MSLDC, Kalwa

Note on

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

Maharashtra system Overview:

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

- The power supply position for **STATE** in Jan-14 are given below:-
  - The State *maximum* demand was recorded as 18812 MW (including load shedding of 1298 MW) on 09/01/2014 at 12:00Hrs.
  - The State *minimum* demand was recorded as 11551 MW on 27/01/2014 at 03:00Hrs.
  - The State *maximum CATERED* demand was recorded as 17901 MW on 23/01/2014 at 12:00Hrs.
  - The State has Catered 11176 Mus in the Month (daily average of 360.5 Mus) and max daily Catered Mus was 371.5 on 23/01/2014.

- The power supply position for **MSEDCL** in Jan-14 are given below:-
  - The *maximum* demand of MSEDCL was recorded as 16442 MW (including load shedding of 746 MW) on 14/01/2014 at 10:00Hrs.
  - The *minimum* demand of MSEDCL was recorded as 10213 MW on 27/01/2014 at 03:00Hrs.
  - The *maximum CATERED* demand of MSEDCL was recorded as 15696 MW on 14/01/2014 at 10:00Hrs.
  - MSEDCL has Catered 9751 Mus in the Month (daily average of 314.6 Mus) and max daily Catered Mus was 323.4 on 14/01/2014.

- The power supply position for **Mumbai system** in Jan-14 are given below:-

  - The *maximum* demand of MUMBAI SYSTEM was recorded as 2659 MW on 03/01/2014 at 12:00Hrs.

  - The *minimum* demand of MUMBAI SYSTEM was recorded as 1078 MW on 13/01/2014 at 04:00Hrs.

  - The MUMBAI SYSTEM has Catered 1424 Mus in the Month (daily average of 46 Mus) and max daily Mus Catered was on 50.6 on 31/01/2014.

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 1298 MW on 09/01/2014 at 12:00 Hrs. and Min. load shedding was recorded as 0 MW on 24/01/2014. Average load shedding quantum for the month was 443.7 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 Jan-14.

- MSPGCL Parli TPS generation Units 3, is under shut down due to water shortage w.e.f.15/02/2013.

- RGPPL generation was NIL in Jan-14. RGPPL generation (Total:-1967MW & MSEDCL share:- 1888 MW) is under shutdown due to gas shortage w.e.f. 29/12/2013.

- 8.954 TMC of Koyna water was utilized for Jan 2014. Wind Generation in Mus for the month was 131.6 Mus. Average wind generation was 177 MW/hour.

- The average grid frequency for the month was 50.01 Hz. The Instantaneous Maximum frequency was 50.66 Hz. and Minimum frequency was 49.38 Hz.

- There was no instance of under frequency operation during the month.

- MSPGCL Thermal availability was as high as 5519 MW (hourly max) on 31/01/2014 at 17:00 hrs.

- MSPGCL Thermal availability was as low as 4073 MW (hourly min) on 17/01/2014 at 02:00 hrs.

- Max. Voltage at MSETCL 400 kV Substation was recorded at Kalwa S/s (439 kV) and Min voltage was recorded at Lamboti S/s (370 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 **17th Jan 2014** at **01:26Hrs**, disturbance occurred at Adani Power Maharashtra Ltd.(APML),Tiroda. At 01:26Hrs B-phase bushing of Generator Transformer (GT) no.3 burst and GT tripped on differential protection and Unit#3 tripped. At 01:35 Hrs, 400kV Tiroda-Warora line-2 tripped on overvoltage. Subsequently, unit#1 & unit#2 tripped due to voltage disturbance at 01:35 & 01:36 Hrs respectively. Hence there was a total generation loss of 1857 MW but no loss of load. Also, there was no disturbance to any other part of system and all system parameters were within control. APML unit#1 synchronized at 05:22Hrs , unit#2 synchronized at 10:12Hrs and 400 kV Tiroda-Warora line-2 charged at 10:53Hrs. Unit#3 Synchronized on 22nd Jan 2014 at 05:04Hrs due to failure of GT.