Note on

<u>Maharashtra Power System Overview, Under frequency operation, Load shedding</u> (planned and Distress) for the month of Aug-2013.

Maharashtra system Overview:

The overview of Maharashtra system operation for the month Aug-2013 with respect to availability and shortfall is elaborated as under.

- The power supply position for **<u>STATE</u>** in Aug-13 are given below:-
 - The State maximum demand was recorded as 16193 MW (including load shedding of 574 MW) on 28/08/2013 at 12:00Hrs.
 - > The State *minimum* demand was recorded as 9954 MW on 02/08/2013 at 03:00Hrs.
 - > The State maximum CATERED demand was recorded as 15619 MW on 28/08/2013 at 12:00Hrs.
 - The State has Catered 9623 Mus in the Month (daily average of 310.42 Mus) and max daily Catered Mus was 340.2 on 31/08/2013.
- The power supply position for **MSEDCL** in Aug-13 are given below:-
 - The maximum demand of MSEDCL was recorded as 13379 MW (including load shedding of 479 MW) on 31/08/2013 at 11:00Hrs.
 - > The minimum demand of MSEDCL was recorded as 8454 MW on 02/08/2013 at 03:00Hrs.
 - The maximum CATERED demand of MSEDCL was recorded as 8405 MW on 02/08/2013 at 03:00Hrs.
 - MSEDCL has Catered 7978.45 Mus in the Month (daily average of 257.4 Mus) and max daily Catered Mus was 285.7 on 31/08/2013.
- The power supply position for Mumbai system in Aug-13 are given below:-
 - The maximum demand of MUMBAI SYSTEM was recorded as 2985 MW on 30/08/2013 at 12:00Hrs.

- The minimum demand of MUMBAI SYSTEM was recorded as 1473 MW on 02/08/2013 at 04:00Hrs.
- The MUMBAI SYSTEM has Catered 1645.11 Mus in the Month (daily average of 53.1 Mus) and max daily Mus Catered was on 57.2 on 23/08/2013.

Load shedding in MSEDCL area :

- Revised Feeder wise planned load shedding protocol in MSEDCL, based on MERC Order in Case No.41 of 2012 dt.26.11.2012, is implemented wef. 16/01/2013 by MSEDCL as per circular No.46 Dated 14/01/2013.The Hourly load relief quantum is submitted at the end of the day, daily, by LM cell of MSEDCL, Kalwa.
- Max. load shedding was recorded as 903 MW on 28/08/2013 at 08:00 Hrs. and Min. load shedding was recorded as 6 MW on 16/08/2013. Average load shedding quantum for the month was 170.65 MW.
- Planned load shedding Group A,B,C,D in MSEDCL were withdrawn throughout the month and sometimes Groups E, F,G1,G2,G3 were implemented for load relief in MSEDCL area to mitigate the availability in real time. In addition, AG-LM load management scheme was in force for defined hours, as per the load shedding circular and it was also withdrawn many times during night hours.
- There was no distress load shedding due to short fall of supply during the month.

Other Highlights of Maharashtra System in Aug-13.

- MSPGCL Parli TPS generation Units 3,4,5,6 &7 (1130MW) were under shut down due to water shortage w.e.f.15/02/2013.In Aug-13,Parli Unit 4(210MW) synchronized on 28/08/2013.
- RGPPL generation was NIL in Aug-13. RGPPL generation (Total:-1967MW & MSEDCL share:- 1888 MW) shutdown due to gas shortage w.e.f. 16/07/2013.
- 3.019 TMC of Koyna water was utilized for grid conditions in Aug 2013. Koyna gates were opened from 00:00Hrs of 01/08/2013 to 17:30Hrs of 04/08/2013 and again from 10:30Hrs of 12/08/2013 to 12:00Hrs of 20/08/2013 for flood control. Total Koyna water utilization for flood control was 2.464 TMC during this period. Therefore, total water utilization (including utilization for flood water control) for the month of Aug-13 was 5.483 TMC. Water balance for the year 2013-14 in Aug-13 was 60.833 TMC.

- Wind Generation in Mus for the month was 672.4 Mus. Average wind generation was 903.79 MW/hour.
- The average grid frequency for the month was 50.08 Hz. The Instantaneous Maximum frequency was 50.53 Hz. and Minimum frequency was 49.30 Hz.
- There was no instance of under frequency operation during the month.
- MSPGCL Thermal availability was as high as 3991 MW (hourly max) on 31/08/2013 at 15:00 hrs.
- MSPGCL Thermal availability was as low as 1935 MW (hourly min) on 01/08/2013 at 14:00 hrs.
- Max. Voltage at MSETCL 400 kV Substation was recorded at Aurangabad, Bhusawal and Lamboti S/s (441 kV) and Min voltage was recorded at Lamboti S/s (381 kV).
- There was no planned load shedding in Mumbai area (i.e. BEST, R-Infra-D, and TPC-D) during the month.
- WRPC has directed to revise the settings of existing UFRs in MAHARASHTRA as follows:-

Sr.No.	Existing Setting (In Hz)	Revised Setting (In Hz)	Revised quantum of automatic load shedding through UFR (In MW)
1	48.8	49.2	805
2	48.6	49.0	810
3	48.2	48.8	815
4		48.6	820

In this regard, it is informed that, MSETCL has revised the settings as above for all the UFRs installed in MSETCL system.