

Ref: MSLDC/Tech/SO/

То The Secretary, MERC, Mumbai.

Sub: Monthly system overview report for the month of November 2024.

NO 2 6 0 2

Respected Sir,

Please find enclosed herewith the report on "Maharashtra Power System Overview, under frequency operation and load shedding for the month of November 2024"

Submitted for your kind information please.

Thanking you,

Encl: As above.

Yours faithfully,

Girish Pantoji, Chief Engineer (I/C), MSLDC, Airoli

Copy s.w.r.s to: The Executive Director, MSLDC, Airoli.

Copy f.w.cs. to: The Chief Engineer, STU, MSETCL C.O., Mumbai.

Maharashtra Power System Overview for the month of November - 2024

A. <u>Maharashtra system Overview: -</u>

The overview of Maharashtra system operation for the month of November - 2024 with respect to availability and shortfall is elaborated as under.

• The power supply position for <u>STATE</u> in November - 2024 are given below: -

Sr No.	Particulars	Recorded Demand/Requirement	Date	Time
1	Max. Demand	27845 MW (with Load shedding 0 MW)	15.11.2024	11:00 Hrs.
2	Min. Demand	18321 MW	02.11.2024	03:00 Hrs.
3	Max. Demand Catered	27845 MW	15.11.2024	11:00 Hrs.
4	Energy Catered	16708 MUs	-	-
5	Max. Energy Catered	592 MUs	15.11.2024	-
6	Avg. Energy Catered	557 MUs	-	-

• The power supply position for <u>MSEDCL</u> in November - 2024 are given below: -

Sr No.	Particulars	Recorded Demand /Requirement	Date	Time
1	Max. Demand	24074 MW (with Load shedding 0 MW)	15.11.2024	11:00 Hrs.
2	Min. Demand	15349 MW	02.11.2024	03:00 Hrs.
3	Max. Demand Catered	24074 MW	15.11.2024	11:00 Hrs.
4	Energy Catered	14408 MUs	-	-
5	Max. Energy Catered	512 MUs	16.11.2024	-
6	Avg. Energy Catered	480 MUs	-	-

• The power supply position for <u>Mumbai System</u> in November - 2024 are given below: -

Sr No.	Particulars	Recorded Demand/Requirement	Date	Time
1	Max. Demand	3527 MW	06.11.2024	16:00 Hrs.
2	Min. Demand	1676 MW	30.11.2024	04:00 Hrs.
3	Energy Catered	1933 MUs	-	-
4	Max. Energy Catered	72 MUs	06.11.2024	-
5	Avg. Energy Catered	64 MUs	-	-

The power supply position for <u>Other Discoms</u> (Indian Railway, Mind Space, Gigaplex, KRC Infrastructure, Nidar Utilities, MADC, E-ON Phase I, E-ON Phase II, Laxmi Pati) in November - 2024 are given below: -

Sr No.	Particulars	Recorded Demand /Requirement	Date	Time
1	Max. Demand	590 MW	06.11.2024	17:00 Hrs.
2	Min. Demand	377 MW	25.11.2024	04:00 Hrs.
3	Energy Catered	367 MUs	-	-
4	Max. Energy Catered	13 MUs	11.11.2024	-
5	Avg. Energy Catered	12 MUs	-	-

B. 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 w.e.f. 16/01/2013 by MSEDCL as per circular No.46 Dated 14/01/2013. Circular no. 46 is temporarily modified by circular no 56 dt. 18.04.2022. The hourly load relief quantum is submitted at the end of the day, daily, by LM cell of MSEDCL, Kalwa.
- Planned load shedding for load relief is carried out in MSEDCL area to mitigate the availability in real time if required. AG-LM load management scheme is revised as per load shedding circular w.e.f. 20.04.2022 vide MSEDCL letter no. ED(II)/LM/PLS/09490 dated 18.04.2022, 3 phase supply to AG. loads will be 8/10 Hrs. w.e.f. 20.04.2022.

Load shedding due to transmission constraint was **0.037** Mus on 01.11.2024,02.11.2024,15.11.2024 & 16.11.2024.

C. Other Highlights of Maharashtra System in November- 2024

- MSPGCL Thermal actual generation was as high as 7820 MW (hourly max) on 21.11.24 and was as low as 4026 MW (hourly min) on 01.11.24.
- Solar Generation for the month was 575 MUs. Maximum Solar generation was 3126 MW at 28.11.24 at 13 Hrs.
- Wind Generation for the month was 350 MUs. Maximum Wind generation was 1917 MW at 28.11.24 at 21 Hrs.
- 2.136 TMC of Koyna water is utilized in the month of November 2024 and total cumulative usage of TMC in Water Year 2024-25 is 21.074 Balance TMC for WY 2024-25 is 46.426 TMC as on 30.11.2024.
- The average grid frequency for the month was 49.99 Hz. The Instantaneous Maximum frequency was 50.31 Hz at 11:04 Hrs on 02.11.2024 and Minimum frequency was 49.55 Hz at 07:18 Hrs on 27.11.2024.
- Max. 765kV Voltage in MSETCL was recorded as **793** kV at Ektuni substation and Min. voltage was recorded as **740** kV at Ektuni substation.
- Max. 400 kV Voltage in MSETCL was recorded as **433** kV at New Koyna substation and Min. voltage was recorded **375** kV at Karjat substation.
- There was no planned load shedding in Mumbai area (BEST, AEML-D and TPC-D) during the month.

During the month of November-2024 following major occurrences were reported:

- On 03.11.2024 at 19:25 Hrs, 220 kV Knowledge Park S/s got dead due to tripping of 220 kV Knowledge Park-Kalwa line at Kalwa end only due to 220 kV AKP- Kalwa line Y ph CT to line Isolator conductor snapped at 220KV Knowledge Park S/s along with heavy sparking observed at Y ph CT. During this occurrence 44 MW load loss occurred for 29 minutes.
- On 10.11.2024 at 11:21 Hrs, 220kV Mulund-Bhandup GIS line tripped on B-Earth fault. B phase SVL (Sheath Voltage Limiter) found flashover at CTT TL No. 22 (i.e. last tower at Bhandup end). At the same time 220kV Borivali-Bhandup line tripped from Borivali end. As, both source line tripped, 220 kV Bhandup S/s went into Dark. Load loss of 68 MW occurred due to this event for 55 minutes.
- On 25.11.2024 at 20:45 Hrs, all elements at 220 kV Apta S/s tripped on Busbar protection operation due to Y phase CT burst of 220 kV Apta Bus Sectionaliser. Load loss of 200 MW occurred at Apta substation during the event for 43 minutes.

Critical issues related to MMR region:

220kV Ulwe Waghivali ckt. 2 has tripped on 25.06.2024 at 08:05 hrs. and is still under forced shutdown. The unavailability of this line has created a transmission constraint for Uran generation prominently after commissioning of 220kV Navi Mumbai – Apta D/C lines. 220kV Ulwe Waghivali is overloaded above 800 A during Uran generation pickup in open cycle. MSLDC has requested MSETCL to restore 220kV Ulwe-Waghivali ckt -2 on war footing basis for enhancing grid security of MMR.