RIGHT TO INFORMATION

MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

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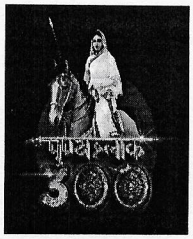

Ref. No. ED/MSLDC/OP/GCC/ No 01943 Date: 12 SEP 2025

To,
As per mailing list GCC Core Group Members.

Sub: - Minutes of the 14th Grid Coordination Committee (GCC) meeting held on 28.07.2025 at MSLDC Airoli.

Ref.: 1. Agenda request vide ED/MSLDC/OP/GCC/1531 dated 17.07.2025.
2. Agenda circulated vide Letter No. ED/MSLDC/OP/GCC/1579 dated 23.07.2025.

Dear Sir,

With reference to the above subject, the Minutes of the 14th Grid Co-ordination Committee (GCC) meeting held at MSLDC, Airoli on 28.07.2025 at 11:00 hrs.in hybrid mode is enclosed herewith.

Thanking you.

With regards,

Encl: As above.

(Shashank Jewalikar)
Executive Director, MSLDC
and
Member Convenor of GCC

Copy s.w.rs. to:

The Director (Operations), Corporate Office, MSETCL, Mumbai.

Copy to:

- The Chief Engineer (STU), Corporate Office, MSETCL, Mumbai.
- The Chief Engineer (ACI&P), Corporate Office, MSETCL, Mumbai.
- The Chief Engineer (SLDC), Airoli, Navi Mumbai.

Mailing List of GCC Core Group Members:

Sr. No.	Name of Organization	Name of Nominee/Designation	Committee Position	Contact No.	E-mail ID
1	MSETCL	Shri Satish Chavan, Director (Operations)	Chairperson	022-26492162	dirop@mahatransco.in
2	MSEDCL	Shri. Yogesh Gadkari Director (Commercial)	Member	022- 26474211 / 26472131	directorcommsedcl@gmail.com
3	MSLDC	Shashank Jewalikar Executive Director (SLDC)	Member Convener	022-27601765	edsldc@mahasldc.in
4	MSETCL	Shri. Mahendra Walke, Chief Engineer (Trans. O&M)	Member	9769213955	ceom@mahatransco.in
5	MSPGCL	Shri. Anil Kathoye CE (Works)	Member	022-6942200 69843434 Ext. 3419	cegw@mahagenco.in
6	WRPC	Shri P. D. Lone, S.E. Commercial	Member	9867622823	comml-wrpc@nic.in
7	MEDA	Shri Manoj Pise, General Manager	Member	9422319093	gmrd@mahaurja.com

Minutes of the 14th Grid Co-ordination Committee meeting held on 28th July 2025 at 11:00 hrs. at MSLDC, Airoli.

The 14th Grid Coordination Committee (GCC) meeting of the Core Group was held on 28.07.2025 at 11:00 hrs at MSLDC, Airoli.

The meeting was conducted both physically and via video conferencing. A list of members/participants is enclosed as ANNEXURE - A.

The Executive Director of MSLDC and Member Convener of the GCC welcomed all the members and other participants to the 14th GCC Meeting.

With the permission of the Chair, discussions for the 14th GCC Core Committee began as follows:

Item No.1:

1.1 Confirmation of the Minutes of the 13th GCC Meeting held on 22.04.2025.

The Member Convenor of GCC informed that the minutes of the 13th GCC meeting held on 22.04.2025 were circulated to all the members vide Letter No. ED/MSLDC/TECH/OP/GCC/1265 Dated. 18.06.2025. However, no comments are received from members and hence, the same may be considered as ratified.

GCC confirmed the Minutes of the 13th GCC Meeting held on 22.04.2025.

1.2 Presentation on Maharashtra System Grid performance for the period from January 2025 to May 2025

The Chief Engineer (I/C), SLDC presented the Maharashtra system grid performance for the period from January 2025 to May 2025.

Members of GCC discussed the following:

1. **Non-availability of Thermal Generation:**
   Chairman of GCC enquired about the extended outage of Chandrapur Unit 9, which has reportedly been offgrid since January 11, 2025. The MSPGCL representative explained that the unit experienced a technical fault (turbine alignment issue) and is currently undergoing final stages of maintenance. The representative assured that the unit is expected to return to service within 2–3 days, i.e. by the end of July 2025.

   The CEPP (MSEDCL) raised a concern over the repeated shutdowns of Bhusawal Unit 6, despite its Commercial Operation Date (CoD) being declared in February 2025. He emphasized that the instability of such a large 660 MW unit is undesirable.

   The CE(GW), MSPGCL representative clarified that the Post-Commissioning Performance Guarantee (PG) testing by the OEM, BHEL, is still pending. MSPGCL has informed BHEL to first resolve the recurring issues in Bhusawal Unit 6. Until then, they are not granting permission to conduct the PG test. MSPGCL assured that efforts are underway to stabilize the unit and restore it to full operation at the earliest.

   Chairman of GCC instructed MSPGCL to expedite all necessary actions and bring Unit-6 back online at the earliest.

2. **Koyna lake level:**
   The CEPP (MSEDCL) raised a concern about the generation from Koyna units to prevent floods and opening of dam gates. He pointed out that the volume of water released for generation is presently being counted against the standard 67.5 TMC water quota allocated for Maharashtra state. He suggested that water utilized for operations essential for flood control should be excluded from the quota, so additional TMC would not be required during the summer months.

   Chairman of GCC recommended that MSEDCL, in coordination with MSPGCL, should escalate the matter to the Water Resources Department (WRD) and seek the intervention of the Government of Maharashtra, as it is a policy issue.

3. **ISTS drawl violation:**
   The MSLDC representative informed that, at present, Maharashtra state's Total Transfer Capability (TTC) is 11,400 MW, the Transmission Reliability Margin (TRM) is 600 MW, and the Available Transfer Capability (ATC) is 10,800 MW. During the period from January 2025 to May 2025, the state exceeded its ATC for 13% of the time.

   In view of this, Chairman of GCC advised checking the possibility of increasing the ATC after the commissioning of the 400 kV Warora ICTs, 220 kV Tarapur–Kudus, 220 kV Borivali–Kudus, 220 kV Boisar–Kudus, and 220 kV Ghodbunder–Kudus circuits, and by taking load on the Kudus ICTs.

   The MSLDC representative informed that a study had been carried out by taking load on the Kudus ICTs after the commissioning of the 220 kV Kudus lines. At that time, the 220 kV Saki (AEML) – Saki (TATA) lines were out of service. The study revealed that the 220 kV Aarey–Borivali cable was getting overloaded under those conditions.

   After due deliberation, Chairman of GCC directed MSLDC, in coordination with CE Vashi, AEML-T, and STU, to carry out a detailed study considering the above-mentioned commissioning elements. Also study with a newly proposed ICT at 400 kV Boisar (PG) is to be carried out, as it may contribute to an increase in the ATC of Maharashtra State.

4. **Lines under breakdown due to cable fault:**
   The MSLDC representative highlighted that several critical transmission lines in Pune and the MMR region such as the 220 kV Ulwe GIS–Waghivali Ckt-II, 220 kV Print House–Panchanand, 220 kV Kharghar–New Found, and 220 kV Hinjewadi–Pirangut lines (refer Annexure 2) have been out of service for extended periods due to cable faults.

   The Executive Director (SLDC) expressed concern that these lines are located in highly load-dense areas and industrial corridors, where reliability is of utmost importance. He further requested a re-evaluation of underground cable installation methods and cable design standards to prevent similar tripping and outages in the future. He also pointed out that, while planning usage of cable, the loss of transmission corridor needs to be considered and evaluated.

   In response, Chairman of GCC informed that, in view of these incidents, the methodology for laying underground cables has been revised for forthcoming projects. To maintain redundancy, the installation of an additional cable in the corridor is now proposed, and a separate proposal is being prepared to address existing faults. He

further directed that Annual Maintenance Contracts (AMCs) for cable maintenance be implemented to enhance reliability and minimize outages.

In MSETCL, cable maintenance units are being setup at Pune & Kharghar. Also, work on cable redundancy is in proposal stage at corporate office.

After due deliberation GCC directed that all transmission utilities shall plan EHV cable use after thorough evaluation & in such way as to avoid operational issues in case of cable failure.

5. Constraint affecting Ghatghar generation:

The MSLDC representative reported that the EHV voltages around the Ghatghar HPS frequently remain below 215 kV during daytime solar hours. As a result, Ghatghar units are not being operated in pumping mode during solar generation periods, despite the allowable voltage tolerance of ±5%. The units typically operate within a band of 220–222 kV only.

The MSPGCL representative explained that although the machines are rated for 6,380 A current, during low-voltage conditions in pumping mode, the load current increases to 6,700 A & above. This has led to two instances of earth faults. To prevent adverse effects and maintain system stability, it is essential to keep the voltage within design limits, as exceeding these limits could result in equipment damage. Therefore, pumping operations are currently avoided during solar hours when voltage tends to drop.

Further, the CE (Works), MSPGCL, informed that once the restoration work at Chandrapur Unit 9 is completed, a testing team will be sent to Ghatghar to examine the cut-off relay settings for pumping mode and to diagnose the associated voltage issues.

Chairman of GCC directed MSPGCL to investigate whether reactive power compensation is required at Ghatghar or if there are any other issues contributing to the voltage drop during daytime hours, and to ensure that pumping mode operations can be safely carried out at voltages with permissible band as per grid code.

6. Other issues:

a. Regarding multiple incidences at 400kV Nagothane & Dabhol substation:

- MSLDC has referred all such incidents to the Protection Coordination Committee (PCC) and recommended to carry out special protection audit at 400kV Nagothane. Also, it is observed that, there are some incidences at 400kV Dabhol which were without any indications, so it is recommended to PCC/PCM to instruct Dabhol to carry out thorough protection audit at 400kV Dabhol substation.

b. Regarding Evacuation of power of Sinner TPS:

MSPGCL informed the Grid Co-ordination Committee (GCC) that two units of 270 MW each at the RPL Sinnar power plant are expected to be taken in service within 6–8 months. For evacuation planning, MSPGCL has submitted a prefeasibility proposal to the State Transmission Utility (STU), taking into account both the current infrastructure and the proposed 400 kV Kudus–Babhaleshwar corridor (with 540 MW capacity).

The chairman of GCC directed to STU to work out on evacuation arrangement by considering 400kV Kudus – Babhaleshwar ckts or to evaluate alternate

evacuation routes such as via the 220 kV Eklahare substation anticipating that the Sinnar plant may be recommissioned in the near future.

c. Constraint in evacuation of Solar Generation:

A total 208 MW Solar Generation is connected to 132 kV Wagdari & Naldurg S/s, 149 MW & 59 MW Solar Generation respectively. The said generation is evacuated through 132 kV Ujani-Naldurg S/C, 132 kV Bale – Naldurg S/C & 132 kV Wagdari – Akkalkot S/C line. 132 kV Naldurg & 132 kV Wagdari S/s are interconnected through S/C line. Out of these three evacuating lines, 132 kV Ujani- Naldurg S/C & 132 kV Bale – Naldurg S/C lines are old more than 30 years.

There were multiple incidences of RE curtailment due to Tripping/Overloading of 132 kV Bale - South Solapur line, overloading of 132kV Naldurg-Bale line & overloading of 132 kV Wagdari-Naldurg line in the month of Feb'25 and GTS operation at 132kV Waghdari & 132kV Naldurg substation in the month of Apr'25 & May'25

ED MSLDC explained that, the above area is less demand area and MSKVY generation area, so it is necessary to ensure transmission adequacy to evacuate the power from that area.

After due deliberation, GCC chairman instructed the STU to evaluate whether upgrades are needed based on current and MSKVY generation flows. This will help prevent future curtailment and address transmission constraints.

d. Regarding 220kV Nashik – Babhaleshwar constraint:

The MSLDC representative informed GCC that the 220kV Eklahare–AKP circuit, 220kV Eklahare–Navsari circuit–2, and 220kV Eklahare–Padghe circuit were hand-tripped due to overloading of the 220kV Nashik–Babhaleshwar circuits

In response the chairman of GCC issued three key directives:

1) MSEDCL to expedite the commissioning of MSKVY solar projects in the area of Nashik & Nagar so that evacuation issue may be resolved during peak hours which causes overloading of 220kV Nashik - Babhaleshwar lines.

2) MSEDCL in coordination with MSPGCL to ensure running of 3 units of nashik generation and ensure to maintain 300 MW generation

3) Chief Engineer O&M must execute capacitor-bank commissioning in Nashik zone by **December 2025** to improve voltage profile and reduce reactive burden.

All GCC members took note of the discussions.

Item No.2: MSLDC Agenda

2.1 Compliance Status & action required towards the CEA Compliance (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019.

In accordance with the CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 & subsequent amendments in year 2019, all the Wind & Solar Generators & Developers are mandated to comply with the provisions of these regulations. CEA has mandated all RE Developers to comply these regulations.

According to these regulations, submission of Simulation Study report along with PSSE & PSCAD files prior to synchronization of the generation is one of the compliance. In this respect, vide notification dated 15.06.2023, MSLDC has also requested all the RE Generators & Developers to adhere to the CEA Regulations and submit compliances to MSLDC.

Thus, during submission of application for seeking Synchronization permission, the generator/developer is required to submit the Simulation study report in line with CEA regulations. However, Developers/Generators are submitting undertaking stating that the report will be submitted within 6 months with the reason that STU has not informed about such compliance in the Grid connectivity Letter. Accordingly, synchronization permissions are processed considering undertaking submitted by the Developers/Generators.

The compliance towards CEA Regulations is tabulated below:

Sr. No.	Particulars	Nos.	Capacity (MW)
A	Undertaking submitted	42	2276.5
1	Study report submitted within timelines	17	1613.5
2	Notices issued to the Developers/Generators which have not submitted Simulation Study reports	23	593.5
3	Study Report Received after notice	2	69.5
4	Developers/Generators requested for time extension	3	136
5	Developers/Generators not given any response	18	388

Out of 23 No. of Developers/Generators to whom notices have been issued, 3 No. of Developers/Generators of capacity 136 MW has requested to permit time extension till 30-08-2025, 30-11-2025 & 31-12-2025 stating reason that the Invertors used are old & the PSSE/PSCAD models of such invertors is not available. Further, they have takenup this issue with OEMs & have received confirmation that the same will be provided by the OEM.

In this respect, the regulation 12 of the said CEA regulations is reproduced below:

"12. Compliance of regulations.- *(1) The licensee shall ensure that before connectivity to the grid, all the provisions with regard to the connectivity specified under these regulations are complied with by the requester.*

(2) Before allowing connectivity to the requester, the compliance of the provisions laid down under sub-regulations (2), (3) and (5) of regulation 6 shall be verified by the licensee and the verification of compliance of provisions of other regulations shall be in

the form of self-declaration in the proforma of connection agreement which shall be checked and verified by the concerned licensee on sample basis.

(3) The user may be disconnected from the Grid by the licensee for non-compliance of any provision of these regulations and any non-compliance of the provisions of these regulations shall be reported by the licensee or the State Load Dispatch Centre or the Regional Load Dispatch Centre, as the case may be, to the appropriate Commission*".*

Further, As per Compliance of CEA (Technical Standards for Connectivity to the Grid) Regulations-2019

- The RE generator shall submit the 'Benchmarking report' depicting performance comparison of actual test report Vs PSSE & PSCAD simulation report.
- Also, it is mandatory to carry out the Power Quality Test reports (Harmonics content , DC injection, Flicker) on yearly basis and Assessment report shall be submitted on an annual basis post commissioning of plant.
- Post commissioning of the complete RE plant, the response of models (RMS & EMT both) shall be validated against field measurement/on-site test results and validate models with validation report shall be submittes within 3 months of the complete commissioning the RE Plant.

However, RE Generators & Developers are not compling above provisions also.

Hence, MSLDC is of the view that:

1) RE Generator/Developer should submit the simulation study report along with required data to STU & MSLDC prior to seeking Final Grid Connectivity.
2) If Final Grid Connectivity is issued without receipt of the simulation study report along with required data based on undertaking, if the RE Generator/Developer fails to submit the same within committed timelines, the said project should be disconnected from the Grid.
3) If any RE Generator/Developer fails to carry out physical Power Quality tests through third party & submit reports along with benchmarking report, action as per the said CEA regulations for non-compliance should be initiated.

Discussion in 14th GCC:

MSLDC representative informed that in accordance with the provisions of the CEA (Technical Standards for Connectivity to the Grid) Regulations, 2019, Wind & Solar Plants are mandated to provide various responses such as Voltage ride through, Frequency ride through, operation of Active & Reactive Capability, Harmonic injection, DC flicker, etc. Before getting connected to the Grid, the RE Developer/Generator is mandated to submit a Simulation study report along with required data & PSSE-PSCAD files according to the procedure formulated by the Working Group Report of CEA.

Further, after commissioning of the plant, RE Developer/Generator is mandated to carry out actual field measurements of above requirements on annual basis through third party agency and submit the report. As per the provisions of these regulations, in case of non-compliance, action of disconnection is to be initiated. As per the CEA Working Group Report, CTU in consultation with Grid-India is monitoring the compliances and it is mentioned that at State level, similar process is to be followed.

At the time of processing application for Synchronization permission, MSLDC is monitoring the requirements. However, it has been observed that due to non-availability of provision in the STU's Grid Connectivity Letter, RE Developers/Generators are submitting an undertaking to MSLDC stating that the report will be submitted within 6 months. The timelines are monitored at MSLDC. It has been observed that for around 388 MW capacity, RE Developers/Generators have not responded to the notice issued by MSLDC after expiry of undertaking timelines. Further, some of the RE Developers/Generators have requested time extension stating technical difficulties in undertaking studies.

The Executive Director (MSLDC) opined that if RE Developers/Generators are working on the compliances and facing some difficulties, genuine cases can be considered whereas the RE Developers/Generators which have not responded even after lapse of timelines as per their own committed timelines, action should be taken as per the regulations. He further opined that for older plants commissioned before notification of these regulations, STU& MSLDC jointly should work out for identification of any compliance requirements for initiating onwards actions.

Chairman of GCC requested to brief action taken by MSLDC once report is received from RE Developers/Generators. In this respect, the Executive Engineer (REMC-OP), MSLDC informed that the reports submitted are scrutinized for any violations against standard parameters provided in the Regulations, and the RE Developers/Generators are requested to carry out actual field measurements and verify with actual data & implement corrective measures at site to comply the standards.

After due deliberations, action points are as below:

- **STU to update Grid Connectivity Procedure and incorporate the condition of CEA Technical Standards compliance in the Grid Connectivity Letter.**
- **STU to collect Simulation study reports along with required data prior to Final Grid Connectivity, similar to the procedure followed at Central level for all the new plants.**
- **STU & MSLDC to jointly monitor compliance of the said regulations.**
- **STU & MSLDC to jointly identify need for compensation requirements for older plants.**
- **MSLDC to monitor compliance of the regulations for existing plants and provide sufficient time to the RE Developers for undertaking compliance studies. In case RE Developers/Generators fail to comply then, action of disconnection to be initiated by issuing notice.**
- **A workshop for sensitizing RE Developers/Generators about requirements to be arranged by STU & MSLDC jointly.**

All GCC members took note of the discussions.

2.2 Implementation of the MoP Bundling Scheme in the State as per the directives of Hon'ble MERC vide its order dated 04.02.2025 in case no. 246 of 2023 – Group report thereof.

As per *Minutes of the 12th Grid Coordination Committee (GCC) Meeting held on 25.03.2025:*

To undertake a detailed study for exploring implementation of the MoP Bundling Scheme in the State as per the directives of Hon'ble MERC vide its order dated 04.02.2025 in case no. 246 of 2023.

MSLDC representative informed that Captive Power Producers Association had filed Petition before Hon'ble MERC for seeking humble indulgence to exercise its powers to remove difficulties in implementation of the provisions of the various MERC Regulations in line with the National Wind-Solar Hybrid Scheme, 2018 and the 'Scheme for flexibility in generation and scheduling of Thermal/Hydro power stations through bundling with Renewable Energy and Storage Power, 2022 ("MoP Bundling Scheme"); and Hon'ble MERC has given the directives as below:

1. Grid Co-ordination Committee is directed to undertake a detailed study for exploring implementation of the MoP Bundling Scheme in the State.

2. Grid Co-ordination Committee may take inputs from the Grid Controller of India and Central Electricity Authority regarding experiences of the scheme implementation at the national level and regarding operationalization of the scheme in the State.

3. Grid Co-ordination Committee shall undertake deliberations with the stakeholders in the State such as Generating Companies, Distribution Licensees, RE generators, State Transmission Utility etc. on various aspects such as metering, connectivity, scheduling, energy accounting and settlement, DSM accounting, transmission and wheeling charges etc. and submit a draft framework to the Commission covering all relevant aspects including the implementation aspects such as need of new software, metering, communication etc.

4. Grid Co-ordination Committee shall submit the said draft framework to the Commission within six months of this Order, which may be considered by the Commission for initiating the amendments to the existing Regulations or for notifying new Regulations if required.

In this respect, after detailed discussion, it was decided to form a working group to study on the matter as envisaged in MoP Bundling Scheme. The Executive Director (MSLDC) said that a working group to be formed which includes representatives of the major state entities for implementation of the MoP Bundling Scheme in the State. The GCC also asked MSLDC to appoint a regulatory consultant to assist the group.

The working group would consist of:

1. The Chief Engineer, MSLDC – Group Leader
2. Superintending Engineer (EA), MSLDC – Co-Ordinator.
3. The Chief Engineer (STU), MSETCL
4. The Chief Engineer (PP), Power Purchase, MSEDCL
5. Representative of MSPGCL
6. Consultant

The group will also have deliberations with stakeholders and submit preliminary report within one month.

Discussion in 14th GCC:

The GCC in its 12th GCC meeting dated 25.03.2024 formed the Working Group and to appoint the Consultant to undertake a detailed study for exploring the implementation of the MoP Bundling Scheme in the State. It has also been directed to undertake deliberations with stakeholders such as Generating Companies, Distribution Licensees, RE generators, and STU, and submit a draft framework covering all aspects including metering, connectivity, scheduling, energy accounting and settlement, DSM accounting, transmission and wheeling charges, IT systems, etc.
The Working Group has discussed on the various issues for implementation of MoP Bundling Scheme in the state. Further, the Working Group has formulated a draft Report covering all aspects including metering, connectivity, scheduling, energy accounting and settlement, DSM accounting, transmission and wheeling charges, IT systems, etc. The draft report was circulated to all the stakeholders for inviting comments and conducted a meeting with stakeholders on 25.07.2025 for discussion Working Group Report. In the meeting MSEDCL & MSPGCL have submitted their comments.
Now, in 14th GCC meeting the Consultant gave the presentation giving details of MoP Bundling Scheme and the keys aspects for implementation of the Scheme in the state of Maharashtra. The Working Group also submitted that it has undertaken Stakeholder Consultation on draft report and the comments received were presented before GCC.
Some of the comments of stakeholders are mentioned below:

MSEDCL Comments:

- **Contradictions with existing PPA Provisions** – Section 63 PPAs are based on Standard Bid Documents permit supply of power through alternate sources. If PPA not amended, it may contradict existing PPA.

  - GCC was of the view that the MoP Bundling Scheme is applicable for generators under Section 62 of the Electricity Act, 2003.

- **Implication on Generator Scheduling and Surplus Sale** – Treatment of sale of Part RE Capacity in bundling mode and balance for sale in un-unbundling mode may be elaborated.

  - The GCC deliberated the issue and recommended that, the RE capacity will operate in only one mode in a scheduling interval. i.e., either in bundled mode or in unbundled mode.

- **Third party sale and right to recall** – Allowing sale to third party dilutes MSEDCL's right to recall and imposes financial liability on Discom.

  - The GCC deliberated and concluded that the said issue raised by MSEDCL is outside the purview of the MoP Bundling Scheme.

- **Profit Sharing under Section 62 v/s Section 63 PPAs** – Profit sharing for Section 63 generators should be in the ratio of 90:10 and not 50:50 as is proposed in the MoP Bundling Scheme.

  - GCC was of the view that the MoP Bundling Scheme is applicable for generators under Section 62 of the Electricity Act, 2003.

- **Tariff Determination Authority** – Clarity on authority responsible for tariff determination to be clarified.

  - It is clarified that tariff is to be determined by Hon'ble MERC for RE plant being set up under EPC mode or in the case of Competitive Bidding, the generator has to approach the Hon'ble MERC for adoption of tariff.

- **Surplus RE and Grid Integration Challenges** – Integration of high RE penetration without storage may threaten grid stability.

  - GCC noted the concern raised by MSEDCL.

- **Lack of Implementation Procedure by National Entities** – Since No framework from CEA, POSOCO, CTUIL, implementation to be deferred by Maharashtra.

  - GCC clarified that not having framework or procedure from National Entities cannot be ground for deferment. Hon'ble MERC has issued directions to GCC to submit the framework for operationalizing the MoP Bundling Scheme.

- **Impact on Resource Adequacy (RA) Planning** - If power is sold independently by generating Company, it will disrupt State's RA plan. Thus, bundling to be adopted only after State adopts Ancillary Services Regulations.

  - It was clarified that since the RE capacity being added is tagged to Thermal Generator and will not exceed the contracted capacity as mentioned in the PPA thereby not impacting any RA plan.

- **Part Load Compensation Calculation –** Compensation to be borne by Thermal Generator as bundling risk to be absorbed by it.

  - GCC was also of the view that there will not be any part load compensation payable to generating station due to bundling as Thermal Generator has to take the said risk and that balancing cost is anyways included in the tariff.

- **Need for Pilot Project** – Scheme to be implemented on Pilot Basis without changes to MEGC and without allowing sale by generator in open market.

  - GCC was also of the view that there should be pilot run for implementation of MoP Bundling Scheme for atleast 4 weeks to remove any difficulties in Scheduling, Energy Accounting etc, improve co-ordination among Stakeholders and also to test/verify the changes in the IT System.

MSPGCL's Comments:

- **Balancing Cost** - Balancing Cost to be included in tariff before sharing of gains with beneficiaries as specified in the MoP Bundling Scheme.

  - GCC clarified that Clause 6.7 of the MoP Bundling Scheme clearly specifies that tariff to be determined by the Hon'ble MERC should include the balancing cost and the tariff risk to be taken by the Generator.

GCC noted the recommendations made by Working Group for implementation of MoP Bundling Scheme in the state. Based on the Stakeholder Comments, GCC suggested to include the comments received from stakeholders as part of the Report.
GCC recommended to modify the Working Group Report as per discussion during the meeting on draft framework for implementation for MoP Bundling Scheme as per MERC's Order. The Working Group Report along with suggested changes to be sent to Hon'ble MERC after approval of Working Group and GCC members.
Further, GCC suggested to request Hon'ble MERC to grant two months extension for submission of Report.

All GCC members took note of the discussions

2.3 Harmonization of gate closure needed for implementing LPS rule section F.

As per minutes of the 10th Grid Coordination Committee (GCC) Meeting held on 23.10.2024;

Difficulties in implementation of LPS Regulation-2022 and its subsequent amendments in the State:

The clauses regarding sale of un-requisitioned power by the generators, to be offered in the market & failing which the penalty is applicable under LPS Rules are mentioned below:

In said rules, in rule 9,- (a) for sub-rule (1), the following sub-rule shall be substituted, namely:- "(1) A distribution licensee shall intimate its schedule for requisitioning power for each day from each generating company with which it has an agreement for purchase of power at least two hours before the end of the time for placing proposals or bids in the day ahead market for that day, failing which the generating company, shall offer, the un-requisitioned surplus power including the power available against the declared capacity of the unit under shut down, in the power exchange, subject to the limitation of ramping and start up capability as specified by the Appropriate Commission: Provided also that if the generating company fails to offer such un-requisitioned surplus power in the power exchange, the un-requisitioned surplus power to the extent not offered in the power exchange up to the declared capacity shall not be considered as available for the payment of fixed charges."

It is pertinent to note that, there is difference between central and state regulation pertains to timelines of trading and methodology for scheduling. The schedules issued to ISGS generating stations at centre, is based upon requisitions from beneficiaries/buyers, and hence surplus is clearly identified at central level before the trading duration so as seller can sell its un requestioned power, but the same provision is not available at state level. Further, the requisition-based scheduling methodology is supportive to the trading timelines and procedures at power market. It also needs to be noted that the state LGBR is carried after the market clearance in each time block. These gaps in the processes followed at central level and state level make it difficult to implement the LPS rule. SLDC wishes to bring this difficulty to the notice of GCC as this needs harmonization of state and central regulations as well as the timelines of scheduling operation.

After due deliberation, in the 10th GCC dtd. 23.10.2024, the GCC decided that the issue be discussed with the working group formed by Hon. MERC for studying the harmonization aspects of state DSM regulation with central regulation. Accordingly, the meeting with Working group was held on 04.07.2025.

The following major points were discussed in working group as below: -

1. Principle of Scheduling
2. Alignment of Scheduling timelines
3. Gate closure Harmonization
4. Conflicts in URS Sale Rights
5. Deviation management at state periphery.
6. Modification in Scheduling Software of MSLDC.

Discussion in 14th GCC

Maharashtra State Load Despatch Centre (MSLDC) has communicated CEA, NLDC, WRLDC & MERC regarding practical and regulatory challenges being faced in the operationalization of Section F of the LPS rule

The MERC has also already noted issues such as mismatch in timelines, principles of scheduling, unavailability of Ancillary Services etc, associated with implementing LPS rule raised by MSPGCL in MERC MYT Order for the 5th Control Period Order in Case No. 187 of 2024 dated 28.03.2025.

Even after the recent MOM of CEA meeting dated 14.07.2025 directing to offer the surplus power in DAM following the IEGC; some issues remain. Considering the importance of scheduling activity and its practical implications; it would be prudent to have harmonization of State and Central grid codes & addressal of issues indicated by MERC prior to implementation of this clause.

The MSEDCL has also raised concern with SLDC regarding difficulties in offering requisition, indicating the challenges in accurate forecasting observed practically, which in effect may hamper the scheduling process & impact on MSEDCL's consumers.

The matter has been deliberated extensively in the 14th Grid Coordination Committee (GCC) meeting held on 28.07.2025,

GCC recommended that,

1) **As per stakeholder's comments and concerns raised regarding draft procedure the Manual implementation of this procedure is difficult and hence automated software development/Modification needs to be taken up on priority.**

2) **Further, Alignment of MEGC-2020 and IEGC-2023 Scheduling code along with gate closure timelines needs to be carried out. It would be prudent to have Harmonization of State & Central Grid Codes prior to implementation of this clause.**

3) **The Hon. CEA be informed about this and requested for a three months period for necessary modification in the software for facilitating the offering of URS in DAM.**

4) **If any modifications are required to follow the time lines as per IEGC-2023 for this purpose; Hon'ble MERC be approached for the necessary changes in MEGC-2020.**

5) **The GCC also sees necessity to have reserves and ancillary services in state in such conditions.**

6) **Any other difficulties while implementation be brought to the notice of GCC in consultation with stake holders by SLDC**.

All GCC members took note of the discussions.

2.4 Review of MEGC:

The **Maharashtra Electricity Grid Code (MEGC) Regulations, 2020**, officially known as the **MERC (State Grid Code) Regulations, 2020**, were issued by the Maharashtra Electricity Regulatory Commission (MERC) to regulate the planning, development, operation, and maintenance of the intra-state transmission system (In-STS).

Formally notified in 2020, these grid code regulations superseded the earlier version issued in September 2019 and are now the operative framework governing Maharashtra's grid operations.

***As per clause** 6 of MEGC 2020, Grid Code Review*

6.1 Implementation aspects of the MEGC shall be reviewed by the GCC at least once in every 12 months or as and when required.

Discussion in 14th GCC

The Executive Director (MSLDC) suggested that, in view of Clause 6 of the MEGC 2020 pertaining to Grid Code review, submissions should be invited from all committee chairpersons regarding proposed changes to the regulations, particularly in areas where they are facing operational difficulties.

Alternatively, instead of waiting for the next GCC meeting, a dedicated Grid Code Review Committee may be constituted, comprising the chairpersons of all relevant committees. This committee can hold a joint meeting to compile and deliberate on the submissions

received, and a consolidated report can then be presented in the next GCC for further discussion and consideration.

It was decided that all subcommittees to be asked to submit their comments and subsequently a separate GCC to be held on the subject of Grid Code review.

Item No.3: Agenda received from MSPGCL

3.1 Koyna:

Need for providing reactive compensation for all the reactive power shared by Koyna HPS units during "condenser mode operations" instead of restricting the same only for reactive power shared above 103% or below 97% of standard grid voltage.:

The Koyna units are regularly operated in "Condenser mode" purely as per instructions from SLDC depending on grid voltage requirements.

Implementation of Reactive Energy Accounting Framework for Intra-State Hydro Electric Generating Stations in terms of the applicable provisions of the MERC (State Grid Code) Regulations, 2020 has commenced since 14th March'2022 after MERC notification dated 9th March, 2022.

Since Mar 2022, reactive energy compensation bills are computed by SLDC for the reactive power shared during such period. However, as per prevailing State Grid Regulations, the reactive compensation is restricted only for the reactive energy exchange carried out when the grid voltage is above 103% of standard grid voltage or when grid voltage is below 97% of standard grid voltage.

For grid voltage between 97% to 103% of the standard voltage level, no compensation is paid, even though it is only due to availability of Koyna units in Condenser mode the grid voltage is maintained between the normal values, and this condenser mode operation is carried out as per instruction of State Load Dispatch centre only. So obviously the reactive compensation needs to be paid to all the reactive energy shared throughout the Condenser mode operation.

Presently MSPGCL is deprived of compensation for around 30% of reactive energy shared, due to provisions for restricting the compensation based on grid voltage. As the machines are operated in condenser mode with due instructions from SLDC only, it is once again requested to allow the reactive power compensation within the band limit also.

In the notification dated 9th March, 2022, the Hon'ble Commission has directed following regarding issues arising during implementation of the reactive framework

"20. Any issue arising during implementation of this framework may be taken up in the Grid Coordination Committee formed under the State Grid Code Regulations for assessing and recommending appropriate remedial measures."

The issue was previously discussed in GCC dated 23.10.2024 and it was in-principle accepted that MSPGCL needs to be compensated for all reactive power sharing during condenser mode operation, irrespective of whether Grid Voltage is below 97% or above 103% of rated voltage. It was also decided to apprise Hon'ble Commission on this for issuing necessary notification. However, it appears that there is no progress yet in this direction.

Discussion in 14th GCC:

The Executive Director (MSLDC) informed that this issue had been discussed and accepted in a previous GCC meeting, wherein it was agreed that MSPGCL should be compensated for all reactive power support provided during condenser mode operation, irrespective of whether the grid voltage is below 97% or above 103% of the rated voltage. He further clarified that the compensation to MSPGCL will be accounted for during bill revision, and the implementation of this provision is already in effect.

All GCC members took note of the discussions.

3.2 Loading of 220 KV Pophali switchyard transmission line beyond its loading capacity.

In the present operational scenario, it has been observed that the 220 kV lines are being subjected to consistently high current loading, which causing frequent breaking of conductor strands, red hot spots & melting of clamps & bolts etc. The present line loading exceeds its rated continuous loading capacity mentioned as below:

Sr. No.	Name of 220 KV line	Line Rated Capacity	Line continuous current carrying capacity	Maximum Line loading observed for 3 to 4 hrs
1	Pophali-Kadalgaon line	600 Amp	300 -500 (Varies as per weather condition such as conductor temperature, wind speed & solar radiation)	660 Amp
2	Pophali-Nerale (Panama) Line	600 Amp		700 Amp
3	Pophali-Pedhambe-I line	600 Amp		650 amp

The events of breakdown occurred in one month are as below:

Sr. No.	Name of 220 KV Line	Remarks
1	PPL- Kandalgaon	Replacement of Y phase conductor from main bus isolator to CT is carried out on dtd.04.06.2025 & 28.06.2025
2	PPL- Nerle	1. Replacement of Y phase conductor from main bus isolator to CT carried out on Dtd.23.06.2025, 2. Replacement of Y phase CT to breaker conductor & Y phase CT to line side isolator conductor carried out on Dtd.05.07.2025 3. Replacement of Y phase CT to main bus side isolator work. Bus section-2 tripped due to this fault on Dtd.03.07.2025
3	PPL- P'mbe-I	Replacement of Y phase CT to breaker conductor carried on Dtd.28.06.2025 & 04.07.2025

From the above event record it is observed that, **total 9 failure events occurred within one month** of June 2025. This matter needs to be taken seriously.

Discussion in 14th GCC:

The MSPGCL representative informed that the transmission lines emanating from the 220 kV Pedambe and Pophali substations have a rated current capacity of up to 600 A, with a continuous current carrying capacity ranging from 300 A to 500 A. However, it has been observed that, due to overloading, these lines are currently carrying currents in the range of 660–700 A. This persistent overloading has resulted in frequent incidents such as conductor strand breakage, formation of red-hot spots, and melting of clamps and bolts. Accordingly, he requested that the line loading be maintained within the rated limits, or upgradation needs to be carried out on these lines to handle higher loads.

Additionally, he noted that switchyard maintenance is a specialized activity for MSPGCL and lacks expertise in the transmission asset maintenance.

In response, Chairman of GCC stated that MSETCL has already communicated to MSPGCL through a letter regarding the options for handing over the substation maintenance responsibility to MSETCL. He stated that the ownership of the substation will continue to remain with MSPGCL, and any capital expenditure (capex) related to the substation or associated schemes will also be borne by MSPGCL. If required, MSETCL can carry out only the maintenance work under a formal agreement, wherein all expenditure for bay maintenance shall be paid by MSPGCL to MSETCL as per the rates approved by the Commission. MSPGCL's response to the said letter is awaited.

Chairman of GCC stated that, henceforth all such issues from MSPGCL are to be brought at OCC forum for resolution. Further required, the unresolved issues may be discussed in GCC. He also emphasized that, the GCC agenda should be through from respective sub committes about issues relating to the committee.

All GCC members took note of the discussions.

3.3 Ghatghar :-

Schedule for Ghatghar operation in pumping mode during solar hours.
Preference to be given to pumping of Ghatghar.

Ghatghar Hydro station operation in pumping mode issue due to Low line voltage received.

Discussion in 14th GCC:

The Executive Director, MSLDC informed that this issue has already been discussed under Point 6 of Agenda Item No. 1.2.

All GCC members took note of the discussions.

3.4 Bidirectional (uneven) scheduling for all TPS creating thermal stress and unstable operation. (ramp setting)

Discussion in 14th GCC:

The Chief Engineer (Works), MSPGCL, expressed concern regarding the ramp-up and ramp-down patterns in the scheduling of generating units in the DSM software, which are causing thermal stress and resulting in unstable operation of the generating units. He had

previously highlighted the need for modifications or changes in the DSM software to address this issue.

In response, the Executive Director, MSLDC, informed that the current ramp-up and ramp-down scheduling in the DSM software is in accordance with the MEGC Grid Code regulations. He further stated that the issue raised by MSPGCL has already been discussed in the MSPC meeting. He assured that the issue regarding ramp-up/ramp-down will be looked into as part of the pilot project under SCED, following which a final decision will be taken based on the outcomes.

All GCC members took note of the discussions.

3.5 Hydro EHV switchyard handing over to MSETCL.

Discussion in 14th GCC

The Executive Director, MSLDC informed that this issue has already been discussed under Agenda Item No. 3.2.

All GCC members took note of the discussions.

3.6 The daily Ex-Bus AMR Energy Meter Day-end Readings of all Thermal, Gas, Koyna, Ghatghar, Bhira etc. (Import/Export) are made available to MSPGCL by ACI Dept, MSETCL. The report (Daily Midnight Genco Report1) of daily Ex-Bus AMR Energy Meter Day-end Readings are auto generated and auto emailed to GCR Mahagenco Mumbai.

The peripheral Ex-bus AMR energy meters installed by MSETCL are important for the ex-bus sent out energy (Export / Import energy), Aux. Cons. and DSM billing purposes.

However, it is observed that many times the readings are not made available to Mahagenco through autogenerated email from ACI. As such we are facing difficulty in daily generation report creation.

It is requested to kindly ensure the reliable daily availability of AMR meters readings through KALKI App via auto generated email to GCR Mahagenco Mumbai.

Discussion in 14th GCC

Chairman of GCC directed that coordination be established with the Chief Engineer (ACI) to resolve the above issue, and further instructed that the operational matter be escalated in the upcoming MCCC meeting if it remains unresolved.

All GCC members took note of the discussions.

3.6 Rectify DSM software related various routine issues.

Discussion in 14th GCC

Chairman of GCC directed to discuss the operational issues in upcoming operation coordination committee (OCC) meeting.

All GCC members took note of the discussions.

3.7 Accurate energy measurement:

Provision and implementation of dedicated CTs PTs for AMR energy meters at the earliest Replacement of inferior class CTs PTs with required 0.2s class CTs PTs for Generation Transformers and Station Transformers.

Discussion in 14th GCC

Chairman of GCC directed MSPGCL to submit to MSETCL a list of substations where the replacement of inferior-class CTs and PTs with 0.2s class CTs and PTs is required for Generation Transformers and Station Transformers. Based on the submitted list, MSETCL will initiate procurement of the required CTs and PTs.

All GCC members took note of the discussions.

Item No.4: Agenda Points from various committees:

4.1 Operation Co-ordination Committee (OCC): -

Procedure to consider 'Deemed availability of grid element under the act of God or under the force majeure during the calculation of Transmission Availability'

As per the clause 6 (i) of Annexure II of MERC MYT Regulations, 2019, which is reproduced below:

6. Outage time of transmission elements for the following contingencies shall be excluded from the
total time of the element under period of consideration:

i. Outage of elements due to force majeure events beyond the control of the Transmission Licensee. However, onus of satisfying the MSLDC that element outage was due to aforesaid events and not due to design failure shall rest with the Transmission Licensee. A reasonable restoration time for the element shall be considered and any additional time taken by the Transmission Licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the Transmission Licensee. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.

The objective of this procedure is to clarify the events to consider any tripping/outage of the grid element as deemed available under the act of God or under the force majeure while calculating Transmission system availability by Transmission Licensee / issuing the Transmission system availability certificate at MSLDC.

The procedure for the same is formulated in accordance with the Regulation No. 28.2 (f) of MEGC, 2020.

The draft procedure formulated by SLDC was shared for comments from all the stakeholders via e-mail dtd. 03.12.2024 As per discussion and approval in 9th OCC dtd. 16.05.2025, the comments are included in the procedure and is put up **to GCC for ratification.**

Discussion in 14th GCC

The MSLDC representative presented the draft procedure formulated to consider the *deemed availability of grid elements* under *Act of God* or *Force Majeure* events during the calculation of Transmission Availability, incorporating the comments received from stakeholders.

The procedure was discussed and deliberated in detail. After due deliberations, the Chairman, GCC suggested to include the following:

- The transmission licensee shall issue an intimation/notice to MSLDC within 3 days of the Force Majeure event date, along with event details and preliminary documents.
- The transmission licensee shall submit detailed information to MSDLC within 7 days of the event date along with supporting documents.
- MSLDC will nominate a team (of 2 or 3 or above members) for Site inspection and obtain an event report. The team may consist representatives from STU, SLDC, Operation & Maintenance Wing, Protection Wing, Communication wing, Design Wing, expert deemed fit for event analysis, etc. within 2 working days from the date of intimation/notice from the transmission utility.
- The report of recommendations of MSLDC nominated team will be present to MSLDC, within 10 working days from the date of committee nomination.
- After the receipt of committee recommendations, MSLDC shall communicate to the respective transmission utility whether the event qualifies as a Force Majeure event or not.

After due deliberations, GCC ratified the procedure to consider the *deemed availability of grid elements* under *Act of God* or *Force Majeure* events during the calculation of Transmission Availability

GCC requested the Executive Director (MSLDC) to circulate the procedure to all the stakeholders for implementation with copy to Hon'ble MERC for information as per directions given in MEGC, 2020. Also, the procedure should be uploaded on MSLDC website.

All GCC members took note of the discussions.

4.2 Protection Co-ordination Committee (PCC):-

Revised scheme for formulation of "Nagpur Islanding scheme under EHV PC O&M Zone Nagpur"

As per CEA, MOP, Govt. of India, in view of the blackout of Mumbai in Oct.-2020, it was advised that each state may immediately plan one or two islanding schemes, which have good potential to survive islanding in the first phase.

Accordingly, Member Secretary, WRPC, Mumbai conducted a meeting & requested MSETCL to explore the feasibility for formulation of islanding schemes for Nagpur, Nashik, Bhusawal, Parli and Akola (Amaravati) in Maharashtra. The Nagpur scheme was discussed during WRPC meeting held through VC on dtd. 18.08.2021, 28.06.2021, 26.06.2021& 04.06.2021 & was principally accepted by MS WRPC.

Subsequently the Nagpur islanding scheme was prepared by considering average generation of 500-600MW (considering Ex bus generation 130MW per unt, 4 x 130MW = 520MW) at 220kV Khaperkheda Generation station & Nagpur city average loading of about 555MW.

220kV Khaparkheda GCR s/s feeding 220kV Ambazari, 220kV Kanhan, 220kV Buttibori-I, 220kV Buttibori-III & 220kV Kalmeshwar s/s which is subsequently feeding load to 132kV Nagpur Ring-main s/s i.e. 132kV Pardi, 132kV Manakapur, 132kV Hingna-I & II, 132kV Uppalwadi, 132kV Besa & 132kV Khapari s/s.

Chief Engineer, Nagpur vide letter No. MSETCL/CE/Nagpur/Tech/1947 dtd. 06.12.2022 has submitted the revised scheme due to discrepancies in earlier one. It is approved vide BR no. 166/40 dt. 19/01/2024 at a cost of Rs.82.87 Cr and was posed to PSDF for funding of Rs. 57 Cr (90% of Rs. 63 Cr).

The scheme was discussed in 85th TESG meeting on 24/04/2024 and it was directed to revise the BOQ of scheme in line with Jabalpur Islanding Scheme. Accordingly, the estimated cost of revised scheme is worked out to Rs. 30.32 Cr and submitted to PSDF in Apr.-2025 for funding of Rs. 23.98Cr.

As per Clause 7 Sr. No. 7.2 (d) CEA guidelines, the proposal put up for PSDF funding shall be apprised to CTU/STU/WRPC. Hence the proposal is appraised to WRPC vide CE (ACI) ltr no. 447 dt. 11/07/2025 along with A.5 format.

Discussion in 14th GCC

As per CEA, MOP, Govt. of India, in view of the blackout of Mumbai in oct.-2020 & Member Secretary, Western Regional Protection Committee, Mumbai Nagpur islanding scheme was design & prepared after in-principal approval by MS, WRPC.

The said scheme was approved by Board of Directors of MSETCL vide BR No. 166/40 dtd. 19.01.2024. The estimated cost of scheme was Rs. 82.87 Crores inclusive of Centages & contingencies, applicable taxes & IDC. Further scheme was submitted to PSDF funding (Executive Director, NLDC & MS – Appraisal committee, New Delhi) vide letter No. MSETCL/CO/ED (Op)/ (ACI &P)/ Ngp. Islanding/No. 1636 dtd. 11.03.2024 of an estimated cost of Rs. 63.33 Crores exclusive of Centages & contingencies, Survey, spare, PV & IDC charges.

The said proposal/scheme was discussed during the 85th TESG meeting held on 24th April 2024. The observations/deliberations made during the TEGC meeting with remarks that "entity to review their BOQ and prepare their BOQ in line with BOQ of Jabalpur Islanding Scheme". Accordingly, the revised scheme along with compliance was submitted to TESG Committee of PSDF with estimated cost of Rs. 31.04 crores inclusive of centages & contingencies, Survey, spare, PV, taxes & IDC charges.

The said revised scheme was discussed during 14th MTC meeting held on dtd. 18.07.2025 for technical appraisal & the committee had accorded the in-principal approval for the said scheme.

Subsequently the scheme was also discussed during the 14th GCC meeting held on dtd. 28.07.2025 & CE (ACI&P) explained detailed about know how about the revised scheme and requested committee for in-principal approval. The copy of the presentation is attached herewith (Please refer Annexure – 3)

After detailed discussion & deliberation, GCC committee has accorded the in-principal approval of Nagpur islanding scheme with an estimated cost of Rs. 31.04 crores.

All GCC members took note of the discussions.

4.3: Metering and Communication Co-ordination Committee (MCCC): -

Nil

4.4: Agenda Points received from STU (Maharashtra Transmission Committee (MTC):

The Chief Engineer (STU) informed that the various transmission schemes detailed below were discussed during the 14th MTC Meeting, where the MTC recommended these schemes for consideration by the GCC. He further provided a brief on each scheme before the GCC as outlined below:

Agenda point no. 1:

Replacement of existing 0.2 ACSR conductor along with hardware by High Ampacity current carrying Conductor in r/o 132 kV Bhandara-Kardha Ckt I (16.41 Km) & Bhandara-Kardha Ckt II (16.55 Km) and allied works at 220 kV Bhandara Substation & 132 kV Kardha Substation under EHV (O&M) Division Bhandara

CE, STU placed before the GCC proposal for "Replacement of existing 0.2 ACSR conductor along with hardware by High Ampacity current carrying Conductor in r/o 132 kV Bhandara-Kardha Ckt I (16.41 Km) & Bhandara-Kardha Ckt II (16.55 Km) and allied works at 220 kV Bhandara Substation & 132 kV Kardha Substation under EHV (O&M) Division Bhandara".

CE, STU submitted that 132kV Kardha substation is an important substation in Bhandara District & is commissioned on. 04.01.1994. 220 kV Bhandara substation is source for 132 kV Kardha substation through two source lines i.e 132 kV Bhandara-Kardha ckt-I & II. 132kV Kardha substation is source to following EHV sub-stations:

- 132 kV Sakoli substation.
- 132 kV Gosekhurd substation

- 132 kV Nerla (Pagora) LIS EHV Consumer
- 132 kV Asgaon substation

CE, STU added that 132 kV Asgaon Substation feeds 132 kV Lakhandur substation & 132 kV Brampuri substation. 132 kV Tekepar LIS Substation is connected by tap line on 132 kV Bhandara - Kardha Ckt-2. The existing conductor for the 132 kV Bhandara-Kardha Circuit I and 132 kV Bhandara-Kardha Circuit II is a 0.2 ACSR conductor with a thermal loading capacity of 487 Amps. During peak summer loads, the load on these 132 kV source lines to 132 kV Kardha reaches up to 95% of their thermal capacity.

On 16 February 2024, due to overloading, the 132 kV Bhandara-Kardha Circuit I tripped, as Circuit II was already under outage. Additionally, on 20 February 2024, the tripping of 132 kV Bhandara-Kardha Circuit II led to the overload tripping of Circuit I. As a result, the 132 kV Bramhapuri substation, 132 kV Tekepar LIS substation, and 132 kV Nerla (Paghora) LIS EHV Consumer went into dark. On 30 March 2024, at 02:00 hrs, the maximum load on both circuits exceeded the thermal loading limit, reaching 102 MW.

CE, STU highlighted that DISCOM is actively executing projects under INFRA-II, DDUGJY, IPDS, and R-APDRP, which will contribute to load growth in the region. Furthermore, DISCOM has informed that they have set a target to release load for 2,500 to 3,000 nos. of Agricultural pumps, further increasing the demand in the area.

CE, STU added that the existing Bhandara-Kardha Circuit I & II will not be sufficient to meet the future power demand. Additionally, the unavailability of either 132 kV lines during peak loading conditions—combined with the risk of tripping—could lead to a failure in 132 kV power supply to 132 kV Kardha substation, resulting in forced load shedding.

CE, STU explained scope of work as follows:

(a) Replacement of existing 0.2 ACSR conductor along with hardware by High Ampacity current carrying Conductor in r/o 132 kV Bhandara-Kardha Ckt I & Bhandara-Kardha Ckt II (Old Tekepar LIS Ckt) and allied works at 220KV Bhandara Substation & 132KV Kardha Substation under EHV (O&M) Division Bhandara.

(b) Replacement of 12 Nos. of existing 132 kV CTs 800-400/1A, 5C by 132 kV,1600-800/1A, 5C CTs at both substations.

(c) Conversion of single conductor 0.4 ACSR bus to twin conductor 0.4 ACSR bus at 132 kV Kardha Substation and allied jumper replacement work at both 220 kV Bhandara Substation and 132 kV Kardha Substation end.

CE, STU mentioned Technical benefits of the scheme as below:

- Enhanced current carrying capacity of the existing corridor using same RoW.
- Enhanced reliability and availability of power supply in the area.
- Increased transmission capacity to meet future load growth demands.
- Reduced downtime of the lines leading to increased revenue and reduced losses, ensuring safe and smooth grid operation

In view of the above & to ensure load growth management and system stability in Bhandara District, MSETCL proposed to replace the existing 0.2 ACSR conductor of 132 kV Bhandara-Kardha Circuit I & II with High Ampacity Conductor.

The estimated cost of scheme is **₹ 33.44 Cr.** The scheduled commissioning year of scheme is **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 contingency, enhance system reliability and stability, the committee with due deliberations, ratified the scheme.

Agenda Point No. 2, 3,4,5:

Replacement of old existing 0.2 ACSR conductor by equivalent HPC conductor along with suitable hardware, accessories and porcelain long rod insulator for 132kV Takli - Mhasrul line (Ckt kms=23.42 kms) and Replacement of equipment capable for HPC conductor of 2X132kV End Bay each at 132kV Takli and 132kV Mhasrul Substations under EHV O&M Circle, Nashik.

&

Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Satpur MIDC –M&M line (2.1km) along with strengthening of associated 132kV bays at respective substations under EHV O&M Division, Nashik

&

Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Ambad –M&M line (9.13 km) along with strengthening of associated 132kV bays at respective substations under EHV O&M Division, Nashik.

&

Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares & accessories of 132kV Satpur MIDC - Mhasrul line (23.10 Ckm), as well as strengthening of the associated 132kV end bays at the respective substations under EHV O&M Division, Nashik

CE, STU placed before the GCC a proposal for

(a) "Replacement of old existing 0.2 ACSR conductor by equivalent HPC conductor along with suitable hardware, accessories and porcelain long rod insulator for 132kV Takli - Mhasrul line (Ckt kms=23.42 kms) and Replacement of equipment capable for HPC conductor of 2X132kV End Bay each at 132kV Takli and 132kV Mhasrul Substations under EHV O&M Circle, Nashik".

(b) Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Satpur MIDC –M&M line (2.1km) along with strengthening of associated 132kV bays at respective substations under EHV O&M Division, Nashik".

(c) Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Ambad –M&M line (9.13 km) along with strengthening of associated 132kV bays at respective substations under EHV O&M Division, Nashik".

(d) Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares & accessories of 132kV Satpur MIDC - Mhasrul line (23.10 Ckm), as well as strengthening of the associated 132kV end bays at the respective substations under EHV O&M Division, Nashik"

CE, STU submitted that existing 132kV Nashik ring-mains is primarily feeding power to the Nashik City and the adjoining MIDC areas (Ambad, Satpur, Satpur MIDC, Takali etc).

CE, STU added that there are 03 sources for 132kV Nashik ring-main:

i) 220/132kV Eklahare (OCR)
ii) 220/132kV Eklahare (GCR)
iii) 220/132kV Raymond (Weak intermittent source)

The main source lines for 132kV Nashik ring-main:

i) 132kV Eklahare GCR - Ambad
ii) 132kV Eklahare OCR-Takali
iii) 132kV Raymond - Ambad

iv) 132kV OCR-Adgaon

v) 132kV Eklahare OCR - Satpur.

CE, STU further submitted that all the existing 132kV lines in ring-mains are constructed with 0.2 ACSR Panther conductor with current carrying capacity of 511 A. It is observed that, maximum load reached on each of the aforementioned lines is around 450 A during normal operations.

In case of contingencies, other lines get overloaded resulting into multiple tripping. Further, in order to avoid overloading & cascade tripping of lines, load trimming scheme is also provided on some of the 132kV lines in 132kV Nashik ring-mains. Further, Kumbh-Mela is scheduled in Nashik in FY 2026-27.

Hence, it has become essential to strengthen the existing ring main by increasing the transmission capacity. As the Nashik area is highly urbanized and lines are passing through industrial zone, it is difficult to erect additional transmission lines in view of RoW.

Recently, conductors of following lines are replaced by equivalent HPC Conductor:

i) 132kV Eklahare OCR - Takali,

ii) 132kV Eklahare (GCR)-Ambad

iii) 132KV Raymond - Ambad

iv)132kV OCR-Satpur

CE, STU explained scope of work for the above mentioned schemes as follows:

- ✓ Supply of High Performance Conductor (HPC) equivalent to 0.2 ACSR conductor along with allied hardwares & accessories etc.
- ✓ Dismantling of existing 0.2 ACSR conductor with all hardware and accessories.
- ✓ Stringing of HPC conductor along with allied hardwares & accessories etc.
- ✓ Strengthening of associated line end bays- 2 Nos.

CE, STU highlighted technical benefits of scheme as below:

- Enhanced current carrying capacity of the existing corridor using same RoW.
- The power handling capacity of EHV lines will be improved, thus transmission constraints will be reduced.
- Increased system reliability & availability.
- Increased transmission capacity to meet future load growth demands.
- Strengthening of transmission system in Nashik region which will enable to avail outages on other lines in Nashik network.

In view of the above, MSETCL proposed these schemes in 14th GCC.

(a) The estimated cost of scheme of Replacement of old existing 0.2 ACSR conductor by equivalent HPC conductor along with suitable hardware, accessories and porcelain long rod insulator for 132kV Takli - Mhasrul line (Ckt kms=23.42 kms) and Replacement of equipment capable for HPC conductor of 2X132kV end Bay each at 132kV Takli and 132kV Mhasrul Substations is **₹ 23.02 Cr.** and scheduled commissioning year is **FY 2026-27.**

(b) The estimated cost of scheme of Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Satpur MIDC –M&M line (2.1km) along with strengthening of associated 132kV bays at respective substations, is **Rs. 2.79 Cr.** The Scheme will be commissioned in **FY 2026-27.**

(c) Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Ambad –M&M line (9.13 km) along with strengthening of associated 132kV bays at respective sub-stations, is ₹ **9.90 Cr.** The Scheme will be commissioned in **FY 2026-27.**

(d) Replacement of old existing 0.2 ACSR Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares & accessories of 132kV Satpur MIDC - Mhasrul line (23.10 Ckm), as well as strengthening of the associated 132kV end bays at the respective substations, is **₹ 21.88 Cr.** The Scheme will be commissioned in **FY 2026-27.**

The GCC noted that the 132kV Nasik Ring-main is presently N-1 non-compliant due to non-availability of sources to the Ring main network, STU has planned for additional sources through upgradation of 132kV Mhasrul to 220kV & establishment of 220kV Musalgaon substation as a long term measure to mitigate the issue. However, in view of upcoming Sinhastha Kumbh mela it is necessary to make the 132kV Ring main N-1 compliant by upgradation of the conductor for the above proposed lines as a short term measure. Thus, to address the overloading problems, N-1 non-compliance & to enhance system reliability and stability, the committee with due deliberations ratified the schemes.

Agenda Point No. 6:

Replacement of old existing 0.2 Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Sinnar-Sinnar MIDC line (7.5km) along with strengthening of associated 132kV bays at respective substations under EHV O&M Division, Nashik

CE, STU placed before the GCC a proposal for "Replacement of old existing 0.2 Panther conductor by equivalent High Performance Conductor (HPC) along with suitable hardwares, accessories and porcelain long rod insulators for 132kV Sinner-Sinner MIDC line (7.5km) along with strengthening of associated 132kV bays at respective substations under EHV O&M Division, Nashik".

CE, STU submitted that 132kV Sinnar - Sinnar MIDC line was commissioned on 18.06.1984 & in service for 40 years. This line primarily supplies power to Sinnar urban**,** rural, and adjoining MIDC areas. The current carrying capacity of the line, constructed with 0.2 ACSR Panther Conductor is approximately 480 Amps**.**

At present, the 132/33/11kV Sinnar (Old) substation is connected via the following transmission network:

a) 220/132kV Nashik (OCR) - 132kV Sinnar (MIDC) - 132kV Sinnar (Old)

b) 220/132kV Nashik (GCR) - 132kV Sinnar (Old)

c) 132kV Sinnar (Old) - 132kV Khaparale via single circuit line

The maximum load reached on said line is around 365Amp during normal operations. In case of any contingencies, the other lines get overloaded resulting in to multiple tripping due to overloading.

CE, STU highlighted that in case of overloading of existing 132kV Sinnar-Sinnar MIDC line, the system is not N-1 compliant. Thus, in the event of contingencies, distressed load shedding needs to be carried out.

CE, STU added that further, due to urbanization and industrial growth, it is anticipated that the demand in the said area will be increased, which will further aggravate the loading conditions of the 132 kV Sinnar-Sinnar MIDC line.

CE, STU mentioned that STU has already conveyed the necessity for replacement of existing conductor with HPC for 132kV Sinner (Old)- Sinner MIDC line, observed during load flow study carried out for MSKVY 2.0-Mukhyamantri Solar Krushi Vahini Yojna.

In view of up-coming Smart City Project and Industrial Growth, the strengthening of Ring Main network of Nashik is essential and important. The additional load is anticipated in future for the lines under re-conductoring schemes. As such re-conductoring of 132kV lines is proposed for following reasons:

a) Additional load of 30 MVA is anticipated in this area as per the rate of load growth of 10% per year in the next three years.

b) The increasing trend needs system strengthening. Also, there are various DISCOM schemes such as Infra-II and DDUGJY-I and IPDS Schemes in the jurisdiction of Nashik Rural Circle.

c) In Nashik district, various new projects are introduced such as METRO. For which the load may get increase in future.

d) Increase in load is anticipated in view of upcoming Sinhastha Kumbhmela in 2027 in Nashik region.

The estimated cost of the scheme is **₹ 7.99 Cr.** The scheduled commissioning year of the scheme is **FY 2026-27.**

In order to meet the present & future load requirement, upcoming Kumbh-Mela in Nashik, to address the overloading problems, N-1 non-compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 7

Replacement of old existing 0.4 ACSR Deer conductor by equivalent High Performance Conductor (HPC) along with suitable hardware and accessories for 220 kV Chinchwad-Urse line (SC portion from loc. No. 1-31 (Route length = 11.10 km)) along with strengthening of end bay at 220kV Urse S/S and 220 kV Chinchwad-1 S/S by replacement of 0.4 ACSR single conductor with High Performance Conductor (HPC) & allied equipments & hardwares under EHV O&M Division-II, Pune

CE, STU placed before the GCC a proposal for "Replacement of old existing 0.4 ACSR Deer conductor by equivalent High Performance Conductor (HPC) along with suitable hardware and accessories for 220 kV Chinchwad-Urse line (SC portion from loc. No. 1-31 (Route length = 11.10 km)) along with strengthening of end bay at 220kV Urse S/S and 220 kV Chinchwad-1 S/S by replacement of 0.4 ACSR single conductor with High Performance Conductor (HPC) & allied equipments & hardwares under EHV O&M Division-II, Pune".

CE, STU highlighted that 400kV Talegaon(PG), Chakan, Lonikand-l & Lonikand-ll substations are feeding power supply to 220kV network of Pune Ring Main transmission system. 220 kV Urse-Chinchwad S/C line was commissioned in the year 1974.

CE, STU added that at that time 0.4 Deer conductor was used as per routine practice with conductor capacity 747Amp. From last few years, this line is continuously supplying 700-770 Amp. In this loading condition, N-1 criteria for this line is not satisfied. Also, 220kV Urse-Chinchwad is one of main source line to 220kV Chinchwad S/s carrying approx. 260MW continuously. It has frequent LTS operation at Chinchwad-l s/s to avoid the tripping due to overloading of this line. Due to overloading problem, distress load shedding needs to be implemented as per SLDC instructions.

CE, STU also stated that for controlling the loading on 220kV Urse-Chinchwad line, it is required to hand trip 220kV Chinchwad-Hinjewadi -l line. Due to this all EHV s/s under Hinjewadi MIDC pocket & Pirangut s/s are fed radially through 220kV Kandlagaon s/s also during opening of 220kV Chinchwad - Hinjewadi line, if there is any tripping on 220kV Kandalgaon- Pirangut line then whole Hinjewadi region, IT parks goes into dark.

CE, STU further added that 220kV Chakan-Bhosari-l S/C line & Lonikand II-Bhosari-I S/C line also act as main power source line to Pune Ring Main network. Any tripping or breakdown on either of above line, results into increase in loading on 220kV Urse-Chinchwad line or 220kV Chinchwad-Chakan line. Hence, to avoid the overloading of Pune Ring Main network LTS is implemented on 220kV Chinchwad-Urse, 220kV Chinchwad-Chakan, 220kV Chakan-Bhosari-I & 220kV Lonikand-Bhosari-I line. Scheme for replacement of old existing 0.4 ACSR Zebra conductor by equivalent High Performance Conductor (HPC) for 220kV PGCIL-Talegaon Ambi-Urse Ckt -I & II lines are also under consideration.

CE, STU submitted that 220kV Chinchwad-Urse line SC loc No. 1-31 (Route length = 11.10km) is only considered for replacement of old existing 0.4 ACSR Deer conductor by equivalent High Performance Conductor (HPC) instead of total line, as the portion from loc. No. 1-36 will be bunched from loc. No. 36 to LILO tower location no. 1 & tap will be provided for 220kV Urse-Sahara line from LILO tower Loc no. 1.

The work of LILO portion of 220kV Chinchwad-Urse S/C line into M/C line is in progress. The balance section of the line (10km) will be replaced by High Ampacity Conductor after conversion of LILO section to M/C.

CE, STU highlighted the brief scope of work as follows:

Sub-station Part

- **(At 220 kV Urse s/s)**
  - Bay strengthening for 220 kV Chinchwad bay at 220 kV Urse s/s by replacement of existing 0.4 ACSR conductor with equivalent HPC and suitable hardware, insulators.
  - Replacement of existing 220 kV WT of 220 kV Chinchwad bay and 220 kV CT's of Chinchwad bay and TBC bay. Strengthening of Main and auxiliary bus.
- **(At 220 kV Chinchwad-I s/s)**
  - Bay strengthening for 220 kV Urse bay at 220 kV Chinchwad-I s/s by replacement of existing 0.4 ACSR conductor with equivalent HPC and suitable hardware, insulators.
  - Replacement of existing 220 kV WT of 220 kV Urse bay.
- **LINE PART:**

- Supply of 220 kV High Performance Conductor (HPC) equivalent to 0.4 ACSR along with insulator strings & suitable hardware and accessories for High Performance Conductor (HPC) of 220 kV Chinchwad-Urse line.

Dismantling of existing 0.4 ACSR conductor, Disc insulators along with all accessories and hardware and its transport to store.

- Stringing of new High Performance Conductor (HPC) along with replacement of insulator strings without making any alteration in existing tower structure.

In view of above facts CE, STU proposed , "Replacement of old existing 0.4 ACSR Deer conductor by equivalent High Performance Conductor (HPC) along with suitable hardware and accessories for 220 kV Chinchwad-Urse line (SC portion from loc. No. 1-31 (Route length = 11.10 km)) along with strengthening of end bay at 220kV Urse S/S and 220 kV Chinchwad-1 S/S by replacement of 0.4 ACSR single conductor with High Performance Conductor (HPC) & allied equipment's & hardware's under EHV O&M Division-II, Pune"

The cost of the Scheme is **₹ 14.13 Cr**. The scheduled commissioning year of cited scheme is **FY 2025-26.**

The above scheme was also discussed in 13th MTC and deferred with the reason that the above scheme was not executable on account of non-availability of outages in the corridor until the execution of downstream network for Shikrapur evacuation & Talegaon Chakan-Phase 2 line. CE, STU informed that the scheme is critical to mitigate demand upsurge during October heat & they have work out an execution plan to complete the execution of the scheme in 4-5 outages (Saturday/Sunday) during the lean monsoon period to complete it by 15th of September 2025. CE, SLDC informed that the grant of outage for above line is very critical even during this period & therefore MSETCL should meticulously plan the same in coordination with MSLDC along with load management plan to complete the work. MSETCL informed that outage will be taken on daily basis & only during Saturday & Sunday by managing load on alternate source of 220kV Kandalgaon.

Chairperson, GCC directed MSETCL to submit the detail plan for outage and load management to MSLDC & the committee consented to the above scheme subject to approval of outage & load management plan by MSLDC so as to complete the scheme by 15th of September 2025. The chairperson of the GCC directed MSETCL to ensure augmentation of end bay capacities by replacement of existing equipments shall be completed within the availed outage for conductor replacement.Considering the criticality and urgency of scheme for addressing the overloading problems prior to ensuing peak period, enhance system reliability and stability of Pune ring mains, the committee with due deliberations ratified the scheme.

Agenda Point No. 8:

Replacement of existing 0.4 ACSR conductor by new HPC (High Performance Conductor) along with necessary hardwares of 220kV Miraj-Mhaisal line (32.57km) under EHV O&M Division, Sangli

CE, STU placed before the GCC a proposal for "Replacement of existing 0.4 ACSR conductor by new HPC (High Performance Conductor) along with necessary hardwares of 220kV Miraj-Mhaisal line (32.57km) under EHV O&M Division, Sangli"

CE, STU submitted that presently, various Wind / Solar generations are connected at 400 kV Alkud, 220 kV Jath, 110 kV Jath, 110 kV Kavathe Mahankal S/S and load centres are located at Miraj & Ichalkaranji area.

During peak generation period, generation from Jath pocket receives at 220 kV Mhaisal S/S through 220 kV Jath- Mhaisal line and generation from 220 kV Vita & 400 kV Alkud (M) receives through 220 kV Alkud- Mhaisal line.

Total generation flows from 220kV Mhaisal S/S to 220kV Miraj S/S through 220kV Miraj- Mhaisal line. Total maximum load reached on 220 kV Miraj- Mhaisal line during peak generation period is 269.28 MW in Jul-2019. Hence, LTS is implemented to avoid tripping of 220 kV Miraj- Mhaisal line due to over generation.

During peak load period, 400 kV Alkud (M) acts as strong source to 220 kV Miraj S/S. The load at 220 kV Miraj S/S is fed through 220 kV Alkud-Vita- Miraj line & 220 kV Alkud- Mhaisal- Miraj line. However, the load shared by 220 kV Alkud- Mhaisal-Miraj line is more than 220 kV Alkud-Vita- Miraj line due to short length. In this case also 220 kV Miraj-Mhaisal lines gets overloaded.

CE, STU highlighted that Jath Taluka has significant potential for upcoming renewable energy (RE) generation, including wind and solar power. As a result, many private parties are applying for technical feasibility assessments for the proposed RE projects. Further, so many solar generations are proposed at 33kV level & EHV (132 kV & above) under MSKVY 2.0

CE, STU added the scope of work as follows:

(a) Supply of High Performance Conductor (HPC) equivalent to 0.4 ACSR conductor along with allied hardwares & accessories etc.

(b) Dismantling of existing 0.4 ACSR conductor with all hardware and accessories.

(c) Stringing of HPC cconductor along with allied hardwares & accessories etc.

(d) Strengthening of associated line end bays- 2 Nos.

CE, STU mentioned the technical benefits of the Scheme as enhanced current carrying capacity of the existing corridor using same RoW also the power handling capacity of EHV lines will be improved, thus transmission constraints will be reduced along with it increased system reliability, availability & transmission capacity to meet future load growth demands.

In view of the above, MSETCL proposed the scheme of "Replacement of existing 0.4 ACSR conductor by new HPC (High Performance Conductor) along with necessary hardwares of 220kV Miraj-Mhaisal line (32.57 km) under EHV O&M Division, Sangli".

The cost of the Scheme is **₹ 35.58 Cr.** The schedule commissioning year of cited scheme is **FY 2026-27.**

In order to enable RE evacuation, address the overloading problems, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 9:

Enhancement of transformation capacity of Substation by addition of 1X50MVA, 132/33kV T/F with HV & LV Bays at 132kV Puluj S/s under Pune zone.

CE, STU placed before the GCC a proposal for Enhancement of transformation capacity of Substation by addition of 1X50MVA, 132/33kV T/F with HV & LV Bays at 132kV Puluj S/s under Pune zone. CE, STU also highlighted that 132kV Puluj S/s was commissioned on 1979. Maximum load on existing 2x50MVA, 132/33KV T/Fs is 80% of installed capacity. It is difficult to manage the load in case of tripping/outage on any of the T/F i.e. Not fulfilling N-1 criteria. Hence, the proposed scheme fulfils the augmentation criteria. Therefore, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1x50MVA, 132/33kV T/F is proposed at 132kV Puluj S/s under Pune zone.

In view of the above, MSETCL proposed scheme of "Enhancement of transformation capacity of Substation by addition of 1X50MVA, 220/33kV T/F with HV & LV Bays at 132kV Puluj S/s under Pune zone".

The Estimated cost of the scheme is ₹ 8.41 Cr. This scheme will be commissioned in FY 2026-27.

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability, the committee with due deliberations ratified the scheme.

Agenda Point No. 10:

Scheme of enhancement of transformation capacity by replacement of existing 2x25MVA, 220/33kV T/Fs by 2x50MVA, 220/33 kV T/Fs at 220 kV Beed S/s under EHV (O&M) Division Beed

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by replacement of existing 2x25MVA, 220/33kV T/Fs by 2x50MVA, 220/33 kV T/Fs at 220 kV Beed S/s under EHV (O&M) Division Beed".

CE, STU submitted that the 220kV Beed Substation was commissioned in 2001. The substation currently has an installed capacity of 50 MVA, consisting of two nos of 25 MVA, 220/33kV transformers. The 220kV Beed Substation supplies power to Beed Taluka, covering urban, industrial, and rural areas, as well as parts of Wadwani Taluka in Beed District through these transformers.

CE, STU highlighted that maximum loading on both transformers is more than 75% of their installed capacity. Under the RDSS scheme, MSEDCL has proposed new substations that may be fed from the 220kV Beed Substation, including the 33kV Nalawadi Naka (5 MVA) and 33kV Tadsonna (5 MVA). The proposed scheme fulfills the augmentation scheme criteria. CE, CSN Zone confirmed vide email dated 17.03.2025 that land is not available for the additional transformer. Hence replacement of T/Fs are proposed.

CE, STU added that during outage/Breakdown of either of the T/F, load is not managed on other T/F i.e. not satisfying N-1 criteria. Considering the present loading condition, future load, outage constraints and to satisfy N-1 criteria, the replacement of T/Fs is proposed at 220 kV Beed S/s by MSETCL.

The estimated cost of the scheme is **₹ 20.62 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, considering space constraints, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 11:

Scheme of enhancement of transformation capacity by replacement of existing 2x25MVA, 220/33kV T/Fs by 2x50MVA,220/33 kV T/Fs at 220 kV Manjarsumbha S/s under EHV (O&M) Division Beed.

CE, STU placed before the GCC a proposal for a scheme for "Scheme of enhancement of transformation capacity by replacement of existing 2x25MVA, 220/33kV T/Fs by 2x50MVA,220/33 kV T/Fs at 220 kV Manjarsumbha S/s under EHV (O&M) Division Beed."

CE, STU submitted that the 220kV Manjarsumbha Substation was commissioned in 2016. The substation currently has an installed capacity of 50 MVA, consisting of two 25 MVA, 220/33kV transformers (T/Fs). The 220kV Manjarsumbha Substation supplies power to rural areas of Beed Taluka and parts of Kaij Taluka in Beed District through these transformers. The maximum loading on both transformers exceeds 90% of their installed capacity.

CE, STU added that as part of ongoing MSEDCL schemes, infrastructure upgrades are in progress, including the establishment of three new 33kV substations (15 MVA each), the addition of a 5 MVA transformer, and an augmentation from 3.15 MVA to 5 MVA. These upgrades will increase the total connected load capacity from 63.15 MVA to 85 MVA.

CE, STU highlighted that the proposed scheme fulfills the augmentation scheme criteria. CE, CSN Zone confirmed vide email dated 17.03.2025 that land is not available for the additional transformer. Hence replacement of T/Fs are proposed by MSETCL. During outage/Breakdown of either of the T/F, load is not managed on other T/F i.e. not satisfying N-1 criteria. Considering the present loading condition, outage constraints and to satisfy (N-1) criteria replacement of T/Fs is proposed at 220kV Manjarsumbha S/s.

The estimated cost of the scheme is **₹ 20.49 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, considering space constraints, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 12:

Scheme of enhancement of transformation capacity replacement of existing 2x25MVA, 132/33kV T/Fs by 2x50MVA,132/33 kV T/Fs at 132 kV Pangri S/s under EHV (O&M) Division Beed.

CE, STU placed before the GCC a proposal for a scheme for "Scheme of enhancement of transformation capacity replacement of existing 2x25MVA, 132/33kV T/Fs by 2x50MVA,132/33 kV T/Fs at 132 kV Pangri S/s under EHV (O&M) Division Beed".

CE, STU submitted that the 132kV Pangri Substation was commissioned in 2013. The substation supplies power to both urban and rural areas of Parli Taluka in Beed District through two nos of 25

MVA, 132/33kV transformers (T/Fs). The maximum loading on each transformer is reached 90% of its installed capacity.

CE, STU added that this proposed scheme fulfills the augmentation scheme criteria. CE, CSN Zone confirmed vide email dated 17.03.2025 that land is not available for the additional transformer. Hence replacement of T/Fs are proposed. During outage/Breakdown of either of the T/F, load is not managed on other T/F i.e. not satisfying (N-1) criteria. Considering the present loading condition, outage constraints and to satisfy N-1 criteria replacement of T/Fs is proposed at 132kV Pangri S/s.

The estimated cost of the scheme is **₹ 15.77 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, considering space constraints, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 13:

Scheme of enhancement of transformation capacity replacement of existing 2x25MVA, 132/33kV T/Fs by 2x50MVA,132/33 kV T/Fs at 132 kV Mukhed S/s under EHV (O&M) Division Nanded.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity replacement of existing 2x25MVA, 132/33kV T/Fs by 2x50MVA,132/33 kV T/Fs at 132 kV Mukhed S/s under EHV (O&M) Division Nanded."

CE, STU submitted that 132 kV Mukhed Substation was commissioned in 2005. The substation currently has an installed capacity of 50 MVA, consisting of two nos of 25 MVA, 132/33 kV transformers (T/Fs). The 132kV Mukhed Substation supplies power to Mukhed and parts of Kandhar Taluka, serving a mix of urban, rural, and agricultural loads.

CE, STU highlighted that the average maximum loading on Transformer No. 1 is 84% of its installed capacity, while Transformer No. 2 operates at over 50% of its installed capacity. CE, CSN Zone confirmed vide email dated 17.03.2025 that land is not available for the additional transformer. Hence replacement of T/Fs are proposed. During outage/Breakdown of either of the T/F, load is not managed on other T/F i.e. not satisfying (N-1) criteria Considering the present loading condition, outage constraints and to satisfy N-1 criteria replacement of T/F is proposed at 132kV Mukhed S/s by MSETCL.

The estimated cost of the scheme is **₹ 15.67 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, considering space constraints, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 14:

Scheme of enhancement of transformation capacity by additional 25MVA, 220/33kV T/F at 220kV Gadchiroli S/s under EHV O&M Division Ballarshah under Nagpur zone.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by additional 25MVA, 220/33kV T/F at 220kV Gadchiroli S/s under EHV O&M Division Ballarshah under Nagpur zone."

CE, STU submitted that 220 kV Gadchiroli Substation was commissioned in the year 2004. This substation provides power to the Gadchiroli and Chandrapur Districts via the 33 kV network of MSEDCL. The 33 kV network distributes power to the Gadchiroli, Dhanora, Armori, and Kurkheda Taluka in Gadchiroli, as well as the Saoli Taluka in Chandrapur District.

CE, STU highlighted that a requirement for 33 kV bays was submitted by the SE, O&M Circle, MSEDCL, Gadchiroli, vide SE/O&M/Cir/G'roli/Tech/972 dated 01.03.2024. 04 Nos of bays are proposed for the 33/11 kV substations at Dhanora, Gatta, Thanegaon, and Porla. Additionally, MSEDCL has proposed three new 33 kV substations- Nifandra (1x5 MVA) on the existing Vyahad feeder, Jogisakhara (1x5 MVA), and Thanegaon (1x5 MVA) on the existing Armori feeder, as part of the RDSS scheme at the 220 kV Gadchiroli substation.

CE, STU added that under normal conditions, the proposed load can be managed within the existing MVA capacity. However, during peak load periods or the summer season with agricultural demand, it will be challenging to accommodate the proposed load. Maximum loading reached on both the T/Fs are about 90 % of installed capacity. During outage/tripping of any one of the T/F, load is not managed on other two T/Fs i.e. not satisfying (N-1) criteria.

CE, STU mentioned that the proposed scheme fulfills the augmentation scheme criteria. Hence considering the future loading, outage constraints and to satisfy (N-1) criteria addition of T/F is proposed at 220kV Gadchiroli S/s by MSETCL.

The estimated cost of the scheme is **₹ 12.04 Cr.** This scheduled commissioning of the cited scheme is in **FY 2025-26.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 15:

Scheme of enhancement of transformation capacity by addition of 1X25MVA, 220/33kV T/F at 400kV Khaperkheda S/s under 400kV RS, O&M Division Khaperkheda in Nagpur zone.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by addition of 1X25MVA, 220/33kV T/F at 400kV Khaperkheda S/s under 400kV RS, O&M Division Khaperkheda in Nagpur zone."

CE, STU submitted that the 400kV Khaperkheda Substation is commissioned in the year 2010. This substation serves agriculture and rural load in Saoner region. Due to the rising power demand in the Saoner region, MSEDCL Saoner has requested an additional 1x25MVA Power Transformer and five 33KV bays to ensure reliable and uninterrupted power supply vide L.No.2960 dtd 09.09.2024.

CE, STU highlighted that average maximum loading reached on existing T/F is about 68 % of installed capacity, with increasing demand, additional capacity is necessary. In case of outage or tripping of the existing transformer, there is no backup, and the load cannot be managed, leading to potential power supply disruptions. Hence considering the future loading, outage constraints and to satisfy (N-1) criteria addition of T/F is proposed at 400kV Khaperkheda S/s by MSETCL.

The estimated cost of the scheme is **₹ 12.87 Cr.** This scheduled commissioning of the cited scheme is in **FY 2025-26.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 16:

Scheme of Enhancement of transformation capacity of substation by addition of 1X100MVA, 220/132kV ICT at 220kV Amrapur substation in Nashik zone.

CE, STU placed before the GCC a proposal for "Scheme of Enhancement of transformation capacity of substation by addition of 1X100MVA, 220/132kV ICT at 220kV Amrapur substation in Nashik zone."

CE, STU submitted that 220kV Amrapur S/s is commissioned on 31.03.2022 & feeding the area of Pathardi, Shevgaon Taluka in Ahmednagar District. 220kV Amrapur S/s is having installed capacity of 2X100MVA, 220/132kV ICTs which are running in parallel & load on both ICT is more than 80%. In case of outage / tripping of any of the ICT, the load cannot be managed on other ICT. i.e. not satisfying (N-1) criteria.

CE, STU added that the proposed scheme satisfies augmentation criteria. Considering the availability of space for additional ICT, field office has proposed additional 1x100MVA, 220/132kV ICT at 220kV Amrapur S/s. Hence, to satisfy (N-1) criteria & also to meet the future load demand addition of 1x100MVA, 220/132kV ICT is proposed at 220kV Amrapur S/s, by MSETCL.

The estimated cost of the scheme is **₹ 15.36 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 17:

Scheme of enhancement of transformation capacity of substation by replacement of 2X100MVA, 220/132kV ICTs by 2X200MVA, 220/132kV ICTs at 220kV Dondaicha S/s under EHV (O&M) Division, Dhule in Nashik zone.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity of substation by replacement of 2X100MVA, 220/132kV ICTs by 2X200MVA, 220/132kV ICTs at 220kV Dondaicha S/s under EHV (O&M) Division, Dhule in Nashik zone."

CE, STU submitted that 220kV Dondaicha S/s is commissioned in 1998 & with RE generation attached. 220kV Dondaicha S/s is having installed capacity of 2X100MVA, 220/132kV ICTs which are running in parallel. 220kV Dondaicha S/s is feeding the area of rural & agricultural area of Dondaicha Taluka in Dhule District.

CE, STU highlighted that in case of outage / tripping of any of the ICT, the load cannot be managed on other ICT. i.e. not satisfying (N-1) criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 2X100MVA, 220/132kV ICTs by 2X200MVA, 220/132kV ICTs is proposed at 220kV Dondaicha S/s, by MSETCL.

The estimated cost of the scheme is **₹ 39.56 Cr.** This scheduled commissioning of the cited scheme is in **FY 2025-26.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, considering space constraints, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 18:

Scheme of enhancement of transformation capacity by addition of 50MVA, 220/33kV T/F at 220KV Bhenda Sub-Station under EHV O&M Division, Babhaleshwar in Nashik Zone.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by addition of 50MVA, 220/33kV T/F at 220KV Bhenda Sub-Station under EHV O&M Division, Babhaleshwar in Nashik Zone."

CE, STU submitted that the 220 kV Bhenda Substation was commissioned in 2007. The 220 kV Bhenda Substation supplies power to the Newasa and Shevgaon Talukas in Ahmednagar District through its 3 X 50 MVA, 220/33 kV transformers.

CE, STU highlighted that the maximum loading on T/F 1 & 2 has exceeded 75%, while Transformer 3 is operating at approximately 66% of its installed capacity. The proposed scheme addresses the significant seasonal load increases.

CE, STU added that over the past three years, agricultural load has increased significantly, growing at a rate of 3% annually compared to previous years. This increase has led to a substantial MVAR drawl due to inductive loads, resulting in low voltage levels at the 33 kV level. During outage/tripping of any one of the T/F, load is not managed on other T/F i.e. not satisfying (N-1) criteria. Hence considering the future loading, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 220kV Bhenda S/s, by MSETCL.

The estimated cost of the scheme is **₹ 12.56 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 19:

Scheme of enhancement of transformation capacity by Addition of 1X50 MVA, 132/33 kV T/F along with HV and LV bays, 33kV Bus extension, 33kV PT bay and allied civil works at 132 kV Akole S/s under EHV (O&M) Division Babhaleshwar.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by Addition of 1X50 MVA, 132/33 kV T/F along with HV and LV bays, 33kV Bus extension, 33kV PT bay and allied civil works at 132 kV Akole S/s under EHV (O&M) Division Babhaleshwar."

CE, STU submitted that the 132 kV Akole Substation was commissioned in 1993. The Akole substation supplies power to Sangamner and Akole Talukas in the Ahmednagar District via its two 50 MVA, 132/33 kV transformers. The maximum loading on both transformers has reached approximately 73% of their installed capacity. The proposed scheme addresses the significant seasonal load increases.

CE, STU highlighted that over the past three years, agricultural load has increased significantly, growing at a rate of 3% annually compared to previous years. During outage/tripping of any one of the T/F, load is not managed on other T/F i.e. not satisfying (N-1) criteria. Hence considering the future loading, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Akole S/s, by MSETCL.

The estimated cost of the scheme is **₹ 9.32 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 20:

Scheme of enhancement of transformation capacity by Addition of 1X50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Sangamner S/s under EHV (O&M) Division Babhaleshwar.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by Addition of 1X50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Sangamner S/s under EHV (O&M) Division Babhaleshwar."

CE, STU submitted that the 132kV Sangamner Substation is commissioned in the year 1985. 132 kV Sangamner substation is the substation feeding Agriculture, Rural loading as well as Industrial & urban loading in Sangamner Taluka.

CE, STU highlighted that maximum loading reached on both the T/Fs (50 MVA 132/33 kV TF-1 & TF-II) are above 85 % of installed capacity. This proposal fulfills the augmentation criteria.

CE, STU added that the increasing urbanization of rural areas, development of industrial zones, and expansion of irrigation facilities have significantly increased the load demand on the 132 kV

Sangamner Substation. During outage/Breakdown of either of the T/F, load is not managed on other T/F i.e. not satisfying (N-1) criteria. Hence considering the present loading condition, outage constraints and to satisfy (N-1) criteria addition of T/F is proposed at 132kV Sangamner S/s.

The estimated cost of the scheme is **₹ 8.50 Crore.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 21:

Scheme of enhancement of transformation capacity by Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Yawal S/S under EHV (O&M) Division Jalgaon.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Yawal S/S under EHV (O&M) Division Jalgaon."

CE, STU submitted that 132kV Yawal Substation is very important Substation under EHV O&M Circle Bhusawal commissioned in year 31.01.1982. It caters the load of Yawal Taluka through 2x50MVA, 132/33kV T/Fs.

CE, STU highlighted that it is difficult to manage the load in case of tripping/outage on any of the T/Fs i.e. Not fulfil N-1 criteria. The proposed scheme fulfils the augmentation criteria. Therefore, to satisfy (N-1) criteria & also to meet the future load demand, additional 1x50 MVA, 132/33kV T/F is proposed at 132kV Yawal S/s by MSETCL.

The estimated cost of the scheme is **₹ 9.53 Cr.** This scheduled commissioning of the cited scheme is in **FY 2025-26.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 22:

Scheme of enhancement of transformation capacity by Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays with 132KV Bus extension and allied civil works at 132 kV Chopda S/S under EHV (O&M) Division Jalgaon.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays with 132KV Bus extension and allied civil works at 132 kV Chopda S/S under EHV (O&M) Division Jalgaon."

CE, STU submitted that 132kV Chopda S/s is commissioned in 29.10.1983. It caters the load of Chopda Taluka through 2x50MVA, 132/33kV T/Fs. It is difficult to manage the load in case of tripping/outage on any of the T/F i.e. Not fulfill N-1 criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, additional 1x50 MVA, 132/33kV T/F is proposed at 132kV Chopda S/s by MSETCL.

The estimated cost of the scheme is **₹ 10.32 Cr.** This scheduled commissioning of the cited scheme is in **FY 2025-26.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 23:

Scheme of enhancement of transformation capacity by replacement of existing 2X 25MVA, 132/33kV T/Fs by 2X 50MVA, 132/33kV T/Fs at 132kV Taloda substation under EHV PC O&M Division Dhule.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by replacement of existing 2X 25MVA, 132/33kV T/Fs by 2X 50MVA, 132/33kV T/Fs at 132kV Taloda substation under EHV PC O&M Division Dhule."

CE, STU submitted that 132kV Taloda substation commissioned on dtd.02.09.1992 to cater the through 1x50MVA, 132/33kV T/Fs & 2x25MVA, 132/33kV T/Fs. Loading on both 25MVA T/Fs is more than 100%. The requirement of 2 nos. of 33KV Bays (33KV Reva Nagar & 33KV Talavadi) received from MSEDCL at 132kV Taloda S/Stn.

CE, STU added that it is difficult to manage the load in case of tripping/outage on any of the T/Fs i.e. Not fulfil N-1 criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 2x25 MVA, 132/33kV T/Fs by 2x50 MVA, 132/33kV T/Fs is proposed at 132kV Taloda S/s by MSETCL.

The estimated cost of the scheme is **₹ 17.05 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, considering space constraints, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 24:

Scheme of enhancement of transformation capacity by Addition of 1 X 50 MVA, 132/33 kV T/F along with 3X33KV Feeder Bays, HV and LV bays with 33KV Bus extension and allied civil works at 132 kV Yeola S/S under EHV (O&M) Division Nashik.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity by Addition of 1 X 50 MVA, 132/33 kV T/F along with 3X33KV Feeder Bays, HV and LV bays with 33KV Bus extension and allied civil works at 132 kV Yeola S/S under EHV (O&M) Division Nashik."

CE, STU submitted that the 132kV Yeola Substation was commissioned in the year 1997. It supplies power to the rural and agricultural areas of Yeola Taluka in Nashik District through 2x50MVA, 132/33kV T/Fs. It is difficult to manage the load in case of tripping/outage on any of the T/F i.e. Not fulfill N-1 criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, additional 1x50 MVA, 132/33kV T/F is proposed at 132kV Yeola S/s by MSETCL.

The estimated cost of the scheme is **₹ 8.91 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 25:

Scheme of enhancement of transformation capacity of Substation by replacement of 1X25MVA, 220/33kV T/F by 1x50MVA, 220/33kV T/F at 220KV Baramati S/s under Pune zone.

CE, STU placed before the GCC a proposal for "Scheme of enhancement of transformation capacity of Substation by replacement of 1X25MVA, 220/33kV T/F by 1x50MVA, 220/33kV T/F at 220KV Baramati S/s under Pune zone."

CE, STU submitted that 220kV Baramati S/s was commissioned on 1999 & caters the load of MIDC and urban areas of Baramti Taluka through 2x50MVA, 220/33kV T/Fs & 1x25 MVA 220/33kV T/F.

Existing 2x50MVA, 220/33kV T/Fs running in parallel and the load reached on 25MVA 220/33kV T/F is 95% of its load. It is difficult to manage the load in case of tripping/outage on any of the T/F i.e. Not fulfil N-1 criteria.

CE, STU added that The CE, Pune vide email on 28.03.25 confirmed that land is not available for additional T/F. Hence replacement of T/F is proposed. Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 1x25 MVA, 220/33kV T/F by 1x50MVA, 220/33kV T/F is proposed at 220kV Baramati S/s under Pune zone, by MSETCL.

The estimated cost of the scheme is **₹ 6.81 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, considering space constraints, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 26:

Enhancement of transformation capacity of Substation by addition of 1X50MVA, 132/22 kV T/F with HV & LV Bays, 10x22KV GIS Bays and 132KV HV (AIS) Bay at 132kV Kharadi S/s under Pune zone.

CE, STU placed before the GCC a proposal for "Enhancement of transformation capacity of Substation by addition of 1X50MVA, 132/22 kV T/F with HV & LV Bays, 10x22KV GIS Bays and 132KV HV (AIS) Bay at 132kV Kharadi S/s under Pune zone."

CE, STU submitted that 132kV Kharadi S/s was commissioned on 1997 & caters the load of Kharadi and Nagar road MIDC through 4x50MVA, 132/22kV T/Fs. Technical feasibility of 57.55MW for MSEDCL consumers is approved from 132 kV Kharadi S/s.

CE, STU added that it is difficult to manage the load in case of tripping/outage on any of the T/F i.e. Not fulfil N-1 criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1x50MVA, 132/22kV T/F is proposed at 132kV Kharadi S/s under Pune zone, by MSETCL.

The estimated cost of the scheme is **₹ 17.89 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 compliance, enhance system reliability and stability, the committee with due deliberations ratified the scheme.

Agenda Point No. 27:

Establishment of 110/22 kV Gaikwadpada Substation, Dist. Thane.

CE, STU placed before the GCC a proposal for "Establishment of 110/22 kV Gaikwadpada Substation, Dist. Thane."

CE, STU submitted that Ulhasnagar area in Thane District is fed by 220kV Anandnagar, 100 kV Ambernath-I, 110kV Netivali (Tata) and 110 kV Tata Kamba substations. Existing transformers of 220/22 KV Anandnagar and 100/22 KV Ambernath –I are critically loaded (more than 85%)

CE, STU highlighted that in the event of a failure of one incomer of the Switching Stations (e.g. 22/22 kV Gaikwadpada, Ashalepada, Ambernath) the total load cannot be shifted to another incomer due to overloading. Additionally, due to the lack of any alternative EHV source, there is no provision to divert the load in case of an emergency or failure.

CE, STU explained scope of work as follows:

1) Construction of LILO on one circuit of 110 kV DC Ambernath- Netivali (Kalyan) (Tata Power) Line at proposed 110kV GIS Gaikwad Pada substation by using EHV cable – 1 km

2) 2x50 MVA, 110/22 kV T/Fs along with HV/LV GIS bays

3) 110kV line bays (GIS) -2nos.

4) 110 kV Bus Coupler – 1 no

5) 22kV outlets- 12 GIS bays.

CE, STU added objectives of scheme as below:

1) Load relief to 220 kV Anandnagar & 100 kV Ambernath-I S/s.

2) Reliability & availability of quality power supply.

3) To cater growing energy demand in Ulhasnagar area.

4) The scheme also provides alternate source to Ulhasnagar, Ambernath area which is presently being fed from Padgha.

The Estimated cost of Scheme is **₹. 109.48 Cr**. This scheme will be commissioned in **FY 2026-27.**

CE, STU stated that TPC-T has a plan to upgrade the existing 110kV D/C corridor from- Bhivpuri-Ambernath-Kalyan to 220kV M/C with all the four circuits compliant to 220kV in terms of Cross-arm, Insulator & conductor with lower circuit charged on 110kV. In this regard the committee

discussed that in such scenario MSETCL should opt for an option of considering 220kV switchgear along with 220kV cable for 110kV GIS Gaikwad Pada to be initially charged on 110kV so as to upgrade the said substation without any major equipment replacement after the upgradation of the corridor & as per future MSEDCL load requirement.

In order to fulfill the present & future Discom demand in Ambernath and Ullhasnagar area & to enhance system reliability ,the committee with due deliberations ratified the scheme in–principle and directed MSETCL to consider 220kV switchgear along with 220kV cable for 110kV GIS Gaikwad Pada to be initially charged on 110kV so as to upgrade the said substation without switchgear/cable replacement after the upgradation of the corridor & as per future MSEDCL load requirement.

Agenda Point No. 28:

Establishment of 220/33 kV Murmi Substation, Dist. Chhatrapati Sambhaji Nagar

CE, STU placed before the GCC a proposal for "Establishment of 220/33 kV Murmi Substation, Dist. Chhatrapati Sambhaji Nagar"

CE, STU submitted that MSEDCL has submitted the load requirement for new EHV S/s nearby Chhatrapati Sambhaji Nagar - Pune Highway where New Industrial Area is under development.

CE, STU added that 220/33 kV Murmi Substation is required for catering upcoming load of New Industrial Area. Reducing line lengths of 33 kV feeders, which will reduce line interruptions / breakdowns and line losses. It will Improve Voltage Regulation of Gangapur area. This will Cater future load growth of Industrial and Residential area. It will Provide reliable and quality Power Supply to customers.

CE, STU informed that 6.25 HC land was allotted by District Collector for this sub-station.

CE, STU further submitted that there will be Saving of Losses, after implementing of this scheme, as follows:

1. EHV – **2.1 MW** (as per STU LFS)
2. Discom - **21.59 MUs** (as per Discom Report)

CE, STU mentioned the scope of work of the scheme as follows:

(a) LILO on 220 kV Waluj - Chitegaon line at 220 kV Murmi S/s – 19.69 kms

(b) 2 x 50 MVA, 220/33 kV transformers

(c) 2 x 5 MVAr, 33 kV Capacitor Bank

(d) 33 kV bays - 8 Nos.

CE, STU highlighted the objectives of the scheme as follows:

1. Bringing source nearer to load pockets.
2. Reducing line lengths of 33 kV feeders.
3. Reduction in line interruptions / breakdowns and line losses.
4. Improving Voltage Regulation.
5. Catering future load growth.
6. Providing reliable and quality Power Supply.

The Estimated cost of Scheme is **₹ 93.05 Cr.** The scheduled commission year for the cited scheme is **FY 2027-28.**

In view of the requirement to fulfill present & future MSEDCL demand, to improving voltage regulations, enhance system reliability, system point of view, the committee with due deliberations ratified the scheme.

Agenda Point No. 29:

Establishment of 220/33 kV Kadholi s/s at Mouza Avandi, Tal- Kamptee, Dist-Nagpur.

CE, STU placed before the GCC a proposal for "Establishment of 220/33 kV Kadholi s/s at Mouza Avandi, Tal- Kamptee, Dist-Nagpur."

CE, STU submitted functional importance of the scheme as follows:

- Discom connected Load of 68.68 MVA of existing 132/33 kV Pardi S/Stn & 132/33 kV Mouda S/s will get shifted to proposed 220/33 kV Kadholi s/s.
- The load growth of 50 MVA approximately is expected on proposed 220 kV Kadholi S/s.
- The HT consumers on 33 kV Lihigaon and Gumthala lengthy feeders will get reliable & quality power supply as voltage profile will be improved.

- Due to establishment of proposed 220/33 kV Kadholi S/s, the Maharashtra state loss will reduce by 2.7 MW.

CE, STU mentioned the scope of work of the scheme as follows:

- 2X 50 MVA 220/33kV T/F with bays.
- LILO on both circuit of 220 KV Kanhan - Umred DC line-1.5 km at 220/33kV Kadholi Substation.
- 4X220 KV Line bays.
- 8X33KV Outlets.
- 2X5 MVAr capacitor bank.

CE, STU highlighted the objectives of the scheme as follows:

1) Strengthening the network
2) To improve voltage regulation
3) To cater 50MVA load growth.
4) Load relief to existing 132/33kV Pardi S/Stn & 132/33kV DCL Mouda S/s

The Estimated cost of Scheme is ₹ **98.82 Cr.** The scheduled commissioning year of cited scheme is **FY 2027-28.**

In view of the requirement to fulfill present & future MSEDCL demand, to improving voltage regulations, enhance system reliability, system point of view, the committee with due deliberations ratified the scheme.

Agenda Point No. 30:

Conversion of existing 400 kV Kalwa - Padghe Ckt-I & II SCSC line to DCDC by using Twin HPC conductor.

CE, STU placed before the GCC a proposal for "Conversion of existing 400 kV Kalwa - Padghe Ckt-I & II SCSC line to DCDC by using Twin HPC conductor."

CE, STU submitted that 400/220 kV Kalwa S/S is a major source to cater the load of Mumbai, Mumbai Suburban, Navi Mumbai and part of Thane District areas. There are only two 400 kV source lines to 400 kV Kalwa S/S from 400 kV Padghe S/S and these two SC lines are on SC towers. 400 kV Kalwa – Padghe Ckt. I and Ckt. II are in service from around 44 years.

CE, STU highlighted that in case of tripping or major breakdown on any of the circuit, the other circuit gets overloaded & results in critical condition of the Grid. Projected load of Mumbai & MMR is 5500 MW. Hence, 400 kV Kalwa-Padghe ckt.-I & II will not be sufficient to cater future load. Additional GIS Substation is proposed at 400kV Kalwa premises. Considering future load growth total Transmission Capacity (TTC) of transmission system of MSETCL serving Mumbai region needs to be strengthened. Overloading of Sub-stations & lines can be eliminated and future load growth can also be met

CE, STU highlighted the objectives of the scheme as follows:

1) Mumbai & MMR region strengthening.

2) Evacuation of Khavda RE Power to MMR Region

CE, STU mentioned the scope of work of the scheme as follows:

1) Conversion of existing SCSC 400 kV Kalwa-Padghe ckt-I into DCDC using the same corridor by using HPC Conductor – 30.371 kms - formation of 400 kV Kalwa-Padghe DCDC line ckt-III.

2) Conversion of existing SCSC 400 kV Kalwa-Padghe ckt-II into DCDC using the same corridor by using HPC Conductor – 30.679 kms. & replacement of ACSR conductor of 22.82 kms of existing DCDC line by HPC from Padghe end - formation of 400 kV Kalwa-Padghe DCDC line ckt-IV.

CE, STU submitted that the cited scheme was discussed in 11th GCC meeting, and it was opined that "*existing Kalwa – Padghe Tr. Lines capacities are recently upgraded. As such, reutilization of the same corridor for the proposed scheme will result in compromising the enhanced capacity for execution period. The committee member suggested that the comparison of the present scheme vis-à-vis utilization 220 kV Nashik – Padghe circuit by conversion of multi circuit in respect to utilization of capacity, ease of execution and cost needs to be verified and presented to the committee. The committee also opined that in view of the criticality of scheme for Khavda evacuation, STU should explore the possibility of execution of scheme through TBCB considering a new corridor formation. After detailed deliberation and discussion, GCC referred back to MTC for reverification.*"

CE, STU submitted that on June 14, 2025, the MSETCL Team along with Advisor MSETCL conducted a detailed inspection of the critical constraint areas along the two existing 220 kV lines between Kalwa and Padghe Substations, which are being considered to upgrade to two 400 kV Double Circuit Transmission Lines.

Route survey for the conversion of the 220 kV line to a 400/220 kV multi-circuit line in the existing corridor of the 220 kV Kalwa - Bapgaon and AKP-Nashik line:		
Cost Comparison:	Conversion of existing 400 kV Kalwa-Padghe SCSC line (Ckt.-I&II) to DC line on DC towers (both ckts)	conversion of the 220 kV line to a 400/220 kV multi-circuit line in the existing corridor of the 220 kV Kalwa - Bapgaon and AKP-Nashik line
Cost (without loading)	**Rs. 554 Cr.**	**Rs. 562 Cr.**

On June 14, 2025, the MSETCL Team and Mr. Rajeev Kumar Chauhan, Advisor MSETCL conducted a detailed inspection of the critical constraint areas along the two existing 220 kV lines between Kalwa and Padghe Substations, which are being considered to upgrade to two 400 kV Double Circuit Transmission Lines. They also assessed the feasibility of converting the recently re-conductored 400 kV Single Circuit Lines, strung with HPC (ACCC) HTLS conductors, into Double Circuit Lines within the same Kalwa – Padghe corridor. The observations are as follows.

1. **Key Observations and Recommendations (220 kV Corridors):**

   These corridors are heavily encroached by unauthorized residential settlements and warehouses. Immediate legal action, including filing FIRs with local police, is crucial to reclaim these areas. The risk of catastrophic incidents due to potential conductor snapping on these lines necessitates a robust public awareness campaign.

2. **Data Centre Impact:**

   Numerous Data Centres in the initial 5-6 km of the 220 kV route (starting from MSETCL Knowledge Park substation) will further hinder any redevelopment. These data centres have been so randomly constructed that these have completely choked any further line corridor development.

3. **Technical Challenges (220 kV Alignment):**

   Transitioning to a multi-circuit configuration on the 220 kV alignment using Tubular or Narrow Base Towers, is challenging due to the opposing origin of the 400 kV lines relative to the 220 kV switchyard, requiring GIB ducts. A complete redevelopment of the 220/33 kV Knowledge Park AIS substation into a 400/220/33 kV GIS switchyard might be necessary. Extended outages during upgrade work will be difficult to schedule given the current 50-60 MW Data Centre demand, projected to exceed 500 MW soon. Approximately 500-600 meters of 400 kV underground cabling from the proposed Knowledge Park GIS substation might be essential before transitioning to conventional multi-circuit towers. Apart from that the area under existing 220 kV

line corridors has been so badly encroached upon that there is no working space available and some religious monuments also have been constructed in the existing 35 meter RoW.

4. **Newly Strung 400 kV Lines:**

   Encroachments are fewer and appear manageable. Converting these to double circuit lines would require a 46-meter Right-of-Way (RoW), less than the standard 52 meters for a single circuit 400 kV line. In contrast, the existing 220 kV lines often lack even the minimum 35-meter RoW.

5. **Feasibility of 400 kV Conversion:**

   Converting the existing 400 kV single circuit lines (33 km each) into double circuit configurations within the current 52-meter corridor appears technically feasible. Advantages include, reduced RoW (46 meters), fewer residential encroachments and greater execution certainty. De-stringing and reusing the recently installed HTLS conductors carefully could result in less than 1% material wastage, as confirmed by a former POWERGRID official.

6. **Capacity Potential:**

   If executed with quad bundled conductors, both 400 kV double circuits could collectively carry 8000 MW, meeting Greater Mumbai's projected demand for the next five years.

Based on the comprehensive analysis of the advantages and disadvantages of both alternatives i.e. Conversion of existing 400 kV Kalwa-Padghe SCSC line (Ckt.-I&II) to DC line on DC towers (both ckts) with the conversion of 220 kV line to a 400/220 kV multi-circuit line in the existing corridor of the 220 kV Kalwa - Bapgaon and AKP-Nashik line, it is felt that the conversion of the existing two 400 kV Single Circuit Lines (currently on Single Circuit Towers) into two Double Circuit Lines on Double Circuit Towers utilizing quad-bundled HTLS conductors is the most optimised solution & techno economical which can be executed in a faster and easier manner than the construction of 400/220 kV Overhead Multi-Circuit Line in the existing corridor of the 220 kV Kalwa-Bapgaon-AKP-Nashik as in case of conversion, one upgraded ckt of 400 kV Kalwa-Padghe line will always remain in service during the conversion.

The Estimated cost of Scheme is **₹. 962.66 Cr.** The scheduled commission year of cited scheme is **FY 2026-27.**

Based on the directives in 11th GCC & MSETCL's representation on the comprehensive analysis of the advantages and disadvantages of both the alternatives , committee granted an in-principle approval to conversion of existing 400 kV Kalwa-Padghe SCSC line (Ckt.-I&II) to DC line on DC towers (both ckts). However Chairperson, GCC directed MSETCL to rework the scheme for optimal utilization of the existing network by exploring conversion to

Multicircuit corridor & utilization of other High performance conductors with equivalent ampacity for new circuits instead of HTLS to reduce the cost of the scheme.

Agenda Point No. 31:

Implementation of Nagpur Islanding scheme under EHV PC O&M Zone, Nagpur

CE, STU placed before the GCC for "Implementation of Nagpur Islanding scheme under EHV PC O&M Zone, Nagpur".

CE, STU submitted that as per CEA, MOP, Govt. of India, in view of the blackout of Mumbai in oct.-2020, it was advised that each state may immediately plan to take one or max. two islanding schemes, which have good potential to survive islanding in the first phase.

CE, STU highlighted that Member Secretary, Western Regional Protection Committee, Mumbai conducted meeting & requested MSETCL to explore the feasibility for formulation of islanding schemes for Nagpur, Nashik, Bhusawal, Parli and Akola (Amaravati) in Maharashtra.

The Nagpur scheme was discussed during WRPC meeting held through VC on dtd. 18.08.2021, 28.06.2021, 26.06.2021& 04.06.2021 & was principally accepted by MS WRPC.

Subsequently the Nagpur islanding scheme was prepared by considering the average generation of 500-600MW (considering Ex bus generation 130MW per unit, 4 x 130MW = 520MW) at 220kV Khaperkheda Generation station & Nagpur city average loading of about 555MW.

The 220kV Khaparkheda GCR s/s feeding to 220kV Ambazari, 220kV Kanhan, 220kV Buttibori-I, 220kV Buttibori-III & 220kV Kalmeshwar s/s which is subsequently feeding load to 132kV Nagpur Ringmain s/s i.e. 132kV Pardi, 132kV Manakapur, 132kV Hingna-I & II, 132kV Uppalwadi, 132kV Besa & 132kV Khapari s/s.

The scheme is approved vide BR no. 166/40 dt. 19/01/2024 at a cost of Rs.82.87 Cr and was put up for PSDF funding for Rs. 57 Cr (90% of Rs. 63 Cr).

The scheme was discussed in 85th TESG meeting on 24/04/2024 and it was directed to revised the BOQ of scheme in line with Jabalpur Islanding Scheme. Accordingly, the estimated cost of revised scheme is worked out Rs. 30.32 Cr and submitted to PSDF in APR-2025 for funding of Rs. 23.98 Cr. As per Clause 7 Sr. No. 7.2 (d) CEA guidelines, proposal put up for PSDF funding shall be apprised to CTU/STU/WRPC.

Following sub-stations and bays are considered in the Nagpur islanding scheme:

SN	Substation	Nos	Name of bays/TIE line
1	132KV PATANSAWANGI TSS	1	132KV SAONER
2	220KV Abhijit	4	220KV WARDHA-1
3			220KV WARDHA-2
4			220KV SEZ-1 (Abhijit end)
5			220KV SEZ-2 (Abhijit end)
6	220KV Ambazari	6	220KV KARANJA
7			220KV KHAPERKHEDA(400kV)
8			220KV KORADI-1- ckt-1
9			220KV KORADI-1- ckt-2
10			132KV KARANJA-1
11			132KV KARANJA-2
12	220KV BUTIBORI TSS	1	220KV KORADI
13	220KV BUTBORI-1	2	220KV BUTIBORI INDORAMA
14			220KV BUTIBORI SUNVIJAY
15	220KV BUTBORI 3	1	220KV WARDHA
16	220KV KALMESHWAR	4	220KV PANDHURNA
17			220KV JSW
18			132KV KATOL
19			132KV SAONER
20	220KV KANHAN	9	220KV UMRED-1
21			220KV UMRED-2
22			220KV NEW KHAPERKHEDA(400KV)
23			220KV ULTRATECH
24			220KV BHANDARA
25			132KV MOUDA
26			132KV BHANDARA
27			132KV MANSAR
28			132KV PENCH
29	220KV KHAPERKHEDA	3	220KV KORADI Old
30			220KV- 400KV KHAPERKHEDA-CKT-2
31			220KV -400KV KHAPERKHEDA-CKT-1
32	220KV Purti	1	220KV Bhugaon
33	220KV SURYALAXMI	1	220KV Suryalaxmi Consumer
Total		**33**	

CE, STU explained that 470 Bays required for this Islanding scheme. Total 392 No. of bay for control on UFR/LG balance. Total Estimated cost of this scheme is **₹ 30.32 Cr**.

CE, STU opined that MSETCL should get the philosophy and settings of the Islanding scheme vetted by WRPC through submission to SLDC as WRPC is the authority to approve the islanding schemes for the region. CE, STU suggested to consider RCOF criteria for pre-islanding load shedding for Load generation balance & opening of interconnections for

formation of Island for reducing any delays in operation & enhancing the reliability of the Islanding scheme. ED SLDC opined that detail dynamic studies should be carried out in coordination with Mahagenco & other embedded generators considered as a part of the Islanding scheme.

Thus, considering the benefits of islanding scheme in Nagpur region, the committee with due deliberations ratified the scheme.

Agenda Point No. 32:

Upgradation and augmentation of existing 110 kV Bhivpuri-Ambernath-Kalyan Corridor by replacing exiting conductor by higher capacity conductor along with Tower modification/replacement.

CE, STU placed before the GCC a proposal for "Upgradation and augmentation of existing 110 kV Bhivpuri-Ambernath-Kalyan Corridor by replacing exiting conductor by higher capacity conductor along with Tower modification/replacement."

CE, STU submitted that Existing 110 kV lines in Bhivpuri-Kalyan corridor is having capacity of 125 MVA. Present peak loading on these lines is 70 MVA. Proposed loadings on this 110 kV corridor are 86 MVA for Badlapur RSS, 50 MVA for Central Railways TSS at Chikloli, 50 MVA demand for MSETCL Gaikawadpada RSS.

CE, STU added that with above condition, total loading on the corridor will be 262 MVA. Hence to meet the future demand, upgradation of existing 110kV Corridor to 220kV level is essential. Interconnection of this 220 kV corridor with proposed 400/220 kV South Kalamb will help to evacuate bulk power into Mumbai transmission network.

CE, STU highlighted that Hon'ble MERC has opined to upgrade existing 110 kV Stations to 220 kV level in view of long-term transmission planning.

CE, STU highlighted scope of work as follows:

- Construction of 220 kV Multi Circuit (M/C) Transmission towers on 110 kV Bhivpuri-Ambernath-Kalyan existing corridor @ 67 km.

CE, STU further submitted that proposed scheme is part of STU approved 10-year plan dated 5th Sept-2024. Proposed scheme is part of TPC-T Rolling plan for FY-27 to FY-31 submitted to Hon'ble commission. This scheme will be executed by TPC-T in two phases. In Phase-I 20 Km and Phase -II 47 Km line will be executed.

The Estimated cost of Phase-I is **₹ 300 Cr**, and Phase-II is **₹ 581 Cr.** The scheduled commissioning year of cited scheme is **FY 2028-29.**

CE, STU submitted that as the upgradation of Kalwa-Kalyan corridor is already approved ,the above proposal for upgradation of Kalyan-Ambarnath-Bhivpuri and its further interconnection with proposed CTU's South Kalamb substation will surely help in additional CTU interconnection and provide an additional source to Kalwa/MMR network.

In addition to that the upgradation of 100kV Apta-Khopoli-Chinchawad is also under active consideration with interconnection to South Kalamb, hence STU should comprehensively study the proposal in above aspect and approach CTU for creation of 220kV Level at South Kalamb for planning the above evacuation arrangement.In view above, as the above scheme caters to enhancing the MMR system reliability the committee with due deliberations, ratified the scheme.

As the above schemes cater to enhancing the MMR system reliability the committee after due deliberation ratified the scheme. Further the committee directed STU & TPC-T to carry out further joint study and coordinate with CTU for creation of 220kV Level & interconnection of TPC-T Bhivpuri & upgraded corridor of 100kV Apta- Khopoli-Chinchawad at CTU's proposed South-Kalamb ss .

The committee also noted that although the above scheme is above the threshold limit for TBCB i.e. 200Cr , but the same is upgradation of assets utilising the existing Line corridor of TPC-T. MTC has recommended to implement the scheme through RTM route by TPC-T following the relevant provisions of MYT 2024 and selection criteria guidelines issued by STU.

Agenda Point No. 33:

Augmentation of exiting 30 MVA Transformer at Salsette by new 90 MVA, 110/22 kV transformer.

CE, STU placed before the GCC a proposal for "Augmentation of exiting 30 MVA Transformer at Salsette by new 90 MVA, 110/22 kV transformer."

CE, STU explained that at Salsette RSS, 22 kV bus transformation capacity is 60 MVA (2X30MVA). Existing 33 kV peak Load is @ 48 MVA against firm capacity @ 30 MVA i.e. 163 %. Discom has a load requirement of @ 38 MVA (6 feeders) for upcoming discom load. With Discom load demand, the peak load at Salsette RSS will be 86 MVA. Hence to cater existing & future load demand, Augmentation of existing 2X30 MVA Power Transformers to 2X90 MVA Power Transformer is being proposed.

CE, STU explained scope of work as follows:

- Augmentation existing 110 kV /22 kV, 2X30 MVA Power Transformers with 110 / 22 kV, 2X90 MVA Transformer at Salsette RSS.
- Installation & commissioning of 22 kV incomers rated for 90 MVA Power Transformer.

The Estimated cost of scheme is **₹ 62 Cr.** This scheduled commissioning year of the scheme is FY **2027-28.**

The GCC directed TPC-T to submit an utilization plan of the existing 2x30MVA transformer. Further in order to meet the present & future load requirement, to enhance system reliability, the committee with due deliberations ratified the scheme.

Agenda Point No. 34:

Installation and commissioning of 1 No. of 220 kV Bay with protection automation and communication (Part of AEML approved "Chandivali 2nd Feed connectivity scheme").

CE, STU placed before the GCC a proposal for "Installation and commissioning of 1 No. of 220 kV Bay with protection automation and communication (Part of AEML approved "Chandivali 2nd Feed connectivity scheme")."

CE, STU submitted that TPC-T is planning commissioning of 1 no 220kV bay along with PAC in Non DPR in co-ordination with M/s AEML-T.

CE, STU explained scope of works, for cited scheme as follows:

- Installation & commissioning of 1 no 220kV bay along with PAC at TPC-T Saki RSS
- 220 kV S/C Aarey-TPC-T Saki line scheme

The Estimated cost of scheme is **₹ 12 Cr**. The scheduled commissioning year of cited scheme is **FY 2026-27.**

The committee observed that the above proposal is in line to provide second feed to 220kV Chandivali substation under AEML-T's already approved 'Chandivali 2nd Feed connectivity scheme' & therefore the committee with due deliberations ratified the scheme.

MEGPTCL Scheme:

Agenda Point No. 35:

Installation of 3rd 765/400 kV, 1500 MVA ICT at Tiroda S/s with associated bays.

CE, STU placed before the GCC a proposal for "Installation of 3rd 765/400 kV, 1500 MVA ICT at Tiroda S/s with associated bays"

CE, STU submitted that Existing 765/400 kV Tiroda Substation of MEGPTCL presently has 2 nos of 1500 MVA ICT. 1st ICT is already installed and under operation while 2nd ICT is under approval with Hon'ble MERC after the concurrence of STU. MEGPTCL has also carried out due diligence of this scheme and observed that without the system strengthening, the existing system with the proposed second ICT shall be N-1 and N-1-1 non-compliant.

Accordingly, this scheme is proposed for third ICT installation as per allocation of STU for evacuation of power at Tiroda substation. CE, STU highlighted that MEGPTCL has applied for the amendment of Transmission License to Hon'ble MERC for addition of the third ICT. Proposal has also been submitted for addition in the five-year plan of STU. Completion target is 24 Months for this scheme. Estimated cost of scheme is **₹ 414 Cr.** The scheduled commissioning year of scheme is **FY 2027-28.**

In view of the requirement to fulfill N-1 & N-1-1 non-compliance considering the additional generation (2x800MW) being connected to AITL 400kVBus, the committee with due deliberations ratified the scheme. The committee also noted that although the above scheme is above the threshold limit for TBCB i.e. 200Cr , but the same is addition of assets in the existing substation of MEGPTCL wherein delineation of assets will not be feasible. MTC has recommended to implement the scheme through RTM route by MEGPTCL following the relevant provisions of MYT 2024 and selection criteria guidelines issued by STU.

AITL Schemes

Agenda Point No. 36:

400 kV Capacity augmentation at Tiroda S/s

a. Establishment of 400 kV GIS bays (7 Nos.) at Tiroda s/s.

b. Interconnection of GIS with existing 400 kV AIS S/s and interconnection of 400 kV GIS at 400 kV level of 765/400 kV AIS through GIB (Gas Insulated Bus Duct).

c. New control room for 400 kV GIS bays along with GIS hall.

CE, STU placed before the GCC a proposal for "400 kV Capacity augmentation at Tiroda S/s ":

a. Establishment of 400 kV GIS bays (7 Nos.) at Tiroda s/s.

b. Interconnection of GIS with existing 400 kV AIS S/s and interconnection of 400 kV GIS at 400 kV level of 765/400 kV AIS through GIB (Gas Insulated Bus Duct).

c. New control room for 400 kV GIS bays along with GIS hall"

CE, STU submitted that 765/400 kV Tiroda Substation presently has 5 nos of 400 kV bays which are fully utilized and with additional third ICT being proposed along with 2 nos feeder bays for evacuating 1496 MW power from Raipur to Tiroda. There will be 7 no. GIS bays and hence shall be interconnected with the existing AIS bays with new control room along with GIS hall.

CE, STU added that ATIL has applied for the amendment of Transmission License to Hon'ble MERC for addition of the inclusion of additional bays. Proposal has also been submitted for addition in the five-year plan of STU.

The Estimated cost of scheme is **₹ 240.41 Cr.** The scheduled commissioning year of scheme is **FY 2027-28.**

In view of the requirement to integrate additional generation (2x800MW) AITL 400 kV Bus against MSEDCL PPA with M/s Adani, the committee with due deliberations ratified the scheme. The committee also noted that although the above scheme is above the threshold limit for TBCB i.e. 200Cr , but the same is addition of assets in the existing substation of ATIL wherein delineation of assets will not be feasible. MTC has recommended to implement the scheme through RTM route by ATIL following the relevant provisions of MYT 2024 and selection criteria guidelines issued by STU.

Agenda Point No. 37:

Methodology for availability and acquisition of 15 min time Block wise monthly POA data required for determination of Adjusted Base TCR.

CE STU informed to GCC that:

- As per MERC directives of Hon'ble MERC in case no. 183 and 208 of 2024, the matter for acquisition of 15 min time Block wise monthly POA data, was discussed in the previous i.e 13th GCC meeting, wherein it was decided to formulate a draft procedure and circulate the same to the stake holders and QCAs for their comments.
- Accordingly, STU prepared the draft methodology for availability and acquisition of 15-minutes time block-wise monthly POA data required for determination of adjusted Base TCR.
- The same was published on STU/MSETCL website and shared with MSEDCL, MLSLDC, AEML-D, TPC-D and QCA's on 28.05.2025 for inviting their Comments/suggestion by 10.06.2025.

- In response MSEDCL, MSLDC, AEML-D & TPC-D has furnished their comments/suggestions to STU. QCAs have not furnished their comments.
- As no comments were received from QCA a meeting was called on 17.07.2025 to discuss the comments/suggestions received from distribution licensees and also QCAs were invited to participate in the meeting.
- The comments/suggestion received from all stakeholders were incorporated in the draft methodology and the same was discussed in the meeting.
- The methodology is prepared based on the procedure defined for GCN wherein the major role for data acquisition is of QCA.
- This is an interim measure until the State Load Despatch Centre (SLDC) Dynamic Web-Based Portal is fully operational and not be treated as a substitute for Dynamic Web-Based Portal to be set up by MSLDC.

CE STU explained the Main points of the methodology as follows:

- QCA will collect the 15-min time block meter data at Discom and EHV level in co-ordination with MSEDCL & MSETCL.
- The same will be segregated on contract basis based on the information shared by concerned Distribution Licensee to QCA.
- QCA will submit the segregated proportionate 15-min time block meter data to the respective Distribution Licensees and Distribution Licensees will submit the same data to STU and SLDC.
- The points defined in the methodology consists of Responsibility of QCA, Details of meter reading, process of Joint Meter Reading (JMR), Percentage allocation and its time line, Data format for data collection & submission.

As discussed for GCN procedure in the Distribution Open Access (DOA), MSLDC will be preparing a portal which will directly be accessed by QCA for uploading the meter data on the portal.

Chairman, GCC opined that the installed meters are SEM so we should look for the direct AMR Data from Distribution Licensee and if AMR is not available in that case only the data downloaded from MRI to be considered or uploaded. There should be no manual intervention in handling the meter data.

The responsibility to issue GCN is of the concerned Distribution Licensee. Distribution Licensees has two options-

1) Fetch data from AMR, MSEDCL receives data through AMR of all the generators connected at MSEDCL S/s.
2) Through MRI- JMR with QCA/Generator connected in the Distribution Licensee area.

All the Distribution Licensees are required to have same software for the necessary download of 15-min block wise meter data in order to avoid manual intervention/ error in filling the data in the required format.

The committee also noted that QCAs are limiting their role & responsibility and are not willing to take up the responsibility for submission of 15-min time block wise meter data to Distribution Licensees as directed by Hon'ble MERC.

MSEDCL representative stated that the QCA's role is considered for RE generators, so for non-RE conventional generators sourcing power through ISTS/ from concerned Discom, we can directly take the schedule data from MSLDC. The settlement in case of conventional generation is done on schedule basis & not on actual meter data. For billing in such case, we consider the schedule data, which can be obtained from MSEDCL or MSLDC and the same can be utilized for non-RE generator and for RE generators the methodology developed by STU can be followed.

Therefore, submission of the 15-min time block wise data of such generators is an issue. As such the JMR can be segregated as follows:

1. Generators connected to EHV level- JMR with MSETCL & QCA
2. Generator connected to Discom level- JMR with Discom & QCA
3. Non-RE Generator- QCA or AMR to be done.

Chairman, GCC directed STU to modify the procedure & incorporate the methodology for acquisition of the 15-min time block wise data of Non-RE Generators after further deliberations with all stake holders and present the same in ensuing GCC fort approval.

With these discussions the meeting concluded with vote of thanks.

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Annexure A

List of participants for 14th GCC meeting held on 28.07.2025

Sr no	Name of member	Designation	Committee position
1	Shri Satish Chavan	Director (Operations), MSETCL	Chairperson
2	Shri Shashank Jewalikar	Executive Director (MSLDC)	Member Convener
3	Shri Sandip Patil	Chief Engineer (PP), MSEDCL attended on behalf of Director (Commercial) MSEDCL	Member
4	Shri. Eknath Dhengle	SE (O&M), MSETCL attended on behalf of Chief Engineer (O&M), MSETCL,Mumbai	Member
5	Shri. Anil Kathoye	CE (Works), MSPGCL	Member
6	Shri Manoj Pise	General Manager, MEDA	Member
	Special Invitees		
7	Shri Peeyush Sharma	Chief Engineer, STU, MSETCL	---
8	Shri Milind Deole	Chief Engineer (I/C), MSLDC	---
9	Mrs Juelee Wagh	Chief Engineer, Project & schemes, MSETCL	---
10	Shri Jayant Kulkarni	Chief Engineer (I/C), ACI&P, MSETCL	---