MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

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

Office of the Executive Director,
Maharashtra State Load Dispatch Centre,
Thane-Belapur Road, P.O. Airoli, Navi Mumbai. Pin – 400 708.
Tele :91-22-27601765/1766/1931/2937
Fax :91-22-2659 0808
Email: edmsebholding@gmail.com
Website : http://www.mahasldc.in

RIGHT TO INFORMATION

Ref. No. CE/MSLDC/OP/OCC/ No 00397 **Date:** 14 MAR 2023

To,
Members of the OCC as per mailing list.

Sub: Agenda for the 5th Operation Co-ordination Committee (OCC) meeting.

Ref.: 1. MOM Circulated vide MSLDC/TECH/Op/OCC/1598 Dated. 12.09.2022
2. E-mail dtd. 17.01.2023 for agenda request.

Dear Sir/Madam,

In reference to the above subject, the 4th Operation Co-ordination Committee (OCC) meeting was convened on 29.08.2022. 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 the agenda items for the 5th OCC meeting.

Please find enclosed the agenda for the 5th OCC meeting which has been finalized in consultation with Executive Director (MSLDC), Chairman of the OCC. The meeting is scheduled **through hybrid mode i.e. physical and video conferencing. The details are as below:**

Date: 21-03-2023
Time: 11:30 hrs
Venue: MSLDC, Airoli.

To make proper arrangements for the physical meeting at MSLDC, Airoli, it is requested to submit the details of 2 Nos. of officers per organization to this office by 17.03.2023 through mail. Additional participants may attend the meeting virtually.

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

Yours sincerely,

Encl: As above.

(Madhav Pande)
Superintending Engineer, MSLDC (I/c)
(Member Convener of OCC)

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

Sub: Agenda for the 5th Operation Co-ordination Committee (OCC) meeting.

To,
All OCC members as per list

Sr. No.	Name of Organisation	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 Gopichand Ghodke	S.E (LM), MSEDCL (I/c)	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	ATIL	Shri Abhishek Kukreja	Associate Manager-O&M	Member	6359956492	Abjishek.Kukreja@adani.com
10	MEGPTCL	Shri Rakesh Bhalerao	Associate Manager-Business Development	Member	7045953823	rakesh.bhalerao@adani.com
11	JPTL	Shri Vaibhav D Sansare	Associate Manager-Transmission	Member	9552577122	Vaibhav.sansare@jsw.in
12	APTCL	Shri Rajiv Nimje	AGM, APTCL	Member	9422308883	Rajiv.nimje@rattanindia.com
13	VIPL	VIPL Respresentative		Member		
14	JSWEL	Shri Harshal Joshi	Manager (OSTS Dept,JSW)	Member	9552577131	harshal.joshi@jsw.in
15	ADTPS	Shri Vijay Dalli	VP-Operations ADTPS	Member	9325119741	Vijay.Dali@adani.com
16	RIPL	Shri Amit Panchalwar	DGM, RIPL	Member	9503229333	amit.panchalwar@rattanindia.com
17	APML, Tiroda	Shri Manoj Taunk	Associate VP-Protection & Metering	Member	9099005517	Manoj.Taunk@adani.com

		Shri Akshay Mathur		Member	9870663062	Akkshayv.Mathur@adani.com
18	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
19	M/s Fermi Solar Farms Pvt. Ltd.	Shri. Rajesh Dwivedi		Member (Solar)		rajesh.dwivedi@avaada.com
20	M/s D. J. Malpani	Sagar Durgavale		Member (Wind)	9020336559	sagar@malpani.com
21	SLDC	Shri Madhav Pande	SE(OP), MSLDC (I/c)	Member-Convener	9833608212	seoperationmsldc@gmail.com

Agenda for 5th Operation Co-ordination Committee meeting scheduled on 21st March 2023 at 11:30 Hrs. through video conferencing.

Agenda Points: -

1. Confirmation of the minutes of the 4th OCC held on 29.08.2022 through video conferencing.

2. System Disturbance in the Maharashtra Network for the period Oct'2022 to Dec'2022 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. Agenda from MSLDC:

4.1. Status of making Kalwa Nodal centre operational for co-ordination of Tripping/Load Shedding information issued by MSLDC:

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. Considering ensuing summer peak demand, it is necessary to operationalize all the Nodal Centre in priority.

MSETCL is requested to update the status.

4.2. Status of State Transmission Schemes:

Various transmission schemes proposed in STU Five Year Plan which are required for reliable & secure operation of the InSTS are tabulated in **ANNEXURE – 4.2**.

The Chief Engineer (STU) is requested to brief about the status of these schemes along with tentative timelines for commissioning.

Members may like to discuss.

4.3. Status of implementation of LTS Schemes on 400 kV Talegaon – Kalwa/Kharghar & 400 kV Padghe-Kalwa D/C lines:

In accordance with the recommendations by various committees constituted in respect to partial grid failure in MMR & Mumbai on 12.10.2020, a group was formed to study various

LTS schemes on 400 kV lines feeding power to Mumbai & MMR area. The report of the said group has been accepted by GCC and the PCM-WRPC has accorded approval for implementation of the LTS scheme on the said 400 kV lines.

Considering ensuing summer peak demand in the MMR & Mumbai area and for stable grid operations, commissioning of the LTS schemes is necessary.

The Chief Engineer (ACI&P), MSETCL, TPC & AEML is requested to brief the status of implementation of the LTS scheme.

Members may like to discuss.

4.4. Preparation of Load Curtailment Plan and its implementation in real time:

The State demand is increasing day by day. The State has already catered 28500 MW demand in the month of Feb'2023. Considering ensuing summer season, the State demand is likely to be increased further. Further, the availability of coal & water may impact generation availability. Hence, under any contingencies on Generators or transmission elements, load curtailment may be required to maintain Grid parameters under permissible limits & for stable grid operations. Hence, it necessary to have load curtailment plan ready with MSLDC as well as with Discoms so that any adverse system conditions can be mitigated thereby avoiding insecure grid operations.

MSEDCL, TPC & AEML is requested to provide the plan for demand curtailment for implementation in real time.

Members may like to discuss.

4.5. Transmission constraints resulting in to demand curtailment:

Due to overloading of the transmission lines, frequent LTS operation has observed in the State. The details of lines is as below:

a) 220 kV Babhaleshwar – Nashik D/C
b) 220 kV Dhule – Malegaon D/C

As the demand is increasing, the frequency of load curtailment due to operation of LTS will further increase in near future. Hence, it is necessary to identify and implement suitable remedial short term measures till the long term measures are implemented.

Members may like to discuss.

4.6. Delayed submission of PPA/Open Access details for Wind & Solar Generators:

In accordance with the directives issued by Hon'ble MERC in its order dated 30.09.2019, MSLDC is maintaining 'Common Registry' of all the Wind & Solar Generators covered under the ambit of the RE F&S Regulations. Further, in accordance with the provisions of the MERC F&S Procedure dated 19.12.2019, the said registry is shared to all the

Distribution Licensees in the State for updating the information related to PPA/Open Access on monthly basis. The time lines are as below:

Sharing of Common Registry to Discoms	: 20th of each month
Submission of updated information by Discoms	: 27th of each month
Consolidation of information of all the Discoms	: 28th of each month
Modelling of contracts in REMC Software	: 29th / 30th of each month
Submission of list of non-contracted RE Generators	: 30th / 31st of each month
Disconnection of non-contracted RE generators	: 01st of next month

There are total 1198 Nos. of individual generators having around 4800 Nos. of individual WTGs/Solar PV. Each WTG/Solar PV has separate PPA/OA. Hence, it is necessary to map contract of each WTG/Solar PV to respective Discom for correct scheduling.

The above process is continued since last 2.5 years and has been streamlined for information related to purchase by Discoms. However, discrepancies have been observed in respect to open access permissions issued by MSEDCL. The details are as below:

a) LTOA/MTOA permissions are not updated in Common Registry on monthly basis. Also, any permissions issued in between the month are not communicated. This is resulting in to non-scheduling.

b) Any cancellation of LTOA/MTOA permission is not updated in Common Registry on monthly basis. Also, any permissions cancelled in between month are not communicated. This is resulting in to scheduling of cancelled capacity.

c) Grant of Open Access permission starting from past date & for past period resulting in to non-scheduling for past period.

d) Submission of revised list of Open Access permissions on last day & even up to first 3 days of the month. This results in to delay in revision of contracted capacity & non-scheduling of generation as contracts are mapped one day prior to the last day of the month so as to enable Day ahead schedules.

e) Late submission of revised lists on the last day of month (mostly after 20:00 hrs) resulting in to non-mapping of capacity till reopening of office.

f) There are conflicts among multiple Discoms as many times, generators/consumers submit applications to multiple discoms.

Due to above issues, the scheduling of RE capacity is becoming erroneous. All the timelines have been set after discussions with QCAs, as QCAs need to map the scheduling capacity in their forecasting models. It takes around 3-4 hours to map & generate forecasts for mapped capacity. As the RE schedules are integrated with State Scheduling software, the errors in RE scheduling are passed on to State Schedules thereby impacting Discoms. Hence, MSEDCL need to adhere to the timelines and submit error-free information.

Members may like to discuss.

4.7. Non-registration of newly commissioned 33 kV PSS:

RE capacity of 5 MW & above is covered under the RE F&S regulations. The RE generators are seeking connectivity at 33 kV level of MSEDCL's Sub-station. Hence, it is necessary to get said capacity registered at MSLDC through QCA prior to commissioning. Prior to the implementation of the RE F&S Regulations, MSLDC, vide letter No.

MSLDC/TECH/MSEDCL/REMC/1156 dated 11.06.2019 & MSETCL/DIR(OP)/CO/MSLDC/04792 dated 28.06.2019 has informed MSEDCL to ensure registration of all the 33 kV PSS having RE installed capacity of 5 MW & above with MSLDC through QCA.

It was observed that 33 kV Malumbra PSS (7 MW Solar) was not registered even after commissioning. Hence, MSLDC, vide letter no. MSLDC/TECH/OP/REMC/01062 dated 14.06.2022 has requested the Chief Engineer (RE), MSEDCL, to ensure QCA registration at MSLDC prior to commissioning of generation.

It has been observed that 33 kV Piliv PSS having installed capacity of 5 MW Solar generation is commissioned without appointment of QCA & registration with MSLDC. This is the non-compliance of the provisions of the MERC RE F&S Regulations. The fact has been intimated to MSEDCL through e-mails dated 28.09.2022, 13.10.2022 & 21.10.2022, however, no registration has been initiated in this respect. Hence, MSEDCL need to take appropriate steps to avoid recurrence and ensure registration with MSLDC through QCA prior to commissioning of RE Capacity.

Members may like to discuss.

4.8. Non-visibility of RE Generators at MSLDC:

Around 7786 MW Wind & Solar capacity is being monitored at MSLDC under the MERC (F,S & DSM for solar & Wind generation) Regulations, 2018. In accordance with the provisions of the said regulations and the MERC procedure, forecasting & scheduling is being carried out for the said capacity.

The RE schedules are integrated with State Scheduling Software for computing Discom-wise availability on Day ahead & Intra-Day basis. During analysis of last 2 years, it has been observed that the error of RE forecasts & schedules is in the range of 10-15 %. However, considering time horizon, this error is expected to be reduced further. In this regard, discussions have been made with the Forecasting agencies. It has been observed that important aspect for non-improvement of RE forecast is the poor visibility of RE generation. Thus, for further improvement of RE Forecasting and for better grid operations, complete visibility of RE Generation is utmost important.

In view of the same, MSLDC is submitting list of RE generators having poor/zero visibility at MSLDC on fortnightly basis to MSEDCL since last 3-4 years. As almost all the RE generation is connected at 33 kV level in MSEDCL control area. Further, MSEDCL having maximum contracted capacity and nodal agency for issuance of Open Access or NoC, action from MSEDCL is envisaged. However, compliance in this matter is not yet received from MSEDCL.

Members may like to discuss.

4.9. Compliance of the CEA (Technical Standards for Connectivity to the Grid) Regulations, 2019:

The CEA (Technical Standards for Connectivity to the Grid) Regulations, 2019 have been notified in the Country. In accordance with the said regulations, compliance is required from RE Generators. To discuss & resolve various issues observed for compliance of these regulations, a Working Group with members from CEA, CTU, POSOCO & SECI was constituted under the Chairmanship of the Member (GO&D), CEA. The said working

group has submitted report in July, 2022 and the said report has been implemented w.e.f. Nov'2022. The WG has discussed with RE Developers, OEMs & study agencies prior to finalization of the report. WRLDC, vide letter dated 10.02.2023 has requested all the SLDCs in the WR to implement the CEA regulations with intimation to WRLDC. The copy of letter along with WG report is attached herewith as **ANNEXURE – 4.5**.

As per the said regulations, the List of Test/Study Reports required to be submitted by RE Generators in compliance to CEA Regulations on Technical Standards for Connectivity to the Grid is as below:

a. Power Quality test
- Harmonic Current Injection at POI
- DC Current Injection at POI
- Flicker injection at POI

b. Reactive Capability test
- Reactive power capability (0.95 lag - unity - 0.95 leading) at rated output

c. Voltage ride through test
- Study analysis to demonstrate ride through capability for balance and unbalanced faults (LVRT & HVRT)

d. Frequency response & operational capability test within specified frequency /voltage band
- Rated output for voltage (0.95pu -1.0 pu – 1.05 pu) and Freq. (49.5 Hz – 50.5 Hz)
- Frequency Response test

e. Active power control set point
- Analysis to show capability to control active power injection in accordance with a set point

f. Ramping capability test
- Study analysis for rate of change of power output

As the WG report, CTU in co-ordination with RLDC is going to monitor & review the compliance. Hence, similar process i.e. STU in co-ordination with MSLDC need to formulated in the State.

The Superintending Engineer (Operation), MSLDC is requested to brief the issue before the OCC.

Members may like to discuss.

5. Agenda from MSEDCL:

5.1. Missing SCADA data of Railway:

MSEDCL's demand is being calculated by subtracting demand of other buyers from total generation. Hence for MSEDCL the drawal data of other utilities are also important for real time scheduling. After extreme follow-up with railway and SCADA team @300MW is being displayed out of 400MW. Need to discuss further plan of action to cover 100% railway's data.

Members may like to discuss.

5.2. Centralized MoD operation to control under-drawal:

It is observed that underdrawal increased on operation of centralized MOD for controlling underdrawal. Hence one live demo need to be arranged to explain working principle.

Members may like to discuss.

5.3. Action to increase accuracy of REMC schedule:

It is observed that the scheduled REMC is higher side than actual and difference in terms of MW is considerable. To increase accuracy matter need to be discussed with QCA.

Members may like to discuss.

5.4. Integration of SEM data with SCADA:

a) Many a times there is CS drawal difference between MSETCL and WRLDC ends (more than +/- 100 MW). The System is being operated in real time considering WRLDC end data as correct one. However, many times huge gap noted between real time UI and DSR/WRPC Bill UI.

b) Other states are working on integration of SEM data with SCADA. If we integrate all CTU-STU interconnection and generation stations points then our demand scheduling in real time will be much accurate. Our plan if any in this line need to discuss.

Members may like to discuss.

5.5. Progress Status of SCADA points:

As per order 114 of 2020, Hon MERC instructed STU to cover T<>D points of MSEDCL in SCADA. Its progress thereof need to discuss.

Members may like to discuss.

5.6. 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 letter Hon CMD, MSETCL on dated 3-Oct-2022.

Members may like to discuss.

5.7. Upper /Lower limit setting in DSM software:

Due to human error system may go in danger state, to avoid extreme error there should be upper and lower limit to the parameters being uploaded by entities.

Members may like to discuss.

5.8. RE DSM bill not available on sites:

Since last Jun2022 the RE DSM bills are not being published on site.

Members may like to discuss.

5.9. Over-Injection by Mahagenco:

During night hours there is considerable over-injection by Mahagenco-stations regularly.

Members may like to discuss.

5.10. High Response time of Koyna stage-3:

To manage peak load full capacity hydro generation required but response time of koyna stage-3 is high. Can we request to improve coordination?

Members may like to discuss.

5.11. Post facto changes in the schedule of DSM Software:

It is noted that DSM software has overwritten schedule post facto which cannot be acceptable. e.g on dt 28/12/2022 there was wrong posting of cogen for block no 34 & 35. This mistake is observed in revision no 12 but from revision no 15 the schedule data has been overwritten. Such post facto changes should not happen in DSM software, otherwise, it could not be possible to trace changes made at the back end of DSM software.

Members may like to discuss.

6. Any other point with the permission of Chair.

---x---

ANNEXURE – 4.2

List of Transmission Schemes proposed in STU Five Year Plan

Sr No	Zone	FY 21-22	FY 22-23	FY 23-24	FY 24-25
1	Aurangabad	132kV Majalgaon – Pathri - SCDC 35 ckm	2nd ckt stringing of 132 kV Parbhani - Pathri- 48km		
2			132 kV Latur - Ujani - Naldurg - Solapur DC line renovation using 0.2 ACSR Conductor - 115km		
3			LILO on another Ckt. Of 400kV Bhusawal 2 - Aurangabad 1 for Thaptitanda.		
4	Karad	Ambheri - Aundh - 14km	220kv Karad - Koyna SCDC-3.5 km	Conversion of 132 kV Phaltan - Dahiwadi SCSC to DCDC line -35km	
5		LILO of one ckt of 220 kV Mhaishal - Jath line at Alkud – 46 ckt kms (GEC II) (Remaining scope of Alkud work)	Alkud (1X500) MVA 400/220kV (Remaining Scope)	110kV Wathar - Kale (T) -35km	
6		Kavathe M'kal - Jath (GEC)- DC - 32km (commissioned)		Oglewadi-Mayani 40km	
7				110 kv Mayani-Diganchi S/C TO D/C - - 45km	
12	Nasik	220 kV DC line on DC towers from 220 kV Jeur s/s to 400 kV Karajat s/s- 52 kms.	400/220 kV Balsane S/s, District-Dhule	400/220 kV Pimpalgaon S/s. District- Nashik	
13		220 kV DC line on MC towers by LILO on 220 kV Bhigwan-Kurkumb line at prop. 400 kV Karjat S/S:18 kms.	LILO on 400kV Sardarsarovar-Dhule D/C line - 36 ck	LILO 400kV A'bad PG-Boisar (PG) DC line at 400 kV Pimpalgaon -3 km	
14		LILO on one ckt of Nagar - 220 kV Bhose line at 400 kV Karjat s/s - 38 kms.	220kV Balsane - Shivajinagar DC line - 36 ckm	Interconnection between 400 kV Pimpalgaon & 220 kV Pipalgaon S/s - 1 kms	
15		220kV DC line from Pimpalgaon to GCR & ECR Eklahre - 44	Conductor replacement of 132 kV Shivajinagar - Sakri - Dhule by HTLS-	Reorientation of 220 kV Eklahre - Pimpalgaon line at	

		km	80km	400 kV S/s - 1km	
16		132 kV SCDC line from 220 kV Ahmednagar -132 kV Supa s/s. 25 ckm (GEC)		Conversion of 132 kV Babhleshwar - Sangamner SCSC line into DCDC - 34km	
17		LILO on 132kV Shivajinagr-Dhule at Sakri -10 ckm			
22	Pune		400/220 kV Hinjewadi (MIDC), District- Pune	220/132 kV Waghdari, District: Solapur	
24			LILO on Lonikand I - Koyna Stage IV at Hinjewadi	LILO on one ckts of 220 kV Solapur PG - Narangwadi DC line at 220 kV Waghdari -40km	
25			220 kV D/C line from 400 kV PGCIL	LILO on both ckt 132kV Wagdari Tata Renew Solar	
			(Kumbhari) S/Stn to 220/33 kV Bale S/Stn	220kV Talegaon PG-Chakan DC 6km	400 kV D/C Jejuri-Hinjewadi Line (Jejuri Wainjhar)
28			2nd ckt. Stringing of 132 kV Degaon – Mandrup (GEC)- 15km	220 kV Chinchwad Apta for Talegaon (PG) - 36km	
29				220 kV Urse - Chinchwad -20km	
30				220 kV Chinchwad - Kandalgaon - 28km	
33	Vashi	400 kV D/C Babhaleshwar-Kudus line- 200 km	HTLS conversion of 400kV Kalwa-Padgha ckt -II-52km	400 kV Padghe - Padghe PG DC Line-7 km	400/220kV Velgaon, District-Palghar
34		LILO on both ckts of 400 kV Tarapur-Padghe line at Kudus-15 km	HTLS conversion of 220 kV Padghe-Jambhul - 20 km & Jambhul-Pal: 22km		LILO on 400 kV Tarapur-Kudus II DC line -
35		LILO on 220 kV Tarapur-Borivali & Boisar-Ghodbunder line at Kudus - 10	HTLS conversion of 220 kV Padghe-Bhiwandi D/C -18.5km		LILO 220 kV Boisar-Borivali SC -10km
36		LILO on 220 kV Padghe-Wada & 220 kV Kolshet-Wada at 400 kV Kudus - 10 km	HTLS conversion of 220 kV Padghe - Temghar Ckt I & II- 17km		LILO on 220 kV Dahaun-Ghodbubdr DC:10km
37		HTLS conversion of 400kV Kalwa-Padgha ckt -I- 52km	1 X 125 MVAr, 400 kV at Kudus		LILO 220 kV Dahanu-Versova SX -

					5km
38		1 X 125 MVAr, 400 kV at Kalwa			LILO 220 kV Boisar-Versova SC- 5km
48	TPC-T		220 kV Trombay to Dharavi and Salsette (Interconnection with Saki) (Multicircuit) - 59 km		
49			220 kV Tata Waghivli to MSETCL Waghivli D/C		
50			220 kV Kalwa - Salsette line # 5- 10 km		
51			125 MVAR, 220 kV reactor at Salsette.		