MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO.LTD.
CIN NO. U40109MH2005SGC153646

Maharashtra State Load Dispatch Centre
Office of The Chief Engineer

Maharashtra State Load Dispatch Center, Thane-Belapur Road, P.O. Airoli, Navi Mumbai Pin – 400 708.

Tele :91-22-27601765/1766/1931/2937, Fax :91-22-27601769/2936
Email : cesldc@mahasldc.in
Website : http://www.mahasldc.in

Ref. No. CE/MSLDC/ Op./ No 01400 **Date:** 10 AUG 2023

To,

As per mailing list

Sub: Agenda for the 6th Operation Co-ordination Committee (OCC) meeting.

Ref.: 1. MOM Circulated vide MSLDC/TECH/Op/OCC/822 Dated. 18.05.2023
2. E-mail dtd. 19.06.2022 for agenda request.

Dear Sir,

In reference to the above subject, the 5th Operation Co-ordination Committee (OCC) meeting was convened on 21st March 2023. Minutes of the same are circulated vide letter under ref. 1.

Vide letter under reference no. 2, the undersigned, Member Convener of the OCC had requested all the members of the OCC to submit agenda items for the 6th OCC meeting.

Please find enclosed the agenda for the 6th OCC meeting which has been finalized in consultation with Executive Director (MSLDC), Chairman of the OCC. The meeting is scheduled on **18.08.2023 at 11:30 hrs.** at Tata Power – Khopoli Hydro Generating Station, **through hybrid mode i.e. physical and video conferencing.**

It is requested to kindly make it convenient to attend the meeting with relevant information.

Encl: As above.

Yours sincerely,

Superintending Engineer, MSLDC
(Member Convener of OCC)

Copy s.w.rs. to:
The Director (Operations), MSETCL, Prakashganga, Mumbai.
The Executive Director, MSLDC, Airoli, Navi Mumbai.

To,

All OCC members as per list

Sr.No.	Name of Organization	Name of Nominee	Designation	Committee constituent	Contact No.	E-mail ID
1	SLDC	Shri Shashank Jewalikar	ED, MSLDC (I/c)	Chairperson	022-27301931	edmsebholding@gmail.com
2	MSETCL	Shri. Rohidas Mhaske	ED, Tr O&M MSETCL	Member	7447441000	edtrans@mahatransco.in
3	SLDC	Shri. Mahesh Bhagwat	CE, MSLDC	Member	9920499062	cesldc@mahasldc.in
4	STU/MSETCL	Shri. Peeyush Sharma	CE, STU	Member	9769213865	cestu@mahatransco.in
5	MSEDCL	Shri Pravin Annachatre	S.E (LM), MSEDCL	Member	9833980238	selmkalwa@gmail.com
6	MSPGCL	Shri E. S. Moze	Dy.CE (Works) MSPGCL	Member	8879770737	cegw@mahagenco.in
7	TPCL	Shri Kiran Desale	Head Transmission TPCL	Member	9223553342	desalekv@tatapower.com
		Shri Milind Gole	Head (PSCC), TPCL	Member	9820868264	pscc@tatapower.com
8	AEML	Shri Shrikant Yeole	Head O&M AEML Transmission	Member	9323552945	shrikant.yeole@adani.com
9	AEML	Shri Abaji Naralkar	AVP, AEML Distribution	Member	9324817526	abaji.naralkar@adani.com
10	ATIL	Shri Abhishek Kukreja	Associate Manager-O&M	Member	6359956492	Abjishek.Kukreja@adani.com
11	MEGPTCL	Shri Rakesh Bhalerao	Associate Manager-Business Development	Member	7045953823	rakesh.bhalerao@adani.com
12	JPTL	Shri Vaibhav D Sansare	Associate Manager-Transmission	Member	9552577122	Vaibhav.sansare@jsw.in
13	APTCL	Shri Rajiv Nimje	AGM, APTCL	Member	9422308883	Rajiv.nimje@rattanindia.com
14	VIPL	VIPL Respresentative		Member		
15	JSWEL	Shri Harshal Joshi	Manager (OSTS Dept,JSW)	Member	9552577131	harshal.joshi@jsw.in
16	ADTPS	Shri Vijay Dalli	VP-Operations ADTPS	Member	9325119741	Vijay.Dali@adani.com
17	RIPL	Shri Amit Panchalwar	DGM, RIPL	Member	9503229333	amit.panchalwar@rattanindia.com

18	APML, Tiroda	Shri Manoj Taunk	Associate VP-Protection & Metering	Member	9099005517	Manoj.Taunk@adani.com
		Shri Akshay Mathur		Member	9870663062	Akkshayv.Mathur@adani.com
19	SWPGL Wardha.	Shri Dinesh B Mewade	DGM, SWPGL	Member	7387007010	Dinesh.m@saiwardha.com
		Shri Prabhjit Singh Samra	GM (BDG – Operations), SWPGL	Member	9177025554	Dbg_operatios@saiwardha.com
20	M/S. AVAADA Maharashtra Pvt. Ltd.	Mr. Dhiren Bhatt		Member (Solar)	9978922979	dhiren.bhatt@avaada.com
21	M/s RENEW Power Pvt. Ltd.	Mr. Jobin Abraham		Member (Wind)	9158202754	Jobin.abraham@renewpower.in
22	SLDC	Shri Girish Pantoji	SE(OP), MSLDC	Member-Convener	9822414154	seoperationmsldc@gmail.com

Agenda for 6th Operation Co-ordination Committee meeting scheduled on 18th August 2023 at 11:30 Hrs. through hybrid mode i.e. physical and video conferencing.

Agenda Points: -

1. Confirmation of the minutes of the 5th OCC held on 21.03.2023 through video conferencing.

2. System Disturbance in the Maharashtra Network for the period March 2023 to July 2023 is enclosed in **Annexure 3**.

3. Status of completion of ongoing schemes in Maharashtra & Mumbai: -

3.1 Status of Reactors is enclosed in **Annexure 3.1**

3.2 Status of State Transmission Schemes is enclosed in **Annexure 3.2**

3.3 Status of Mumbai Transmission Schemes is enclosed in **Annexure 3.3**

4. MSLDC Agenda:

7.1 Compliance of clause no 17.18 of Hon MERC order in case no. 1/SM/2022 dtd 29.07.2022 regarding Co-gen and Bio mass registration with MSLDC.

As per clause no 17.18 of Hon'ble MERC Order no 1/SM/2022 , all RE generators (Except wind and solar), co-gen and biomass plants having installed capacity below 25 MW are also need to get register with MSLDC for the purpose of scheduling.

Further it is directed to MSEDCL to withhold 50% amount of non-registered plants monthly bill towards supply of RE power at generic tariff and said withheld amount to be paid without any interest once such generator registers himself with MSLDC.

Till date 78 co-gen plants have registered with MSLDC, out of around 129 Cogen plants.

In view of above, correspondence is made by MSLDC vide L.no. CE/MSLDC/Airoli/862 dtd 25.05.2023 and CE/MSLDC/Airoli/1158 dtd 06.07.2023 with CE (RE), MSEDCL regarding details of non- registered Co-Gen plants. Response in this regard is yet be received.

MSEDCL is requested to update the status.

7.2 RTDA bills raised by WRPC and payment thereof:

As per CERC (Sharing of Inter-State Transmission Charges and losses) Regulations, 2020, the STU, Distribution companies come under the definition of designated ISTS customers (DICs). Therefore, the regional transmission deviation accounts shall be issued by the Member Secretary, WRPC to DICs only.

The said matter was taken up by MSEDCL in the 84th, 85th,86th and 88the CCM conducted by WRPC insisting to raise the RTDA bills to MSLDC. In the 88th CCM, it has been proposed by MSLDC that MSEDCL should take up the issue for resolution in the State OCC.

MSEDCL is requested to explain & members may like to discuss.

7.3 Grant of Open Access for partial capacity of a WTG:

In accordance with the directives of Hon'ble MERC, MSLDC is maintaining Common Registry of all the RE Generators in the State. In the said registry, commercial data is being maintained. This information is updated by all the Discoms in the State on monthly basis & as and when required.
Recently, it has been observed that Open Access permission is granted by MSEDCL for a partial capacity of a WTG. i.e. in case WTG capacity is 1 MW, then Open Access permission is granted for 0.858 MW, thus, 0.142 MW capacity remains uncontracted. In such a case, the contracted capacity is considered for scheduling, however, the generation will be from the total installed capacity i.e. 1 MW capacity.
Further, such type of partial permissions is posing difficulties in maintaining Common Registry as non-contracted capacity needs to be shown in a separate row.
As per MERC approved procedure, the non-contracted capacity should be disconnected from the grid to prevent unscheduled injection of the power. Under such conditions, how non-contracted capacity (0.142MW) will be disconnected by the distribution licenses from a single WTG?
Such type of issues will increase further as the limit for Open Access has been now reduced to 100 kW. Hence, there should be certain procedure for addressing such issues.

Members may like to discuss.

7.4 Load Shedding incidences in Pune region due to severe Low Voltages in Grid during April to June-2023:

Pune is one of the important regions in the State having a mix of Residential, Commercial & Industrial loads. The maximum load catered in the State is around 28,800 MW out of which the contribution of Pune area is about 4000 MW. Also, Pune is one of the prime areas wherein MSEDCL is having high revenue.

The total load of Pune is mainly fed through 400 kV Lonikand-1, 400 kV Lonikand-II, 400 kV Talegaon (PG), 400 kV Chakan & 400 kV Jejuri (partially). In addition to these Sub-stations, power is also fed through various 220 kV lines coming from Babhaleshwar, Koyna, Apta, Lonand, etc.

From April'2023 month, it has been observed that the Grid voltages in Pune region are persistently low.
The minimum recorded voltages at 400 kV Sub-Stations in Pune Region are as below:

Name of Sub-Station	Minimum Voltage (kV) recorded
400/220 kV Lonikand - I	372
400/220 kV Lonikand - II	368
400/220 kV Chakan	373
400/220 kV Jejuri	372

The total Load loss in terms of MUs is tabulated below:

Month	Total Load Shed (MUs)
April-23	**2.24**
May-23	**2.72**
June-23	**4.41**
Total Load shed (Mus) in 3 months	**9.37**

Similar issues have been observed in Nashik & Vashi zone. Accordingly, STU has carried out studies to identify the reactive power compensation in Pune, Nashik & Washi zone.

STU is requested to update status of study.

7.5 Transmission constraints in the system:

During real time grid operations, constraints have been observed. The details are as below:

- 220kV Nashik – Babhaleshwar ckt 1,2
- 220 KV Urse - Chinchwad S/C
- 400 kV Talegaon PG) – Chakan S/C
- 220 kV Lonand- Jejuri S/C
- Providing 2nd source to 4 Nos. of 400 kV Sub-Stations viz Kharghar, Chakan, Alkud & Lamboti.

STU is requested to update status of projects proposed for relieving congestion.

7.6 Non-Payment of RE-DSM Charges by QCAs:

In accordance with the provisions of the MERC (Forecasting, Scheduling & Deviation Settlement for Solar & Wind Generation) Regulations, 2018, MSLDC is publishing weekly RE-DSM bills on four-weekly basis.
It is the responsibility of the QCAs to make payment of the said charges to SLDC within stipulated time frame. However, it has been observed that most of the QCAs have paid RE-DSM charges partially stating the reason that RE Generators are not making payment. The details of outstanding bill payments are as below:

RE-DSM PAYMENT STATUS FROM 06.01.2020 to 26.03.2023

Sr No	QCA NAME	BILLED AMOUNT	RECEIVED APPROVED AMOUNT	BALANCE	RECEIVED UNAPPROVED	FINAL BALANCE
1	Clean	28,91,006.00	2,45,292.00	26,45,714.00	25,69,412.00	76,302.00
2	Kreate	1,48,12,139.00	27,153.00	1,47,84,986.00	63,23,159.00	84,61,827.00
3	MSEDCL	1,94,69,828.00	0.00	1,94,69,828.00	19,81,715.00	1,74,88,113.00
4	Avaada Buldhana	90,27,011.00	16,53,445.00	73,73,566.00	73,51,258.00	22,308.00
5	RE- Connect	41,72,84,448.00	1,29,96,917.00	40,42,87,531.00	10,94,47,794.00	29,48,39,737.00
6	Sharda	37,88,121.00	0.00	37,88,121.00	1,00,71,507.00	-62,83,386.00
7	TPREL	86,06,412.00	30,03,546.00	56,02,866.00	61,22,546.00	-5,19,680.00
8	Vedanjay	2,65,07,028.00	9,92,963.00	2,55,14,065.00	0.00	2,55,14,065.00
9	Walwhan	20,15,826.00	8,17,670.00	11,98,156.00	9,81,782.00	2,16,374.00
10	Manikaran	79,85,48,054.00	6,08,89,516.00	73,76,58,538.00	41,82,24,128.00	31,94,34,410.00
	Total	1,30,73,34,823.00	8,06,26,502.00	1,22,67,08,321.00	56,30,73,301.00	67,04,38,086.00

The Regulations No. 13.1 is reproduced below:
"The QCA shall pay the amount of Deviation Charges to the SLDC, and collect it from the concerned Generators in proportion to their actual generation: Provided that the onus of ensuring the payment of the Deviation Charges to the SLDC by the QCA shall remain that of the concerned Generators."

Further, the clause No. 4.9 of the MERC amended F&S Procedure dated 19.12.2019, it is the responsibility of the QCA to intimate the details of Generators which are not complying the provisions of the Regulations & procedure to MSLDC and the same will be intimated to Distribution Licensees for initiation of action.

In this respect, MSLDC has requested all the QCAs to intimate the list of RE Generators which have not paid RE-DSM charges. Once the details are received, the same will be intimated to all the Discoms for initiation of action against such generators.

Members may like to discuss.

5. Agenda from MSPGCL,

5.1 Zig Zag Schedule:

Mahagenco Units are receiving Bidirectional changes in Schedule Generation frequently issued by SLDC. There are instances where the Schedule Generation is changed and reflected in the next immediate block.
Due to such instantaneous changes before 3rd block in the Schedule Generation, it is very difficult to maintain Generation as per Schedule Generation leading to deviation in DSM and attracts DSM Charges (payable).
For Example: CSTPS Chandrapur: Bidirectional Changes in the Schedule Generation in respect to Unit 3 to 9 (Copy attached as Annexure-I).

Members may like to discuss.

5.2 Nashik High MVAR:

Nashik Units are continuously sharing high MVAR to maintain grid voltage and thus results in increase of generator winding temperature and the load of generator is restricted causing loss in generation. Many times, the grid voltage drops below 205 KV as against 220KV.The sudden drop in Grid Voltage results in load reduction of @40-50 MW for running unit causing severe financial loss to Mahagenco.
Due to low grid Voltage, NTPS unit needs to share more reactive power resulting into reduction in active power along with rise in rotor temperature up to 1150C.Excitation current has reached its maximum limit of 2600 Amperes resulting in huge stress on the insulation of Generator. Reduction in load (load sacrificed due to MVAR) results in reduction of MERC availability & as per the present regulations, there is no compensation provided for the reduction in MERC availability due to MVAR.

Members may like to discuss.

5.3 Reactive power sharing/grid voltage issues-

The issue is observed mainly in case of the units near to load centre like Nashik TPS. While the units share high reactive power as per instructions from SLDC for the stability of the grid and also to maintain the voltage of the grid. It has an obvious impact on active power sharing. With reduction in active power in such cases, there is DSM deviation and DSM charge applicability. On restoration of grid voltage, DC of Units is increased. Thus, during MVAR sharing period, adequate compensation in DC is to be given for such instances. Nashik TPS high MVAR events for FY 2022-23 are listed in attached herewith Annexure-II.

Members may like to discuss.

5.4 Chandrapur Unit 8 Grid Disturbance Event on dtd. 24-04-2023:

Heavy Load Jerk experienced on dtd. 24-04-2023 due to dip in bus voltage. Following alarms and indications appeared on electrical system;

Unit MW load fluctuated between 471 MW and 515 MW
a. Generator Protection Panel (GRP) : Alarm appeared - Under Impedance, Over Current.
b. Battery Changeover: 220 V DC Charger-2 FC DC Overvoltage alarm appeared. Same reset and charge were restored.
c. All HT Boards (6.6 kV and 11 kV) Line PT and Bus PT Under Voltage alarm appeared.
In view of above, incidences of zigzag schedule and Nashik high MVAR issues have caused considerable financial loss to MSPGCL. Further, an event of grid disturbance like that of Chandrapur Unit-8 disturbs the operations of Unit which may lead to its tripping causing generation loss.

Members may like to discuss.

6. Agenda from APML,

6.1 AMR Meters Time Synchronization to be done in line with GPS time:

The MSETCL AMR meters of L&T Make showed a time drift of 4 to 5 minutes. The time drift was corrected by MSLDC - Kalwa through their DSM Server after requests and follow-ups from Adani to MSETCL - Bhandara office. However, the time drift was corrected in the range of 1 to 2 minutes, and it was communicated verbally that further time correction will be done in a later stage gradually in accordance with MSETCL requirements. The real time measurement sheet of AMR meters is also enclosed for your reference. The mismatch of time with GPS affects our real time decisions, request you to correct periodically.
The Chief Engineer (ACI&P), MSETCL to provide comment.

6.2 AMR meters load survey data sharing for DSM verification:

MSETCL has implemented AMR system at APML, Tiroda Plant by installing of new L&T make ER300P ABT Meters along with Kalkitech DCU in new separate metering panels and sealed the panels. At present, the load survey data is being directly fetched by MSLDC for generation schedule management & issuing the DSM account, however we don't have access of real time MW flow & load survey data of these meters for taking any real time corrective action at Plant level, hence MSLDC – Kalwa is requested to share respective data of AMR meters for DSM account verification & maintaining the history data by Plant. This data is required for verification of DSM account and required for computation of Aux power consumption, which is required for processing monthly change in law bills to MSEDCL, these bills are required for computation of MOD rates.

The Chief Engineer (ACI&P), MSETCL to provide comment.

7. Agenda from TPCL,

7.1 Zero schedule for Trombay Unit-8

TPC-D has asked MSLDC for zero schedule for Trombay Unit-8 on 28th June 2023 considering following reasons,

- Demand drop of @ 800 – 1000 MW at Mumbai level with corresponding demand drop of 100-150 MW for TPC-D compared to summer load.
- Increased contracted wind generation by @ 100-120 MW.
- Hydro generation is required to be scheduled in heavy rains for any flood control
- On the same note BEST has also requested zero scheduling of Trombay Unit-8 on 30th June 2023.
- Contracted DISCOMs are trying to manage its load generation balance and to optimize on Power Purchase cost hence any denial of zero scheduling by SLDC, would result in serious commercial implications for DISCOMs.

Hence SLDC is requested to consider zero schedule requirement of TPC D by considering readiness of Islanding, network security check and other generation availability.

Members may like to discuss.

7.2 Non consideration of TPC D contracted wind generation embedded in MSEDCL for DSM Bills

- About 20 MW of such contracted wind generation of TPC-D is not being considered by MSLDC in DSM Bills for which MSLDC has issued NOC.
- TPC-D request to consider the same to avoid discrepancies and multiple revisions in DSM Bills.

Members may like to discuss.

7.3 Issuing monthly Bills for energy generated at TPC-Hydro under VSE

- No bills have been issued by MSLDC of energy generated under VSE from TPC-Hydro since last year.
- Request for issuance of the bills at the earliest.

Members may like to discuss.

7.4 Voltage fluctuations due to tripping of lines in Grid

Important and critical consumers in Mumbai like Refineries, RCF and Data centres are experiencing voltage fluctuations on account of Grid related tripping.

Members may like to discuss.

8 Agenda from MSEDCL;

8.1 https://dsm-scheduling.mahasldc.in/ software needs validation formulas:-

Many times MSEDCL has requested validation for unloadable fields like Demand, small hydro, Co-gen-, embedded solar, embedded wind, etc.

Members may like to discuss.

8.2 MSEDCL's demand rejection event of 18-06-2023;

https://dsm-scheduling.mahasldc.in/ software has rejected MSEDCL's demand which was neither noticed by SLDC shift engineers nor LM cell shift engineers. APML shift engineers informed LM cell about back-down in the first block then the issue was traced out. Telephonically requested generators not to back down and then the demand issue was resolved. There should be some

alert mechanism to inform the concerned beneficiaries and SLDC shift engineers so that corrective action can be taken well in time.

Members may like to discuss.

8.3 REMC curtailment of AEML;

Many times inter - REMC curtailment reflects in a shortfall to AEML but SLDC does not implement any load curtailment in the AEML whereas uses MSEDCL's resources to meet the shortfall. Sometimes during shortfall, AEML sold power in RTM also.

Members may like to discuss.

8.4 To control OD or Underdrawal different Shift Engineers take different steps. There should be uniformity in a sequence of operations.

Members may like to discuss.

8.5 DSM software and abnormal loads of supply points:

The supply point mapped for T<>D points of MSEDCL records abnormal data and the same reflects in the DSM bill. for example, data of 132 kV Nimboni (Hybrid) for the date 11-06-2023 recorded more than 3000MW. To avoid such issues before the issue of the DSM bill there should be a checking system at SLDC.

Members may like to discuss.

8.6 Sharing of AMR data in real-time:

To increase accuracy during intra-day working, sharing of AMR data was requested by MSEDCL. Hon CMD, MSEDCL has written a letter Hon CMD, MSETCL dated 3-Oct-2022.

The Chief Engineer (ACI&P), MSETCL, to comment.

3.0 - System Disturbance in the Maharashtra Network for the period March 23 to July 23.

Month	SUB-STATION	LINE/EQPT/ BUS AFFECTED	DATE OF TRIPPING	TIME (hrs)	Sync Hrs.	EQUIP. FAILURE	LOAD/GEN. AFFECTED (approx.)	REASONS OF FAILURE
Mar-23	220KV Nalasopara	220KV Nalasopra - Boiser PG and Nalsopra - Padgha vasai tap line tripped simulteniously on distance protection	06.03.2023	03:25	04:50	NIL	110MW	220KV Nalasopra -Boiser PG and Nalsopra - Padgha vasai tap line tripped simulteniously on distance protection
	220KV Kathapur	All elements connected to 220KV Bus	06.03.2023	19:57	20:45	Nil	42.17 MW	LBB operated due to Ionikand 2 line CB not operated on line fault
	220KV Kathapur	All elements connected to 220KV Bus	07.03.2023	23:52	00:15 of 08.03.2023	Nil	54 MW	LBB operated due to Ionikand 2 line CB not operated on line fault
	220KV Niwali	220KV Niwali newkoyna and 220KV pedambe oni	09.03.2023	15:14	16:03	NIL	20MW	220KV Niwali newkoyna and 220KV pedambe oni both lines tripped simulteneously causing load affected of Niwali
	400KV Ionikand 2 (220KV level)	220/132KV 100MVA ICT 1 and ICT 2 tripped	12.03.2023	12:20	12:48	NIL	100.87MW	ICT 1 tripped on cable differential protection and ICT 2 tripped on overload
Apr-23	400KV Koradi 1 SS	All feeder connected to Main bus 1 tripped	05.04.2023	06:36	08:20	Nil	180MW Generation affected	LBB operated while taking AR out
	220KV Boiser	132KV A Bus along with 132KV palgahr line, 1, ICT 2 and Lupin line.	10.04.2023	16:42	17:35	Nil	286MW	Y Ph jumper of 132KV Viraj line from CT to 29D isolator broken due which 132KV Bus A tripped
	400KV kharghar	400KV kharghar - Talegoan PG	19.04.2023	13:55	16:30	Nil	Manual load shedding of 347 MW done in MMR region to control loading of other mumbai feeding lines	Fire beneath line at loc no. 102 and 103
	400KV Chandrapur	All elements connected to 400KV Bus 2	22.04.2023	15:12	16:34	flashover of Y ph CT of Badravati ckt 2	210 MW Generation & 125MW load affected	flashover of Y ph CT of Badravati ckt 2

3.0 - System Disturbance in the Maharashtra Network for the period March 23 to July 23.

Month	SUB-STATION	LINE/EQPT/ BUS AFFECTED	DATE OF TRIPPING	TIME (hrs)	Sync Hrs.	EQUIP. FAILURE	LOAD/GEN. AFFECTED (approx.)	REASONS OF FAILURE
May-23	400KV Koradi 1 SS	All feeder connected to Main bus 1 tripped	05.04.2023	06:36	08:20	Nil	180MW Generation affected	LBB operated while taking AR out
	220KV Boiser	132KV A Bus along with 132KV palgahr line, 1, ICT 2 and Lupin line.	10.04.2023	16:42	17:35	Nil	286MW	Y Ph jumper of 132KV Viraj line from CT to 29D isolator broken due which 132KV Bus A tripped
	400KV kharghar	400KV kharghar - Talegoan PG	19.04.2023	13:55	16:30	Nil	Manual load shedding of 347 MW done in MMR region to control loading of other mumbai feeding lines	Fire beneath line at loc no. 102 and 103
	400KV Chandrapur	All elements connected to 400KV Bus 2	22.04.2023	15:12	16:34	flashover of Y ph CT of Badravati ckt 2	210 MW Generation & 125MW load affected	Flashover of Y ph CT of Badravati ckt 2
Jun-23	400KV multiple lines tripping in pune region at 400Kv Lonikand 1,2,chakan,karjat	1)400KV Lonikand-Chakan Line tripped at Chakan end only 2).400KV Lonikand-PGCIL Talegaon 3) 400kV Lonikand1-2 Interconnector 1 and 2 4) 400kV Lonikand 2 Karjat 1 & 2	04.06.2023	14:32	15:59	Nil	Total load affected 315 MW 1)Load affected due overloading of 400kV Chakan-Talegaon PGCIL Line LTS - 150MW 2)LTS optd on 220kV Lonikand 2-Bhosari 1 Line. - 80MW , 2) 85MW of 132KVsanswadi and 132KV markal	High speed wind flow in pune region
	400KV Parly M SS	All elements connected to 220KV Main bus section 1	10.06.2023	16:05	18:05	Nil	Nil	Not inormed (expected bus bar relay malfunction)
	220KV Borivali M ss	All elements connected to 220KV Main bus section 1	11.06.2023	14:47	16:58	Nil	NIL	220KV Tarapur line R phase CT flashover
	400KV Nagothane SS	All elemements connected to 400KV Bus 1 and Bus 2, 220KV bus charged through ACCILand POSCO lines.	13.06.2023	09:45	13:20	CT burst of 400KV Dabhol Nagothane ckt 2	160MW due to LTS operated on 220KV nagothane wadkhal ckt 1 and 2,	CT burst of 400KV Dabhol Nagothane ckt 2

3.0 - System Disturbance in the Maharashtra Network for the period March 23 to July 23.

Month	SUB-STATION	LINE/EQPT/ BUS AFFECTED	DATE OF TRIPPING	TIME (hrs)	Sync Hrs.	EQUIP. FAILURE	LOAD/GEN. AFFECTED (approx.)	REASONS OF FAILURE
July-23	Talegaon PG	400KV Talegaon PG-Pune GIS ckt 1,2	08.07.23	07:08	22:58:00 Hrs		220kV Theur-114MW 132kV Markal-21MW 132kV Sanaswadi-30MW 132kV Kuruli - 25MW 132kV Shirur- 25MW, Chinchwad-33MW 132kV Rahatni- 25MW 132kV NCL- 37MW Total Load Relief: 423MW LTS operation Lonikand, Urse chinchwad line due to overloading of 400KV Pune-Pune GIS ckt 3,4,	Insulator decapping
	200KV Nanded	All elements connected to 132KV bus	12.07.23	09:13	09:47		169MW	R pH LA burst of 132KV Kandhar line
	220KV Clourchem	220KV Colurchem Temghar and 220KV Colurchem DCHI	18.07.23	19:57				The fault was on 220kV Temghar-Padgha 1 line , the line tripped on zcom and after dead time the line reclosed but due to permanent fault, it was cleared by newly commissioned DCHI-Colorchem line OC operation. For Colorchem in this fault condition kalwa-DCHI-Colorchem was the only source, when the DCHI-Colorchem line tripped on backup relay at 220kV DCHI ss the same source was also cut off for the Colorchem substation and as a result the substation goes dark.

3.1 Status of New Reactors

Sr. No	Name of Substation	Capacity (MVAr)	Status
		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
10	400kV Akola	1 x 125	27.04.2023
11	400kV Nanded	1 x 125	12.05.2023

3.2 - Status of State Transmission Schemes

Sr. No.	Name of the Scheme	CoD	Status
1	400 kV Bableshwar -Kudus D/C (Quad)	Feb-24	Foundations - 618/719 Erection – 656/719 Stringing – 272/457 Ckt km.
2	400 kV D/C Jejuri-Hinjewadi Line (Jejuri Wainjhar) Package-1.	2024-25	Balance work tenderization is in progress.
3	400 kV D/C Jejuri-Hinjewadi Line (Jejuri Wainjhar) Package-2.		Balance work tenderization is in progress.
4	LILO on another Ckt. Of 400kV Bhusawal 2 - Aurangabad 1 for Thaptitanda.	Mar-24	50% work done approx. and for balance work LOA issued to new agency by C.O. Package 1 Foundations - 270/273 Erection - 244/273 Stringing - 126/176 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	Dec-23	Foundations: - 110/120 Erection: - 101/120 Stringing: - 63.21/116 km. Ckm
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	-	Commissioned on 30.12.2022