

Note on

Maharashtra Power System Overview, Under frequency operation, Load shedding (Planned and Distress) for the month of Aug-2014.

Maharashtra system Overview:

The overview of Maharashtra system operation for the month of Aug-2014 with respect to availability and shortfall is elaborated as under.

- The power supply position for **STATE** in Aug-14 are given below:-
 - The State *maximum* demand was recorded as 18287 MW (including load shedding of 587 MW) on 21/08/2014 at 12:00Hrs.
 - The State *minimum* demand was recorded as 12087 MW on 30/08/2014 at 04:00Hrs.
 - The State *maximum CATERED* demand was recorded as 17700 MW on 21/08/2014 at 12:00Hrs.
 - The State has Catered 10859 Mus in the Month (Average 350.3 Mus) and max daily Catered Mus was 387.7 on 19/08/2014.

- The power supply position for **MSEDCL** in Aug-14 are given below:-
 - The *maximum* demand of MSEDCL was recorded as 15351 MW (including load shedding of 598 MW) on 17/08/2014 at 12:00Hrs.
 - The *minimum* demand of MSEDCL was recorded as 9987 MW on 29/08/2014 at 18:00Hrs.
 - The *maximum CATERED* demand of MSEDCL was recorded as 14756 MW on 17/08/2014 at 11:00Hrs.
 - MSEDCL has Catered 9148 Mus in the Month (Average 295.1 Mus) and max daily Catered Mus was 328.5 on 19/08/2014.

- The power supply position for **Mumbai system** in Aug-14 are given below:-
 - The *maximum* demand of MUMBAI SYSTEM was recorded as 3070 MW on 22/08/2014 at 12:00Hrs.
 - The *minimum* demand of MUMBAI SYSTEM was recorded as 1559 MW on 04/08/2014 at 4:00Hrs.
 - The MUMBAI SYSTEM has Catered 1711 Mus in the Month (Average 55 Mus) and max daily Mus Catered was 60.3 on 21/08/2014.

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 1302 MW on 20/08/2014 at 16:00 Hrs. and Min. load shedding was recorded as 23 MW on 24/08/2014. Average load shedding quantum for the month was 176.8 MW.
- Planned load shedding for load relief is carried out 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.
- There was no distress load shedding due to shortfall of supply during the month.

Other Highlights of Maharashtra System in Aug-14.

- MSPGCL Parli TPS generation Units 3 (210 MW), is under shut down due to water shortage w.e.f.15/02/2013. **Parli power station generation(1130MW) was NIL for entire month due to water shortage.**
 - RGPPL generation was NIL in Aug-14. RGPPL generation (Total:-1967MW & MSEDCL share:- 1888 MW) is under shutdown due to gas shortage w.e.f. 29/12/2013.
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- 7.969 TMC of Koyna water was utilized for Aug 2014.
- Wind Generation for the month was 613.9 Mus. Average wind generation was 825 MW/hour.
- The average grid frequency for the month was 49.90 Hz. The Instantaneous Maximum frequency was 50.31 Hz. and Minimum frequency was 49.34 Hz.
- There was no instance of under frequency operation during the month.
- MSPGCL Thermal availability was as high as 4154 MW (hourly max) on 11/08/2014 at 14:00 hrs.
- MSPGCL Thermal availability was as low as 3019 MW (hourly min) on 10/08/2014 at 02:00 hrs.
- Max. Voltage at MSETCL 400 kV Substation was recorded at Jejuri S/s (439 kV) and Min voltage was recorded at Lamboti S/s (371 kV).
- There was no planned load shedding in Mumbai area (i.e. BEST, R-Infra-D, and TPC-D) during the month.

Additional Information:-

On dated 02.09.2014, TPC Unit – 5 (500 MW) tripped at 09:45 hrs on failure of Auxiliary supply (initially reported),later informed cause, as tripping of FD fan 5B and PA fans..The units, 6 (500 MW) and 8 (250 MW) was under outages due to economic shutdown since 31.07.2014 & due to fire in turbine track since 09.01.2014 respectively .Post tripping Mumbai gen was reduced to 1147 MW.

This has resulted in heavy inrush of power to Mumbai system from MSETCL network causing overloading of 220KV Kharghar-Nerul-Sonkhar-Trombay line, line feeding to Trombay sub-station. to 940 A.This was a threat to the integrated operation of Mumbai system. Hence, load shedding of about 280MW was carried out in rotational manner at particularly in Dharavi ,Parel,Mahalaxmi,Chembur,Grant road area from 09:50 hrs. onwards till 21:20 hrs.The load shedding quantum was reduced to 150 MW from 14:00 hrs, further gradually reduced. Unit -6 as Synchronized on 02:01 hrs.on 03/09/2014 and Unit-5 Synchronized on 05.09.2014 at 03:28 Hrs.
