimate Drawal Schedule to MP Tradeco / DISCOMs as follows
 - (a) The drawl schedule i.e. the schedule at the EHV periphery (sum of schedule from SSGS and ISGS), for monitoring of drawal at real time demand in MW.
 - (b) The above drawl schedule will also contain the net drawl schedule i.e. the schedule at the periphery of DISCOM after deducting the apportioned estimated transmission losses (sum of schedule from SSGS and ISGS), for UI computation on the basis of actual energy drawal as per ABT meters.
- ix. The DISCOM /SSGS may inform the modifications to be made if any, in the above schedule to SLDC by 21.30 hrs.
- x. SLDC will inform all the modifications pertaining to ISGS or inter-State power transfer to WRLDC by 22.00 hrs.
- xi. After receipt of final drawal schedule of ISGS from WRLDC at 23.00 hrs and taking into account all the modifications indicated by DISCOMs, SLDC shall issue the final Generation / Drawal Schedule to each SSGS and MP Tradeco / DISCOMs by 23.30 hrs.

8.5 SLDC shall prepare the day ahead generation schedule by keeping in view the following aspects –

- (a) Transmission system constraints from time to time.
- (b) Hourly load requirements as estimated by SLDC.
- (c) Need to provide operating margins and reserves required to be maintained.
- (d) Availability of generation from SSSG and ISGS together with any constraint in each case.

8.6 RULES FOR REVISION IN SCHEDULE IN REAL TIME OPERATION:

- i. In case of forced outage of a unit, SLDC will revise the schedules on the basis of revised declared capability by the generator (SSGS). The revised schedule will become effective from 4th time block, counting the time block in which the revision is advised by the generator to be the first one.
- ii. In the event of a situation arising due to bottleneck in evacuation of power due to transmission constraint, SLDC shall revise the schedule which shall become effective from the time block, counting the time block in which the transmission

constraint has been brought to the notice of SLDC as the first one. During the first three time blocks also the schedule shall be deemed to have been revised to be equal to the actual generation by the SGS and drawl by the DISCOMs.

- iii. In case of any grid disturbance, the Scheduled Generation of all the generating stations and Scheduled Drawal of all the DISCOMs shall be deemed to have been revised to be equal to their actual generation / drawal for all the time blocks affected by grid disturbance. The exact duration of such grid disturbance would be declared by SLDC/RLDC on the basis of mutually agreed guidelines.
- iv. Revision of Declared Capability by SSGS and requisitions by DISCOMs for the remaining period of the day will be permitted with advance notice. Revised schedules / Declared Capability in such cases shall become effective from the 6th time block, counting the time block in which the request for revision has been received in SLDC to be the first one.
- v. Similarly, in case any DISCOMs seeks a revision in the bilateral schedules, the same would have to be confirmed by the other partner within a period of one hour. The revised schedule will come in effect from 6th time block, counting the time block in which the request for revision has been received in SLDC to be the first one.
- vi. If, at any point of time SLDC observes that there is a need for revision of its schedule in the interest of better system operation, it may do so on its own and in such cases, the revised schedule shall become effective from 4th time block, counting the time block in which the revised schedule is issued by SLDC to be the first one.
- vii. If a revision is received from any ISGS stations, RLDC will flash the information in real time basis containing all the relevant information needed to revise the schedule based on which SLDC will parallel process the revision. The implementation time of revision will be same for RLDC and SLDC.

8.7 DATA REGISTRATION :

User shall provide SLDC with data for this section as specified in Data Registration Section.

By order of the Commission

Ashok Sharma, Commission Secretary