MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

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Maharashtra State Load Dispatch Center
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Navi Mumbai Pin – 400 708.

Ref. No. ED/MSLDC/OP/GCC/ 000033 Date: 07 JAN 2026

To,
As per mailing list GCC Core Group Members.

Sub: - Minutes of the 16th Grid Coordination Committee (GCC) meeting held on 29.10.2025 at C.O. Prakashganga, Mumbai.

Ref.: 1. GCC invitation vide Letter No. ED/MSLDC/OP/GCC/No.2264 dated 27.10.2025
2. Agenda circulated vide email dated dated 28.10.2025.

Dear Sir,

With reference to the above subject, the Minutes of the 16th Grid Co-ordination Committee (GCC) meeting held at C.O. Prakash Ganga, Mumbai on 29.10.2025 at 10:30 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	Anil Bharsakle CE (O&M) (I/C)	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 16th Grid Co-ordination Committee meeting held on 29th October 2025 at 10:30 hrs. at C.O., Prakashganga, Mumbai.

The 16th Grid Coordination Committee (GCC) meeting of the Core Group was held on 29.10.2025 at 10:30 hrs at C.O. Prakash Ganga, Mumbai.
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 16th GCC Meeting.
With the permission of the Chair, discussions for the 16th GCC Core Committee began as follows:

Item No.1: Agenda points from STU (Maharashtra Transmission Committee (MTC):

Agenda point No.1:

Replacement of old existing 0.2 ACSR Panther conductor by equivalent High-Performance Conductor (HPC) along with suitable hardwares & accessories of 132kV Kalwan (Bhendi)-Kalwan line (9 Ckm) along with strengthening of the associated 132kV end bays at the respective substations under EHV O&M Division, Nashik

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Replacement of old existing 0.2 ACSR Panther conductor by equivalent High-Performance Conductor (HPC) along with suitable hardwares & accessories of 132kV Kalwan (Bhendi)- Kalwan line (9 Ckm) along with strengthening of the associated 132kV end bays at the respective substations under EHV O&M Division, Nashik.

CE, STU highlighted that circuit breaker for 132 kV Satana-Bhendi line and 132 kV Satana-Kalwan line are kept off due to system constraints. The Kalwan city and the adjoining rural areas, power supply is currently dependent on a single 132kV Kalwan (Bhendi) – Kalwan line, which originates from the 220kV Kalwan (Bhendi) substation.
This line serves as the only source of supply for Kalwan Taluka, including nearby industrial pockets. The line is having 0.2 ACSR Panther conductor, which has a current carrying capacity of 374 Amps at 75°C.

CE, STU added that at present, the load on Kalwan substation exceeds 400 Amps during ELR withdrawal, and even under normal conditions, the average load consistently crosses 350 Amps.
In such a scenario, the existing capacity of the 132kV Kalwan (Bhendi) – Kalwan line is inadequate to sustain the load of 132 kV Kalwan Substation, especially considering the potential increase in agricultural or other types of loads.

CE, STU further added that in the event of any line tripping due to causes such as jumper breakage, conductor snapping, earth wire failure, or cyclonic conditions, the entire area—including EHV and DISCOM consumers—would be vulnerable to load interruption or complete blackout.

CE, STU highlighted that to avoid such occurrences of blackout or load shedding in the Kalwan area, and to mitigate risks associated with red-hot conditions or abnormal line losses (IR losses), it is recommended to replace the conductor of the above-mentioned line with High Performance Conductor (HPC).

CE, STU submitted that 132kV Kalwan (Bhendi) – Kalwan line and the 132kV Kalwan – Dindori line pass through the densely populated urban area of Kalwan city, running along the roadside up to the 132kV Kalwan Substation. This double circuit line runs above the municipality road, with one tower foundation located adjacent to the road and the other directly on the road. Due to this constraint, replacement of existing towers or erection of multi-circuit towers is not possible.

CE, STU highlighted brief scope of work as below:

- 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.

In view of the above, MSETCL scheme of "Replacement of old existing 0.2 ACSR Panther conductor by equivalent High-Performance Conductor (HPC) along with suitable hardwares & accessories of 132kV Kalwan (Bhendi)- Kalwan line (9 Ckm) along with strengthening of the associated 132kV end bays at the respective substations under EHV O&M Division, Nashik", is presented in 16th GCC.

The Estimated cost of the scheme is **₹ 889.39 Lakh.** This scheme will be commissioned in **FY 2025-26.**

In order to meet the present & future load requirement, in view of Nashik Kumbh-Mela, to address the overloading problems, N-1 non-compliance, enhance system reliability and stability after detailed deliberation the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.2:

a) Scheme of replacement of 120kN & 70kN Disc Insulators of 220kV Pophali – Kandalgaon & 220kV Pophali – New Koyna – Lote – Dasturi – Kandalgaon lines by 120kN & 70kN Anti fog Long Rod Porcelain Insulators

b) Scheme of replacement of 120kN & 70kN Disc Insulators of 220 kV Pedhambe - Kalambani TSS & 220 kV Pedhambe - Adlab Lines by 120kN & 70kN Anti fog Long Rod Porcelain Insulators

c) Scheme of replacement of 120kN & 70kN Long Rod Polymer Insulators of 220kV Talandge – Sawantwadi, 220kV Pedhambe – Nerle, 220kV Pophali – Nerle, 220kV Pophali – KDPH lines by 120kN & 70kN Anti fog Long Rod Porcelain Insulators under EHV O&M Division, Ratnagiri under Karad Zone.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for

"a) Scheme of replacement of 120kN & 70kN Disc Insulators of 220kV Pophali – Kandalgaon & 220kV Pophali – New Koyna – Lote – Dasturi – Kandalgaon lines by 120kN & 70kN Anti fog Long Rod Porcelain Insulators

b) Scheme of replacement of 120kN & 70kN Disc Insulators of 220 kV Pedhambe - Kalambani TSS & 220 kV Pedhambe - Adlab Lines by 120kN & 70kN Anti fog Long Rod Porcelain Insulators

c) Scheme of replacement of 120kN & 70kN Long Rod Polymer Insulators of 220kV Talandge – Sawantwadi, 220kV Pedhambe – Nerle, 220kV Pophali – Nerle, 220kV Pophali – KDPH lines by 120kN & 70kN Anti fog Long Rod Porcelain Insulators under EHV O&M Division, Ratnagiri under Karad Zone".

A: 220kV Pophali – Kandalgaon & 220kV Pophali – New Koyna – Lote – Dasturi - Kandalgaon Lines

CE, STU submitted that 220kV Pophali - Kandalgaon Line was constructed and commissioned in the year 1962. Similarly, 220kV Pophali-New Koyna & 220kV New Koyna-Lote Line was constructed and commissioned in the year 1999. Additionally, 220kV Lote - Dasturi & Dasturi -Kandalgaon Line was constructed and commissioned in the year 2002. These lines have completed 61 years, 24 years & 21 years of service life respectively.

CE, STU added that 220kV Pophali - Kandalgaon, 220kV Pophali - New Koyna & 220kV New Koyna - Lote Lines are connected to power generation sources. These lines are connected to the 400kV New Koyna Substation and 220kV Kandalgaon Substation, which is part of the Mahad

Division under Vashi Zone. 220kV Lote - Dasturi & 220kV Dasturi-Kandalgaon lines are connected to the Lote MIDC area and are connected to the Mahad Division under Vashi Zone.

CE, STU explained that these lines pass through hilly areas and the highly polluted chemical zone of Lote MIDC. The region experiences heavy rainfall during the monsoon period along with salty weather conditions, dense humidity, and fog.

The existing disc insulators for these lines were installed in 1962 and as of the current date, they have completed 63 years of service life respectively. The humid and salty environment in the region causes the ball rods of the insulators to rust, which eventually leads to the de-capping of insulator strings.

As the life of existing Disc insulators is over, it is necessary to replace the same by Anti fog long rod Porcelain Insulators

B: 220 kV Pedhambe - Kalambani TSS & 220 kV Pedhambe - Adlab Lines

CE, STU submitted that 220 kV Pedhambe - Kalambani TSS & 220 kV Pedhambe - Adlab lines were commissioned on 16.05.1962. These lines have completed more than 50 years of service life.

CE, STU highlighted that the existing disc insulators are in service from date of commissioning. This region experiences heavy rainfall during the monsoon period.

CE, STU explained that as this region is close to seashore, this region comes under dense humid climate condition and gets exposed to salty winds. This environmental condition causes the rusting of ball rods of the insulators which leads to the de-capping of insulator strings.

C - 220kV Talandge – Sawantwadi, 220kV Pedhambe – Nerle, 220kV Pophali – Nerle, 220kV Pophali – KDPH lines

CE, STU submitted that 220kV Pedhambe - Nerle & 220 kV Pophali - Nerle lines were commissioned in the year 1984; 220kV Talandge - Sawantwadi line was commissioned in the year 2003 & 220 kV Pophali - KDPH line was commissioned in the year 1962.

CE, STU highlighted that these line passes through hilly, forest & foggy area. It encompasses the effects of varying temperature, humidity, rain, wind, impurities in the atmosphere, and the heat and ultraviolet rays of the sun. Under such conditions, the surface of an insulating material may undergo permanent changes.

CE, STU added that it can physically become rough and cracked, causing surfaces to become hydrophilic and allowing water to penetrate more easily into the material's volume.

CE, STU further added that additionally, locating flashover insulators can be challenging and time-consuming during patrolling. As the life of existing Long Rod Polymer insulators is over, it is necessary to replace the same by Anti-fog Porcelain Long rod Polymer Insulators.

CE, STU explained scope of work as follows:

Sr. No.	Name of Line	Scope of work
1.	220 kV Pophali – Kandalgaon	Replacement of 120kN & 70kN Disc Insulators by 120kN & 70kN Anti-fog Long Rod Porcelain Insulators
2.	220 kV Pophali – New Koyna - Lote - Dasturi-Kandalgaon	
3	220 kV Pedhambe - Kalambani TSS	
4	220 kV Pedhambe - Adlab	
5	220kV Talandge - Sawantwadi	Replacement of 120kN & 70kN Long Rod Polymer Insulators by 120kN & 70kN Anti-fog Long Rod Porcelain Insulators
6	220kV Pedhambe – Nerle	
7	220kV Pophali – Nerle	
8	220kV Pophali – KDPH	

In view of the above & to ensure load growth management and system stability this scheme was proposed.

CE, STU further highlighted that this corridor (Wind Zone) is very challenging. If any one-line (Circuit) trips, then for system stability point of view EHV lines needs to hand-trip as SLDC faces challenges in This area. The Generation switchyard has poor maintenance; the assets need to be handed over to transmission for better maintenance activities.

CE, STU also informed that STU has already identified 18 corridors for upgradation by conversion to D/C & M/C which are more than 50 years aged which also includes the above corridor. Additional interconnection between the existing substations and upcoming new Substation can be created using this upgraded corridor. He also stated that MTC has recommended that MSETCL to expedite taking

over of Generation switchyards from MSPGCL hydro stations so as to enable the better maintenance of the end bays and thus maintaining continuous availability of the generation. Further as a long-term solution, the corridor upgradation should be taken up immediately.

The estimated cost of scheme is **₹ 28.98 Cr.** The scheduled commissioning year of scheme is **FY 2026-27.**

The Chairman, GCC opined that as the above corridors are already under consideration for upgradation by STU a blanket replacement of insulators should not be taken up. MSETCL should identify the sections with worst degradation, maximum ageing & high incidences of tripping for phased replacement of the insulators. Further he directed that MSETCL should expedite the process of taking over of Generation switchyards from MSPGCL to avoid non availabilty of generation corridor due to failure of bay equipments and enable better maintenance of end bays. In view of above GCC directed MTC & MSETCL for a review of above scheme in terms of the above suggestions and revert.

All GCC members took note of the discussions

Agenda point No.3:

Addition of 1 X 25 MVA 132-110/33kV T/F at 110kV Borgaon S/s under EHV, O&M Division, Sangli in Karad zone.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Addition of 1 X 25 MVA 132-110/33kV T/F at 110 kV Borgaon S/s under EHV, O&M Division, Sangli in Karad zone."

CE, STU submitted that 110kV Borgaon S/s was commissioned in the year 1967. This substation serves the area of Walva and partial area of Palus Taluka, District Sangli.

The 110 kV Borgaon Substation currently has 1X50 MVA, 132-110/33kV and 1 X 25 MVA, 132-110/33kV transformers, with the average peak load on both transformers about 50% of their installed capacity. In the event of an outage or tripping of the 50 MVA transformer, the 25 MVA transformer is unable to take on the full load, which could lead to power supply disruptions for industrial and rural consumers.

CE, STU highlighted that additional load demand of 25MVA due to augmentation of MSEDCL substations in Islampur & Paluj area. Hence considering the future loading, outage constraints and to satisfy (N-1) criteria addition of 1X 25MVA, 132-110/33kV T/F is proposed at 110kV Borgaon S/s. The estimated cost of scheme of is **Rs. 714.74 Lakh.** The 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 and stability after detailed deliberation, the committee, ratified the scheme.

All GCC members took note of the discussions

Agenda point No.4:

Replacement of 1x25MVA, 220/33 kV Transformer by 1x50MVA, 220/33kV Transformer at 220/33kV Dasturi S/s under EHV O&M Division, Ratnagiri in Karad zone

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Replacement of 1x25MVA, 220/33 kV Transformer by 1x50MVA, 220/33kV Transformer at 220/33kV Dasturi S/s under EHV O&M Division, Ratnagiri in Karad zone".

CE, STU submitted that 220kV Dasturi S/s was commissioned in 2002. 220kV Dasturi S/s serves the area of Khed, Dapoli & Mandangad Taluka under Ratnagiri District. 220kV Dasturi S/s caters to the load of Rural, Urban & Agri. through 50 MVA, 220/33 kV T/F & 25 MVA, 220/33 kV T/F. Maximum loading reached on T/F No.2 is above 90 % of installed capacity. In the event of an outage or tripping of the 50 MVA transformer, the 25 MVA transformer is unable to take on the full load. i.e. not satisfying (N-1) criteria Hence considering outage constraints and to satisfy (N-1) criteria replacement of T/F is proposed at 220kV Dasturi S/s.

The estimated cost of the scheme is **₹ 962.22 Lakh.** The scheduled commissioning year of the scheme is **FY 2025-26.**

In order to meet the present & future load requirement, to address the overloading problems, N-1 non-compliance, enhance system reliability and stability after detailed deliberation, the committee, ratified the scheme.

All GCC members took note of the discussions

Agenda point No.5:

Addition of 1X50 MVA, 132/110kV ICT at 110kV Chambukhadi S/s under EHV, O&M Division, Kolhapur in Karad zone

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Addition of 1X50 MVA, 132/110kV ICT at 110kV Chambukhadi S/s under EHV, O&M Division, Kolhapur in Karad zone".

CE, STU highlighted that, the 110kV Chambukhadi Substation is commissioned in the year 2010. The 110 kV Chambukhadi Substation currently has transformation capacity of 2X25 MVA, 110/33kV T/Fs. This substation is urban S/s in Kolhapur District. At present 132kV Bambawade-Chambukhadi line is only charged from 110 kV Chambukhadi end due to different bus voltage at both the substations.

CE, STU added that the 132kV Bambawade S/s is commissioned in the year 2009 and having source line from 132kV Shirala & Chikhali S/s. The Bambawadi substation also have more than 30MW wind power generation connected on 33kV level and installed capacity of 50MVA at 132/33kV level. The 132kV Bambawade and 132kV Shirala substation are mainly wind generation connected substation and generation coming to their 132kV bus is mainly evacuated to 220kV Peth S/s through 132kV Peth-Shirala line.

CE, STU highlighted that any occurrence on 220kV Peth will hamper the entire load of 132kV Shirala S/s, 132kV Bambawade & EHV generation of 132kV Chikhali, small generation unit connected at 33kV level at both EHV substations

The proposed installation of a 132/110 kV Interconnecting Transformer (ICT) at Chambukhadi substation offers the most viable solution to these challenges. Full conversion of Chambukhadi to 132kV levels would be prohibitively expensive and time-consuming, requiring complete network upgrades, while downgrading Bambawade to 110kV is technically impossible given its 132/33kV transformer configuration.

The ICT solution elegantly bridges these voltage levels by utilizing the existing 132kV Bambawade line bay as the HV terminal, requiring only LV bay additions and minor bay-swapping work that can be executed departmentally.

This approach will unlock the full capacity of the 132kV line, provide critical redundancy for wind generation evacuation, and enhance voltage stability for Chambukhadi urban loads - all while maximizing existing infrastructure with minimal disruption and cost.

Hence considering the above, establishment of 132kV voltage level by addition of 50 MVA,132/110kV ICT is proposed at the existing 110kV Chambukhadi substation.

The cost of the Scheme is **₹ 1119.62 Lakh**. The scheduled commissioning year of cited scheme is **FY 2026-27.**

In order to utilize the available 132 kV line to provide an additional source to 110kV Chambukhadi utilizing the existing resources & thereby enhancing system reliability and stability after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.6:

Providing additional 1x50MVA, 220/22kV T/F along with 06x22kV GIS feeder bays, 1x220kV AIS bay, 1x22kV GIS incomer bay, 1x22kV GIS Bus coupler bay, 1x22kV PT bay with extension of 220kV main bus & auxiliary bus and allied civil works at 220kV Airoli Knowledge Park S/s under EHV O&M Dn., Bhandup in Vashi Zone.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Providing additional 1x50MVA, 220/22kV T/F along with 06x22kV GIS feeder bays, 1x220kV AIS bay, 1x22kV GIS incomer bay, 1x22kV GIS Bus coupler bay, 1x22kV PT bay with extension of 220kV main bus & auxiliary bus and allied civil works at 220kV Airoli Knowledge Park S/s under EHV O&M Dn., Bhandup in Vashi Zone".

CE, STU submitted that 220kV Airoli Knowledge Park S/s was commissioned in the year 2010. This substation is supplying power to urban load of Thane & Navi-Mumbai area. This is very critical substation of MMR region. The total installed capacity of this S/s is 150MVA. The maximum load reached on the substation is 107 MVA against the installed capacity of 150MVA (i.e. 3x50MVA, 220/22kV T/Fs).

In view of upcoming load demand and yearly growth of 7% - 10% load, MSEDCL has requested additional 50MVA, 220/22kV T/F along with 6x22kV bays from 220kV Airoli Knowledge Park S/s.

At present loading condition, if one 50MVA T/F is taken out for outage of tripped then the load on remaining transformer will surpasses 100% capacity. The substation doesn't fulfil the N-1 contingency.

In view of upcoming load & present loading condition, additional 1x50MVA, 220/22kV T/F along with 06x22kV GIS feeder bays, 1x220kV AIS bay, 1x22kV GIS incomer bay, 1x22kV GIS Bus coupler bay, 1x22kV PT bay with extension of 220kV main bus & auxiliary bus and allied civil works at 220kV Airoli Knowledge Park Substation is proposed.

The cost of the Scheme is **₹ 2526.16 Lakh.** The schedule commissioning year of cited scheme is **FY 2025-26.**

In order to meet the present & future load requirement of Thane and Navi Mumbai, to address the overloading problems, N-1 non-compliance, enhance system reliability and stability after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussion.

Agenda point No.7:

Replacement of 1x25MVA, 100/22kV T/F by 1x50MVA, 100/22kV T/F at 100kV Patalganga S/s under EHV O&M Dn., Panvel in Vashi Zone

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Replacement of 1x25MVA, 100/22kV T/F by 1x50MVA, 100/22kV T/F at 100kV Patalganga S/s under EHV O&M Dn., Panvel in Vashi Zone".

CE, STU highlighted that 100kV Patalganga is an important substation as it supplies power to MIDC industries like Cipla, Reliance, Aditya Birla, Alkyl Amines etc. The total maximum load of 47MVA has reached on the substation against the installed capacity of 75MVA (1x50MVA & 1x25MVA, 100/22kV T/Fs).

CE, STU added that MSEDCL has also submitted additional load requirement of 1.2 MVA for M/s. Shree Dhootapapeshwar Ltd., 2.8MVA for M/s. Jindal Steel & 3.9MVA for M/s. BPCL from this substation.

CE, STU mentioned that it is difficult to manage the load in case of tripping /outage of 50 MVA T/F. The substation does not fulfil **N-1** criteria. In view of above, replacement of 1x25MVA, 100/22kV T/F by 1x50MVA, 100/22kV T/F at 100kV Patalganga S/s is proposed by MSETCL.

The estimated cost of the scheme is ₹ **621.18 Lakh.** 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 after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.8:

Enhancement of transformation capacity by providing additional 1X50 MVA, 132/33kV T/F along with HV and LV bays and allied civil works & 33kV Bus extension at 132kV Walchandnagar S/s under EHV (O&M) Division, Baramati in Pune zone.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for a scheme for "Enhancement of transformation capacity by providing additional 1X50 MVA, 132/33kV T/F along with HV and LV bays and allied

civil works & 33kV Bus extension at 132kV Walchandnagar S/s under EHV (O&M) Division, Baramati in Pune zone."

CE, STU submitted that the 132kV Walchandnagar Sub-Station was commissioned in 1976 & caters the load of Baramati & Indapur Taluka areas through 2x50MVA, 132/33kV T/Fs. Both 50MVA, 132/33kV T/Fs loaded up to 80-90% of full capacity.

It is difficult to manage the load in case of tripping/outage on any of the T/Fs i.e. not fulfilling N-1 criteria. The proposed scheme fulfils the augmentation criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1x50MVA, 132/33kV T/F is proposed at 132kV Walchandnagar S/s.

The estimated cost of the scheme is ₹ **823.40 Lakh.** 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 after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussion.

Agenda point No.9:

Enhancement of transformation capacity by replacement of 2X25 MVA, 220/33kV T/Fs by 2X50 MVA, 220/33kV T/Fs at 220kV South Solapur S/s under EHV (O&M) Division, Solapur in Pune zone.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for a scheme for "Enhancement of transformation capacity by replacement of 2X25 MVA, 220/33kV T/Fs by 2X50 MVA, 220/33kV T/Fs at 220kV South Solapur S/s under EHV (O&M) Division, Solapur in Pune zone".

CE, STU submitted that 220kV South Solapur Sub-Station was commissioned on 07.06.2012 & caters the load of Akkalkot & South Solapur Taluka areas through 2x25MVA, 220/33kV T/Fs. Solar Generation of 35MVA (20 MVA Enrich, 10MVA Ravindra & 5MVA Hature) is connected at 33kV level.

CE, STU highlighted that during non-solar generation period, both T/Fs were loaded up to 70% of full capacity. Further additional load of 60MW is proposed by MSEDCL. There is no space available for commissioning additional T/F at 220kV South Solapur S/s.

The estimated cost of the scheme is ₹ **1864.46 Lakh.** 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 after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.10:

Enhancement of transformation capacity of substation by providing additional 1X50MVA, 132/22 kV T/Fs along with HV & LV Bays, 6x22kV GIS Bays at 132kV Mundhwa S/s under EHV (O&M) Division-1 Pune in Pune zone.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Enhancement of transformation capacity of substation by providing additional 1X50MVA, 132/22 kV T/Fs along with HV & LV Bays, 6x22kV GIS Bays at 132kV Mundhawa S/s under EHV (O&M) Division-1 Pune in Pune zone.

CE, STU submitted that 132 kV Mundhwa sub-station is commissioned on dtd.01.12.1974. This sub-station is one of the critical sub-stations under EHV O&M Division-1, Pune and feeding the supply to 2 Nos of EHV consumers {M/s. Bharat Forge and M/s. Swarloha (i,e, M/s. Kalyani Carpenter) as well as urban, commercial and residential load.

CE, STU explained to GCC that at present 132/22kV Mundhwa substation has total 3X50MVA 132/22kV T/Fs, 2X25MVA 132/11kV T/Fs and 16 Nos. of 22kV feeders and 07 Nos of 11kV feeders. 132 kV Magarpatta-Mundhwa line load is reached above 600 Amp during summer-2024.

CE, STU highlighted that M/s. Panchashil Group, Pune has asked for technical feasibility for the load of 22 MVA (M/s. Bajaj Finserv Ltd.-6MVA, M/s. Bajaj Finance Ltd.-6 MVA, M/s. Bajaj Allianz General Insurance company Ltd-6MVA and M/s. Gagan Habits LLP-4MVA). from 132 kV Mundhwa sub-station in 2024. Considering demand of other 22kV consumers and load demand of M/s. Panchashil and considering existing capacity of transformers, it is necessary to propose additional 1 No. of 50MVA, 132/22kV T/Fs.

The estimated cost of the scheme is ₹ **2222 Lakh.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In order to meet the present & future load requirement of urban area consumers, enhance system reliability and stability after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.11:

Establishment of 132/33 kV Panchavati (MERI) GIS S/s Ta. & Dist. Nashik

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Establishment of 132/33 kV Panchavati (MERI) GIS S/s Ta. & Dist. Nashik".

CE, STU submitted that the major portion of Nashik city is being fed from 132/33kV Mhasrul s/s and 132/33kV Takali s/s. Presently, 132/33kV Mhasrul substation is connected with 132/33kV Takali substation and 132/33kV Satpur MIDC substation through 132kV S/C line respectively.CE, STU added that demand of 25 MW load is projected by DISCOM for the upcoming Kumbh Mela-2027 at Nashik for Tents, Streetlights, Parking, Hospital and other purpose. 132/33kV Panchavati (MERI) GIS s/s will supply the upcoming load of Kumbh Mela-2027.

CE, STU submitted that land identified for 132/33 kV Panchavati (MERI) GIS S/s, at Nashik city area which is close to load Centre, where nearby Kumbh-Mela is scheduled.

CE, STU highlighted brief scope of works as follows:

1) 2 x 50 MVA, 132/33 kV Power Transformers with HV & LV GIS bays
2) 132kV Double Circuit line on Monopole from 132kV Mhasrul s/s to proposed 132/33kV Panchavati (Meri) GIS s/s - 4.322 km
3) 2 x 132 kV GIS line bays at proposed Panchavati (MERI) GIS s/s
4) 2 x 132 kV AIS line bays at existing Mhasrul s/s
5) 6 x 33 kV GIS outlets at proposed Panchavati (MERI) GIS s/s

CE, STU mentioned objectives of scheme as below:

a) To cater upcoming Kumbh Mela load demand
b) It will give load relief to 132kV Mhasrul and Takali s/s
c) To provide reliable & uninterrupted power supply in area

The estimated cost of the scheme is ₹ **150.20 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

In view of the requirement to fulfill present & future MSEDCL demand in view of upcoming Kumbh-Mela in Nashik and provide supply at the load centre after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.12:

Construction of LILO on 132 kV Dahanu-Ambesari line at 132 kV Dapchari S/s - 12.536 Km.

Discussion in 16th GCC:

CE, STU placed before the MTC a proposal for "Construction of LILO on 132 kV Dahanu-Ambesari line at 132 kV Dapchari S/s-12.536 Km".

CE, STU submitted that presently, in Boisar area, 220 kV Boisar (M) Substation is sourced from 400 kV Boisar (PG) Substation by 3 x 220 kV HPC circuit. 132 kV Boisar (MIDC) is sourced from 220 kV Boisar (M) Substation. Further feeds to Dahanu Substation and Jawahar Substation. It is radial double circuit line. The new 132 kV Dapcheri Substation will be radial from 220 kV Boisar Substation. In order to have redundancy of power supply at 132 kV Dapcheri, LILO at 132 kV Dahanu - Ambesari line at 132 kV Dapcheri is proposed.

CE, STU highlighted that in the load flow study it was observed that the proposed LILO of 132 kV Dahanu - Ambesari line at 132 kV Dapcheri, there is improvement in voltage profiles and redundancy at 132 kV Dapcheri S/s. In view of above system's benefits, therefore the scheme is Proposed by MSETCL.

CE, STU added the brief scope of works as below:

1. Construction of LILO on 132kv Dahanu-Ambesari line at 132kV Dapcheri substation-12.536 km
2. 2 x 132kV Line bays at Dapcheri s/s.

CE, STU highlighted objective of scheme as follows:

1) Alternate source to 132kV Dapcheri Ss, Dahanu & Ambesari Substations.

2) To Provide reliable and quality power supply to Dapcheri area.

The estimated cost of the scheme is ₹ **39.38 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

CE, STU stated that the existing Boisar 132 kV network is currently connected to 220 kV Boisar source only. For enhancing the reliability of the 132 kV network additional 220kV source interconnections should be planned. In this regard STU has already suggested to upgrade Dahanu to 220kV level through connection to Dahanu generation bus/ Interconnection to adjoining CTU network in the vicinity. MSETCL should thus initiate the feasibility of above scheme.

In order to provide source to 132kV Dapcheri Ss enhance system reliability after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.13:

Upgradation of 132/33 kV Mhasrul s/s into 220 kV (GIS)/132 kV (AIS)/33 kV, Dist-Nashik

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Upgradation of 132/33 kV Mhasrul S/s into 220 kV (GIS)/132 kV (AIS)/ 33 kV Mhasrul S/S, Dist-Nashik".

CE, STU submitted that, the existing 132kV Mhasrul s/s was established in the year 1988. Presently, the nearest 220kV source to 132kV Mhasrul is 220kV Eklahare (OCR) s/s which is the only 220kV source in the vicinity.

CE, STU added that the installed capacity of existing 220/132kV Eklahare OCR s/s is 550 MVA. As per the loading details it is observed the maximum load reached 75% of the installed capacity. Also, the average loading is around 63% of installed capacity. If in case of any contingency of existing ICTs at 220/132kV Eklahare OCR s/s, the maximum load cannot be catered by the existing ICTs.

CE, STU highlighted that in order to maintain N-1 compliance and to maintain uninterrupted power supply during Kumbh-mela 2027, it is recommended by STU that 220kV source to proposed 220kV Mhasrul s/s should be from proposed 400/220kV Pimpalgaon s/s which will provide a radial strong source connectivity from 400kV s/s.

CE, STU added the objective of scheme as follows:

1) Existing 132kV Nashik Ring-main EHV network will get strengthen.

2) EHV consumers will get reliable & uninterrupted power supply.

3) It will cater Kumbh-Mela-MSEDCL load reliably.

The estimated cost of the scheme is ₹ **339.18 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

CE, STU informed that the above scheme provides reliability to the 132kV Nasik network and stated that MSETCL should strictly stick to the time lines for establishment of 400/220 kV Pimpalgaon, 220kV level creation at Mhasrul and establishment of 132 kV Meri (Panchwati) in order to strengthen the Nasik transmission system prior to commencement of Kumbh Mela in 2027.

In view of the requirement to fulfill present & future MSEDCL demand, upcoming Kumbh-Mela in Nashik, to address the overloading problems, to strengthen 132 kV Nashik Ring-Main system, enhance system reliability and stability, after detailed deliberation, the committee, ratified the scheme.

All GCC members took note of the discussions

Agenda point No.14:

Establishment of 220/33 kV Vilholi GIS S/s Ta. & Dist- Nashik

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Establishment of 220/33 kV Vilholi GIS S/s Ta. & Dist- Nashik"

CE, STU submitted that the load of South West area of Nashik is fed from 132/33 kV Ambad s/s. Source to 132/33kV Ambad s/s and 132/33kV Old Satpur is from 220/132kV Nashik (GCR) s/s, 220kV Nashik (OCR) & 220/132kV Raymond s/stns.

CE, STU highlighted that at present, installed capacity of 132/33kV Ambad s/s is 150 MVA and maximum demand reaches to 136.5 MVA. DISCOM installed capacity on 132/33kV Ambad s/s is 220 MVA.

CE, STU added that 65 MVA new load is proposed by DISCOM which will increase the DISCOM installed load of 132/33kV Ambad s/s from 220 MVA to 285 MVA. Further, the demand of 25 MW load is projected for the upcoming Kumbh Mela at Nashik for Tents, Streetlights, Parking, Hospital and other purpose. This load will feed from proposed 132/33kV Panchavati (MERI) GIS s/s and 220/33kV Vilholi GIS s/s. Considering the above increase load demand, establishment of 220/33kV Vilholi GIS S/s is proposed, by MSETCL.

CE, STU submitted brief scope of work as follows:

1) 2 x 50 MVA, 220/33 kV Power Transformers with HV & LV GIS[1] bays.
2) Construction of 220kV DC line on DC towers by making LILO on 220kV Nashik (OCR[2]) - Raymond S/C line at proposed 220/33kV Vilholi GIS[1] s/s – 1.978 km
3) 2 x 220 kV GIS line bays
4) 1 x 220 kV GIS Bus Coupler Bay
5) 2 x 220 kV PT GIS bays
6) 6 x 33 kV GIS outlets
7) 1 x 33 kV GIS Bus Sectionalizer Bay
8) 2 x 33 kV PT GIS bays
9) 2 x 200kVA, 33/0.4 kV Station Transformer bays

CE, STU highlighted objective of the scheme as below:

1) To cater upcoming load demand of HV consumers in South West area of Nashik & Rajur Bahula MIDC area.
2) DISCOM consumers will get reliable & uninterrupted power supply in this area.
3) It will give load relief to 132kV Ambad s/s.

The estimated cost of the scheme is ₹ **100.13 Cr.** This scheduled commissioning of the cited scheme is in **FY 2026-27.**

The committee opined that as Vilholi is a part of Nashik Ring Main strengthening and vital in view of upcoming Kumbh Mela the scheme shall be taken up immediately.

In order to fulfill present & future MSEDCL demand and HV consumers demand in South West area of Nashik & Rajur Bahula MIDC area, to provide load relief to 132 kV Ambad Substation, to strengthen Nashik Ring-main, enhance system reliability and stability after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.15:

Establishment of Digital 220/33kV Kasbe Digraj s/s Ta. Miraj & Dist. Sangli

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Establishment of Digital 220/33kV Kasbe Digraj S/s Ta. Miraj & Dist- Sangli".

CE, STU submitted that Miraj Taluka has 3 nos. of EHV substation, 220kV Miraj, 110kV Vishrambag and 110kV Ashta s/s. In order to cater increasing the load growth and resolving the VR problem in the Miraj taluka, 220/33kV Kasbe Digraj s/s is proposed.

The main source for 220 kV Kadegaon S/s is 400/220 kV Karad S/s. and the source for 220 kV Miraj S/s. If 220/33 kV Kasbe Digraj S/s is established by making LILO of 220 KV Kadegaon – Miraj line, it will be beneficial to transmit power from strong source to load center and to improve voltage profile in this area.

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

a) The source will be brought nearer to load pockets of Miraj Taluka.
b) There is saving in losses of 1.1 MW
c) The length of 33kV feeders will be reduced leading to reduction in line losses and improvement in Voltage profile.
d) Load relief to existing 110kV Vishrambag and 110kV Ashta s/s.
e) To cater load of 87.65MVA (Diverted -67.65MVA& New- 20MVA)

CE, STU submitted scope of work as follows:

a) 2 x 50 MVA, 220/33kV Transformers with bays
b) LILO on 220kV Kadegaon – Miraj for 220kV Kasbe Digraj – 17 kms

c) 2 x 220kV line bays.
d) 8 x 33kV bay
e) 2 x 5 MVAr 33kV Level Capacitor Banks

CE, STU highlighted objectives of scheme as below:

a) To improve voltage regulation in Miraj Taluka
b) To cater the new load of Vishrambag & Ashta area

Therefore, 220/33 KV Kasbe Digraj S/s. is proposed to cater increasing load demand, to give load relief to existing substation improve voltage profile & to cater future load demand in this area.

The estimated cost of the scheme is ₹ **133.46 Cr.** This scheduled commissioning of the cited scheme is in **FY 2027-28.**

In order to meet the present & future load requirement of Vishrambag & Ashta area, to address the overloading problems, to improving voltage regulations, enhance system reliability and stability after detailed deliberation the committee ratified the scheme.

All GCC members took note of the discussions

Agenda point No.16:

Establishment of 132/33 kV Sawana substation Tal. Sengaon, Dist. Hingoli

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Establishment of 132/33 kV Sawana substation Tal. Sengaon, Dist. Hingoli".

Presently, the supply to Sengaon Taluka is fed from 2 Nos of existing EHV sub-stations namely 132/33 kV Kolsa (Sengaon) and 132/33 kV Hingoli.

Existing 132/33 kV Kolsa sub-station is having installed capacity of 50 MVA (2x25). The connected load of MSEDCL on this substation is 105 MVA and new proposed load is 95 MVA. Total MSEDCL connected load will be 200 MVA.

Existing 132/33 kV Hingoli sub-station is having installed capacity of 100 MVA (2x50). The connected load of MSEDCL on this substation is 133.15 MVA and new proposed load is 55 MVA. Total MSEDCL connected load will be 188.15 MVA.

The length of 33 kV Kolagaon feeder from 132/33 kV Kolsa s/s is 51.5 km, length of 33 kV Goregaon feeder from 132/33 kV Kolsa s/s is 36 km and length of 33 kV Pangri feeder from 132/33 kV Hingoli s/s is 39 km. Due to this there is Voltage Regulation issues.

The proposed/upcoming RE projects of 1082 MW, connecting to 132 kV Sengaon Substation and 220 kV Hingoli Substation

Thus, considering the voltage issues in Sengaon Taluka, establishment of EHV Substation in Sengaon Taluka is required from system point of view. This will help in reducing 33 kV line lengths, line losses and improve voltage regulation in area.

CE, STU mentioned brief scope of work as follows:

a) 2x50 MVA, 132/33 kV T/F along with HV/LV bays.

b) 132 kV DC Line from 220 kV Malegaon S/Sn to Sawana S/Sn – 35.122 Kms

c) 6x33 kV bays.

d) 2x5 MVAr Capacitor Bank at 33 kV level of 132 kV Sawana s/s.

CE, STU highlighted objectives of scheme as below:

a) RE power evacuation in Hingoli.

b) To bring source nearer to load pockets of Sengaon Taluka.

c) To Reduce line length of 33 kV feeders and solve low voltage problem by improving Voltage Regulation.

The estimated cost of the scheme is **₹ 87.10 Cr.** This scheduled commissioning of the cited scheme is in **FY 2027-28.**

In order to meet the present & future load requirement, RE evacuation in Hingoli area & to bring source near to load pockets of Sengaon Taluka thereby improving the voltage Regulations, enhance system reliability and stability, after detailed deliberation, the committee ratified the scheme.

All GCC members took note of the discussions

TPC-T SCHEMES

Agenda point No.17:

Upgradation of existing 110kV Salsette-Kolshet line corridor by replacing existing conductor by higher capacity conductor along with Tower replacement.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Upgradation of existing 110kV Salsette -Kolshet line corridor by replacing existing conductor by higher capacity conductor along with Tower replacement".

CE, STU submitted that they have proposed upgradation of existing 110kV Salsette -Kolshet line to 220 kV corridor by replacing existing conductor by higher capacity conductor along with Tower

replacement, total cost of scheme was ₹ 185 Crs with completion year as FY-28. This cost was based on initial survey. Based on detail line survey & engineering work for proposed scheme, the revised cost for the scheme is **₹ 237.78 Crs** & completion period is **FY-27-28.**

The GCC noted that the above agenda is in regard to the revision of cost of the scheme based on detailed line survey & engineering works and the scheme has already been Technically approved by GCC based on the recommendation of 13th MTC. The Chairperson, GCC opined that as the GCC has already approved the scheme any revision of cost and the verification of the same may be dealt at MTC and verified through financial prudence check carried out by STU under Capex Regulation 2022 & thus there is no need of bringing the scheme to GCC again for approval. The scheme therefore remains approved subject to validation of MTC & Financial prudence check under Capex regulations 2022.

All GCC members took note of the discussions

Agenda point No.18:

Upgradation of 220 kV Trombay Carnac 5 and 6 oil filled EHV cable between Sewree Fort to Carnac S/s by higher capacity 220 kV, 2000 sq mm XLPE cable.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Upgradation of 220 kV Trombay Carnac 5 and 6 oil filled EHV cable between Sewree Fort to Carnac S/s by higher capacity 220 kV, 2000 sq mm XLPE cable".

CE, STU submitted that DPR was submitted to Hon'ble Commission for approval in 2021 and same was referred back by MERC stating that:

- This oil filled cables were in service for 33 years without any trouble.
- There are no faults occurred in these cables till date.
- The loading of these cables even under N-1 conditions is of the order of 50 % of its full load capacity.

Further, Hon'ble MERC directed TPC-T to consider various aspects like assessment of residual life, carry out proper diagnostic testing check the fault history and revisit the requirement.

In view of above CE, STU highlighted the submissions by TPC-T:

a) 220 kV Oil filled cables Trombay Carnac 5 and 6 were laid in year 1988 and have served **37** years of service and had completed their useful life of 35 years as per MYT Regulations 2024. OEM support for these oil-filled cables and accessories is no longer available.

b) Over the past five years, several minor and major oil leakages have been attended and to maintain oil pressure, **6120** Ltrs of oil has been topped up. Presently, Oil leak started on 220kV Trombay Carnac 6 cable section from 15th June 25. Till now 9 outages taken to attend oil leakages and to maintain pressure.

c) 220 kV Carnac Source Capacity will be 90 % in case of Contingency considering load growth @5% CAGR. Hence augmentation of the 220 kV Source capacity of Carnac S/s is necessary.

d) Existing 220 kV oil filled cable with capacity of @ 340 MVA will be replaced with 220 kV XLPE cable with 450 MVA capacity. The proposed scheme will enhance 220 kV source capacity of Carnac RSS from 680 MVA to 790 MVA.

In view of above scheme of '"Upgradation of 220 kV Trombay Carnac 5 and 6 oil filled EHV cable between Sewri Fort to Carnac S/s by higher capacity 220 kV, 2000 sq mm XLPE cable." Is proposed by TPC-T.

CE, STU highlighted brief scope of works:

- TPC-T proposes to upgrade 220 kV Trombay Carnac 5&6 oil filled cables (7.52 km) to 220 kV, Single Core, 2000 mm2 XLPE Copper cable (8 km)

- Procurement, Installation and Commissioning of Distributed Temperature system (DTS), 96 core Fiber optic cable and Distribution Acoustic System (DAS)

The Estimated cost of scheme is **₹ 517.57 Cr (RI Cost @ 170 Cr).** This scheduled commissioning year of the scheme is **FY 2027-28.**

The committee opined that as the above oil filled cables have already served their life period and as TPC-T is facing challenges in maintaining these cables due to continuous minor/major leakages and requirement of frequent outages to attend the leakages, thus the above scheme can be accepted. Further replacement of 220 kV Trombay Carnac 5 and 6 oil filled EHV cable between Sewri Fort to Carnac Substation by higher capacity 220 kV, 2000 sq mm XLPE cable would also enhance the capacity of Trombay Carnac corridor considering future load growths. Further although the scheme cost is more than 200cr, the scheme constitutes upgradation of the existing network corridor within the TPC-T ROW and delineation of assets is not feasible, GCC accepted the recommendation of MTC for the scheme to be executed by TPC-T under

RTM following the relevant clauses of MYT Regulations 2024 and STU's guidelines for selection of project under TBCB.

In order to provide reliable and quality supply to consumers in South Mumbai, enhance capacity while ensuring a resilient and future ready transmission system, the committee with due deliberations, ratified the scheme.

All GCC members took note of the discussions

Agenda point No.19:

Establishment of 220kV Interconnection between TPC-T Kolshet & 220kV MSETCL Kolshet RSS.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Establishment of 220kV Interconnection between TPC-T Kolshet & 220kV MSETCL Kolshet RSS".

CE, STU submitted that TPC-T have proposed upgradation of existing 110kV Salsette-Kolshet line upgradation with construction of 220kV four circuit towers for proposed 220/22kV Kailashnagar EHV station. Hon'ble MERC has opined to upgrade existing 110 kV Stations to 220 kV level in view of long-term transmission planning. Therefore, 220kV interconnection between MSETCL Kolshet (Patilpada) & TPC-T Kolshet is being proposed.

CE, STU highlighted that proposed 220 kV Interconnection will support the contingency of 220 kV lines connected to MSETCL Kolshet S/s. CE, STU highlighted brief scope of works as below:

- 2 no's 220 kV GIS bays each at Kailashnagar RSS & Kolshet RSS
- Installation and commissioning of 220 kV 02 GIS bays at MSETCL Kolshet.
- Laying of 220 kV 1600 Sqmm XLPE cable between TCPC-T Kolshet & MSETCL Kolshet (@ 4 Ckt km).

The Estimated cost of the scheme is **₹ 400 Cr (RI cost 100 Cr.)**. The scheduled commissioning year of cited scheme is **FY 2029-30.**

CE, STU has shown route map of proposed cable details from TPC Kolshette to MSETCL Kolshette.

STU representative submitted that as per the joint Load flow study done with TPC-T, the proposed 220 kV D/c interconnection between TPC-T Kolshet & 220kV MSETCL Kolshet RSS provide 50MW relief to Kudus ICT and 20 MW relief to 220 kV Kamba-Kolshet line. With this 220 kV Interconnection, contingency (N-1) Non-compliance for 220 kV MSETCL line will be eliminated.

Chairperson, GCC opined that cost verification shall be done as 4 km double cable line cost ₹ 300 Cr.

The Estimated cost of scheme is **₹ 400 Cr (RI Cost @ 100 Cr).** This scheduled commissioning year of the scheme is **FY 2029-30.**

In order to address present and future upcoming loads, Overloading issues, N-1 Contingency, to provide relief to Kudus ICT and 220 kV Kamba-Kolshet line, reliable and quality supply to consumers, system stability and strengthening point of view, after detailed deliberation the committee, ratified the scheme. Further although the scheme cost is more than 200cr, the scheme constitutes upgradation of the existing network corridor within the TPC-T ROW and delineation of assets is not feasible so the GCC accepte the recommendation of MTC for the scheme to be executed by TPC-T under RTM following the relevant clauses of MYT Regulations 2024 and STU's guidelines for selection of project under TBCB.

All GCC members took note of the discussions

Agenda point No.20:

Upgradation of existing 110kV Parel RSS by creation of 220kV level with 2 no's 220kV source lines from Trombay.

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Upgradation of existing 110kV Parel RSS by creation of 220kV level with 2 no's 220kV source lines from Trombay".

CE, STU submitted that upgradation of 110 kV Parel RSS by creation of 220kV level scheme was approved in 13th MTC (Agenda Point-25) dated 8th May-2025 & 13th GCC (Agenda Point-17) dated 22nd April-2025.

The scheme cost based on initial survey was estimated as Rs.400 Cr & same was shared in 13th MTC & 13th GCC. Post detail engineering & route survey the proposed scheme cost is arrived as Rs.729.06 Cr. Detail break-up of cost as below:

- Substation cost- 251.46 Cr
- 220 kV Cable package cost -200 Cr
- RI Cost for 220kV cable route-104.82 Cr
- Overhead Transmission line cost- 71.32 Cr

IDC-55.62 Cr & Overheads cost @ 7%- 45.06 Cr

CE, STU highlighted brief scope of works:

- Source lines: As approved by MERC, 220 kV Parel-Mahalaxmi line (7 Ckt km) is already commissioned in view of 220 kV Parel. Commissioning of 220 kV Trombay-Parel-1 & 220 kV Trombay Parel-2 using existing RoW of TPC-T lines.
- Installation and commissioning of 220 kV 07 GIS bays (excluding 2 no's PT)
- Installation and commissioning of 1X 250 MVA 220 kV / 110 kV / 33 kV ICT & 2X 125 MVA 220 kV/ 33 kV Transformer with future provision for additional 125 MVA power Transformer
- Installation and commissioning of 33 kV GIS bus sections (33kV 23 no's GIS bays)

The Estimated cost of scheme is **₹ 729.06 Cr (RI Cost – 104.82 Cr).** The scheme will be commissioned in **FY 2028-29.**

The Chairperson, GCC opined that in view of the high increment in cost of the scheme post approval in 13th GCC, MTC should revalidate the reasons for the same which shall also be verified through the prudence check to be carried out by STU under Capex regulations 2022. However as stated by CE, STU, if any change in the scope of scheme is envisaged, clarifications to be sought by STU from TPC-T and presented in the next GCC.

All GCC members took note of the discussions

Agenda point No.21:

Upgradation and augmentation of existing 110 kV Parel Mahalaxmi 2 cable to 220 kV Cable

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Upgradation and augmentation of existing 110 kV Parel Mahalaxmi 2 cable to 220 kV Cable".

CE, STU highlighted that the source lines for 220kV Parel RSS is being proposed as 2 no's 220kV Trombay-Parel lines and 2 no's 220 kV Parel-Mahalaxmi lines. TPC-T have completed the 110kV Parel-Mahalaxmi oil filled cable replacement with 220kV class XLPE cable in FY-25 & 2 no's 220kV Trombay-Parel lines considered in 220 kV Parel augmentation DPR.

CE, STU added that existing 110kV Parel-Mahalaxmi-2 cable is 30 years old. In view of above requirement, TPC-T proposed to upgrade the existing 110kV Parel-Mahalaxmi-2 cable with 220kV XLPE cable.

CE, STU further added brief scope of work as follows:

a) **Laying of 220kV 1600 S mm XLPE cable between Parel & Mahalaxmi (6.5 Ckt Km)**
b) **Installation and commissioning of 220 kV 02 GIS bays at Mahalaxmi & Parel RSS.**

The Estimated cost of scheme is **₹ 350 Cr (RI Cost – 110 Cr).** The scheme will be commissioned in **FY 2030-31.**

The GCC committee opined that this scheme essential for establishment of source line to 220kV Parel being upgraded from 110kV, thus in view of the requirement to fulfill present & future load demand of south Mumbai, enhance system reliability, after detailed deliberation, the committee ratified the scheme. Further although the scheme cost is more than 200cr, the scheme constitutes upgradation of the existing network corridor within the TPC-T ROW and delineation of assets is not feasible, GCC accepted the recommendation of MTC for the scheme to be executed by TPC-T under RTM following the relevant clauses of MYT Regulations 2024 and STU's guidelines for selection of project under TBCB.

All GCC members took note of the discussions

Agenda point No.22:

Installation of Centralized Grid Connected Battery Energy Storage System (BESS) at Trombay S/s for Grid Support in Mumbai Transmission system

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Installation of Centralized Grid Connected Battery Energy Storage System (BESS) at Trombay S/s for Grid Support in Mumbai Transmission system". CE, STU highlighted benefits of BESS:

a) **Replacement of high-cost generation under VSE and saving on national resources**
b) **Improving dynamic performance of Mumbai power system:** A charged BESS can be considered as a generating station. Embedded generation for Mumbai power system is decreasing. BESS can suitably replace the same outgoing generating station in efficient and clean manner. During any contingency situation and especially during and after islanding, BESS can play a crucial role for ensuring load generation balance and provide a dynamic support of active and reactive power.
c) **Ancillary Services:** BESS is proposed to support essential ancillary services such as grid frequency regulation, peak shaving, spinning reserve, and voltage/frequency regulation, reactive power support etc. These services are critical to maintaining grid stability and mitigating transmission congestion. By acting as a reserve resource, BESS can improve the system's reliability, safety, and security.
d) Operating entity can charge BESS during solar period when rates are very low and Discharge BESS during non-solar period. Such energy arbitrage activity can provide additional commercial benefits to pool members.

CE, STU submitted that BESS scheme is proposed at Trombay location. Land available at the Trombay RSS is being utilized for BESS and 245 kV GIS. This will reduce overall cost of the project. CE, STU added that BESS capacity will be 200 MW/ 400 MWH. Useful life of Battery Pack and PCS will be 12 years. Lithium Iron Phosphate Battery will be used in BESS with battery efficiency of 95%.

STU representative presented the highlights and recommendation of the committee on installation of BESS at transmission level in MMR and other important location in Maharashtra which was formed under directions of 11th MTC. As per committee recommendations, "BESS is vital for Mumbai's future grid reliability amid retiring embedded generation, offering frequency and voltage support, black start capability, and reduced load shedding".

The Estimated cost of scheme is **₹ 1365 Crs (BESS- 934 Cr, Auxiliaries - 254 Cr, IDC and Overhead -177 Cr).** The scheme will be commissioned in **FY 2028-29.**

ED, MSLDC enquired that under which regulatory provisions the BESS is being proposed as a transmission scheme and sought clarity on the operational methodology that shall be adopted for operation of such an asset along with commercial arrangement for the same. The CE, STU informed that the MTC committee has only looked into the technical aspect of the BESS for MMR region while the operational & commercial aspects in this regard lacks clarity as on date.

The Chairperson, GCC stated that as multiple aspects of BESS requires regulatory clarity and commercial settlement mechanism framework thus approval of the scheme may be deferred for want of such clarity. The scheme maybe taken up after the regulatory clarity in operational & commercial aspects are obtained.

Thus, the GCC noted the technical recommendation by MTC based on the committee report for proposed 200 MW BESS at Trombay along with the comments of MSLDC & STU and therefore decided to keep the scheme on hold pending regulatory clarity on operational & commercial aspects to be sought from Hon.MERC in this regard.

All GCC members took note of the discussions

AEML SCHEMES

Agenda point No.23:

Upgradation of 220 kV AEML-Chandivali S/s by creation of 400 kV level

Discussion in 16th GCC:

CE, STU placed before the GCC a proposal for "Upgradation of 220 kV AEML-Chandivali S/s by creation of 400 kV level."

CE, STU submitted that Currently, Power flow within Mumbai network is mainly through 220kV / 110kV network (mainly through existing 220kV TPC Saki-TPC Sahar-TPC Salsette/Vikhroli single circuit lines, 220kV AEML Aarey to A-Saki to TPC-Saki double ckt connectivity). Said network is significantly loaded, as outages for maintenance/augmentation works not so easily granted by SLDC. Estimated Load in Chandivali/Powai/Saki area has been over 1000MW, in view of datacenter load and commercial developments. Existing & upcoming 220kV / 110kV network around appears insufficient to cater to such a volume of load. Considering huge load growth in area, 220kV network will need augmentation by creation of 400kV level, so as to handle huge power demand reliably

CE, STU added that MERC has approved DPR for 220kV Chandivali S/s by LILO of Vikhroli-T Saki line. MTC/GCC recently approved Aarey to Chandivali and Aarey to T-Saki single ckt scheme. Existing & upcoming 220kV / 110kV network around Chandivali/Powai/Saki appears insufficient to cater to such a volume of load.

CE, STU highlighted that 400kV scheme at Chandivali, is included in STU 10-year plan dated 05.09.2024 as "New Corridor Schemes". The Need of the scheme had been discussed during the STU 10 Year Plan review meeting dated 26.12.2024.

CE, STU added that as per the Scheme discussion in 13th MTC held on 17.04.2025, joint study between AEML-T and STU was carried aligning it with the long-term plan of new corridor. Accordingly, two joint load flow study meeting held with STU on 16.06.2025, 24.06.2025 and LFS done on 21.08.2025, MOM was received on 08.10.2025

CE, STU highlighted brief scope of works:

a) 400kV S/C U/G 2500 sq mm cable between AEMIL Aarey to Proposed Chandivali.(6 Kms Route length)

b) 400kV GIS EHV S/s at Chandivali. (3 x 500 MVA ICT + Reactor)

c) 400kV GIS at AEMIL Aarey

d) Associated Civil Works.

The Estimated cost of scheme is **₹ 785.75 Cr.** The scheduled commissioning year for above scheme is **FY 2030-31.**

STU representative submitted that *400kV scheme at Chandivali, is included in STU 10year plan dated 05.09.2024 as "New Corridor Schemes" FY2024-2034, to* integrate RE Power from Narendra (southern region) & other RE pockets through various CTU substations & HVDC Links. As per submitted proposal 2nd feed to 400kV Chandivali is proposed from 400kV Vikhroli S/s.

STU representative added that during 14th Maharashtra Transmission Committee (MTC) it was deliberated that:

- ✓ 1000 MW Kudus- Aarey Pole -2 will support 400kV Vikhroli through Chandivali –Saki-Vikhroli (220kV) and associated strengthening of network.
- ✓ 400 kV Chandivali is proposed with 400 kV S/C interconnection with 400 kV Aarey, however second 400 kV Aarey -Chandivali Circuit is also required for N-1 compliance. Thus, for power evacuation of 1000 MW Kudus- Aarey Pole -2 ,400 kV Aarey Chandivali D/c Link (Option 1) would be required and existing 220 kV Aarey shall be strengthened by establishing 400/220 kV ICTs instead of 2nd feed 400kV Vikhroli- Chandivali Link (Option 2) .
- ✓ It was also informed that in such a scenario the fault level at 220 kV Chandivali/Aarey & 220 kV Borivali (M) is exceeding beyond 50 kA & 60 kA respectively which is beyond the switchgear capacity at these substations. Hence as a mitigation measure to reduce the fault level, it has been proposed to reorient existing 220 kV lines viz 220 kV Borivali –Aarey D/c, 220 kV Borivali (AEML) -Aarey, 220 kV Borivali (TPC) -Aarey.
- ✓ It is proposed to establish switching S/s or 220 kV Bus segregating above lines. The reorientation of above 220kV Lines reduces fault to 50kA at Chandivali/Aarey & 220 kV Borivali (M) commensurate to the available capacity of breakers.

STU representative mentioned that as per directions, received in 14th MTC, Joint study was carried out by STU along with AEML-T. During reassessment by joint study, it was observed that:

- ➢ With 400 kV Aarey Chandivali D/c Link during unavailability 1000 MW Kudus- Aarey Pole -2 there would be supply to 400kV Chandivali S/s. Hence 2nd feed to 400kV Chandivali from 400kV Vikhroli S/s is technically feasible for reliability of supply to 400kV Chandivali and discussed during 15th MTC.
- ➢ For addressing fault level, other options of split arrangement is not feasible due to space constraints of addition of ICTs at Chandivali S/s due to reliability.
- ➢ Hence it is concluded that termination of 220 kV Borivali –Aarey D/c, 220 kV Borivali (AEML) -Aarey, 220 kV Borivali (TPC) -Aarey at Switching Substation will resolve the high fault issue as mentioned above.

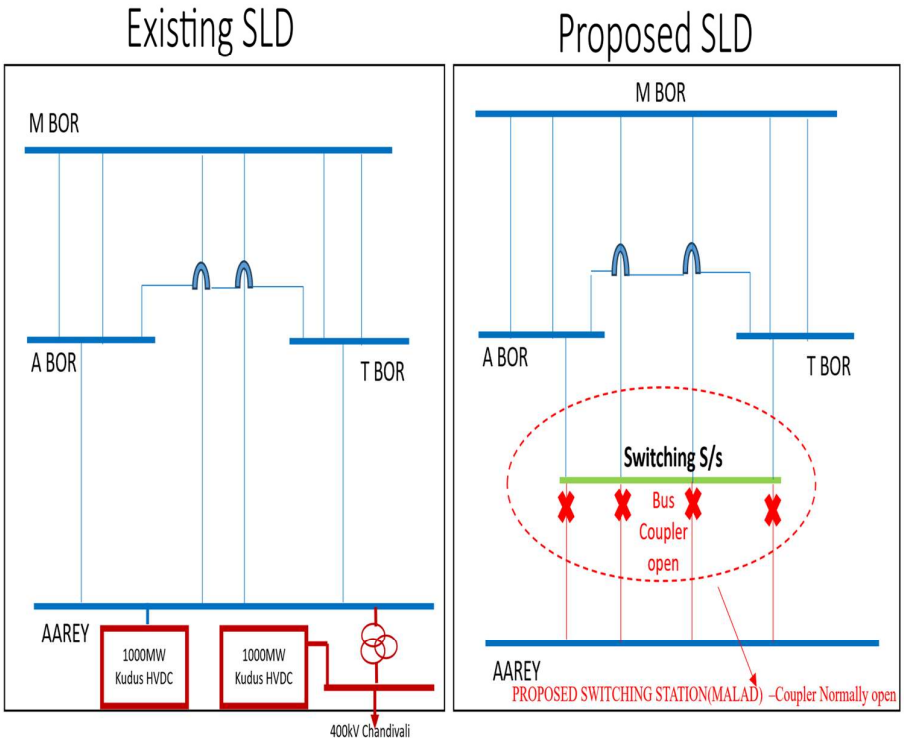
Fault Level for Upgradation of 220kV Chandivali S/S by creation of 400kV Level DPR Scheme

Sr No	Lines	Voltage Level (KV)	Rating Breaker (KA)	Base Case	Case 1-With 400kV Chandivali 400kV Aarey-Chandivali & Chandivali-Vikhroli	Case 3-With 400kV Chandivali (400kV Aarey-Chandivali D/c)	Case 4-With 400kV Chandivali (220 kV Borivali - Aarey D/c, 220 kV Borivali (AEML)-Aarey, 220 kV Borivali (TPC) - Aarey) Terminated at 220kV Malad
1	400 kV Chandivali	400	50/63	-	34	16	32
2	400 kV Aarey	400	50/63	11	32	16	30
3	400 kV Chandivali	220	50	52	58	52	49
4	400 kV Aarey	220	50	58	64	58	51
5	220 kV Borivali (M)	220	40	63	67	63	60
6	220kV Saki (AEML)	220	50	55	60	55	49
7	220kV Saki (TPC)	220	50	54	60	54	49

All GCC members took note of the discussions

Thus, after joint load flow study, following final outcome agreed:

Fault level solutioning for 220kV Aarey (AEML)-Reorientation Arrangement



*Strengthening of allied network with
1000 MW at 400kV Aarey, 400kV Chandivali and 400kV Aarey –Vikhroli/Chandivali connectivity.

The observations and Recommendation of Load flow study is as below:

1) Proposed 400kV Chandivali scheme relieves critically loaded 220kV lines in and around Chandivali/ Saki area, ensure reliable and quality power supply to meet the exponential load growth.
2) 1000 MW Kudus- Aarey HVDC (Pole -2) provide in feed to 400kV Aarey S/s and 400kV Chandivali S/s. 400kV Chandivali S/s which also gets alternate feed from 400kV Vikhroli S/s strengthens 220kV downstream Network around Chandivali–Saki-Powai area, without any adverse impact on system fault level (Case 4).
3) In view of above and in Line with recommendations of HLC for strengthening/addition of 400 kV source in Mumbai, the establishment of 400kV Chandivali S/s by 400kV Vikhroli - Chandivali S/C line & 400kV Aarey- Chandivali S/C line is technically feasible.

CE, STU stated in view of the discussions carried out in 13th & 14th MTC & after reviewing the outcomes of the joint load flow study carried out by STU and AEML-T to resolve high fault level issues, strengthen the 400 kV network in Mumbai, and enhance system reliability, the MTC after detailed deliberations has recommended the scheme for submission to the GCC for approval. Further as although the scheme cost exceeds ₹200 crore, it primarily involves the upgradation of the approved 220kV Chandivali substation within the same premises where delineation of assets is not feasible. Accordingly, MTC has also recommended that the scheme be executed by AEML-T under the RTM route, in line with the relevant clauses of the MYT Regulations 2024 & STU's guidelines for selection of projects under TBCB.

Based on the above submissions, GCC after detailed deliberation ratified the scheme in view of the outcomes of the joint load flow study carried out by STU and AEML-T to resolve high fault level issues, strengthen the 400 kV network in Mumbai, and enhance system reliability. Further although the scheme cost is more than 200cr, the scheme constitutes upgradation of the approved 220kV Chandivali substation within the same premises where delineation of assets is not feasible, GCC accepted the recommendation of MTC for the scheme to be executed by AEML-T under RTM following the relevant clauses of MYT Regulations 2024 and STU's guidelines for selection of project under TBCB.

All GCC members took note of the discussions

Agenda point No.24:

250 MWh Battery Energy Storage System (BESS) at ADTPS station/ Location of MMR Network

Discussion in 16th GCC:

CE, STU placed before the GCC for "250 MWh Battery Energy Storage System (BESS) at ADTPS station/ Location of MMR Network"

CE, STU submitted that BESS with Grid level capacity embedded within Mumbai System can provide much required relief during contingency in MMR network, also support Load leveling / peak saving, Network congestion mgmt., Voltage / Frequency regulation, Spinning reserve, Black start capability etc.

CE, STU highlighted that with RE penetration large variations seen in the supply which need to be smoothened out by rescheduling available resources – BESS provides faster response, in this case. BESS as most suitable variable source with fast response for Grid Operations. In addition to above, Provision of BESS for Transmission entity, introduced with MERC, MYT Regulation 2024,

CE, STU explained brief scope of works as below:

- 250 MW BESS, with Transformers, 220 & 33kV GIS & cable
- 220kV D/C UG Cable connectivity from existing AEML DTPS Main Bus-1 & 2 with BESS System.
- Control & protection systems

CE, STU further added that land is already identified by AEML at Dahanu.

The Estimated cost of the scheme is **₹ 1068 Cr.** This scheme will be commissioned in **FY 2029-30.**

STU representative give representation on installation of BESS at transmission level in MMR and other important location in Maharashtra and submitted recommendations of Committee, which was formed under directions of 11th MTC. As per committee recommendations, "BESS is vital for Mumbai's future grid reliability amid retiring embedded generation, offering frequency and voltage support, black start capability, and reduced load shedding".

CE, STU further stated that BESS can defer the need for investment in transmission infrastructure. Therefore, investment planning for large projects may be postponed in line with the deployment of BESS**.**

ED, MSLDC enquired that under which regulatory provisions the BESS is being proposed as a transmission scheme and sought clarity on the operational methodology that shall be adopted for operation of such an asset along with commercial arrangement for the same. The CE, STU informed that the MTC committee has only looked into the technical aspect of the BESS for MMR region while the operational & commercial aspects in this regard lacks clarity as on date.

The Chairperson, GCC stated that as multiple aspects of BESS requires regulatory clarity and commercial settlement mechanism framework thus approval of the scheme may be deffered for want of such clarity. The scheme maybe taken up after the regulatory clarity in operational & commercial aspects are obtained.

Thus, the GCC noted the technical recommendation by MTC based on the committee report for proposed 200 MW BESS at Trombay along with the comments of MSLDC & STU and therefore decided to keep the scheme on hold pending regulatory clarity on operational & commercial aspects to be sought from Hon. MERC in this regard.

All GCC members took note of the discussions.

With these discussions the meeting concluded with vote of thanks.

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Annexure A

List of participants for 16th GCC meeting held on 29.10.2025

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. Anil Kathoye	CE (Works), MSPGCL	Member
5	Shri P. D. Lone,	S.E. Commercial, WRPC	Member
6	Shri Manoj Pise	General Manager, MEDA	Member