MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.

CIN NO. U40109MH2005SGC153646

Office of The Chief Engineer
Maharashtra State Load Dispatch Center
Thane-Belapur Road, P.O. Airoli, Navi Mumbai Pin – 400 708.
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RIGHT TO INFORMATION

Ref: MSLDC/TECH/OP/OCC/ No 01598 **Date:** 12 SEP 2022

To,
As per mailing list.

Sub: MoM of the 4th Operation Co-ordination Committee (OCC) meeting held on 29.08.2022 at 11:30 hrs. in hybrid mode.

Ref: 1. T.O. Email dtd. 22.07.2022 for agenda request.
2. T.O. Letter No. MSLDC/TECH/OP/1502 dated 25.08.2022.

Dear Sir,

In reference to the above subject, the 4th meeting of the Operational Co-ordination Committee (OCC) meeting was convened on 29.08.2022 at 11:30 hrs. in hybrid mode.

The MoM of the said meeting duly approved by the Executive Director, MSLDC (Chairman of the Committee) are attached herewith for ready reference.

Submitted for information and further needful please.

Encl: As above.

Yours sincerely,

(Mahesh Bhagwat)
Superintending Engineer, MSLDC
(Member Convener of OCC)

Copy s.w.r.s. to:

1. The Director (Operations), MSETCL, Prakashganga, Mumbai.
2. The Executive Director, MSLDC, Airoli, Navi Mumbai.

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Minutes of the 4th Operation Co-ordination Committee meeting convened on 29th August'2022 at 11:30 Hrs through V.C. & physically

In accordance with the provisions of the MEGC, 2020, the Grid Co-ordination Committee (GCC) in its 2nd meeting held on dated 08.01.2021 has constituted the Operational Co-ordination Committee (OCC). Accordingly, meetings including additional meeting of OCC have been convened as per requirement and schedule. Further, 3rd meeting was convened on 02.05.2022. The Minutes of the meeting were circulated to all the members vide letter No. 932 dated 25.05.2022.

The 4th meeting of the OCC, was convened on 29.08.2022 at 11:30 hrs through physical and video conferencing mode.

At the outset, The Superintending Engineer (OP-MSLDC) & Member Convener of OCC, welcomed all the members and participants.

The Executive Director (MSLDC) & the Chairman of the OCC, welcomed all the members and in his introductory note and elaborated the various achievements of OCC meetings viz. development of various procedures entrusted under MEGC, 2020, resolving Operational issues etc. He further stated that grid frequency has reached to lower level of 49.6 Hz many times in recent months. WRLDC has issued no. of notices for violation of drawal limits from ISTS network. Hence, in order to maintain the grid stable & secure, all the Stake holders need to strive hard for maintaining grid parameters to ensure grid security.

The list of participants in the meeting is attached herewith as **ANNEXURE – A**.

The detailed Point-wise Discussions held during the meeting are as follows:

1. **Item No. 1: Confirmation of Minutes of Meeting of the 3rd OCC Meeting convened on 02.05.2022:**
   - The Member Convenor informed that on dated 25.05.2022, the MoM of the 3rd OCC Meeting have been shared to all the members and requested to offer any comments on the same so as to confirm the MoM.

   Since no comments received, OCC confirmed the MoM of both the meetings.

2. **Item No. 2: Maharashtra system Grid performance for the period from April 2022 to July 2022:**

   and

   Item no.2: System Disturbance in the Maharashtra Network for the period April 2022 to July 2022:

   and

3. Item no: 3: Status of completion of ongoing schemes in Maharashtra:

The Chairman of OCC opined that the above Points No. 2, 3 & 4 are informative in nature and details have already been circulated to all the members. Hence, members can comments, if any.

The details are enclosed with this MoM as below for ready reference:

- ***The MSLDC presentation consisting of detailed Grid performance parameters for the period of April 2022 to July 2***
- ***022 is attached herewith as ANNEXURE – 1.***
- ***The status of Reactors is attached as ANNEXURE – 2.***
- ***The status of various Transmission Schemes is attached as ANNEXURE – 3.***

4. ITEM NO 4: - Discussion and finalization of Draft procedure formulated towards,

4.1. **"Load Curtailment procedure for the State of Maharashtra"**

- The Chief Engineer (MSLDC) informed that as per Regulation No. 28.2 of MEGC 2020, SLDC has prepared a draft procedure for "**Load Curtailment procedure for the State of Maharashtra"**. Draft procedure was published on website and circulated through mail on 19.07.22 for seeking comments/suggestions from various stake holders & last date of submission of comments was 05.08.2022. The comments/suggestions were received from AEML, BEST, GEPL, MBPPL, KRCIPPL, TPCL. In-spite of repeated communication, MSEDCL has not submitted any comments/suggestions.

  As per the provisions of the MEGC, 2020, the draft procedure is to be prepared in co-ordination with OCC and approved in the GCC for implementation. The C.E. (MSLDC) briefed the comparative Statement of all the comments received and requested OCC members to deliberate on the draft procedure.

- Detailed discussions were held between OCC members and the important suggestions & Decisions made by the OCC are as below:

  a) Clause No. 5.2: A word "as applicable" to be added.

  b) Clause No. 5.3.2: In case of submission of "Reactive Power data as & when required by SLDC" to be added.

     The comments/suggestion of MBPPL, GEP & KRCIPPL for considering its load as "Un-interruptible" is denied since, as per Regulation No. 39.3.1 of MEGC, 2020,

     '*Buyers including distribution licensees and users shall endeavor to restrict their actual drawals, from InSTS, of its control area within their respective drawal schedules.*'

  c) Clause No. 5.3.4: The submission of BEST for exclusion of BEST from load curtailment is denied, since, as per Regulation No. 39.3.1 of MEGC, 2020, '*Buyers including distribution licensees and users shall endeavor to restrict their*

actual drawals, from InSTS, of its control area within their respective drawal schedules.'

d) Clause No. 5.5: Mumbai loads are considered in Mumbai Islanding Scheme and the classification of loads are distinct from rest of Maharashtra. Hence, in such case, the Load Classification, Load Curtailment/Restoration methodology in Mumbai area will be as per the Load Curtailment/Restoration Order issued by MSLDC vide letter No. 898 dated 21.04.2021 as amended from time to time. In such case, any loads to be shed in Group – 1 to Group – 2 as envisaged in the procedure shall be considered in the Priority – 3 loads in Mumbai area.

e) Clause No. 7.5: In case of Load curtailment on Day ahead basis after declaration of final Drawal schedules, MSLDC shall issue Curtailment instructions in prescribed format to the concerned Buyer on Day ahead basis. Further, if power is arranged through RTM, then it will not be necessary to implement the curtailment during Intra-Day operations as in case of Intra-Day MoD operation, Load-Generation balance will be created. Further, if no power is arranged, then it will be the responsibility of the Buyer to implement curtailment.

f) Clause No. 7.6 & 7.7: To be redrafted as 'Users, Discoms shall intimate the details of load curtailed to SLDC immediately through telephone and details to be intimated within one hour in prescribed format for maintaining record.

g) Clause No. 8: Mumbai loads are considered in Mumbai Islanding Scheme and the classification of loads are distinct from rest of Maharashtra. Hence, in such case, the Load Classification, Load Curtailment/Restoration methodology in Mumbai area will be as per the Load Curtailment/Restoration Order issued by MSLDC vide letter No. 898 dated 21.04.2021 as amended from time to time.

After due deliberations, the OCC recommends for submission of the "Draft Load Curtailment for the State of Maharashtra" to GCC after incorporating the changes suggested. The chairman also pointed out that once the procedure is ratified in GCC then it will be the responsibility of all the stakeholders to implement it.

4.2. "Planned Outage Management in Mumbai and MMR Region"

- The Chief Engineer (MSLDC) informed that as per the directives issued in the 3rd OCC meeting held on 02.05.2022, MSLDC has developed the draft "**Planned Outage Management in Mumbai and MMR Region"** procedure. The draft procedure was circulated to all the Stake holders through mail for seeking comments/suggestions on 06.06.2022 & last date of submission of comments was 14.06.2022.

  He further informed that a meeting has been conducted on 15.06.2022 with Stake holders for discussion on procedure under the chairmanship of the Chief Engineer, MSLDC. Based on the discussions held in the said meeting and comments received from AEML & TPCL, the draft procedure has been updated. Also, Mumbai Outage Co-ordination Committee Meeting (MOCM) was conducted since last two months as a trial operation.

  He further, informed that the said procedure has been developed in accordance with the Regulation No. 28.2 of MEGC, 2020 and hence, with deliberations &

recommendation from OCC, the draft procedure will be submitted to GCC for further ratification and approval.

After due deliberations, the OCC recommends for submission of the "Draft Planned Outage Management in Mumbai and MMR Region" to GCC after incorporating the changes suggested.

5. **Item No- 5: Status of commissioning of LTS on 400 kV Talegaon (PG) – Kalwa, 400 kV Talegaon (PG) – Kharghar and 400 kV Padghe – Kalwa D/C lines:**

- The Chief Engineer (MSLDC), informed that in accordance with the recommendations of various Committees constituted to enquire occurrence held on 12.10.2020, a committee was constituted by the Executive Director (MSLDC) to review & develop LTS Scheme of various 400 kV & 220 kV lines feeding power to MMR area including Mumbai.

  The said committee, with detailed studies, formulated LTS Schemes and with the recommendations from State OCC & GCC, the scheme was submitted to PCM-WRPC for further ratification and approval.

  In the 148th PCM-WRPC Meeting held on 20.04.2022, the scheme was discussed and approved for implementation. Accordingly, vide letter No. 986 dated 02.06.2022, MSLDC has requested the Chief Engineer (ACI&P), MSETCL to co-ordinate with all concerned stake holders viz. MSETCL, TPC, AEML & MSEDCL for establishment of said LTS schemes.

  As the said scheme is important considering the loading of lines & maintaining the power supply in MMR & Mumbai area, implementation is to be carried out on priority.

- The representative of ACI&P, MSETCL informed that two meetings have been conducted and for smooth implementation it has been decided to form a group. Accordingly, nominations have been called. However, nomination from MSEDCL is not yet received. In this matter, the Superintending Engineer (I/c), LM Cell, MSEDCL, provided the details of officer for the said group.

- The Superintending Engineer, (TCC, Vashi), MSETCL, informed that the scheme for implementation of Static LTS has been designed and the procurement of panels is under progress. Once, the panels are received, Static LTS scheme will be implemented. Further, for implementation of the dynamic LTS scheme, detailed engineering is required which will take time.

  OCC took note of the same and directed for speedy implementation of scheme.

6. **Item No- 6: Operation of Generating Units in FGMO & periodic testing from third party agencies"**

- The Chief Engineer (MSLDC), informed that as per the regulation No. 30.3 of the MEGC, 2020, all the thermal & hydro generating units (with capacity specified in the regulation) shall be operated under free governor mode of operation (FGMO).

  Further, it is mandated that the generators presently operating under restricted governor mode of operation (RGMO) shall be operated in FGMO within one year from the date of notification of these Regulations i.e. by 02.09.2020 (date on which the MEGC, 2020 was notified).

As per regulation No. 30.5 of the MEGC, 2020, periodic check-ups by the third party should be conducted at regular intervals, once in two years, through independent agencies selected by SLDC. The cost of such tests shall be recovered from the generators by the SLDC. If deemed necessary by SLDC, the test may be conducted more than once in two years.

- The Chairman of OCC requested all the generating companies to submit the status of conversion from RGMO to FGMO and status of third party testing.
- The representative of APML informed that the units at Tiroda are operating in RGMO mode and for converting same in FGMO some clarifications are sought from SLDC. In this respect, the Chairman of OCC requested APML to send the queries again directly to ED (MSLDC) so that required clarifications can be provided.
- The representative of RIPL informed that out of 5 units, one unit is converted in FGMO & others will be converted shortly. Also converted one unit will be tested shortly by third party.
- The Dy. Chief Engineer, MSPGCL informed that all the MSPGCL units are operating in RGMO mode. Further, the proposal for third party testing is in process and after approval from competent authorities, same will be carried out.
- The Head (PSCC), TPC, informed that the matter has been discussed with Trombay Generating plant officials. The Trombay Generation Officials are of the opinion that for testing, MSLDC should be involved due to involvement of third party agency.
- The representative of DTPS (AEML) informed that units at Dahanu are operating in RGMO mode and they are in discussion with the agency for carrying out third party testing. Also, for conversion to FGMO mode, discussions with OEM are in progress.
- The Chairman of OCC opined that the mandate of MEGC, 2020 for conversion from RGMO to FGMO has been already lapsed. For reliable & secure operation of the grid, it is mandatory to carry out said conversion. Also, it is mandatory to carry out third party certification. He further, directed the Chief Engineer (MSLDC) to issue rate contract order to the agency similar to the order issued by POSOCO and take up the matter with all the generating companies for third party testing.

  All the OCC members agreed to the opinion and directives of the Chairman of OCC.

OCC took a note of the same.

7. ***Item No-7: Status of making Kalwa Nodal centre operational for co-ordination of Tripping/Load Shedding information issued by MSLDC*:**

- The Chief Engineer (MSLDC), informed that in the 4th GCC meeting held on 04.05.2022, the Chairman of GCC requested the Executive Director (Operations), MSETCL to look in to the matter and make all the Nodal Centers including Kalwa nodal Centre operational for smooth flow of information and implementation of MSLDC Control Room instructions.
- The Executive Director (MSLDC) informed that at all the zones of MSETCL in the State, Nodal Control Centers were operational which were acting as a Single Point contact for communications related to Load shedding, disturbances, data sharing, etc. However, due to new Staff set-up in MSETCL, the Nodal Control Centers are partially operational in the State, however, the same at Kalwa is not operational. He further requested the Executive Director (Operation), MSETCL, to look in to the issue on priority as the matter is important.

- The Executive Director (Operations), MSETCL informed that the issue will be taken up and all the Nodal Centers will be made operational on priority.

OCC took a note of the same.

8. *Item No-8:* Operation Guidelines for 220kV Reactor at Gorai EHV Sub Station:

- The Head (Trans O&M), AEML, informed that switchable reactor has been commissioned at 220 kV Gorai S/s recently. However, there are no specific guidelines for operation of the reactor. It has been observed that operation of the reactor varies from person to person. Hence, there should be specific guidelines say voltage limit at which reactor is to be taken in service and removed from the network.
- The Head (PSCC), TPC opined that in TPC network, the reactors are operated if the voltage reached above 235 kV and are removed from the network if voltage reaches to 226 kV.
- The Superintending Engineer (Operation), MSLDC informed that for operation of reactors at 400 kV level, SLDC Control room is issuing instructions through code after observing voltages. In such cases, if field officials intimate the system conditions and request for operation of reactor, then same is permitted by SLDC Control room by observing system conditions. As no reactors are available at 220 kV level in MSETCL area, there is no methodology for its operation.
- With due deliberations, OCC members opined that reactor at 220 kV Gorai can be taken in service if voltage is at 235 kV & above whereas same can be taken out from network if the voltage reaches to 226 kV. However, while making such operations, AEML control room need to communicate the operation to MSLDC Control room for information.

OCC requested MSLDC and AEML to follow above guidelines and sensitize their Control Room Engineers accordingly.

9. Item No-9: Points pertaining to TPC:

9.1. Mumbai Transmission Constraints:

- The Head (PSCC), TPC, informed that there is need of considering option-2 as per MERC suo moto order dt 02.08.2022 for picking up embedded generation in Mumbai where Transmission corridor shares can be declared as per CPD / NCPD ratios. The quantum of power allowed to be brought may be based on LTOA / MTOA / STOA as LTOA & MTOA quantum are pre-decided and STOA may be allocated based on base TCR on pro-rata basis as per constraints. Hence the Generation scheduling for Mumbai Transmission constraints as per Option -1 needs be stopped. Either Option -2 to be tried or current VSE operation as per DSM regulations to be followed.
- The Superintending Engineer (Operation), MSLDC informed that as per paras 18.40 & 18.41 of the MERC Order dated 02nd Aug. 2022, Hon'ble MERC has directed MSLDC to adhere to the regulations as per MEGC, 2020 specified in paras 18.33 & 18.34 for Day ahead scheduling. Further, Hon'ble MERC has directed MSPC to decide period of testing for Option-2 & Option-3.

- The Chairman of OCC opined that presently MSLDC is working as per the directives issued by the said order and provisions of DSM regulations & MEGC. Further, this issue need to be referred to Working Group and MSPC. All the OCC members agreed to the opinion of the Chairman of OCC.

OCC took a note of the same.

9.2. Hydro Generation pick up by SLDC:

- The Head (PSCC), TPC, informed that TATA Hydro Generation, which is contracted with BEST & TPC-D, is being picked up frequently to meet System contingencies i.e. Transmission line tripping / controlling loading of Transmission elements /State over drawl.
- The Chairman of OCC opined that presently MSLDC is working as per the directives issued by MERC in the suo moto order dt 02.08.22 and as per the provisions of DSM regulations & MEGC. Further, such matters can be taken on the platform of MSPC which is appropriate platform to resolve such issues. All the OCC members agreed to the opinion of the Chairman of OCC.

OCC took a note of the same.

9.3. Outage Management:

- The Head (PSCC), TPC, informed that in-spite of approval of planned outages on day ahead basis, substantial delay has been observed while seeking permission from MSLDC Control Room. Contingency plan, Load management plan, etc, are required to be submitted in real time while availing approved outages. Also, emergency outage details are to be submitted through e-mail even though same are submitted through OMS. Also, in case of emergency outages, MSLDC control room is insisting for photographs.
- The Executive Engineer (OP-2), MSLDC informed that even though planned outages are approved on Day ahead basis, in real time operation System flows may be different. Hence, in real time, the MSLDC Control Room Engineer may need information based on which real time decision is to be taken. Further, in case of emergency outages, to assess the emergency nature, photographs are mandatory. It is a practice at WRLDC also.
- The Superintending Engineer (Operation), MSLDC informed that if emergency outages are applied through OMS, then e-mail is not required. However, in case some additional information is required for assessing outage, same is requested by MSLDC Control Room through e-mail.
- The Chairman of OCC requested TPC to provide such instances to MSLDC wherein delay has been observed in granting outages in real time so that the details can be assessed to avoid recurrence of such incidences.

OCC took a note of the same.

9.4. Communication regarding Trombay thermal plant:

- The Head (PSCC), TPC, informed that TPC PSCC is monitoring Transmission & Distribution network in real time. Considering importance of Trombay generation in the Mumbai network, it is necessary to avoid any mis-communication issued by MSLDC. Hence, it is requested that any communication related to Trombay Generation may be made with Trombay Control Room with copy with TPC PSCC.
- The Chief Engineer, MSLDC, informed that it is difficult to communicate with large no. of Control rooms. In case of MSPGCL, communication is made with only one central Control Room of MSPGCL. Also, any communication related to DTPS is made with AEML Control Room, no separate communication is made with Dahanu Control Room.
- In this regard, the Head (PSCC), TPC, informed that TPC (PSCC) will co-ordinate with Trombay Generation Control room and ensure implementation of the MSLDC instructions by Trombay Generation. Further, communication for Trombay Unit-5, Unit-7 A & B and Unit-8 will be at only one Control Room only.
- The Chairman of OCC requested the Chief Engineer (MSLDC), to direct MSLDC Control Room Engineers to communicate TPC PSCC with a copy to Trombay Generation Control Room also.

OCC took a note of the same.

10. ***Item No-10: Tripping of MSPGCL Units resulting in to loss of generation:***

- The Dy. Chief Engineer, MSPGCL, informed that due to faults in EHV network, various Generating Units at Khaperkheda & Koradi have tripped. Hence, the issue has been raised at OCC platform to issue directives to MSETCL for improvement in O&M of the Generation station connected network.
- The representatives of ACI&P, MSETCL informed that after analyzing the tripping details of Generating units, it has observed that due to operation of Auto-reclose on EHV line or tripping of any EHV line, the units have tripped on jerk. It is a natural phenomenon that faults will appear and lines/elements may trip. Hence, under such instances, it is not desirable that units can not withstand the jerk resulting in to tripping.
- The Chairman of OCC requested MSETCL to take up the issue in co-ordination with MSPGCL and try to avoid trippings by adopting best maintenance practices and carrying out regular maintenance of Generating Station connected Transmission elements as loss of generation is detrimental to the grid safety.

OCC took a note of the same.

11. Item No-10: Status of State Transmission Schemes:

- The Chief Engineer, MSLDC, informed that based on the congestions observed in transmission network in real time, MSLDC has identified some of the transmission schemes already planned in the STU five year plan. The schemes have been circulated to all the Stake

holders along with agenda. He further, requested the Chief Engineer (STU) to submit the status of these schemes to MSLDC and expedite the commissioning of the same.

- The Chief Engineer (STU) assured that the updated status will be collected from all the Transmission Licensees which are implementing these schemes and the same will be submitted to MSLDC.

OCC took a note of the same.

12. Item No-11: Long time outage on 110 kV Karanjade - Mankhurd and 110kV Karanjade – Chembur lines for construction of 400kV D/C and M/C Kharghar-Vikhroli transmission lines:

- The Chief Engineer, MSLDC, informed that on 21.08.2022, 110 kV Waghivali - Mankhurd and 110kV Waghivali - Chembur was charged without informing SLDC, in spite of an order was issued vide letter No. 54 dated 10.01.2022 for long outage permission for construction of 400kV D/C and M/C Kharghar-Vikhroli transmission lines. As these lines are in hydro black start path, SLDC should be aware of availability of these lines. This matter is already discussed with TPCL. He further requested TPC to clarify the action.
- The Head (PSCC), TPC informed that oral communication on day ahead was established with M/s. KVTPL prior to charging of these lines. However, there seems to be a mis-communication among all the officials. He further stated that no such instances will occur in future.
- The Chairman of OCC highlighted the fact that the issue of mis-communication and non-flow of information of 110 kV lines to MSLDC Control room has been discussed while analyzing incidences occurred in recent past. Hence, he requested all the concerned to avoid such issues and ensure smooth flow of information & follow procedures properly.

OCC took a note of the same.

The meeting concluded with the vote of thanks to the chair.

……x……

Annexure – A

List of Participants for 4th OCC meeting

Sr. No.	Name	Designation	
MSLDC			
1	Shri. Shrikant Jaltare	Executive Director	Chairman
2	Shri. Mahesh Bhagwat	Chief Engineer (I/c)	Member
3	Shri. Mahesh Bhagwat	Superintending Engineer (Op)	Member-Convener
4	Shri. Madhav Pande	Executive Engineer (Op-1)	---
5	Shri. Dinesh Patil	Executive Engineer (Op-2)	---
6	Shri. Sachin Lomate	Executive Engineer (REMC-Op) I/c	---
STU			
7	Shri. Sanjeev Bhole	Chief Engineer (STU)	Member
MSETCL			
8	Shri. Rohidas Mhaske	E.D. (Trans)	Member
9	Shri. Moreshwar Dhore	S.E. TCC, Vashi	---
10	Shri. Vilas Borle	E.E. (ACI & P)	---
11	Shri. Dilip Nandanwar	A.E.E. (ACI & P)	---
MSEDCL			
12	Shri. Gopichand Ghodke	S.E. (LM Cell) I/c	Member
TPCL			
13	Shri. P. Devanand	Head, PSCC	---
14	Shri. Milind Gole	Head, Grid Operations, PSCC	Member
15	Shri. Vismay Rane	Distribution	---
AEML			
16	Shri. Dilip Devasthale	Head, O&M Transmission	Member
17	Shri. Ranjit Savardekar	Asst. V.P.	---
MEGPTCL /APML			
18	Shri Manoj Taunk		Member
JPTL			
19	Shri. Vaibhav Sansare	Assistant Manager-Transmission	Member
APTCL			
20			Member
JSWEL			
21	Shri. Harshal Joshi	Manager (OSTS)	Member
ADTPS			
22	Shri Vijay Dali		Member
RIPL			
23			Member

Grid performance parameters for the period of April 2022 to July 2022

2.1 Maharashtra System Demand Scenario for the month from April - July 2022

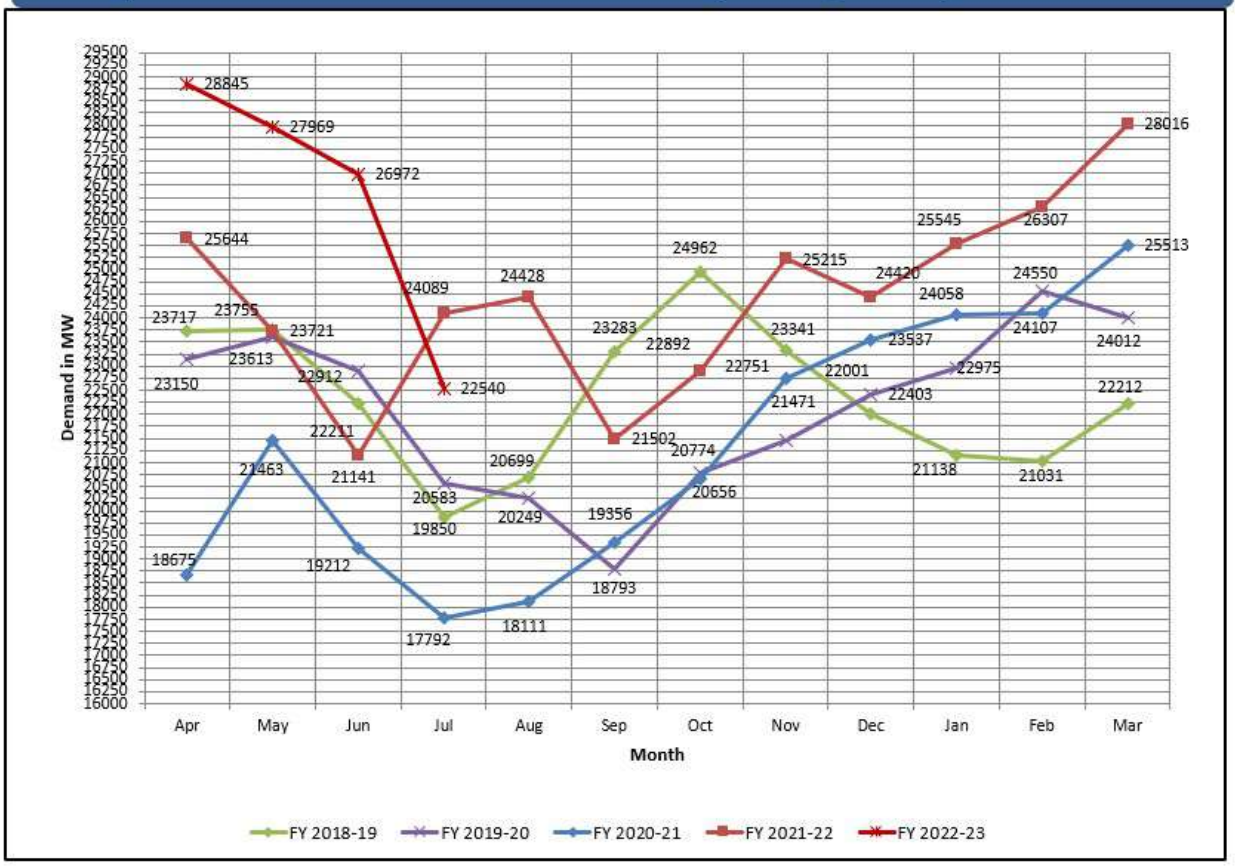
A - STATE Demand Details

Month	Peak Demand (MW)	Catered Demand (MW)	Load Shedding /Shortfall (MW)	Date	Time (Hrs)	Min. Demand (MW)	Date	Time(Hrs)
Apr-22	28845	26786	2059	14.04.2022	15:00 Hrs	22386	24.04.2022	08:00 Hrs
May-22	27969	27969	0	02.05.2022	15:00 Hrs	20676	22.05.2022	19:00 Hrs
Jun-22	26972	26972	0	08.06.2022	16:00 Hrs.	18102	27.06.2022	04:00 Hrs.
Jul-22	22540	22540	0	04.07.2022	10:00 Hrs.	14780	14.07.2022	04:00 Hrs.

B - Mumbai Demand Details (including open access)

Months	Peak Demand (MW)	Catered Demand (MW)	Load Shedding /Shortfall (MW)	Date	Time (Hrs)	*Min. Demand (MW)*	*Date*	*Time(Hrs)*
Apr-22	3851	3851	0	25.04.2022	18:00 Hrs	2049	01.04.2022	05:00 Hrs
May-22	3635	3635	0	06.05.2022	16:00 Hrs	2211	13.05.2022	05:00 Hrs
Jun-22	3738	3738	0	09.06.2022	16:00 Hrs.	1883	22.06.2022	05:00 Hrs.
Jul-22	3273	3273	0	29.07.2022	12:00 Hrs.	1750	15.07.2022	05:00 Hrs.

Monthly Maharashtra State Max Demand For the FY 18-19, FY 19-20, FY 20-21,FY 21-22 and FY 22-23



2.1C - Energy Catered in MUs

Particulars		April - 22	May - 22	June - 22	July-22
State	Monthly	18200	18149	15972	13879
	Max.	628	610	592	488
	Avg. Per Day	607	585	532	448
Mumbai	Monthly	2065	2176	1997	1838
	Max.	77	73	76	65
	Avg. Per Day	69	70	67	59

Maximum Energy catered till date - 628 MUs on 28th April 2022.

2.2 - Frequency profile for the months from April - July 2022

Range	Apr - 2022 % time	May - 2022 % time	Jun - 2022 % time	July - 2022 % time
IEGC band: 49.9 - 50.05 Hz	59	72	74	74
< 49.9 Hz	32	10	12	8
> 50.05 Hz	9	18	14	18

2.3 - UFR Operation for the months from April - July 2022

As per SLDC records the system frequency did not reach 49.4 Hz and no UFR operation was reported.

2.4 - Voltage Profile for the months from April - July 2022

Range	Voltage level	April - 22		May - 22		June - 22		July - 22	
Maximum	765kV	AKOLA	800	AKOLA	791	TIRORA	775	TIRORA	775
	400kV	JAIGAD	433	KALWA	432	NANDED	434	KALWA	441
Minimum	765kV	EKTUNI	751	EKTUNI	749	EKTUNI	750	AKOLA	758
	400kV	JEJURI	369	JEJURI	373	JEJURI	375	CHAKAN	379

Generating Units under Forced Outage						
Name of Unit	**Date Trip**	**Time Trip**	**Date Sync**	**Time Sync**	**Reason**	**Outage Type**
SWPGPL U-1	16-02-2016	17.09	28-06-2022	23:48	No PPA.	FORCED
PGPL U1	07-02-2017	17.3		Continued.	No Schedule (NO PPA)	FORCED
PGPL U2	07-02-2017	17.3		Continued.	No Schedule.(NO PPA)	FORCED
IEPL Unit 1	28-08-2018	21.26		Continued.	No PPA	FORCED
VIPL U-1	29-12-2018	0.3		Continued.	Coal Shortage. (NO PPA From 20.05.2019)	FORCED
VIPL U-2	17-01-2019	0.15		Continued.	Coal shortage.(NO PPA From 20.05.2019)	FORCED
Tarapur 1	08-01-2020	10:37		Continued.	Refueling. While refueling preparation, some repair works identified which are being executed before refueling.	FORCED
Uran Unit 7	25-05-2020	12.51		Continued.	Turbine Blade Failure	FORCED
Tarapur 2	13-07-2020	04:38		Continued.	For cleaning of clogged basket strainer of cooling water system due to heavy ingress of debris from sea. The outage extended for repair and re-fueling.	FORCED
Koradi Unit 7	27-04-2021	20.03		Continued.	Retired (04/08/2021 At 00.00)	FORCED
Ghatghar Unit-1	17-02-2022	21:55	17-04-2022	12:15	SFC HEAVY FAULT	FORCED
SWPGPL U-4	25-02-2022	16:47	01-04-2022	15:26	Turbine Vibration	FORCED
RPL(AMT) U-1	07-03-2022	02:39	01-04-2022	00:04	Generator Protection operated. (from 15/03/2022 due to coal shortage)	FORCED
Ghatghar Unit-2	11-03-2022	01:25	12-04-2022	06:05	TRIPPED ON SFC HEAVY FAULT WHILE TAKING ON PUMPING MODE. (PUMPING TRIAL CARRIED OUT SUCCESSFULLY FROM 20:35HRS TO 22:35HRS DT.10/03/22)	FORCED
JSW (J) U1	16-03-2022	23:16		Continued.	Turbine Vibration	FORCED
Bhusawal Unit 3	20-03-2022	07:00	07-04-2022	05:57	Coal Shortage	FORCED
Nasik Unit 5	22-03-2022	23:40	17-04-2022	04:53	Coal Shortage	FORCED
Uran Unit 5	26-03-2022	18:25	01-04-2022	16:42	Gas shortage	FORCED
Parli Unit 7	30-03-2022	13:30	02-04-2022	06:04	Furnace Pressure High	FORCED
Nasik Unit 3	31-03-2022	06:25	01-04-2022	20:18	Boiler Tube Leakage	FORCED
Uran Unit 5	01-04-2022	16:47	01-04-2022	17:05	Due to Boiler Protection	FORCED
Chandrapur Unit 6	01-04-2022	02:35	03-04-2022	19:55	Turbine vibration	FORCED
SWPGPL U-4	01-04-2022	16:19	01-04-2022	18:29	Due To Turbine Valve Leakage	FORCED

Generating Units under Forced Outage						
Uran Unit 8	01-04-2022	19:21	12-04-2022	09:35	Filter Replacement work.(Converted on gas shortage from 00:00 hrs of dt.03.04.2022)	FORCED
Uran Unit B0	01-04-2022	19:02	12-04-2022	16:29	Filter Replacement work(Converted on gas shortage from 00:00 hrs of dt.03.04.2022)	FORCED
RPL(AMT) U-4	02-04-2022	15:30	04-04-2022	16:58	Bottom ash problem	FORCED
Koyna Unit 2	02-04-2022	21:15	03-04-2022	02:30	Preventive Maintenance Work	FORCED
Adani U-3	04-04-2022	02:13	04-04-2022	08:01	Rotor Earth Fault	FORCED
Paras Unit 4	04-04-2022	12:03	04-04-2022	15:16	Boiler Tube Leakage	FORCED
Parli Unit 6	05-04-2022	05:29	07-04-2022	06:35	Drum level low	FORCED
Uran Unit 5	05-04-2022	13:47	06-04-2022	15:27	Gas shortage	FORCED
Koyna Unit 4	06-04-2022	05:05	06-04-2022	10:15	T/F differential protection	FORCED
Koradi Unit-10	07-04-2022	08:08	20-04-2022	17:31	Condenser Cleaning work.	FORCED
Bhusawal Unit 3	07-04-2022	06:34	07-04-2022	08:09	Drum Level High	FORCED
Paras Unit 4	08-04-2022	06:32	08-04-2022	10:22	Furnace Pressure High	FORCED
Bhusawal Unit 3	09-04-2022	14:20	09-04-2022	16:10	PA Fan problem	FORCED
Koyna STG-IV Unit-1	09-04-2022	21:55	10-04-2022	03:30	Guide vanes Control Fault attending work	FORCED
Nasik Unit 3	10-04-2022	10:14	10-04-2022	13:21	STATOR WINDING TEMP. HIGH	FORCED
Nasik Unit 3	10-04-2022	13:30	10-04-2022	14:03	Low Forward Power.	FORCED
Bhusawal Unit 4	11-04-2022	00:44	11-04-2022	05:15	HP bypass impulse line leakage work	FORCED
Nasik Unit 3	11-04-2022	10:24	11-04-2022	19:30	GENERATOR SEAL HYDROGEN LEAKAGE	FORCED
Bhusawal Unit 4	11-04-2022	10:17	11-04-2022	13:07	Low furnace pressure	FORCED
Bhusawal Unit 4	11-04-2022	13:53	11-04-2022	17:12	Flame Failure	FORCED
Uran Unit 6	12-04-2022	17:29	13-04-2022	13:57	Gas shortage	FORCED
Uran Unit 8	13-04-2022	13:49	15-04-2022	15:32	Bearing vibration high	FORCED
Uran Unit B0	13-04-2022	13:49	15-04-2022	20:31	Bearing vibration high	FORCED
Nasik Unit 4	16-04-2022	20:58	27-04-2022	13:15	Condenser Tube Leakage (Unit 4 was not available due to Critical coal stock since from Unit 5 synchronization 04:53 hrs. of 17.04.2022)	FORCED
SWPGPL U-3	16-04-2022	15:52	21-04-2022	11:32	APH problem	FORCED
Uran Unit 6	16-04-2022	16:22	18-04-2022	12:43	Gas shortage	FORCED
Khaparkheda Unit 4	17-04-2022	04:51	17-04-2022	06:57	Furnace Pressure High	FORCED
Uran Unit 8	17-04-2022	11:52	18-04-2022	07:07	Gas shortage	FORCED
Uran Unit B0	17-04-2022	11:52	18-04-2022	09:45	Gas shortage	FORCED
Khaparkheda Unit 4	17-04-2022	11:36	18-04-2022	03:43	ID Fan bearing temp.high	FORCED
Trombay 7A	17-04-2022	18:23	18-04-2022	12:41	Gas shortage	FORCED
Trombay 7B	17-04-2022	18:23	18-04-2022	15:51	Gas shortage	FORCED

Generating Units under Forced Outage						
Ghatghar Unit-1	20-04-2022	00:35		Continued.	Stator Earth Fault	FORCED
Uran Unit 6	20-04-2022	16:27	20-04-2022	16:28	WRONG ENTRY	FORCED
Uran Unit 5	20-04-2022	16::27	05-05-2022	10:00	Gas shortage	FORCED
SWPGPL U-4	20-04-2022	16:55	23-04-2022	10:00	PA Fan Vibration Problem	FORCED
Khaparkheda Unit 2	21-04-2022	07:06	21-04-2022	18:20	Unit Auxiliary Transformer Tripped.	FORCED
Nasik Unit 3	21-04-2022	23:00	22-04-2022	01:35	EARTHFAULT PROTECTION OPERATED	FORCED
Koradi Unit 8	22-04-2022	17:45	22-04-2022	21:47	Flame Failure	FORCED
Khaparkheda Unit 3	23-04-2022	20:43	24-04-2022	23:01	Boiler Tube Leakage	FORCED
Paras Unit 3	24-04-2022	08:47	24-04-2022	12:04	Furnace Pressure High	FORCED
Trombay 7B	25-04-2022	22:28	26-04-2022	02:07	Condenser Extractor Pump Alarm	FORCED
Parli Unit 6	26-04-2022	21:30	27-04-2022	07:12	Furnace Pressure High	FORCED
SWPGPL U-2	26-04-2022	21:24	29-04-2022	12:04	ID Fan Vibration High	FORCED
Uran Unit 6	27-04-2022	22:22	28-04-2022	00:55	DUE TO CARD FAULT	FORCED
Uran Unit A0	27-04-2022	22:22	29-04-2022	13:12	DUE TO CARD FAULT	FORCED
Parli Unit 6	28-04-2022	05:35	01-05-2022	01:15	Boiler Tube Leakage	FORCED
RPL(AMT) U-3	28-04-2022	16:15	30-04-2022	12:17	BOTTOM ASH EVACUATION PROBLEM.	FORCED
Chandrapur Unit 6	29-04-2022	00:15	03-05-2022	09:52	Boiler Tube Leakage	FORCED
Koyna STG-IV Unit-1	29-04-2022	05:36	29-04-2022	07:10	TRIPPED DUE TO NUMERICAL PROTECTION OPERATED	FORCED
Koyna STG-IV Unit-2	29-04-2022	05:36	29-04-2022	10:10	TRIPPED DUE TO NUMERICAL PROTECTION OPERATED	FORCED
Koyna STG-IV Unit-3	29-04-2022	05:36	29-04-2022	09:10	TRIPPED DUE TO NUMERICAL PROTECTION OPERATED	FORCED
Koyna STG-IV Unit-4	29-04-2022	05:36	29-04-2022	09:35	TRIPPED DUE TO NUMERICAL PROTECTION OPERATED	FORCED
Nasik Unit 4	30-04-2022	11:46	01-05-2022	06:17	Main Steam Line Leakage	FORCED
Parli Unit 7	01-05-2022	05:22	02-05-2022	21:39	Boiler Tube Leakage	FORCED
Bhusawal Unit 4	02-05-2022	11:00	06-05-2022	18:25	Boiler Tube Leakage	FORCED
JSW (J) U3	02-05-2022	01:46	03-05-2022	18:54	Withdrawn	FORCED
RPL(AMT) U-1	02-05-2022	07:15	04-05-2022	13:30	CW line below leakage	FORCED
Parli Unit 6	03-05-2022	12:13	08-05-2022	01:45	Boiler Tube Leakage	FORCED
Adani U-1	03-05-2022	06:16	03-05-2022	23:36	APH Problem.	FORCED
SWPGPL U-4	03-05-2022	06:15	03-05-2022	11:50	Turbine Vibration high	FORCED
Chandrapur Unit 8	03-05-2022	23:52	05-05-2022	23:37	Boiler Tube Leakage	FORCED
JSW (J) U3	03-05-2022	19:08	03-05-2022	21:41	cooling water line leakage.	FORCED
Khaparkheda Unit 3	05-05-2022	01:31	07-05-2022	16:19	Boiler Tube Leakage	FORCED
Paras Unit 4	05-05-2022	02:22	05-05-2022	07:50	Main Oil Tank Low Transmitter Malfunction	FORCED
Bhusawal Unit 5	05-05-2022	10:58	05-05-2022	14:14	Class A protection operated	FORCED
Uran Unit 6	05-05-2022	17:36	07-05-2022	23:21	Gas shortage	FORCED
Bhusawal Unit 5	05-05-2022	17:17	05-05-2022	18:56	Low furnace pressure	FORCED
Nasik Unit 5	05-05-2022	22:53	06-05-2022	11:30	Rotor Earth Fault	FORCED

Generating Units under Forced Outage						
Koradi Unit 6	06-05-2022	11:28	06-05-2022	15:58	Generator Elect. Fault	FORCED
Koradi Unit 9	07-05-2022	05:34	07-05-2022	16:24	Regenerative/ Rotating Air Preheater problem.	FORCED
Uran Unit 8	07-05-2022	19:08	08-05-2022	14:10	Generator Protection operated	FORCED
Uran Unit B0	07-05-2022	19:08	08-05-2022	17:43	Generator Protection operated	FORCED
Parli Unit 8	07-05-2022	12:25	10-05-2022	17:37	Boiler Tube Leakage	FORCED
Khaparkheda Unit 2	08-05-2022	15:30	08-05-2022	21:45	TRIPPED DUE TO SUSPECTED AC SUPPLY FAILURE	FORCED
Koradi Unit 6	08-05-2022	14:15	08-05-2022	16:22	TRIPPED ON MAIN OIL TANK LUBE OIL PRESSURE LOW	FORCED
Adani U-2	08-05-2022	08:48	11-05-2022	08:02	APH-A high vibration and gearbox abnormal sound	FORCED
Paras Unit 4	09-05-2022	12:15	09-05-2022	15:12	Furnace Pressure High	FORCED
Nasik Unit 5	09-05-2022	16:15	10-05-2022	10:30	Generator protection	FORCED
SWPGPL U-3	09-05-2022	09:30	13-05-2022	19:51	due to Boiler SSC chain broken problem	FORCED
Paras Unit 3	09-05-2022	12:29	11-05-2022	05:26	ATTEND HP BYPASS BP2 V/V HEAVY GLAND LEAKAGE.	FORCED
Koradi Unit 9	10-05-2022	15:19	10-05-2022	18:42	Governing Value Problem	FORCED
Chandrapur Unit 3	11-05-2022	17:25	12-05-2022	10:18	BOILER FEED PUMP FAILED HENCE DRUM LEVEL LOW.	FORCED
RPL(AMT) U-1	11-05-2022	21:00	30-05-2022	00:00	Coal Shortage	FORCED
Khaparkheda Unit 3	11-05-2022	10:54	11-05-2022	20:13	Sparking on B Phase of GT-3	FORCED
Uran Unit 8	13-05-2022	01:34	06-06-2022	17:07	excitation fault (unit out due to gas shortage from 02:30hrs of dt.13.05.2022)	FORCED
Parli Unit 6	13-05-2022	07:29	13-05-2022	11:45	Furnace Pressure High	FORCED
Adani U-2	13-05-2022	14:24	16-05-2022	20:18	Leakage Work.	FORCED
SWPGPL U-2	13-05-2022	00:33	13-05-2022	06:23	GV problem	FORCED
Uran Unit B0	13-05-2022	01:34	11-06-2022	17:36	excitation fault (unit out due to gas shortage from 02:30hrs of dt.13.05.2022)	FORCED
RPL(AMT) U-2	16-05-2022	23:53	24-05-2022	12:26	Coal Shortage	FORCED
Uran Unit 5	16-05-2022	12:59	26-05-2022	09:42	Gas shortage	FORCED
Trombay 7B	16-05-2022	23:59	26-05-2022	01:25	Non availability of APM gas.	FORCED
Bhusawal Unit 3	17-05-2022	07:20	17-05-2022	11:14	Furnace Pressure High	FORCED
Trombay 7A	17-05-2022	00:14	18-05-2022	16:58	Non availability of APM gas.	FORCED
Nasik Unit 3	17-05-2022	11:55	17-05-2022	13:35	boiler feed pump tripped.	FORCED
Adani U-2	17-05-2022	06:31	22-05-2022	16:48	Withdrawn	FORCED
Parli Unit 6	17-05-2022	13:37	17-05-2022	16:36	Furnace Pressure High	FORCED
Parli Unit 6	18-05-2022	04:20	18-05-2022	07:32	Furnace Pressure High	FORCED
Trombay 7A	19-05-2022	02:26	19-05-2022	17:00	Gas shortage	FORCED
Parli Unit 6	19-05-2022	20:00	25-05-2022	13:20	Boiler Tube Leakage	FORCED
Nasik Unit 4	19-05-2022	22:45	22-05-2022	13:47	condenser tube leakage.	FORCED
SWPGPL U-3	19-05-2022	03:00	20-05-2022	10:20	ID Fan Problem	FORCED

Generating Units under Forced Outage						
Trombay 7A	20-05-2022	02:45	20-05-2022	16:00	non availability of APM gas	FORCED
Khaparkheda Unit 4	20-05-2022	17:41	22-05-2022	05:18	Boiler Tube Leakage	FORCED
Nasik Unit 3	21-05-2022	17:14	26-05-2022	09:40	Boiler Tube Leakage	FORCED
Trombay 7A	21-05-2022	01:26	25-05-2022	17:00	Gas shortage	FORCED
Koradi Unit-10	22-05-2022	21:53	23-05-2022	02:20	for emergency outage of GT-10main bay 401 & tie bay 402 for attending hot spot.	FORCED
Chandrapur Unit 5	23-05-2022	07:45	26-05-2022	18:00	Boiler Tube Leakage	FORCED
RPL(AMT) U-3	24-05-2022	02:23	31-05-2022	05:45	Flame Failure	FORCED
Bhusawal Unit 3	24-05-2022	17:31	29-05-2022	16:55	CVSM Control Valve Problem	FORCED
Koradi Unit 6	27-05-2022	06:05	29-05-2022	06:27	Boiler Tube Leakage	FORCED
Adani U-3	27-05-2022	16:13	01-06-2022	03:11	APH-A HOT PA BELOW LEAKAGE.	FORCED
Chandrapur Unit 7	28-05-2022	12:18	29-05-2022	01:14	Air heater problem	FORCED
Koradi Unit 8	28-05-2022	17:27	28-05-2022	19:54	Flame Failure	FORCED
Trombay 7A	29-05-2022	05:26	02-06-2022	15:00	Gas shortage	FORCED
Trombay 7B	29-05-2022	04:57	05-06-2022	22:22	Gas shortage	FORCED
Nasik Unit 3	29-05-2022	19:00	31-05-2022	07:40	Boiler Tube Leakage	FORCED
Uran Unit 6	29-05-2022	00:32	06-06-2022	20:44	Gas shortage	FORCED
Bhusawal Unit 5	30-05-2022	23:55	02-06-2022	08:19	Boiler Tube Leakage	FORCED
RPL(AMT) U-5	30-05-2022	23:20	01-06-2022	16:30	CW LINE BELWO LEKAGE.	FORCED
RPL(AMT) U-4	31-05-2022	01:15	13-06-2022	17:41	Ash Conveyer problem.(Coal shortage From Dt 02.06.2022 @ 02.00 hrs)	FORCED
Uran Unit 5	31-05-2022	16:59	31-05-2022	17:43	JERK IN GAS PRESSURE	FORCED
Uran Unit A0	31-05-2022	16:59	31-05-2022	19:49	JERK IN GAS PRESSURE	FORCED
Nasik Unit 4	31-05-2022	15:00	04-06-2022	12:09	ID Fan Problem	FORCED
Chandrapur Unit 3	01-06-2022	13:54	02-06-2022	11:38	Withdrawn	FORCED
Paras Unit 4	01-06-2022	14:32	02-06-2022	05:20	CLINKER FORMATION. Synchronised now	FORCED
Nasik Unit 5	02-06-2022	03:30	02-06-2022	08:26	Loss of fuel	FORCED
Trombay 7A	03-06-2022	03:45	03-06-2022	06:09	Gas shortage	FORCED
AEML Unit 2	04-06-2022	00:02	04-06-2022	02:38	Generator Elect. Fault	FORCED
Trombay 7A	04-06-2022	03:15	05-06-2022	17:48	Gas shortage	FORCED
SWPGPL U-3	04-06-2022	01:00	06-06-2022	02:36	Boiler Bottom Ash System problem	FORCED
RPL(AMT) U-3	04-06-2022	12:00	04-06-2022	15:21	CEP Recirculation valve leakage.	FORCED
Khaparkheda Unit 3	05-06-2022	01:07	05-06-2022	03:57	Furnace Pressure High	FORCED
Uran Unit 8	06-06-2022	23:03	11-06-2022	17:36	Gas shortage	FORCED
Koyna Unit 2	06-06-2022	08:00	09-06-2022	05:15	Needle No.1&4 water leakage	FORCED
Dhariwal	07-06-2022	09:37	07-06-2022	12:18	Generator protection	FORCED
Nasik Unit 5	08-06-2022	18:18	12-06-2022	08:31	ID Fan Problem	FORCED
Koyna Unit 12	09-06-2022	07:40	13-06-2022	18:20	TO ATTEND BUTTERFLY VALVE PROBLEM.	FORCED
Chandrapur Unit 9	09-06-2022	08:46	13-06-2022	08:17	Boiler Tube Leakage	FORCED

Generating Units under Forced Outage						
SWPGPL U-4	10-06-2022	23:00	13-06-2022	13:09	Boiler Bottom Ash System problem.	FORCED
Uran Unit 5	11-06-2022	14:29	27-06-2022	08:20	Gas shortage	FORCED
AEML Unit 1	11-06-2022	23:53	13-06-2022	02:09	Boiler Tube Leakage	FORCED
Chandrapur Unit 7	11-06-2022	07:00	12-06-2022	01:05	Air heater problem	FORCED
Khaparkheda Unit 3	11-06-2022	17:08	11-06-2022	19:34	Furnace Pressure High	FORCED
Ghatghar Unit-2	12-06-2022	11:45	14-06-2022	12:30	CW Pump having heavy Vibration and Water leakage.	FORCED
Uran Unit 6	13-06-2022	00:25	24-06-2022	05:30	Gas shortage	FORCED
Uran Unit A0	13-06-2022	00:25	24-06-2022	15:08	Gas shortage	FORCED
Koradi Unit 6	13-06-2022	10:17	13-06-2022	13:01	Flame Failure	FORCED
Paras Unit 3	15-06-2022	11:05	15-06-2022	13:52	Furnace Pressure High	FORCED
Nasik Unit 5	16-06-2022	13:15	16-06-2022	17:35	due to sudden closed of ESV & IV Valves	FORCED
Ghatghar Unit-2	18-06-2022	10:00	17-07-2022	16:15	for Hydraulic Intake Gate Work	FORCED
Trombay 7A	18-06-2022	04:12	27-06-2022	18:31	Gas shortage	FORCED
Trombay 7B	18-06-2022	03:55	27-06-2022	23:03	Gas shortage	FORCED
Chandrapur Unit 4	18-06-2022	00:05	27-06-2022	09:28	Ash handling problem.	FORCED
Chandrapur Unit 6	18-06-2022	12:53	22-06-2022	22:03	Boiler Tube Leakage	FORCED
Parli Unit 6	18-06-2022	18:37	21-06-2022	17:22	Boiler Tube Leakage	FORCED
RPL(AMT) U-3	18-06-2022	16:50	18-06-2022	18:24	turbine overspeed relay operated	FORCED
Koradi Unit-10	20-06-2022	12:00	20-06-2022	17:29	BOILER UNSTABLE CONDITION.	FORCED
AEML Unit 2	22-06-2022	16:43	25-06-2022	03:07	Boiler Tube Leakage	FORCED
Koradi Unit 8	22-06-2022	03:07	22-06-2022	06:59	air cycle B tripped	FORCED
SWPGPL U-2	23-06-2022	03:00	26-06-2022	10:00	BOILER BOTTOM ASH SYSTEM PROBLEM	FORCED
Uran Unit 8	23-06-2022	22:15	24-06-2022	00:05	Excitation fault	FORCED
Koyna STG-IV Unit-4	23-06-2022	01:44	23-06-2022	07:00	GOVERNOR OIL SYSTEM PRESSURE FAULT	FORCED
Uran Unit 8	23-06-2022	15:45	23-06-2022	18:45	EXCITATION FAULT	FORCED
Uran Unit B0	23-06-2022	15:45	23-06-2022	20:44	EXCITATION FAULT	FORCED
Paras Unit 4	23-06-2022	22:56	25-06-2022	22:00	Boiler Validity Extension	FORCED
Uran Unit B0	23-06-2022	22:15	24-06-2022	01:59	Excitation Fault.	FORCED
Uran Unit 8	24-06-2022	15:33	03-08-2022	16:59	Gas shortage	FORCED
Uran Unit 8	24-06-2022	06:28	24-06-2022	10:29	Excitation channel fault.	FORCED
Uran Unit B0	24-06-2022	06:28	04-08-2022	01:41	Excitation channel fault(Converted to Gas Shortage from 26-06-22)	FORCED
Koradi Unit 9	27-06-2022	13:45	03-07-2022	06:46	Air Filter Problem	FORCED
Nasik Unit 4	28-06-2022	03:12	29-06-2022	11:38	Boiler Tube Leakage	FORCED
Chandrapur Unit 4	28-06-2022	03:15	28-06-2022	09:33	Jacking oil pipe line puncture	FORCED
Parli Unit 6	29-06-2022	02:28	29-06-2022	06:37	Furnace pressure high	FORCED
SWPGPL U-1	29-06-2022	00:51	30-06-2022	21:28	Turbine vibration	FORCED
Koradi Unit-10	29-06-2022	09:16	29-06-2022	13:53	ELETRICAL FAULT	FORCED
Bhusawal Unit 5	29-06-2022	12:09	02-07-2022	03:36	CLINKER FORMATION	FORCED

Generating Units under Forced Outage						
RPL(AMT) U-3	30-06-2022	15:00		Continued.	Coal Shortage	FORCED
Koradi Unit 6	30-06-2022	21:35	02-07-2022	17:13	Boiler Tube Leakage	FORCED
SWPGPL U-4	30-06-2022	23:23	03-07-2022	23:25	Vibration High in feed pump.	FORCED
SWPGPL U-1	01-07-2022	00:07	01-07-2022	19:54	Turbine Vibration	FORCED
Trombay 7A	01-07-2022	05:14	04-07-2022	13:07	Gas shortage	FORCED
Trombay 7B	01-07-2022	04:53	04-07-2022	17:31	Gas shortage	FORCED
JSW (J) U4	01-07-2022	13:03		Continued.	Turbine bearing Vabration high	FORCED
Chandrapur Unit 3	01-07-2022	15:23	01-07-2022	23:43	Furnace Pressure High	FORCED
Uran Unit 5	02-07-2022	13:18	03-07-2022	13:32	Gas shortage	FORCED
Nasik Unit 5	02-07-2022	21:55	03-07-2022	15:55	Economizer Tube Leakage.	FORCED
SWPGPL U-1	02-07-2022	07:09	02-07-2022	10:25	Master fuel trip	FORCED
SWPGPL U-1	03-07-2022	21:58	04-07-2022	00:36	PA Fan problem	FORCED
SWPGPL U-1	04-07-2022	02:38	16-07-2022	00:10	PA Fan problem	FORCED
Trombay 5	05-07-2022	02:25	07-07-2022	08:54	condenser cooling water inlet line leakage	FORCED
Khaparkheda Unit 5	05-07-2022	04:16	05-07-2022	11:36	ID Fan Problem	FORCED
SWPGPL U-3	06-07-2022	04:59	06-07-2022	22:04	HP Turbine Leakage	FORCED
Koradi Unit 6	06-07-2022	04:52	06-07-2022	08:24	Flame Failure	FORCED
AEML Unit 2	06-07-2022	09:25	06-07-2022	11:25	Disturbance in Furnace	FORCED
Chandrapur Unit 6	06-07-2022	14:15	06-07-2022	18:53	Flame Failure	FORCED
Koyna STG-IV Unit-1	06-07-2022	18:30	19-07-2022	18:50	Governor problem	FORCED
Uran Unit 6	06-07-2022	17:51	24-07-2022	10:12	Gas shortage	FORCED
Trombay 7B	07-07-2022	01:21	31-07-2022	01:37	Gas shortage	FORCED
Khaparkheda Unit 5	07-07-2022	13:22	07-07-2022	15:47	Generator Protection operated	FORCED
Trombay 7A	07-07-2022	01:09	30-07-2022	18:55	Gas shortage	FORCED
Khaparkheda Unit 3	07-07-2022	13:03	09-07-2022	20:57	Boiler Tube Leakage	FORCED
Koyna Unit 4	07-07-2022	07:35	07-07-2022	20:20	Preventive Maintenance Work	FORCED
Koradi Unit 9	07-07-2022	13:54	12-07-2022	09:06	Boiler Tube Leakage	FORCED
Khaparkheda Unit 1	08-07-2022	10:29	08-07-2022	13:11	Furnace Pressure High	FORCED
Chandrapur Unit 3	09-07-2022	11:58	30-07-2022	00:07	Furnace Pressure High	FORCED
Paras Unit 4	09-07-2022	15:04	09-07-2022	17:34	Furnace Pressure High	FORCED
Paras Unit 4	09-07-2022	20:58	09-07-2022	23:59	Furnace Pressure High	FORCED
Koradi Unit 6	10-07-2022	10:39	10-07-2022	14:14	drum level high	FORCED
Khaparkheda Unit 1	10-07-2022	09:48	10-07-2022	13:56	Flame Failure	FORCED
Chandrapur Unit 4	10-07-2022	15:48	10-07-2022	20:50	Furnace Pressure High	FORCED
Nasik Unit 5	11-07-2022	17:00	31-07-2022	16:00	WET COAL	FORCED
Parli Unit 7	11-07-2022	22:03	13-07-2022	19:37	Boiler Tube Leakage	FORCED
AEML Unit 2	13-07-2022	00:38	02-08-2022	15:27	Coal Shortage	FORCED
Koyna Unit 7	13-07-2022	12:07	13-07-2022	14:38	BUS SEC-2 TRIPPED AT POPHALI AND BUS SEC-1 IS UNDER EMERGENCY OUTAGE	FORCED

Generating Units under Forced Outage						
Koyna Unit 8	13-07-2022	12:07	13-07-2022	14:25	BUS SEC-2 TRIPPED AT POPHALI AND BUS SEC-1 IS UNDER EMERGENCY OUTAGE	FORCED
Koyna Unit 5	13-07-2022	12:07	13-07-2022	14:50	BUS SEC-2 TRIPPED AT POPHALI AND BUS SEC-1 IS UNDER EMERGENCY OUTAGE	FORCED
Parli Unit 7	13-07-2022	19:55	13-07-2022	21:02	Flame Failure	FORCED
JSW (J) U2	13-07-2022	09:35	14-07-2022	03:45	CW Duct leakage.	FORCED
Koyna Unit 6	13-07-2022	12:07	13-07-2022	14:35	BUS SEC-2 TRIPPED AT POPHALI AND BUS SEC-1 IS UNDER EMERGENCY OUTAGE	FORCED
SWPGPL U-3	14-07-2022	14:58	05-08-2022	23:54	FD Fan Problem(converted to coal shortage from 19-7-2022)	FORCED
Nasik Unit 4	14-07-2022	19:55		Continued.	Wet Coal Problem.	FORCED
Bhusawal Unit 5	14-07-2022	01:48	14-07-2022	09:05	both ID fans off	FORCED
Parli Unit 8	14-07-2022	02:05	14-07-2022	07:18	Generator Protection operated	FORCED
Chandrapur Unit 5	14-07-2022	02:03	14-07-2022	15:16	UAT-5C TRIP ON EARTH FAULT.	FORCED
Koyna Unit 12	15-07-2022	19:29	15-07-2022	21:45	220KV PEDAMBE-KALAMBANI LINE JUMPUR BROKEN BETWEEN ISOLATOR TO C/B AT PEDAMBE END.	FORCED
Khaparkheda Unit 5	15-07-2022	17:25	15-07-2022	20:23	Due to heavy jerk in 400 KV lines.	FORCED
Khaparkheda Unit 4	15-07-2022	07:09	15-07-2022	23:04	Furnace Pressure High	FORCED
Parli Unit 6	15-07-2022	06:45	15-07-2022	12:12	Boiler Tube Leakage	FORCED
Koyna Unit 10	15-07-2022	19:29	15-07-2022	22:10	220KV PEDAMBE-KALAMBANI LINE JUMPUR BROKEN BETWEEN ISOLATOR TO C/B AT PEDAMBE END.	FORCED
SWPGPL U-1	16-07-2022	00:44	16-07-2022	02:37	fan temp malfunction	FORCED
Bhusawal Unit 3	16-07-2022	06:30	09-08-2022	11:29	Critical coal stock	FORCED
Nasik Unit 3	18-07-2022	17:25	18-07-2022	20:52	Tripped due to AVR Tripped to 86G	FORCED
Bhusawal Unit 4	18-07-2022	22:21	19-07-2022	03:01	Flame Failure	FORCED
Dhariwal	18-07-2022	03:15	19-07-2022	16:56	Generator Elect. Fault	FORCED
Bhusawal Unit 4	18-07-2022	04:40	18-07-2022	11:49	Flame Failure	FORCED
Paras Unit 3	18-07-2022	09:38	19-07-2022	03:05	Coal bunkering problem	FORCED
Paras Unit 4	18-07-2022	10:10	19-07-2022	05:55	Coal bunkering problem	FORCED
Nasik Unit 3	19-07-2022	21:10	19-07-2022	21:30	Flame Failure	FORCED
Paras Unit 3	19-07-2022	06:20	19-07-2022	09:54	Tripped	FORCED
Dhariwal	19-07-2022	18:36	22-07-2022	18:12	Generator Protection operated	FORCED
RPL(AMT) U-5	20-07-2022	10:00	02-08-2022	13:33	Coal Shortage	FORCED
Nasik Unit 3	20-07-2022	15:08	20-07-2022	16:25	Speeder gear problem.	FORCED
Bhusawal Unit 4	20-07-2022	09:35	20-07-2022	12:29	Flame Failure	FORCED
Paras Unit 3	20-07-2022	19:05	20-07-2022	21:40	Low furnace pressure	FORCED

Generating Units under Forced Outage						
SWPGPL U-2	20-07-2022	01:00		Continued.	Coal Shortage	FORCED
Bhusawal Unit 5	21-07-2022	21:48	22-07-2022	03:41	due to tripping of electrical board	FORCED
Khaparkheda Unit 1	22-07-2022	14:37	24-07-2022	23:06	Drum level low	FORCED
Paras Unit 3	22-07-2022	15:15	23-07-2022	04:34	Loss of fuel	FORCED
Koradi Unit 6	23-07-2022	18:58	23-07-2022	22:28	Flame Failure	FORCED
Parli Unit 8	23-07-2022	23:23	24-07-2022	03:58	Furnace Pressure High	FORCED
Uran Unit 5	24-07-2022	13:14	01-08-2022	17:03	Gas shortage	FORCED
Chandrapur Unit 8	24-07-2022	22:54	25-07-2022	05:28	Flame Failure	FORCED
Parli Unit 8	26-07-2022	01:44	26-07-2022	06:15	Low Vaccuum	FORCED
Paras Unit 3	26-07-2022	20:52	28-07-2022	19:08	Boiler Tube Leakage	FORCED
Ghatghar Unit-2	28-07-2022	21:00	30-07-2022	21:00	C.W PUMP PROBLEM	FORCED

2.6 - Generating stations under Planned outage

Utility	Name of Unit	Date Trip	Time Trip	Date Sync	Time Sync	Reason	Outage Type
MSPGCL	Koradi Unit 6	02-04-2022	00:59	04-04-2022	07:02	Condenser vacuum work and ESP repairing work.	PLANNED
MSPGCL	Koyna Unit 1	02-04-2022	11:05	02-04-2022	17:10	MAINTENANCE WORK	PLANNED
MSPGCL	Koyna Unit 3	03-04-2022	07:30	03-04-2022	12:45	Maintenance work	PLANNED
MSPGCL	Koyna Unit 4	03-04-2022	13:10	03-04-2022	17:40	Maintenance work	PLANNED
MSPGCL	Koyna Unit 7	16-04-2022	08:15	16-04-2022	14:45	Preventive Maintenance Work	PLANNED
MSPGCL	Koyna Unit 8	17-04-2022	07:50	17-04-2022	14:35	Preventive Maintenance Work	PLANNED
MSPGCL	JSW (J) U3	28-05-2022	02:09	29-05-2022	18:45	no schedule	PLANNED
MSPGCL	Khaparkheda Unit 4	05-06-2022	00:07	13-07-2022	00:31	Annual Overhaul	PLANNED
MSPGCL	Koyna STG-IV Unit-2	13-06-2022	00:00	06-07-2022	16:00	Commissioning and installation of New TSLG governor	PLANNED
MSPGCL	Chandrapur Unit 7	15-06-2022	05:01	05-08-2022	15:22	Annual Overhaul	PLANNED
MSPGCL	Koyna Unit 9	15-06-2022	08:00		Continued.	Capital Overhaul	PLANNED
MSPGCL	RPL(AMT) U-5	15-06-2022	00:00	07-07-2022	15:02	Annual Overhaul	PLANNED
MSPGCL	Parli Unit 8	25-06-2022	00:00	11-07-2022	23:33	Short overhauling	PLANNED
MSPGCL	Adani U-2	25-06-2022	04:18	21-07-2022	08:39	Annual Overhaul	PLANNED

2.6 - Generating stations under Planned outage

Utility	Name of Unit	Date Trip	Time Trip	Date Sync	Time Sync	Reason	Outage Type
MSPGCL	Koyna Unit 6	28-06-2022	13:20	30-06-2022	17:25	enjector replacement	PLANNED
MSPGCL	Koyna Unit 5	01-07-2022	08:15	01-07-2022	17:30	Governing Card Replacement	PLANNED
MSPGCL	Koradi Unit 8	04-07-2022	21:55	10-08-2022	08:20	Annual Overhaul	PLANNED
MSPGCL	Koyna Unit 7	20-07-2022	08:00	20-07-2022	17:35	Preventive Maintenance Work	PLANNED
MSPGCL	Adani U-3	27-07-2022	00:05		Continued.	Annual Overhaul	PLANNED

2.7 - Elements under long outage

Sr. No.	Name of the Line Reactors	MVAR	Date of failure	STATUS
1	400kV Chandrapur 1-Parli 3 (Chandrapur 1 end).	50	21.09.2016	The Reactors were under repairs/overhauling at the works of M/s Aditya Vidyut Appliances Ltd, Bhiwandi(AVAL) and the work is held up due to internal problems at the end of M/s AVAL. As such, necessary legal action has already been initiated against M/s. AVAL.& matter is in NCLT. However, considering the importance & urgency of requirement, the scheme for installation of new 50MVAR Reactor is approved vide BR No 143/15 dtd 09.10.2020. MERC approval is received and LOA has been issued on M/s CG Power vide SP/L-21/T-0501/0121/716 dtd 22.11.2021 for supply of Reactors.
2	400kV Chandrapur 2-Nanded 1 (Chandrapur 2 end).	50	29.01.2018	
3	400kV Chandrapur 2-Nanded 2.	50	09.08.2018	
4	400kV Dhule S/S-SSP-1 (CSR).	50	23.12.2016	M/s BHEL has attended oil leakage problem of Reactors. Oil filtration work and testing work of both Reactors completed. BHEL has been requested for expediting the commissioning works but there is no response from M/s BHEL
5	400kV Dhule S/S-SSP-2 (CSR).	50	27.05.2017	
6	400kV Karad – Lonikand (CSR).	80	14.09.2017	On 01.04.2020,the 80MVAR CSR tripped due to Monkey fault resulting in some damages . M/s BHEL has been requested to attend the hot spots on top priority. The same held up due to no response from M/s BHEL.
7	400KV 50MVAR Bus Rector at Khadka ss.	50	10.11.2018	The issue of repairs of failed Reactor was taken up with M/s. CGL being OEM. However, M/s. CGL have denied the repairs of said Reactor. The scheme for augmentation of said Reactor by 125MVAR is approved vide BR 145/19 dtd 22.01.2021. MERC approval is received and LOA for supply of Reactor has been issued on M/s BHEL vide SP/T-0507/831 dtd 17.12.2021
8	400kV Babhaleshwar Bus Reactor	80	26.06.2019	The scheme for Installation of new 125 MVAR Bus Reactor is approved vide BR No. 139/25 Dt. 12.12.2019 and tender is under finalization by Project Department.
9	400kV Kharghar Bus Reactor.	80	04.06.2020	80MVAR, 400kV BHEL Make Bus Reactor failed on 04.06.2020 during charging at 400kV Kharghar S/s. The new scheme for procurement of new 80MVAR Reactor is approved and LOA for supply of Reactor has been issued on M/s BHEL vide SP/T-0507/831 dtd 17.12.2021
10	400kV Nagothane Bus Reactor.	80	23.11.2021	Filed offices has contacted M/s CGL to investigate the failure of said Reactor. Work Order is placed by field office vide L.No. CE/EHV/PC O&M/Zone/VSH/No 2840 dtd 15.12.2021 for internal inspection. The same was carried out on 01.01.2022 and M/s CGL has opined that Reactor is repairable and MSETCL has asked OEM to give offer for repair of said Reactor. The offer is received from M/s. CGL on 01.03.2022 and repairs proposal is under process at field office.

2.8 - Koyna Lake Level in Ft.

Month	April - 22	May - 22	June - 22	July - 22
At the end of the month	2089.5	2057.4	2037.4	2124.3
Corresponding Figure of the month Last Year	2101	2074.6	2097.9	2148.75

2.9 - New Network Addition during April - July 2022

Month	Name of substation	Particulars	Date
Apr - 2022	220 kV Pimpalgaon	220 kV Eklahare Pimpalgaon DC line	09-04-2022
	220kV Babhaleshwar	220/132 kV, 200 MVA ICT-3	22-04-2022
May - 2022	Nil		
June - 2022	Nil		
July - 2022	400kV Koradi II	125 MVAr Bus Reactor	14.07.2022

3.0 - System Disturbance in the Maharashtra Network for the period April 22 to July 22.

Sr. no.	SUB-STATION	LINE/EQPT/ BUS AFFECTED	DATE OF TRIPPING	TIME (hrs)	Sync Hrs.	EQUIP. FAILURE	LOAD/GEN. AFFECTED (approx.)	REASONS OF FAILURE
1	220KV Jalna	132KV Jalna-Jalna MIDC	04.04.2022	16:31	16:38 hrs	NIL	114MW of jalna MIDC	Tripping of 220/132KV Nagewadi 150MVA ICT , causing LTS operation and tripping of 132KV Kanaya nagar ckt.
2	400KV Padghe	All lines , ICTs connected to Bus 1 and Bus 2	26.04.2022	10:09	11:20	Flashover on support insulator Auxilary bus R ph Isolator of 400KV HVDC 2 bay	3110 MW	Flashover on support insulator Auxiliary bus R ph Isolator of 400KV HVDC 2 bay
3	220KV Padegaon	132KV Bus alongwith ICTs	03.05.2022	00:35 hrs	01:28	132 KV WALUJ CKT 1 Y PH CT BURST	LOAD ABOUT 91 MW AFFECTED FROM 00:35 HRS TO 01:28 HRS.	132 KV WALUJ CKT 1 Y PH CT BURST AND 132 KV BUS BAR PROT. OPTD
4	400KV Kharghar	400KV Talegaon PG-Kharghar line	05.05.2022	06:19	Line charged on 16:34	Nil	To control line loading of 400KV Kalwa -Talegaon PG aroud 750MW load curtailed of MMR to the tune of 290MW	At Loc.No.31 in Khandala Area suspension insulator string decapped.
5	132KV Waluj MIDC ss	All elements connector to 132KV Bus	10.05.2022	19:10	19:45	B PH CT of 132KV Waluj padegaon line	96MW	B PH CT of 132KV Waluj Padegaon line burst.
6	132KV Kanhan	All elements to 132KV kanhan	10.05.2022	23:02	03:33	NIL	approx. 300MW of Bhandara, Besa, Pardi, Mauda, Mansar	220 kV Khaparkheda-Kanhan line tripped due to snapped conductor. Subsequently, 220 kV Kanhan-Suryalaxmi tripped on overload at 23:35 hrs/10.05.2022 due to which Kanhan Substation went into dark.

3.0 - System Disturbance in the Maharashtra Network for the period April 22 to July 22.

Sr. no. 8	SUB-STATION	LINE/EQPT/ BUS AFFECTED	DATE OF TRIPPING	TIME (hrs)	Sync Hrs.	EQUIP. FAILURE	LOAD/GEN. AFFECTED (approx.)	REASONS OF FAILURE
7	400/220KV Padgha	All Lines & ICTs connected to 220KV A-Bus section-1 and 220 KV B-Bus section-3 along with Bus Coupler tripped.	19.06.22	13:08	14:06	NIL	499MW	De-capping of stub bus suspension string of Y-ph above 50 MVA 220/22 KV BHEL T/F Bay at 220 KV substation Padghe.
8	400KV Jejuri	400KV Lonikand-Jejuri line tripped	22.06.22	13:20	14:46	NIL	320.92 MW	400kV Lonikand-Jejuri line tripped while OPGW work was being carried out, for which Auto-Reclosure was taken out of service. Hence LTS stage-I,II&III operated on 400kV Jejuri-Koyna St-IV line.
9	220 KV KAWLEWADA	AT 09:31 HRS 220 KV BUSBAR OPTD. ALL 220 KV FEEDERS ALONG WITH 220/132 KV ICTS AND 220/33 KV 25 MVA TF I & II TRIPPED.	18.07.22	09:31 HRS	12:46	220 KV B PH BUS PT BURST AND	LOAD ABOUT 06 MW AFFECTED FROM 09:31 HRS TO 10:45 HRS.	220 KV B PH BUS PT BURST.
10	400KV Kalwa	400KV Kalwa-Padghe ckt 2	20.07.22	10:19	Load restored in 20Min	NIL	approx. 177 MW of MMR region to control loading on 400KV Kalwa-Padghe ckt. 1	R-phase conductor broken near dead end at Location No. 1046.
11	400KV Jejuri	220KV Lonikand -Theur ckt 1 and 2	21.07.22	15:38	16:50	NIL	186MW	Due to tripping of 220KV Lonikand - Theur ckt. 1 and 2 LTS operated on 400KV Jeuri-Koyna 4 line (400KV Jejuri-Lonikand under planned outage).

Status of Reactors

3.1 - Status of Reactors

Sr. No	Name of Substation	Capacity (MVAr)	Status
1	400kV Nanded	1 x 125	LOA issued 21.11.19. Work completed – Civil 93% Electrical 80%
2	400kV Akola	1 x 125	LOA issued 06.12.19. Work completed – Civil 63% Electrical 66%
Commissioned			
1	400kV Karad	1 x 125	26.10.2017
2	400kV Kolhapur	1 x 125	07.02.2018
3	400kV Solapur	1 x 125	20.03.2018
4	400kV Chandrapur II	1 x 125	31.03.2021
5	400kV Dhule	1 x 125	07.04.2021
6	400kV Bhusawal II	1 x 125	03.08.2021
7	400kV Lonikand II	1 x 125	10.08.2021
8	400kV Khaperkheda	1 x 125	10.09.2021
9	400kV Koradi II	1 x 125	14.07.2022

Status of various Transmission Schemes

3.2 - Status of State Transmission Schemes

Sr. No.	Name of the Scheme	CoD	Status
1	400 kV Bableshwar -Kudus D/C (Quad)	Mar 23	Package 1 Foundations - 205/227 Erection - 177/227 Stringing - 4.32 /150 Ckt km. Package 2 Foundations - 451/489 Erection - 418/489 Stringing - 187/305 Ckt km
2	400 kV D/C Jejuri-Hinjewadi Line (Jejuri Wainjhar) Package-1.	2024-25	Foundations - 204/277 Erection - 187/277 Stringing - 69.5/195 ckt km
3	400 kV D/C Jejuri-Hinjewadi Line (Jejuri Wainjhar) Package-2.		Balance work estimation is in progress.
4	LILO on another Ckt. Of 400kV Bhusawal 2 - Aurangabad 1 for Thaptitanda.	Mar-23	50% work done approx. and for balance work LOA issued to new agency by C.O. Package 1 Foundations - 241/273 Erection - 228/273 Stringing - 126/176 Ckt km. Package 2 Foundations - 29/32 Erection - 16/45 Stringing - 0/50 Ckt km

3.3 - Status of MMR and Mumbai Transmission Schemes

Sr. No	Name of the Scheme	CoD	Status
1	220 kV Kalwa Trombay HTLS conversion	-	Work completed on 21.04.2022.
2	220 kV Mulund Trombay HTLS conversion	-	Work completed on 18.04.2022
3	220 kV Boisar PG - Boisar (M) D/C HTLS conversion (Tr. O&M)	-	Work completed on: 220 kV Boisar PG - Boisar (M) – 2 : 27.12.2021 220 kV Boisar PG - Boisar (M) – 1 : 30.05.2022
4	LILO of 220 kV Boisar – Ghodbunder & Tarapur – Borivali at Kudus. (Twin AAAC) - 10 km	Mar-23	Foundations: - 106/117 Erection: - 80/117 Stringing: - 0 / 116 KM. WIP
5	100-120 MVAR Reactor at 220 kV Gorai EHV S/s (New)	-	Commissioned on 27.03.2022
6	Installation at 220 kV, 2x 40 MVAR reactor at Karanjade	-	Commissioned on 21.02.2022
7	Installation at 110 kV, 2x10 MVAR reactor at Karanjade	-	Commissioned on 29.03.2022 and 31.03.2022
8	Installation of 220 kV, 125 MVAR reactor at Salsette	Feb.-23	Purchase Order placed.