

**Minutes of the 2nd Grid Co-ordination Committee Meeting convened on
11th June 2021 at 15.30 hrs. through VC**

The 2nd Grid Co-ordination Committee (GCC) meeting of Core Group was convened on 11th June 2021 at 15.30 hrs. through Video Conferencing. The list of members/participants is enclosed as per Annexure - I.

Executive Director (MSLDC), Member Convener, GCC welcomed all the GCC members and other participants in the meeting.

Director (Operations) MSETCL, Chairman of GCC, in his opening remarks expressed that GCC has now become functional and this platform shall be effectively used to address various issues being faced by various stakeholders. Further, it will facilitate proper implementation of MEGC 2020 and various procedure developed there under.

Executive Director (MSLDC), Member Convener, GCC informed the present status of Functional Committees that are established under the aegis of MEGC 2020.

- 1) Maharashtra Transmission Committee (MTC) - 1st meeting convened on 08th June 2021.
- 2) Operational Co-ordination Committee (OCC) - 1st meeting convened on 11 May 2021.
- 3) Protection Co-ordination Committee (PCC) - Nominations of members have been called by CE (Protection) and first meeting will be taken shortly.
- 4) Metering and Communication Co-ordination Committee (MCCC) - Established after the publication of metering code.

In the 2nd GCC meeting following agenda items were discussed.

Confirmation of the minutes of Meeting of 1st GCC Meeting held on 08th January 2021.

The minutes of 1st GCC meeting held on 8th January 2021 at SLDC Airoli, MoM were circulated vide letter No. ED/MSLDC/Airoli/102 dated 01.02.2021.

Shri P.D. Lone, S.E. Commercial, WRPC raised some points on the Minutes of meeting of the 1st GCC.

After due deliberations, GCC confirmed Minutes of Meeting of 1st GCC with following modifications;

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The concluding remark of agenda item 34 and 5 "**The Committee noted and approved as above**" will be modified as "**The Committee noted and consented as above**" Amendment to the MoM to that effect will be issued.

Shri P.D. Lone, S.E. Commercial, WRPC further informed that the draft procedure for instructions of RSD to generating units which was to be circulated to all GCC core group members as per the MoM has not been received by him.

Chairman GCC directed to circulate the draft RSD procedure to all stakeholders.

Agenda Point - 1: Installation and Commissioning of 125MVAR, 400kV Bus Reactor at 400kV Chandrapur Switching S/S under Nagpur Zone.

Executive Director (Trans/STU), MSETCL placed before the GCC, a proposal for Installation and Commissioning of 125MVAR, 400kV Bus Reactor at 400kV Chandrapur Switching S/S under Nagpur Zone.

Executive Director (Trans/STU), MSETCL explained in depth the need for Installation and commissioning of 125MVAR, 400kV Bus Reactor at 400kV Chandrapur Switching S/S. He stated that there is persistent overvoltage problem at these sub-stations and hence 125MVAR, 400kV Bus Reactor is required to control and limit 400kV Bus voltage at this sub-station, to avoid hand tripping/protection tripping due to overvoltage of 400kV Lines.

To protect other equipments from voltage stress and to ensure reliability of 400kV network, 125MVAR Bus Reactor is proposed as per system study carried out by STU.

Scope of work includes Supply, Installation, Testing and Commissioning of 400kV, 125MVAR Bus Reactor with new 400kV Bay.

Maharashtra Transmission Committee (MTC) in its meeting dtd. 08.06.2021 has discussed and recommended the proposal to GCC for consideration.

During discussion, Shri P. D. Lone SE (Commercial) WRPC Member, opined that the requirement of Bus reactor is generally arrived at through studies for the off-peak demand case (lowest demand is considered in studies). The off-peak hours do not persist throughout the day since the demand varies throughout the day. Therefore, during off peak hours it may require reactive compensation of 125MVAR. However, during other hours of the day, the requirement may be less than 125MVAR and the reactor may be required to switch "ON" and "OFF" frequently. If possible, installation of 2 nos. of 63 MVAR reactors may be considered, since it gives operational flexibility and better control.

On above point, Executive Director (Trans/STU), MSETCL explained that STU has carried out detail study of Reactive power compensation for whole Maharashtra and proposed 125 MVAR reactors as per the requirements. Further 63 MVAR is not a standard size and reactors are available for 50, 80 & 125 MVAR sizes only. It is further explained that if 2 nos 63 MVAR reactors are proposed in place of 1 no. 125 MVAR reactor then 2 nos. of 400 kV bays will be required which is not a cost-effective solution.

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Further as there are space constraints at substation, it is difficult to accommodate additional 2 nos. of 400 kV bays.

After detailed deliberations and discussions, the GCC core group considered Installation and Commissioning of 125MVAR, 400kV Bus Reactor at 400kV Chandrapur Switching S/S under Nagpur Zone and recommends for inclusion of the same in the upcoming STU plan for the years 2021-22 to 2025-26 and for further necessary action by MSETCL/STU.

MSETCL to take further action on priority basis for sanction and execution of the proposal.

The Committee noted and consented for above.

Agenda Point - 2: Installation and Commissioning of 125MVAR, 400kV Bus Reactor each at 400kV Jejuri S/S, 400kV Chakan S/S and 400kV Lonikand-I S/S under Pune Zone.

Executive Director (Trans/STU), MSETCL placed before the GCC a proposal for Installation and Commissioning of 125MVAR, 400kV Bus Reactor each at 400kV Jejuri S/S, 400kV Chakan S/S and 400kV Lonikand-I S/S under Pune Zone.

Executive Director (Trans/STU), MSETCL explained in depth the need for Installation and commissioning of 125MVAR, 400kV Bus Reactor at these 400kV Sub-stations. He informed that although as per the present system scenario low voltage persist at each of these substations, there are also instances of overvoltage problem for short period of time throughout the year. Further as per the future Transmission planning of the network, 400kV Karad -Lonikand is being made LILo at 400kV Jejuri substation and also a source from 765kV Shikrapur is to be provided for Jejuri ss. Therefore, considering the future perspective these reactors shall be helpful in fulfilling the Reactive compensation requirements of the system.

125MVAR, 400kV Bus Reactor is required to control and limit 400kV Bus voltage at these substations, to avoid Hand Tripping/overvoltage tripping of 400kV Lines, to protect other equipments from voltage stress and to ensure reliability of 400kV network. 125MVAR Bus Reactor is proposed as per system study carried out by STU.

Scope of work includes Supply, Installation, Testing and Commissioning of 400kV, 125MVAR Bus Reactor with new 400kV Bay.

Maharashtra Transmission Committee (MTC) in its meeting dtd. 08.06.2021 has discussed and recommended the proposal for the consideration of GCC.

During discussion, Shri P. D. Lone SE (Commercial), WRPC Member, opined that the requirement of Bus reactor is generally arrived at through studies for the off-peak demand case (lowest demand is considered in studies). The off-peak hours do not persist throughout the day since the demand varies throughout the day. Therefore, during off peak hours it may require reactive compensation of 125MVAR. However, during other hours of the day, the requirement may be less than 125MVAR and the

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reactor may be required to switch "ON" and "OFF" frequently. If possible, installation of 2 nos. of 63 MVAR reactors may be considered, since it gives operational flexibility. It will allow better control of over voltage problem through the reactor.

The Superintending Engineer (LM), MSEDCL stated that low voltage problem in summer season at 400kV Jejuri S/S was discussed in WRPC-OCC and in the 1st state OCC meetings. Hence, the possibility of installation of suitable size capacitor bank shall also be explored at 400 kV Jejuri S/S.

On above points, Executive Director (Trans/STU), MSETCL opined that instead of 1no. 125 MVAR Bus Reactor installing 2 nos. 63 MVAR Bus Reactors, increases the installation cost.

Executive Director (Trans/STU), MSETCL further stated that source to 400 kV Jejuri S/S is 400kV Jejuri-Lonikand and 400kV Jejuri-Koyna Stg. IV lines. If any line is out of service, then low voltage problem is observed in only Solapur areas and not in Pune areas.

After detailed deliberations and discussions, the GCC core group considered the proposal for Installation and Commissioning of 125MVAR, 400kV Bus Reactor each at 400kV Jejuri S/S, 400kV Chakan S/S and 400kV Lonikand-I S/S under Pune Zone and recommended for inclusion of the same in the upcoming STU plan for the years 2021-22 to 2025-26 and for further necessary action by MSETCL/STU.

MSETCL to take further action on priority basis for sanction and execution of the proposal.

The Committee noted and consented for above.

Agenda Point - 3: Administrative approval for providing Hybrid Switchgear as Bus-Sectionalizer for 220kV & 132kV Buses at 220kV Jalna, 220kV Chitegaon, and 220kV Waghala sub-stations under Aurangabad Zone.

Executive Director (Trans/STU), MSETCL explained the necessity for providing Hybrid Switchgear as Bus-Sectionalizer for 220kV & 132kV Buses at 220 kV Jalna, 220 kV Chitegaon and 220 kV Waghala substation under Aurangabad zone. Reliability & availability of system is affected due to non-availability of proper Bus-Sectionalizer arrangement. Further he explained the benefits of providing Hybrid Switchgear as Bus-Sectionalizer as below:

- Sectionalizing the EHV Bus at EHV substations will enhance the reliability & availability of supply during Bus fault condition. At least half of the bus section can remain in service even after bus fault. Thus, total failure of supply can be avoided.
- Outage on half section of the Bus for maintenance can be availed easily.
- Hybrid Switchgear greatly reduces the space requirement. It is estimated that there is about 40-50% space saving. This space saving aspect of the Hybrid switchgear can be

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utilized best for extension of EHV or HV bays at existing sub-stations, where extension is not possible due to space constraints.

- Safe and smooth operation.
- Reduced maintenance.

Maharashtra Transmission Committee (MTC) in its meeting dtd. 08.06.2021 has discussed and recommended the proposal for the consideration of GCC.

After detailed deliberations and discussions, the GCC core group considered the proposal for providing Hybrid Switchgear as Bus-Sectionalizer for 220kV & 132kV Buses at 220kV Jalna, 220kV Chitegaon, and 220kV Waghala sub-stations under Aurangabad Zone and recommends for inclusion of the same in the upcoming STU plan for the years 2021-22 to 2025-26 and for further necessary action by MSETCL/STU.

MSETCL to take further action on priority basis for sanction and execution of the proposal.

The Committee noted and consented for above.

Agenda Point - 4: Establishment of 220/33kV Mudhale S/S, Tehsil-Baramati, Dist. - Pune for inclusion in -upcoming STU plan.

Executive Director (Trans/STU), MSETCL placed before the GCC a proposal for Establishment of 220/33 kV Mudhale S/S, Tal. Baramati, Dist. Pune.

Executive Director (Trans/STU), MSETCL explained the need for Establishment of 220/33 kV Mudhale S/S. He informed that presently Baramati Taluka is fed from 220 kV Baramati sub-station and 132kV Someshwar sub-station. 220kV Baramati sub-station has 10 nos. of 33 KV feeders feeding to 15 nos. of 33/11 KV sub-stations. Out of these 10 feeders, 3 nos. of existing 33kV feeders namely Malegaon, Pandare & Sangavi are very lengthy and hence have low voltage problem. Also, 1 no. 33/11 kV sub-station is proposed at Karhawagaj having 10MVA capacity by MSEDCL which will be fed from 220kV Baramati substation. 132kV Someshwar sub-station has 5 nos. of 33kV feeders feeding to 7 nos. of 33/11 kV sub-stations. Out of these 5 feeders, 1 feeder i.e., 33kV Baravnagar is very lengthy and has low voltage problem. Hence, 220kV Mudhale sub-station is proposed to address the low voltage issue at Discom end and provide reliable power supply to consumers. The proposal for establishment of 220/33 kV Mudhale substation is also received form from MSEDCL to MSETCL.

The issue is elaborated in Maharashtra Transmission Committee (MTC) meeting dtd. 08.06.2021 and MTC has recommended proposal for consideration by GCC.

After detailed deliberations and discussions, the GCC core group considered proposal for Establishment of 220/33 kV Mudhale S/S, Tehsil-Baramati, Dist. - Pune for inclusion in STU plan and recommends for inclusion of the same in the upcoming STU

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plan for the years 2021-22 to 2025-26 and for further necessary action by MSETCL/STU.

MSETCL to take further action on priority basis for sanction and execution of the proposal.

The Committee noted and consented for above.

Agenda Point - 5: 220kV AIS to GIS Conversion at Aarey substation.

Executive Director (Trans/STU), MSETCL, proposed and discussed 220kV AIS to GIS Conversion scheme at Aarey.

The Scope of work for this conversion includes:

- Procurement & erection of Cable, Cable Laying & associated accessories, 220kV GIS Bays.
- Civil work- GIS Plinth, cable trenches, Capacitor plinth etc
- Control & monitoring system, Protection system, Communication system.
- Commissioning of 220kV GIS system
- Removal of existing 220kV AIS system.

Executive Director (Trans/STU), MSETCL further informed to the Core Group that DPR for 220kV AIS to GIS Conversion is already submitted to STU by AEML in which the request has been made to expedite the approval process on account of urgency of work.

It is further informed by Executive Director (Trans/STU), MSETCL that in Maharashtra Transmission Committee (MTC) meeting dtd. 08.06.2021 the proposal was discussed at length. AEML representative had elaborated the necessity of conversion from 220kV AIS to GIS at Aarey sub-station for space optimization in order to accommodate the proposed 1000 MW HVDC Kudus- Aarey scheme. After elaborate discussion the proposal is recommended by MTC for consideration of GCC.

After detailed deliberations and discussions, the GCC core group considered the proposal of 220kV AIS to GIS Conversion at Aarey substation for inclusion in STU plan and recommends for inclusion of the same in the upcoming STU plan for the years 2021-22 to 2025-26 and for further necessary action by AEML/STU.

AEML and STU to take further action on priority basis for sanction and execution of the proposal.

The Committee noted and consented for above.

Agenda Point - 6: 220kV Chandivali EHV Scheme.

Executive Director (Trans/STU), MSETCL, informed that proposal of establishment of 220kV Chandivali sub-station was put in MTC meeting dtd 08.06.2021 by AEML representative. The scope of work is as below;

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Sub-station Scope:

Establishment of 220kV GIS EHV Station at Chandivali (2 x 125 MVA Capacity).
Extension of 220 kV GIS bays at existing 220kV Aarey EHV Station.

Connectivity Scope:

- LILO of TPC 220kV Salsette-Saki line & 220kV D/C connectivity from Aarey EHV Station.

•Associated Civil works.

Executive Director (Trans/STU), MSETCL further informed that after deliberations in the MTC it was suggested that AEML shall prepare a detailed report incorporating the cost implications and the benefits to be accrued to the beneficiaries and circulate among all the members for further taking up issue in the next MTC meeting.

Accordingly, GCC directed to carry out elaborate discussion with all concerned stake holders on this issue and thereafter proposal may be submitted toGCC for consideration.

The Committee noted as above.

Agenda Point - 7: Replacement of 110kV oil field cables between Backbay and Nariman point.

Executive Director (Trans/STU), MSETCL placed before the GCC a proposal for replacement of old aged 110KV cable by XLPE cable from Backbay to Nariman Point. He requested the Committee to consider the proposal for replacement of old aged 110kV cable to XLPE cable. He further emphasized the necessity for replacement of old aged cable as below:

- The replacement of cables is necessary to avoid load shedding to South Mumbai in case of failure of these aged cables.
- The manufacturing of oil filled cables has been stopped. OEM support for cable and associated accessories are not readily available. These spares, if available, are to be imported and hence are costlier.
- Replacement of existing 110kV Oil filled cables with single core 110kV, 1000 sq. mm XLPE cable for assurance of reliable and uninterrupted power supply to consumers in Nariman point and Vidhan Bhavan.

Existing oil filled cable details;

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Name of the line	Cable length (in Kms)	Make of Cable	Cable details	Age (Yrs)
110 kV BEST Backbay-BEST Nariman Point	1.2	Siemens, AEG	1C, 400 mm ² , CU, Oil filled cable	35
Tata Backbay - BEST Nariman Point	1.2	Siemens, AEG	1C, 400 mm ² , CU, Oil filled cable	35

Maharashtra Transmission Committee (MTC) in its meeting dtd. 08.06.2021 has discussed and recommended the proposal to GCC for consideration.

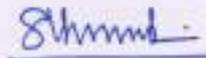
After detailed deliberations and discussions, the GCC core group considered approval for Replacement of 110kV oil field cables between Backbay and Nariman point for inclusion in STU plan and recommended for inclusion of the same in the upcoming STU plan for the years 2021-22 to 2025-26 and for further necessary action by TATA/STU.

M/s TATA to take further action on priority basis for sanction and execution of the proposal.

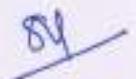
The Committee noted and consented for above.

Agenda Point - 8.9.10 and 11: Chairman GCC observed that it will be prudent to discuss these agenda points in respective functional committee prior to approaching GCC for its consideration.

ED (MSLDC), Member Convener offered vote of thanks to the chair, core group members and all other participants.



(S. V. JALTARE)
Executive Director
MSLDC, Kalwa



Annexure I

Core Group members						
Sr no.	Name of the Officers	Designation	Organization	Mobile No.	Email - ID	Remark
1	Shri Sanjay Taksande	Director (Operations)	MSETCL	022-26592162	DIROP@mahatransco.in	
2	Shri. Satish Chavan	Director (Commercial) I/c	MSEDCL	022-26474211	directorcommsedcl@gmail.com	
3	Shri Shrikant Jaltare	Executive Director	MSLDC	022-27301931	edmsebholding@gmail.com	
4	Shri S. S. Rajurkar	Executive Director (Trans/STU)	MSETCL	9769509020	edtrans@mahatransco.in	
5	Shri Girish Kumawar	CE (Works)	MSPGCL	8411958588	ceg@mahagenco.in	
6	Shri Prasad Lone	SE (Commercial)	WRPC	9867622823	commi-wrpc@nic.in	
7	Shri Manoj Pise	General Manager (Co-ordination)	MEDA	9422319093	Pg1@mahurja.com	
Other Participants						
8	Shri Swapnil Katkar	CE (PP) (I/C)	MSEDCL	9819938302	ceppmsedcl@gmail.com	.
9	Shri. Peeyush Sharma	SE (Operation)	MSLDC	9167831551	SEOPR8000@mahatransco.in	.
10	Shri. Ram Kolhe	SE (SCADA)	MSLDC	9619985377	SESCADA8000@mahatransco.in	.
11	Shri. Eknath Dhengale	SE (EA)	MSLDC	9930401110	SEEA8000@mahatransco.in	.
12	Shri Sandip Patil	S.E. LM Cell	MSEDCL	9833980238	selmkalwa@gmail.com	.
13	Shri. Umesh Bhagat	EE (STU)	MSETCL	9619602254	cestu@mahatransco.in	.

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