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Ref. No. ED/MSLDC/OP/GCC/ **No 0 2 4 4 9**

Date: **12 8 NOV 2024**

To,
As per mailing list GCC Core Group Members.

Sub: - Minutes of the 10th Grid Coordination Committee (GCC) Meeting held on 23.10.2024 at 15:00 hrs. at MSLDC, Airoli.

Ref.: 1. Agenda ED/MSLDC/OP/GCC/2164 dated 22.10.2024
2. T.O.L. No. ED/MSLDC/OP/GCC/2151 dated 16.10.2024.

Dear Sir,

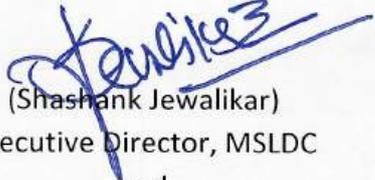
In reference to the above subject, the 10th Grid Co-ordination Committee (GCC) was convened at MSLDC, Airoli on 23.10.2023 at 15:00 hrs.

The Minutes of Meeting is enclosed herewith.

Thanking you.

With regards,

Encl: As above.


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

Copy s.w.r.s. 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	MSETCL	Shri. Mahendra Walke, Chief Engineer (Trans. O&M)	Member	9769213955	ceom@mahatransco.in
4	MSPGCL	Shri. Anil Kathoye CE (Works)	Member	022-6942200 69843434 Ext. 3419	cegw@mahagenco.in
4	WRPC	Shri P. D. Lone, S.E. Commercial	Member	9867622823	comml-wrpc@nic.in
6	MEDA	Shri Manoj Pise, General Manager	Member	9422319093	gmrdr@mahaurja.com
7	MSLDC	Shashank Jewalikar Executive Director (SLDC)	Member Convener	022- 27301931	edmsebholding@gmail.com

**Minutes of the 10th Grid Co-ordination Committee meeting held on
23rd October 2024 at 15:00 Hrs. at MSLDC, Airoli.**

The 10th Grid Co-ordination Committee (GCC) meeting of the Core Group was convened on 23.10.2024 at 15:00 hrs at MSLDC, Airoli. The meeting was convened physically as well as through Video conferencing. The list of members/participants is enclosed as per **ANNEXURE - A**.

The GCC core group has one member as the Executive Director (Trans.) MSETCL. Whereas, no one is holding the Executive Director (Trans.) post at present. Nomination is received for Chief Engineer (O&M) as a member instead of Executive Director (Trans). All future meetings will be attended by the Chief Engineer (O&M), Corporate Office as the core group member of GCC.

The Executive Director, MSLDC & Member Convener of GCC welcomed all the GCC members and other participants in the 10th GCC Meeting.

With the permission of the Chair, the discussions of the 10th GCC Core Committee commenced as below:

1.1 Confirmation of the Minutes of the 9th GCC Meeting held on 11.07.2024 through Video Conferencing & physically.

- The Member Convener of GCC informed that the minutes of the 9th GCC meeting held on 11.07.2024 were circulated to all the members vide Letter No. MSLDC/TECH/OP/GCC/1510 Dated. 31.07.2024. However, no comments are received from members and hence, the same may be considered as ratified.

GCC confirmed the MoM of the 9th GCC Meeting.

1.2 Presentation on Maharashtra System Grid performance from previous GCC meeting-

- The Chief Engineer, SLDC presented system operational performance for the period from July 2024 to September 2024.

GCC after deliberation passed the following directives;

1. The operational performance report shows that the DC declaration of MSPGCL plants is less than normal many times. It was also informed that it is resulting into lesser capacity credit numbers for MSPGCL generators while carrying out resource adequacy estimations.

The Chairman asked MSPGCL to submit a detailed short term and long-term plan for ensuring DC on plant-to-plant basis for PLF. Also, he, instructed to GCC forum to discuss this issue in next GCC meeting in line with 8th OCC meeting report.

2. As informed by the representative of MSPGCL, the revival dates for Uran Unit A0 is 21.11.2024 whereas for Ghatghar Unit 2 repairs, order is placed and it shall be revived by March 2025.

3. On TPCL unit 5 revival, the Chairman has asked TPCL to carry out the analysis of the failed unit and to submit timelines indicating the repair/ revival activities.
4. In view of addition of new 400kV lines in Mumbai / MMR region the existing LTS schemes needs to be reviewed and new LTS schemes should studied for 400kV Vikroli and new Mumbai stations.

Members noted the same.

SLDC representative briefed the agenda point;

2. MSLDC Agenda:

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 requested 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, 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. The discussion of working group be also informed to the GCC.***

Members noted the same.

3. Agenda Point received from MSPGCL:

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 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. The instructions to run Koyna units in reactive power mode is taken on the basis of Under / Over voltages at other buses namely Jejuri, Lonikand, Chakan / New Koyna, Dabhol. 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.

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 ED, SLDC informed that Koyna support is of utmost importance as it is also used for handling the under voltages in the Western region network particularly in Lonikand and Jejuri. He elaborated about the Koyna condenser operation usage done by SLDC.***

He also re-iterated the clause 4.1 from Annexure-7: Mechanism for Accounting and Settlement of Reactive Energy Charges for Intra-State Entities from MEGC State Grid Code regulation 2020 that;

Provided further that reactive energy exchange, only if made as per the directions of SLDC, for applicable duration (injection or absorption) shall be compensated/levied by SLDC to the generating station, as per following conditions:

Voltage/Condition of TSU and Generating Unit	VAr Drawl from InSTS	VAr Injection into InSTS
$V_{\text{meter}} < 97 \% \text{ of } V_{\text{bus}}$	Pay into the Pool	Get paid from the Pool
$97\% < V_{\text{meter}} < 103\%$	No payment	No payment
$V_{\text{meter}} > 103 \% \text{ of } V_{\text{bus}}$	Get paid from the Pool	Pay into the Pool

The GCC discussed the issue. It was noted that the Koyna condenser mode operation on instruction of SLDC is for managing the MVAR shortfall in a larger network and the decision is made based on the voltages at remotely located buses from Koyna bus. Hence restricting MVAR payments to Koyna generators based on local Koyna bus voltage is not prudent. GCC resolved that Koyna generator be provided for reactive power shared on instructions of SLDC for all the duration of SLDC instructions and not be limited by Koyna local bus voltages.

4. Agenda Points received from STU:

Agenda Point No. 4.1:

Replacement of existing 0.2 ASCR Conductor along with hardware by HTLS conductor of 132kV Khapri-Buttibori ckt I & II and replacement of 21 nos. of 132kV CTs with allied works at 220kV Buttibori & 132kV Khapri s/s under RS O&M Division, Nagpur

STU representative placed before the GCC a proposal for the Replacement of existing 0.2 ASCR Conductor along with hardware by HTLS conductor of 132kV Khapri-Buttibori ckt I & II and replacement of 21 nos. of 132kV CTs with allied works at 220kV Buttibori & 132kV Khapri s/s under RS O&M Division, Nagpur.

a) 220 kV Butibori S/s

STU representative explained that 220 kV Butibori S/s is commissioned in 1994. The Sub-station Feeding Nagpur Ring main Sub-stations via 132KV Butibori-1-Khapri I & II ckt under Nagpur district Butibori Industrial MIDC. 132KV Butibori-1-Khapri I & II ckt commissioned on

dt 30.10.2010 & 28.12.2010 respectively. 220 kV Butibori -1 substation is connected to M/s VIPL generation and this feeder evacuating VIPL generation.

STU representative highlighted that being directly connected to generation the voltage is higher than other sub stations which are feeding Nagpur Ring Main which results in loading of ICTs above 75% of its installed capacity. There is approximate 10% rise of load on ICTs annually. At present there are various schemes operated by MSEDCL such as additional Infra-II, DDUGJY, East vidharbha, Infra 1, IPDS & Smart City under which various feeders are sanctioned and shall be charged in future at various sub stations under Nagpur Ring Main. Also there is load of Nagpur Metro railway. This will result in increase in loading on ICTs at 220 kV Butibori -1 sub-station.

132kV Khapri S/s :

STU representative submitted that this substation was commissioned in 2005. 132kV Khapri-Butibori Ckt-1 and Ckt-2 are the main source of supply for 132kV Khapri S/S. 132KV Khapri-Hingna – 2 Circuit generally exports power from Khapri S/S and 132kV Khapri-Besa Ckt always export power from Khapri SS and this line is the main source of supply to 132kV Besa SS which is one of the loaded SS of R.S. Ring main Division, Nagpur.

STU representative highlighted that the existing 0.2 ACSR Panther conductor of both 132kV Khapri-Butibori Ckt-1 and Ckt-2 is having thermal capacity of 487 Amps. The maximum monthly load on 132kV Khapri - Butibori Ckt-1 and Ckt-2 during last four years has reached 90% of its thermal capacity.

STU representative further added that maximum current on each of these lines in the year 2024 is approximately 365 Amp (i.e. 730 Amp in total) hence in case of either of the circuit trip on fault / remain under shutdown during peak load period, the other circuit will be overloaded & may lead to tripping of the 2nd ckt due to overloading, which will result into failure of major source of supply to 132 kV Khapri SS and further 132 kV Besa S/s.

Brief scope of work:

- i) Replacement of existing 0.2 ACSR conductor along with hardware by High Ampacity current carrying Conductor in r/o 132kV Khapri Butibori Ckt I & Khapri-Butibori Ckt II and allied works at 132kV Khapri S EHV (O&M) Circle Nagpur. (2 x 21.27 kM = 42.54 CkM)
- ii) Replacement of 21 Nos. of existing 132kV CTs 800-400/1A-5C by 1600-800/1A, 5C at both the S/stn. (02 Nos. ICT LV bays, 01 Nos. TBC, 02 Nos Line Bays at Butibori SStn & 02 Nos Line Bays at Khapri Sstn).

STU representative highlighted benefits of scheme:

- 1) The Capacity of the said corridor will be increased.

- 2) Criteria of N-1 system compliance will be addressed.
- 3) Reduction in interruptions/tripping & occurrences..
- 4) Reliability and availability of the system will be improved.
- 5) Life enhancement of existing lines.

The Estimated cost of the scheme is **Rs. 3050.26 Lakh**. This scheme will be commissioned in **FY 2026-27**.

In order to meet the present & future load requirement, N-1 compliance and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda point no. 4.2:

Replacement of existing conductor with High Ampacity Conductor of 132kV Manmad-Pimperkhed (Length=36.43 Ckm)

STU representative proposed & presented the proposal for “Replacement of existing conductor with High Ampacity Conductor of 132kV Manmad-Pimperkhed (Length=36.43 Ckm”).

STU representative highlighted that this 220/132/33kV Manmad substation is having source from 220kV Malegaon through D/C line and at 132kV level 220/132/33kV Manmad substation is connected to 132kV Chalisgaon, 132kV Pimperkhed, 132kV Chandwad and 132kV Lasalgaon s/s through S/C line and 132kV Yeola s/s through D/C line.

STU representative explained that these substations are majorly catering agricultural load, Industrial area, Railway TSS, Manmad city as well as rural area. 132kV Manmad-Pimperkhed line is to be connected to 50MW Solar Power plant proposed by M/s Chordiya & Sons Builders and Developers (P) Ltd. through LILO arrangement.

STU representative also added that 50MW solar generation is also proposed by M/s FPEL at nearby vicinity of 200/132kV Manmad s/s. With this proposed additional 50MW solar generation and during N-1 contingency, 132kV Manmad-Pimperkhed line gets overloaded above its thermal capacity. As per existing situation, capacity of the 132kV Manmad-Pimperkhed line is not sufficient to sustain the load of all these areas i.e. 132kV Lasalgaon, 132kV Chandwad, 132kV Ranwad, Railway TSS and proposed RE evacuation. The max loading reached on this line in 2023 is 420 Amp.

In view of up-coming agriculture load (10% per year), proposed solar generation evacuation and Industrial growth, the strengthening of 132kV Manmad-Pimperkhed line is essential and important.

Brief scope of work:

Replacement of existing 0.2 ACSR conductor along with hardware by High Ampacity current carrying Conductor in r/o 132kV Manmad - Pimperkhed (Length=36.43 Ckm)

STU representative submitted that following benefits will be received after implementation of scheme:

- 1) The Capacity of the said corridor will be increased.
- 2) Criteria of N-1 system compliance will be addressed.
- 3) Load trimming due to tripping will be eliminated.
- 4) Reduction in interruptions/tripping & occurrences.
- 5) Reliability and availability of the system will be improved.
- 6) Life enhancement of existing line.

The Estimated cost of the scheme is **Rs. 2286.37 Lakh**. The scheduled commissioning year for the scheme is **FY 2025-26**.

In order to meet the present & future load requirement, for evacuation of upcoming RE generation, to address the N-1 compliance and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.3:

Replacement of existing conductor with High Ampacity Conductor of 220kV Malegaon-Shivajinagar (Length=113 Ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 220kV Malegaon-Shivajinagar (Length=113 Ckm)”.

STU representative explained that the Malegaon City, rural area and industrial pockets are fed by 220kV Malegaon Substation, which has source from 400kV Dhule and 220kV Shivajinagar, which is solar generation attached Substation. Total Solar power generation at Shivajinagar is 125MW from MAHAGENCO, 100MW from M/s. Orange power, 5MW from M/s. Varroc.

STU representative submitted that Upcoming solar generation at Shivajinagar is about 50MW from MAHAGENECO & 100MW from Private Generators. 220kV Malegaon-Shivajinagar line is crucial for evacuating this solar power. The 220kV Malegaon-Shivajinagar line existing conductor is 0.4 ACSR

Zebra having current carrying capacity of 737 Amp at 75°C. The max load reached on this line during 2023 is 534Amp. Considering future load growth and increasing Solar and Wind Power generation, more power will be needed to evacuate at 220kV Malegaon sub-station.

STU representative added that discom authority is implementing various schemes for Agricultural & Industrial connections. This increasing trend requires adequate system strengthening.

STU representative highlighted benefits of scheme:

- 1) The Capacity of the said corridor will be increased.
- 2) Criteria of N-1 system compliance will be addressed.
- 3) Reduction in interruptions/tripping & occurrences..
- 4) Reliability and availability of the system will be improved.
- 5) Life enhancement of existing line.

The Estimated cost of the scheme is **Rs. 9813.60 Lakh**. The scheduled commissioning year **for the cited scheme is FY 2025-26**.

In order to facilitate evacuation of upcoming RE generation in Shivajinagar – Gangapur – Satana - Malegaon Pocket, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.4:

Replacement of existing conductor with High Ampacity Conductor of 220kV Gangapur-Satana (Length=111 Ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 220kV Gangapur-Satana (Length=111 Ckm)”

STU representative explained that wind power generation capacity is around 300MW at Gangapur S/S, 200MW at Valve S/S, 400MW at Jamde S/S. 220kV Gangapur S/S is one of the major source for 220kV Satana S/S through 220kV Gangapur-Satana line. For 220kV Gangapur-Satana line, existing conductor is 0.4 ACSR Zebra having current carrying capacity of 737 Amp at 75°C. The max loading reached on this line in 2023 is 561 Amp. Considering future load growth and increasing Solar and Wind Power generation, more capacity will be needed to evacuate RE power at 220kV Satana S/S.

STU representative highlighted that DISCOM authority is implementing various schemes for Agricultural & Industrial connections. This increasing trend needs system strengthening. Therefore, considering all above aspects and in order to cater the present and future upcoming loads, the higher capacity conductor is required. Hence, the Proposal is put up for approval from the GCC Committee by MSETCL.

The estimated cost of the scheme is **Rs. 9759.60 Lakh**. The cited work proposes to be commissioned in **FY 2025-26**.

In order to facilitate evacuation of upcoming RE generation in Shivajinagar – Gangapur – Satana - Malegaon Pocket, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.5:

Replacement of existing conductor with High Ampacity Conductor of 132kV Malkapur - Juniper Solar (Tighre) Line (Length=10.68 ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 132kV Malkapur - Juniper Solar (Tighre) Line (Length=10.68 ckm)”

STU representative explained that due to the solar power projects proposed in Malkapur, Buldhana, Motala and Chikhali area, there will be overloading of 132kV Juniper solar-Varangaon tap-Khadka line. The max loading reached on this line in 2023 is 350 Amp.

STU representative highlighted that following RE generation coming:

Sr No.	Solar Power Park proposed by	Solar Power Park proposed at	Proposed MW
1	M/s. FPEL Solvin (P) Ltd.	Wiwara & vicinity, Tal: -Malkapur, Dist: Buldhana	150
2	M/s. Energevo Lights LPP	Pimpalgaon Sarai, Raipur & vicinity Tal: - Chikhali, Dist: Buldhana	200
3	M/s. Kalpak Powers (P) Ltd.	Vivara Shivar & vicinity, Tal: -Malkapur, Dist.: Buldhana	30
4	M/s. Cyclic Energy Power Pvt. Ltd.	Motala, Tal: -Motala, Dist: Buldhana	100

5	M/s. Maha Solar Park	Khamgaon & vicinity Tal: -Khamgaon, Dist.: Buldhana	80
6	M/s. Energevo Saurya MH Tree LLP	Jalgaon Jamod, Rajura & vicinity Tal: - Jalgaon Jamod, Dist.: Buldhana	80
TOTAL			640MW

As per MSETCL submission, in view of upcoming solar Mahasolar and RE potential in this area and future loading of 132kV Khadka-Juniper solar line, 132kV Malkapur-Juniper solar line is necessary.

However SE, STU informed that the under the GC issued to **M/s MahaSolar (RE Developer)** Park includes the conversion of 132kV Khadka-Juniper HTLS (40kM) within scope of developer & the developer has also submitted readiness to execute the same. It is thus suggested to review and remove the scheme of “132kV Khadka - Juniper Solar (Tighre) Line” from MSETCL proposal. As such only 132kV Malkapur-Juniper is to be carried out by MSETCL. MSETCL agreed to do the same.

The Cost of the Scheme for **132kV Malkapur-Juniper Solar (Tighre) Line** is ₹ **1313.15 Lakhs**. The work will be commissioned in **FY 2025-26**.

In order to facilitate evacuation of upcoming RE generation in Malkapur Taluka Dist: Buldhana, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.6:

Replacement of existing conductor with High Ampacity Conductor of 220kV Gangapur-Shivajinagar (Length= 75 ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 220kV Gangapur- Shivajinagar (Length= 75 ckm)”.

STU representative submitted that 220kV Gangapur s/s is having existing 225MW Wind Generation connected. Recently, Grid connectivity is given for the proposed 200MW solar generation of M/s Ampyr Renewable Energy Sources Twelve Pvt. Ltd.

STU representative added that max loading reached on this line in 2023 is 375 Amp. In order to resolve the overloading problem, as well as for solar generation evacuation, the replacement

proposal of existing 0.4 Zebra conductor by adequate High Performance Conductor (HPC) is proposed.

STU representative highlighted benefits of scheme as follows:

- 1) The Capacity of the said corridor will be increased.
- 2) Criteria of N-1 system compliance will be addressed.
- 3) Load trimming due to tripping will be eliminated.
- 4) Reduction in interruptions/tripping & occurrences..
- 5) Reliability and availability of the system will be improved.
- 6) Life enhancement of existing line.

The cost of the scheme is ₹ **7872.01 Lakh**. The scheduled commissioning year for this scheme is **FY 2025-26**.

STU representative mentioned that even though present loadings of the lines are seem to be well within permissible limits, in order to facilitate evacuation of upcoming RE generation in Shivajinagar – Gangapur – Satana - Malegaon Pocket, the proposed scheme is essential as entire pocket is having high RE generation potential and adequate Transmission network is essential for evacuation.

In order to facilitate the present & future RE power generation evacuation arrangements, and to address the anticipated overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.7

Replacement of existing conductor with High Ampacity Conductor of 132kV Shivajinagar-Sakri – Dhule (Length= 80ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 132kV Shivajinagar-Sakri –Dhule (Length= 80ckm)”.

STU representative explained that 132kV Sakri Substation is generation attached substation with 06 numbers of 33kV wind generation feeders. At present, against 88 MW of sanctioned provision, 61.71 MW (approx.) power is being evacuated from these feeders. The max loading reached on this line in 2023 is 390 Amp. Similarly, 220kV Shivajinagar substation is also important Grid connected

substation attached with 230 MW Generation (i.e. 130MW power is evacuated from 5X33 kV solar generation feeders of MAHAGENCO and 01 no of 33kV Variac Feeder and 100MW from 02 X132kV Greenraj solar generation).

STU representative highlighted that recently three Solar Power Generation Projects proposed by M/s. Hauban Pvt. Ltd, M/s. Juniper Green Field Pvt. Ltd. and M/s. Soleco solar of 70MW, 70MW and 50MW respectively are envisaged as LILO on existing 132kV Dhule- Shivajinagar (S/C) line. Further, 70MW generation is proposed by MAHAGENCO. Hence, to evacuate the solar generation, it is necessary to increase the capacity of 132kV Shivajinagar-Dhule line, the scheme for replacement of old conductor with HPC (High Performance Conductor) for 132kV Dhule-Shivajinagar Line and 132kV Shivajinagar-Sakri Line by HPC (High Performance Conductor) is necessary.

The cost of the Scheme is **Rs. 6144.15 Lakh**. Cited Work will be commissioned in **FY 2025-26**.

In order to facilitate evacuation of upcoming RE generation in Shivajinagar – Dhule – Sakri-Pocket, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.8:

Replacement of existing conductor with High Ampacity Conductor of 132kV Manmad-Chalisgaon (Length=72.7 ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 132kV Manmad-Chalisgaon (Length=72.7 ckm)”

STU representative explained that 132 kV Manmad-Chalisgaon line was commissioned in the year 1967 and served for 56 years. The max loading reached on this line in 2023 is 460 Amp. 220/132kV Manmad s/s caters the load of Manmad city, Industrial area, Indian Railways and Manmad rural area along with the load of connected substation i.e 132kV Lasalgaon s/s, 132kV Chandwad s/s and 132kV Ranwad s/s,

220/132kV Manmad s/s is fed from 132kV Chalisgaon, 132kV Pimperkhed & 220kV Malegaon s/s. 132kV Manmad-Chalisgaon SC line is envisaged to be connected to proposed 100 MW Solar Power proposed by M/s Chordiya & Sons Builders and Developers (P) Ltd. through LILO arrangement.

Further, 50MW solar generation is also proposed by M/s FEPL at nearby vicinity of 200/132kV Manmad s/s.

STU representative added that as per the current situation and overloading issue of 220/132kV GCR Substation, the load of 132kV Chandwad, 132kV Lasalgaon and 132V Ranwad Substation depends only on 220/132kV Manmad Substation and ultimately it comes on 132kV Manmad-Chaligaon line being important source to 220/132kV Manmad Substation.

STU representative highlighted that conductor used for this line is 0.2 Panther having current carrying capacity 395 Amp at 65 Deg C. The load of 132kV Manmad-Chaligaon line is crossing 400 Amps in case of withdrawal of ELR or otherwise also average load is crossing 350 Amperes. As per existing situation, capacity of the 132kV Manmad-Chaligaon line is not sufficient to sustain the load of all these areas i.e. 132kV Lasalgaon, 132kV Chandwad, 132kV Ranwad, Railway TSS and proposed renewable energy evacuation. Therefore it is required to replace existing conductor by High Ampacity Conductor (HPC).

The Estimated cost of the scheme is ₹ 4619.77 Lakh. The cited Scheme will be commissioned in FY 2025-26.

In order to meet the present & future load requirement, to facilitate the evacuation of upcoming RE generation, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No.4.9:

Replacement of existing conductor with High Ampacity Conductor of 132kV Pimperkhed-Chaligaon (Length=36.80 ckm)

STU representative placed before the GCC a proposal for “Replacement of existing conductor with High Ampacity Conductor of 132kV Pimperkhed-Chaligaon (Length=36.80 ckm)”.

STU representative explained that the 132kV Manmad-Chaligaon S/C line is envisaged to be connected to proposed 100 MW Solar Power project by M/s Chordiya & Sons Builders and Developers (P) Ltd. through LILO arrangement.

132kV Manmad-Pimperkhed line is envisaged to be connected to propose 50 MW Solar Power proposed by M/s Chordiya & Sons Builders and Developers (P) Ltd. through LILO arrangement.

Further 50MW solar generation proposed by M/s FEPL at nearby vicinity of 200/132kV Manmad s/s.

STU representative added that 132kV Pimperkhed s/s is having two source lines i.e. 132kV Chalisgaon- Pimperkhed and 132kV Manmamd –Pimperkhed. 132kV Chalisgaon- Pimperkhed line is the main source and during overload condition, power is available from 220/132kV Manmamd s/s through 132kV Manmamd –Pimperkhed line.

During normal situation 220/132kV Chalisgaon acts as source for 220/132kV Manmad s/s and the 220/132kV Manmad s/s cater the area itself and along with the load of connected substation i.e 132kV Lasalgaon, 132V Chandwad and 132kV Ranwad. 220/132kV Manmad s/s having three sources of supply viz. 132kV Manmad- Chalisgaon line, 132kV Manmad-Pimperkhed line & 220kV D/C Manmad-Malegaon line.

STU representative highlighted that as per existing situation, capacity of the 132kV Pimperkhed-Chalisgaon line is not sufficient to sustain the load of all these areas that are connected to 220kV Manmad i.e. 132kV Lasalgaon, 132kV Chandwad and 132kV Ranwad. The max loading reached on this line in 2023 is 457 Amp. In addition to above, conductor is suffering from continuous aging effect as the commissioning of this line was done on 28.03.1994 by making LILLO arrangement but the main line was commissioned on 16.02.1967 i.e more than 56 years is completed. In view of the above, MSETCL submitted proposal for “Replacement of existing conductor with High Ampacity Conductor of 132kV Pimperkhed-Chalisgaon (Length=36.80 ckm)”, for GCC approval.

The estimated cost of the scheme is ₹ **2332.03 Lakh**. This scheduled commissioning of the cited scheme is in **FY 2025-26**

In order to meet the present & future load requirement, for evacuation of upcoming RE generation, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.10:

Replacement of existing 0.5 ACSR Twin Moose Conductor along with insulators & hardware by Twin High-Performance conductor equivalent to 0.5 ACSR Moose Conductor & allied hardware & insulators of 400KV Babhaleshwar-Padghe ckt 1 & 2 along with bay strengthening at Padghe & Babhaleshwar s/s under Vashi & Nashik Zone respectively

STU representative placed before the GCC a proposal for a scheme for “Replacement of existing 0.5 ACSR Twin Moose Conductor along with insulators & hardware by Twin High-Performance conductor equivalent to 0.5 ACSR Moose Conductor & allied hardware & insulators of 400KV Babhaleshwar-Padghe ckt 1 & 2 along with bay strengthening at Padghe & Babhaleshwar s/s under Vashi & Nashik Zone respectively”.

STU representative explained that the 400kV Babhaleshwar- Padghe Ckt-I (174.92Ckm) and Ckt-II (174.89Ckm) lines are in operation since 1979 and 1981 respectively transmitting power from Babhaleshwar to Padghe substation. These lines have combined capacity of 1300 MW power transmission. These lines are strong source to 400kV Padghe substation and feed power to MMR region, Thane District and Major Industrial Consumers in Thane District.

STU representative mentioned that on 18.04.2023 at 13:04 hrs, 400kV Babhaleshwar- Padghe Ckt-I line was tripped & Grid was on high alert mode with N-1 condition. Load on 400kV Babhaleshwar-Padghe Ckt-II reached to 747.22 MW. This tripping has caused overloading of remaining 400kV lines to thermal loading. Hence during peak demand 400kV Babhaleshwar- Padghe Ckt-I & Ckt-II lines should carry the bulk power from Babhaleshwar to MMR region without overloading & sustain the N-1 criteria.

The Estimated cost of the scheme is ₹ **62760.59 Lakh**. The scheduled completion year of said scheme is **FY 2025-26**.

SE STU stated that, in order to facilitate evacuation of RE power generated around Khawda, Gujrat and connected through ISTS network, the said scheme is essential and the timelines for the execution of the scheme are to matched with the Establishment of 765 kV Boisar (PG) & 400 kV Velgaon RS. The scheme is critically required and needed to be taken up on Priority.

In order to meet the present & future load requirement, for evacuation of RE generation through ISTS network, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.11:

Scheme for the replacement of existing 0.5 ACSR Twin Moose Conductor along with insulators and hardware by Twin HTLS Conductor equivalent to 0.5 ACSR Moose Conductor & allied hardware & insulators of 400 kV Kalwa - Talegaon, Kalwa - Kharghar, Kharghar-Talegaon (DC) line and 400 kV Kalwa - Kharghar Bays at 400 kV RS Kalwa, 400 kV RS Kharghar and PGCIL Talegaon under Vashi and Pune Zone”.

STU representative placed before the GCC a proposal for “Scheme for the replacement of existing 0.5 ACSR Twin Moose Conductor along with insulators and hardware by Twin HTLS Conductor equivalent to 0.5 ACSR Moose Conductor & allied hardware & insulators of 400 kV Kalwa - Talegaon, Kalwa - Kharghar, Kharghar-Talegaon (DC) line and 400 kV Kalwa - Kharghar Bays at 400 kV RS Kalwa, 400 kV RS Kharghar and PGCIL Talegaon under Vashi and Pune Zone”.

STU representative explained that 400kV Kalwa-Talegaon, Kalwa-Kharghar, Kharghar-Talegaon D/C line is in operation since 31.03.1992. These Lines are the most vital / critical source to Mumbai MMR region. 400kV Kalwa - Padgha ckt 1 & 2 and 400kV Kalwa - Kharghar - Talegaon D/C lines form the primary source to Mumbai region. All these lines being grid connected are sharing nearly equal load. STU representative highlighted that loading on these lines has increased above 750 MW / 1150 Amps nearing equal to the thermal rating of the conductor. Out of these, 400kV Kalwa-Padgha 1&2 Ckts, HTLS conversion work is under progress. But all the four 400kV lines being grid connected will continue to share equal load even after HTLS conversion. Hence the criteria of stability during N-1 condition is not achieved. In view of the above, it was planned to enhance the capacity of 400 kV Kalwa - Kharghar - Talegaon D/C lines by replacing the existing 0.5 Moose conductor by HTLS Conductor.

In view mitigate future load demand of Data Center and other categories of consumers, to strengthen Mumbai Metropolitan Region EHV network and Pune area as well the said scheme is essential and benifitial. However, while processing further, the current carrying capacity of U/G cable portions involved in the said line to be confirmed and aligned with said proposal if required.

The Estimated cost of the scheme is ₹ 50353.25 Lakh, The Scheduled commissioning year of said scheme is **FY 22026-27**.

In order to meet the present & future load requirement, for evacuation of upcoming RE generation, to address the overloading problems and enhance system reliability & stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.12:

Supply, Erection, Testing and Commissioning of Outdoor GIS Switchgear as Bus-Sectionalizer for) 220kV Bus at 220kV Temghar, 220kV Kamba, 220kV Nalasopara, 220kV Wada and 100 kV Bus at 100KV Bhiwandi substations under Kalwa Circle and 220kV Bus at 220kV Pal & Anandnagar substations under Panvel Circle in Vashi Zone ii) 220kV Bus at 220kV Karkamb & Tembhorni substations under Solapur Circle in Pune Zone”

STU representative placed before the GCC a proposal for “Supply, Erection, Testing and Commissioning of Outdoor GIS Switchgear as Bus-Sectionalizer for) 220kV Bus at 220kV Temghar,

220kV Kamba, 220kV Nalasopara, 220kV Wada and 100 kV Bus at 100KV Bhiwandi substations under Kalwa Circle and 220kV Bus at 220kV Pal & Anandnagar substations under Panvel Circle in Vashi Zone ii) 220kV Bus at 220kV Karkamb & Tembhorni substations under Solapur Circle in Pune Zone”.

STU representative explained that the many of 220kV & 132/100kV substations under Pune & Vashi Zone have been provided with one main & auxiliary bus arrangement without the provision of bus-sectionalizer. The non-availability of Bus-Sectionalizer at these substations is grossly affecting the reliability and availability of the system.

STU representative highlighted that it is very difficult to avail outages on the 220kV & 132/100kV Buses for routine maintenance and also for emergency works for want of clearance from various agencies involved. The Busbar and LBB protection schemes are provided on these Buses however for any Operation of Busbar or LBB protection, the entire Bus becomes dead which results in complete loss of supply. Hence, considering above facts, it is essential to provide the Bus-Sectionalizer for these Buses for the ease of maintenance as well as from flexibility, reliability and operation point of view. MSETCL will execute the scheme in following 9 Sub-stations:

Zone	Vashi		Pune
Circle	Kalwa	Panvel	Solapur
Substations	100 KV Bhiwandi		
	220 kV Wada	220 kV Pal	220 kV Karkambh
	220 kV Kamba	220 kV Anandnagar	220 kV Tembhorni
	220 kV Temghar		
	220 kV Nalasopara		

The Estimated cost of the scheme is ₹ **18.22 Crore**. The above scheme will be commissioned in **FY 2025-26**.

In view of the System reliability & selective protection operations after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.13:

Installation of new 1x125MVAR, 400kV Bus Reactor with allied bay and replacement of old 2x50MVAR, 400kV Line reactors by 2x80MVAR, 400kV switchable Line reactors for 400kV Khadka-Koradi & 400kV Khadka-Akola Lines at 400kv Khadka S/s (Dist. Jalgaon) under Nashik Zone.

STU representative placed before the GCC a proposal of "Installation of new 1x125MVAR, 400kV Bus Reactor with allied bay and replacement of old 2x50MVAR, 400kV Line reactors by 2x80MVAR, 400kV switchable Line reactors for 400kV Khadka-Koradi & 400kV Kkadka-Akola Lines at 400kv Khadka S/s (Dist. Jalgaon) under Nashik Zone".

STU representative stated that 400 kV Khadka Substation is very vital sub-station under EHV O&M Circle Bhusawal. The total installed capacity of this sub-station is 1,115 MVA. 400 kV Khadka sub-station is one of the major grid-connected sub-station connecting 400 kV Deepnagar, Waluj, Akola, Koradi & Babhaleshwar sub-station & caters most of the load of Jalgaon District. 400kV Khadka S/s, being the Generation attached S/s and feeding long length 400kV Lines, there are issues of over voltages observed at this S/s.

This sub-station is attached to 2 x 500 MW Generation through 400kV Deepnagar Ckt-I & II Line. It is observed that overvoltage issues are being faced at 400kV Khadka S/s and at many instances voltage remains above the prescribed limit i.e., 420kV.

These 400kV, 2x50MVAR line reactors were in service for 38 years and completed their service life. Further, 2x50MVAR existing Line Reactors at 400kV Khadka S/S were removed with LD permission from service in Mar 2019. Therefore, replacement of existing Reactor scheme was sanctioned.

Reactors will help regulate voltage levels within the transmission network. By controlling the flow of reactive power, reactors can adjust voltage level to keep them within acceptable limits, especially when the system experiences voltage fluctuations. Therefore, by adding reactors to a power system, the reactive power balance can be adjusted improving voltage stability.

STU representative submitted that the earlier scheme was approved by MERC in Aug 2020 for scheme cost of Rs.33.41 Crs. However, due to increase in cost, fresh DPR scheme of Rs.40.70 Crs. will be posed to MERC's In-Principle approval after approval of the scheme by the Board of Directors, recommendations of MTC & GCC and prudence check by STU.

The Estimated cost of the scheme is ₹ **40.70 Crore**. The schedule year of commissioning of the above scheme is **FY 2025-26**.

As per system study report in order to control the reactive power and maintain the voltage profile, within specified limit after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.14:

Implementation of AI Based Comprehensive Infra-Secure Project (Infra Security) for Mahatransco sub-stations.

STU representative placed before the GCC a proposal of “Implementation of AI Based Comprehensive Infra-Secure Project (Infra Security) for Mahatransco sub-stations”.

STU representative explained that there are many crisis situations that may result in a significant disruption in the normal business of electricity supply. Such events may affect generating plants, transmission systems, power system operation systems and distribution systems with or without loss of human life or physical injuries. The broad events that may result in crisis situations in the power sector are:

- 1) Terrorist Threats and Attacks
- 2) Bombs Threats, Hoax & Bomb Explosions
- 3) Explosion in Equipment
- 4) Crowd or Mob Attack
- 5) Threat from UAV(Drone) Attack
- 6) Strike
- 7) Sabotage
- 8) Cyber-attack
- 9) Fire

STU representative highlighted that all the forms of crisis situations, terrorism happens to be the deadliest form in terms of loss of life and damage to the property. Acts of terrorism have grown over a period of time. Power generating plants, dams, substations, transmission lines and Load Despatch Centres are among the prime targets for terrorist attacks. The power transmission and distribution networks system is very vulnerable to terror attacks as it spans over length and breadth of the country and is mostly unguarded. Any coordinated attacks by terrorists could disrupt the entire power system of the country as the electric grid is now interconnected for a longer period of time. Therefore, power establishments need to be protected against acts of terrorism.

MSETCL wants to Supply, Installation and Commissioning of AI Based Comprehensive Infrasecure Project for MSETCL 400 kV following substations

Zone	Vashi	Pune	Nashik
400 kV Substations	Kalwa	Lonikand	Babhaleshwar
	Padghe		
	Kharghar		

Estimated cost of scheme is ₹ **122.88 Crore**.

In view of the compliance of the advance Infra security systems requirements, within already identified critical establishments of MSETCL after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.15:

Providing additional 1X100MVA, 220/132kV ICT along with HV & LV Bays with reorientation of 220kV Tower of 220kV Shivajinagar-Malegaon line at 220kV Shivajinagar S/s under EHV (O&M) Division, Dhule”.

STU representative placed before the GCC a proposal for “Providing additional 1X100MVA, 220/132kV ICT along with HV & LV Bays with reorientation of 220kV Tower of 220kV Shivajinagar-Malegaon line at 220kV Shivajinagar S/s under EHV (O&M) Division, Dhule”.

STU representative submitted that 220/132/33kV Shivajinagar Substation is one of the important generation (Solar) attached substation in Dhule District. The said substation was commissioned in the year 2013. At present, 100MW of solar generation of M/s. Greenraj & 70MW of solar generation of M/s Huoban at 132kV level.

STU representative mentioned that grid connectivity is granted by STU for 100MW solar generation of M/s. Huoban out of which 70MW is already commissioned & 30 MW is expected in near future. In case of tripping/outage on 1 No. of ICT, load cannot managed on other ICT i.e. Not fulfil the (N-1) criteria. Hence, to satisfy (N-1) criteria & for evacuation of RE generation, additional 1X100MVA, 220/132kV ICT along with HV & LV Bays is proposed at 220kV Shivajinagar S/s.

The estimated cost of the scheme is **Rs. 744.43 Lakhs**. The cited scheme will commissioned in **FY 2024-25**.

In order mitigate the evacuation of upcoming RE generation, to address the overloading problems, enhance system reliability and stability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.16:

Replacement of 2x100MVA, 220/132kV ICTs by 2X200MVA, 220/132kV ICTs at 220kV Manmad S/s under EHV (O&M) Division, Nashik

STU representative placed before the GCC a proposal for Replacement of 2x100MVA, 220/132kV ICTs by 2X200MVA, 220/132kV ICTs at 220kV Manmad S/s under EHV (O&M) Division, Nashik. STU representative mentioned that 220kV Manmad Substation was commissioned in 2019 (132kV substation commissioned on 16.02.1967). 220kV Manmad Substation caters the load of Yeola, Nandgaon, Chandwad, Lasalgaon & Malegaon Talukas in Nashik District.

STU representative highlighted that 220kV Manmad Substation has three sources, from 220kV Malegaon, 220kV Chalisgaon & 220kV Kopargaon S/stns. In case of tripping/outage on 1 No. of ICT, load cannot be managed on other ICT i.e. Not fulfil the (N-1) criteria. 220kV Manmad Substation also fulfills the augmentation criteria.

Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of existing 2X100MVA, 220/132kV ICTs by 2X200MVA, 220/132kV ICTs is proposed at 220kV Manmad Substation. The estimated cost of the scheme is ₹ 2451.41 Lakh. The scheduled completion year for said scheme is 2024-25.

In view of the requirement to fulfill MSEDCL demand in Yeola, Nandgaon, Chandwad, Lasalgaon & Malegaon Talukas, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.17:

Addition of 1 x 100 MVA, 220/132 kV ICT along with HV & LV bays, extension of 132 kV Main & Auxiliary Bus and allied civil works at 220 kV Malegaon(Zodga) S/s in EHV (O&M) Division, Akola under EHV PC (O&M) zone, Amravati

STU representative placed before the GCC a proposal for Addition of 1 x 100 MVA, 220/132 kV ICT along with HV & LV bays, extension of 132 kV Main & Auxiliary Bus and allied civil works at 220 kV Malegaon(Zodga) S/s in EHV (O&M) Division, Akola under EHV PC (O&M) zone, Amravati

STU representative mentioned that The 220 kV Malegaon(Zodga) Substation is commissioned on 10.08.2017. The current installed capacity of the substation at 220 kV Malegaon(Zodga) Substation is 300 MVA, consisting of 3X100 MVA 220/132kV ICTs. 220kV Malegaon (Zodga) substation supplies 132kV MSETCL substations (132kV Washim, 132kV Malegaon, 132kV Mangrulpir & 132kV Karanja S/s) through 3X 100MVA, 220/132kV ICTs.

STU representative highlighted that average loadings reached on ICT I, ICT-II and ICT III are about 70 % of installed capacity. During outage/Breakdown of one of the ICT, load is not managed on other two ICTs i.e. not satisfying N-1 criteria. Hence considering the present loading condition, outage constraints and to satisfy N-1 criteria addition of ICT is proposed at 220kV Malegaon (Zodga) S/s.

The Estimated cost of the scheme is **Rs. 1071.06 Lakh**. The scheduled commissioning year of the cited scheme is **FY 2025-26**.

In view of the requirement to fulfill MSEDCL demand in Washim, Malegaon, Mangrulpir & Karanja Taluka, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.18:

Addition of 1 X 50MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Amgaon S/s under EHV (O&M) Division Bhandara

STU representative placed before the GCC a proposal for "Addition of 1 X 50MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Amgaon S/s under EHV (O&M) Division Bhandara

STU representative submitted that the 132 kV Amgaon Substation is commissioned in the year 1999. Present installed capacity of 132kV Amgaon S/s is 100 MVA consisting of 2 nos of 2X50 MVA, 132/33 kV T/Fs which are operating independently. This substation feeds the part of Amgaon, Deori and Gondia under Gondia District covering residential and agricultural load along with Amgaon TSS. Average maximum loading reached on both the T/Fs are above 73.82 % of installed capacity.

STU representative highlighted that 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 present loading

condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Amgaon S/s. Further, MSEDCL has conveyed requirement of 33kV feeder for Proposed 33/11 kV new s/stn under DDUGJY within nearby area of Amgaon S/stn with futuristic load requirement to tune of 15 MVA.

The Estimated cost of the scheme is **Rs. 645.55 Lakh**. The scheduled year of completion for the cited scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future MSEDCL demand in Amgaon, Deori and Gondia area under Gondia District, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.19:

Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays, 33kV twin bus extension and completion of existing 2nos of 33kV incomplete bays and allied civil works at 132 kV Lakhandur S/s under EHV (O&M) Division Bhandara

STU representative placed before the GCC a proposal for “Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays, 33kV twin bus extension and completion of existing 2nos of 33kV incomplete bays and allied civil works at 132 kV Lakhandur S/s under EHV (O&M) Division Bhandara

STU representative mentioned that 132kV Lakhandur Substation is commissioned in the year 2012. Present installed capacity of 132kV Lakhandur S/s is 50 MVA consisting of 2 nos of 2X25 MVA, 132/33 kV T/Fs which are operating parallel. This substation feeds the load of Lakhandur taluka, some part of Morgaon Arjuni and Walsa/Kurkheda taluka covering residential and agricultural load. Average maximum loading reached on both the T/Fs are above 80 % of installed capacity. 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Lakhandur S/s.

The Estimated cost of the scheme is **₹ 612.66 Lakh**. The scheduled year of commissioning of said scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future MSEDCL demand in Lakhandur taluka, Morgaon Arjuni and Walsa/Kurkheda taluka, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.20:

Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays, 132kV Bus extension, reorientation of 33kV PT bay and allied civil works at 132 kV Sakoli S/s under EHV (O&M) Division Bhandara

STU representative placed before the GCC a proposal for “Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays, 132kV Bus extension, reorientation of 33kV PT bay and allied civil works at 132 kV Sakoli S/s under EHV (O&M) Division Bhandara”.

STU representative submitted that The 132kV Sakoli Substation is commissioned in the year 2006. Present installed capacity of 132kV Sakoli S/s is 100 MVA consisting of 2 nos of 2X50 MVA, 132/33 kV T/fs which are operating parallel or independently as per loading condition.. This substation feeds load of Sakoli and Deori covering residential and agricultural load. Average maximum loading reached on both the T/Fs are about 70 % of installed capacity.

STU representative highlighted that 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Sakoli S/s.

The Estimated cost of the scheme is ₹ 698.80 Lakh. The scheduled year of commissioning of the cited scheme is FY 2025-26.

In view of the requirement to fulfill present & future MSEDCL demand in Sakoli and Deori, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.21:

Replacement of existing 2X 25 MVA, 132/33kV T/F by 2X 50 MVA, 132/33kV T/Fs at 132kV Ambhora S/s under EHV (O&M) Division Nagpur

STU representative placed before the GCC a proposal for the Replacement of existing 2X 25 MVA, 132/33kV T/F by 2X 50 MVA, 132/33kV T/Fs at 132kV Ambhora S/s under EHV (O&M) Division Nagpur

STU representative explained that the The 132kV Ambhora Substation was commissioned in the year 2002. Present installed capacity of 132kV Ambhora S/s is 50 MVA, consisting of 2 nos of 2X25 MVA, 132/33 kV T/fs. This substation is feeding the part of Kuhi Taluka under Nagpur District covering industrial and agricultural load.

STU representative highlighted that Average maximum loading reached on both the T/Fs are above 70 % of installed capacity. 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 present loading condition, outage constraints and to satisfy (N-1) criteria replacement of T/Fs is proposed at 132kV Ambhora S/s.

The Estimated cost of the scheme is ₹ **974.14 Lakh**. The scheduled year of commissioning is **FY 2025-26**.

In view of the requirement to fulfill present & future MSEDCL demand in Kuhi Taluka, enhance system reliability, Space constraints and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.22:

Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Sengaon S/s under EHV (O&M) Division Parbhani

STU representative placed before the GCC a proposal for Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Sengaon S/s under EHV (O&M) Division Parbhani

STU representative submitted that The 132 kV Sengaon Substation is commissioned in the year 2018. Present installed capacity of 132kV Sengaon S/s is 50 MVA consisting of 2 nos of 2X25 MVA, 132/33 kV T/fs. This substation feeds the urban, rural & agricultural load demand of Sengaon Taluka.

STU representative highlighted that average maximum loading reached on both the T/Fs are above 80 % of installed capacity. The proposed scheme fulfills the augmentation scheme criteria. 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Sengaon S/s.

The Estimated cost of the scheme is ₹ **524.38 Lakh**. The scheduled commissioning year for said scheme is **FY 2025-26**

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.23:

Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Hingoli S/s under EHV (O&M) Division Parbhani

STU representative placed before the GCC a proposal for “Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Hingoli S/s under EHV (O&M) Division Parbhani.

STU representative mentioned that the 132kV Hingoli Substation is commissioned in the year 1994. Present installed capacity of 132kV Hingoli S/s is 100 MVA consisting of 2 nos of 2X50 MVA, 132/33 kV T/fs. This substation feeds the urban, rural & agricultural load demand of Hingoli District.

STU representative highlighted that average maximum loading reached on both the T/Fs are above 60 % of installed capacity. Furthermore, 2 Nos of 33 kV feeders are proposed for the substation with expected load of 5 MVA each. MSEDCL is proposing to install additional 5 MVA transformers at the 33 kV substations in Adgaon, Pangri, Masod, and Basamba S/s each. 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 present loading condition, future load, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Hingoli S/s.

The Estimated cost of the scheme is ₹ **635.96 Lakh**. The scheduled commissioning year for said scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.24:

Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Parbhani S/s under EHV (O&M) Division Parbhani

STU representative placed before the GCC a proposal for the Addition of 1 X 50 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132 kV Parbhani S/s under EHV (O&M) Division Parbhani

STU representative submitted that the The 132kV Parbhani Substation is commissioned in the year 1996. Present installed capacity of 132kV Parbhani S/s is 100 MVA consisting of 2 nos of 2X50 MVA, 132/33 kV T/fs.

STU representative highlighted that this substation feeds the urban, rural and agriculture load of Parbhani District. Average maximum loading reached on both the T/Fs are above 80 % of installed capacity. The proposed scheme fulfills the augmentation scheme criteria. 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Parbhani S/s.

The Estimated cost of the scheme is ₹ **615.43 Lakh**. The scheduled commissioning year of the cited scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan

Agenda Point No. 4.25

Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132kV Kagzipura S/s

STU representative placed before the GCC a proposal for the Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays and allied civil works at 132kV Kagzipura S/s

STU representative mentioned that the 132kV Kagzipura Substation was commissioned in the year 1999. Present installed capacity of 132kV Kagzipura S/s is 50 MVA, consisting of 2 nos of 2X25 MVA, 132/33 kV T/fs.

STU representative highlighted that this substation is situated near the most precious tourist places of Chhatrapati Sambhajnagar District.viz. Daulatabad Fort, Allora Caves, Ghrineshwar temple, Bhadra Maruti Temple. As such there is substantial business growth in hotel and hospitality business. Average maximum loading reached on both the T/Fs are above 80 % of installed capacity.

The proposed scheme fulfills the augmentation scheme criteria. 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Kagzipura S/s.

The Estimated cost of the scheme is ₹ 485.89 Lakh. The scheduled commissioning year for the cited scheme is FY 2025-26.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.26:

Addition of 1 X 25 MVA, 220/33 kV T/F along with HV and LV bays and allied civil works at 220 kV Hingoli S/s under EHV (O&M) Division Parbhani

STU representative placed before the GCC a proposal for “Addition of 1 X 25 MVA, 220/33 kV T/F along with HV and LV bays and allied civil works at 220 kV Hingoli S/s under EHV (O&M) Division Parbhani”

STU representative submitted that the The 220kV Hingoli Substation was commissioned in the year 2011. Present installed capacity of 220kV Hingoli S/s is 50 MVA, consisting of 2 nos of 2X25 MVA, 220/33 kV T/fs. This substation forms a link between Vidarbha and Marathwada region of Maharashtra State. 220 kV Hingoli Substation feed supply to urban, MIDC as well as rural & agriculture load.

Average maximum loading reached on both the T/Fs are above 90 % of installed capacity. The proposed scheme fulfills the augmentation scheme criteria. 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 220kV Hingoli S/s.

The Estimated cost of the scheme is Rs. 664.64 Lakh. The scheduled commissioning of the cited scheme is in FY 2025-26.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.27:

Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays, 33kV Bus extension and allied civil works at 132 kV Kinwat S/s under EHV (O&M) Division Nanded

STU representative placed before the GCC a proposal for the “Addition of 1 X 25 MVA, 132/33 kV T/F along with HV and LV bays, 33kV Bus extension and allied civil works at 132 kV Kinwat S/s under EHV (O&M) Division Nanded

STU representative mentioned that the 132kV Kinwat Substation was commissioned in the year 2007. Present installed capacity of 132kV Kinwat S/s is 50 MVA, consisting of 2 nos of 2X25 MVA, 132/33 kV T/fs.

The load of 132 kV Kinwat Substation is of mixed nature comprising of Urban, Agriculture as well as rural load. Average maximum loading reached on both the T/Fs are about 80 % of installed capacity. The proposed scheme fulfills the augmentation scheme criteria. 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 present loading condition, outage constraints and to satisfy (N-1) criteria additional T/F is proposed at 132kV Kinwat S/s.

The Estimated cost of the scheme is **Rs. 490.54 Lakhs**. The scheduled commissioning of the cited scheme is in **FY 2026-27**.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.28:

Providing additional 1X50 MVA, 220/33kV Power Transformer along with HV & LV Bays at 220kV Vita Sub-Station under EHV O&M Division, Sangli

STU representative placed before the GCC a proposal for Providing additional 1X50 MVA, 220/33kV Power Transformer along with HV & LV Bays at 220kV Vita Sub-Station under EHV O&M Division, Sangli

STU representative mentioned that There are 2X50MVA, 220/33kV T/Fs at 220kV Vita S/S & average max load for peak 03 months in a year on both the existing T/Fs is more than 80% of their capacity. Agriculture load demand is increasing due to Maharashtra Krishna khore Valley Development Corporation's water irrigation scheme i.e. Tembhu LIS.

STU representative highlighted that in case of tripping/outage on 1 No. of T/F load cannot managed on other T/F i.e. Not fulfil the (N-1) criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1X50MVA, 220/33kV T/F is proposed at 220kV Vita S/s.

The Estimated cost of the scheme is ₹ **744.01 Lakh**. The scheduled commissioning year of the cited scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.29:

Replacement of 1X25 MVA, 132/33kV T/F by 1X50 MVA, 132/33kV T/F at 132kV Kudal Sub-Station under EHV O&M Division, Ratnagiri

STU representative placed before the GCC a proposal for Replacement of 1X25 MVA, 132/33kV T/F by 1X50 MVA, 132/33kV T/F at 132kV Kudal Sub-Station under EHV O&M Division, Ratnagiri

STU representative mentioned that the 132/33kV Kudal S/s was commissioned on 11.12.1978. There are 1x50MVA, 132/33KV T/F & 1x25MVA, 132/33KV T/F at 132/33kV Kudal S/s. The maximum load at 132/33kV Kudal S/s is more than 70%. Also, there is additional demand from MSEDCL for 2 new 33kV feeders (33kV Adeli & 33kV MIDC Kudal) along with supply for the Airport Chipi through the 33kV Malwan feeder. In case of tripping/outage on 50MVA T/F load cannot managed on 25MVA T/F i.e. the S/s does not fulfil the (N-1) criteria. The substation fulfils the criteria of augmentation.

Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 1X25 MVA, 132/33kV T/F by 1X50 MVA, 132/33kV T/F is proposed at 132kV Kudal Sub-Station

The Estimated cost of the scheme is ₹ **486.99 Lakh**. The scheduled commissioning of the cited scheme is **FY 2026-27**.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.30:

Replacement of 2X25 MVA, 110/33kV T/Fs by 2X50 MVA, 132-110/33kV T/Fs at 110kV Dighanchi Sub-Station under EHV O&M Division, Sangli

STU representative placed before the GCC a proposal for “Replacement of 2X25 MVA, 110/33kV T/Fs by 2X50 MVA, 132-110/33kV T/Fs at 110kV Dighanchi Sub-Station under EHV O&M Division, Sangli”.

STU representative submitted that there are 02 nos. of 25MVA, 110/33 kV T/Fs at 110kV Dighanchi S/s & average max load for peak 03 months in a year on both the existing T/Fs is almost 80% of their capacity. Additional Load demand of 25 MVA for new proposed MSEDCL substations & 25 MVA by augmentation of 33/11 kV T/Fs at existing substations is submitted by MSEDCL S/Dn Atpadi.

STU representative highlighted that in case of tripping/outage on 1 No. of T/F load cannot managed on other T/F i.e. not fulfil the (N-1) criteria. The substation fulfils the criteria of augmentation. Space is not available for additional T/Fs at 110kV Dighanchi S/s. Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 2X25MVA, 110/33kV T/Fs by 2X50MVA, 132-110/33kV T/Fs is proposed at 110kV Dighanchi S/s.

The Estimated cost of the scheme is ₹ **1001.65Lakh**. The scheduled commissioning of the cited scheme is **FY 2027-28**

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability, space constraints and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.31:

Replacement of 2X25 MVA, 132/33kV T/Fs by 2X50 MVA, 132-110/33kV T/Fs at 132kV Kundal Sub-Station under EHV O&M Division, Sangli

STU representative placed before the GCC a proposal for the Replacement of 2X25 MVA, 132/33kV T/Fs by 2X50 MVA, 132-110/33kV T/Fs at 132kV Kundal Sub-Station under EHV O&M Division, Sangli

STU representative submitted that there are 02 nos. of 25MVA, 132/33kV T/Fs running in parallel at 132kV Kundal S/s & average max. load in peak three months in a year on both the existing T/Fs is more than 85% of their capacity. Additional Load demand of 35MVA for new proposed MSEDCL substations & 35 MVA by augmentation of 33/11 kV T/Fs at existing substations is submitted by MSEDCL S/Dn. Palus.

STU representative explained that in case of tripping/outage on 1 No. of T/F load cannot managed on other T/F i.e. Not fulfil the (N-1) criteria. The substation fulfils the criteria of augmentation. Space is not available for additional T/F at 132kV Kundal S/s. Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 2X25MVA, 132/33kV T/Fs by 2X50MVA, 132/33kV T/Fs is proposed at 132kV Kundal S/s.

The Estimated cost of the scheme is ₹ 487.98 Lakh. The scheduled commissioning of the cited scheme is FY 2025-26.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability, space constraints and present N-1 non compliance, with due deliberations after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.32:

Replacement of 1X25 MVA, 132/33kV T/F by 1X50 MVA, 132-110/33kV T/F at 132kV Wai Sub-Station under EHV O&M Division, Sangli

STU representative placed before the GCC a proposal for the Replacement of 1X25 MVA, 132/33kV T/F by 1X50 MVA, 132-110/33kV T/F at 132kV Wai Sub-Station under EHV O&M Division, Sangli.

STU representative mentioned that There are 1X50MVA, 132/33kV & 1X25MVA, 132/33kV T/Fs in service at 132kV Wai S/S & average max. load in peak three months in a year is more than 55 % & 65 % respectively.

STU representative highlighted that 132kV Wai S/S feeds supply to Mahabaleshwar and Pachgani tourist area. Also, most of the load fed by 132 kV Wai S/S is Industrial & Urban. There is no any alternative source/arrangement for management of load; which causes unrest among consumers of MSEDCL & leads to revenue loss / affects availability. Space is not available for additional T/F at 132kV Wai S/s.

STU representative added that in case of tripping/outage on 50MVA, 132/33kV T/F, load cannot managed on 25MVA, 132/33kV T/F i.e. Not fulfil the (N-1) criteria. The substation fulfils the criteria of augmentation. Hence, to satisfy (N-1) criteria & also to meet the future load demand,

replacement of 1X25MVA, 132/33kV T/Fs by 1X50MVA, 132/33kV T/Fs is proposed at 132kV Wai S/S.

The Estimated cost of the scheme is ₹ 487.98 Lakh. This scheme will commissioned in FY 2025-26.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability, space constraints and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.33:

Providing additional 1X50 MVA, 132-110/33kV T/F along with 110kV Bus Extension, HV & LV Bays at 110kV Shirolu Sub-Station under EHV O&M Division, Kolhapur

STU representative placed before the GCC a proposal for Providing additional 1X50 MVA, 132-110/33kV T/F along with 110kV Bus Extension, HV & LV Bays at 110kV Shirolu Sub-Station under EHV O&M Division, Kolhapur

STU representative submitted that there are 2X50MVA, 110/33kV T/Fs at 110kV Shirolu S/s & average max load for peak 03 months in a year on both the existing 50MVA T/Fs is around 75% & 55% of their capacity. 110kV Shirolu Substation feeds supply to Shirolu urban & MIDC area.

STU representative highlighted that in case of tripping/outage on 1 No. of T/F load cannot managed on other T/F i.e. Not fulfil the (N-1) criteria. The substation fulfils the criteria of augmentation. Hence, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1X50MVA, 132-110/33kV T/F is proposed at 132kV Shirolu S/s.

The Estimated cost of the scheme is ₹ 676.93 Lakh. This scheme will commissioned in FY 2025-26.

In view of the requirement to fulfill present & future MSEDCL demand, enhance system reliability, space constraints and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.34:

Providing additional 1x50MVA, 132/33kV T/F along with HV & LV Bays at 132kV Sinner Old Substation under EHV O&M Division, Nashik.

STU representative placed before the GCC a proposal for Providing additional 1x50MVA, 132/33kV T/F along with HV & LV Bays at 132kV Sinner Old Substation under EHV O&M Division, Nashik.

STU representative explained that presently 220kV GCR (Eklahare) –Babhaleswar Ckt-I & Ckt-II line are two main sources of power supply feeding power to 220 kV GCR Sub-Station from 400kV Babhaleswar Sub-station.

STU representative submitted that 132kV Sinner old Substation was commissioned in the year of 1984. At present the installed capacity of 132kV Sinner old S/s is 135MVA & caters industrial, urban, rural and agricultural load under Sinnar Taluka of Nashik District.

STU representative highlighted that load growth around 20MVA in upcoming three years is expected in region due to ongoing major projects like Mumbai Nagpur Samruddhi Highway, Nashik-Pune High speed railway and ever-growing industry.

STU representative added that both 132/11kV transformers are under loaded and peak load reached at 11kV level is below 15 MVA. Therefore, considering increasing load demand at 33kV level, redundancy, shifting of 11kV load on MSEDCL substations and scarcity of space available at 132kV Sinnar old, it is proposed to install 1x50MVA, 132/33kV T/F in place of 1x10MVA, 132/11kV T/F.

In case of tripping/outage on 1 No. of T/F, load cannot be managed on other T/F i.e. Not fulfil the (N-1) criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 1x10MVA, 132/11kV T/F by 1x50MVA, 132/33kV T/F is proposed at 132kV Sinner Old Substation.

The Estimated cost of the scheme is ₹ 609.24 Lakhs. **This scheme will commissioned in FY 2024-25.**

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.35:

Providing additional 1x25MVA, 132/33kV T/F along with HV & LV Bays at 132kV Newasa Substation under EHV O&M Division, Babhaleswar

STU representative placed before the GCC a proposal for Providing additional 1x25MVA, 132/33kV T/F along with HV & LV Bays at 132kV Newasa Substation under EHV O&M Division, Babhaleswar

STU representative explained that 132kV Newasa substation is commissioned in the year 1979 having 2x50MVA, 132/33kV Power T/Fs and caters agricultural & rural load of Newasa Taluka.

STU representative added that loading of existing 2x50MVA, 132/33kV T/Fs is more than 75% in the peak demand in the year 2023-24. Also, MSEDCL proposed new 07 no's of 33kV substation which will be feed from the 132kV Newasa substation. In case of tripping/outage on 1 No. of T/F, load cannot be managed on other T/F i.e. Not fulfil the (N-1) criteria. 132kV Newasa Substation fulfills the augmentation criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1x25MVA, 132/33kV T/F is proposed at 132kV Newasa Substation.

The Estimated cost of scheme is ₹ 525.21 Lakh. This scheme will commissioned in **FY 2024-25**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.36:

Replacement of existing 1x25MVA 132/33kV T/F by 1x50 MVA 132/33kV T/F at 220kV Manmad Substation under EHV O&M Division, Nashik

STU representative placed before the GCC a proposal for "Replacement of existing 1x25MVA 132/33kV T/F by 1x50 MVA 132/33kV T/F at 220kV Manmad Substation under EHV O&M Division, Nashik".

STU representative explained that 220kV Manmad Sub-station having 2X50MVA, 132/33kV and 1X25MVA, 132/33kV T/Fs feeding Manmad urban, rural and area of Yeola, Nandgaon, Chandwad, Lasalgaon & Malegaon Talukas in Nashik District.

STU representative highlighted that DISCOM is likely to be eliminate the existing 11kV level by shifting load of peak demand 15.6 MW on nearby 33/11kV S/s which will be catered by 220kV Manmad Sub-station. 03 no's of 33/11kV S/s of DISCOM under RDSS scheme are in construction phase and will soon be connected to 33kV Bus of 220kV Manmad Sub-station.

STU representative added that additional load of 35 MVA is anticipated in this area as per the rate of load growth of 8-10 % per year in the next three years. In case of tripping/outage on 1 No. of T/F, load cannot be managed on other T/F i.e. not fulfil the (N-1) criteria. 220kV Manmad Substation fulfils the augmentation criteria

The Estimated cost of cited scheme is ₹ 496.11 Lakh. **This Scheme will be commissioned in FY 2024-25.**

In order to meet the present & future load requirement, to address the overloading problems & enhance system reliability and stability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.37:

Providing additional 1x25MVA, 132/33kV T/F along with HV & LV Bays at 132kV Ramache Pimplas substation under EHV O&M Division, Nashik

STU representative placed before the GCC a proposal for “Providing additional 1x25MVA, 132/33kV T/F along with HV & LV Bays at 132kV Ramache Pimplas substation under EHV O&M Division, Nashik”

STU representative submitted that 132kV Ramache Pimplas S/s was commissioned on Dt. 28.06.2007. It is the most important substation feeding the supply to Niphad urban and rural area of Sinnar & Dindori Taluka.

STU representative highlighted that the loading of existing 3x25MVA, 132/33kV T/Fs is more than 70% in the peak demand in the year 2023-24. In case of tripping/outage on 1 No. of T/F, load cannot be managed on other T/F i.e. Not fulfil the (N-1) criteria.

STU representative added that 132kV Ramache Pimplas S/s fulfills the augmentation criteria vide Circular No. MSETCL/DIR (OP)/ 4044 dtd. 14.06.2023. Hence, to satisfy (N-1) criteria & also to meet the future load demand, addition of 1x25MVA, 132/33kV T/F is proposed at 132kV Ramache Pimplas Substation.

The Estimated cost of Scheme is **Rs. 489.64 Lakh**. This scheme will be commissioned in **FY 2025-26**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.38:

Scheme identified in MSKVY 2.0 for Augumentation of T/F / ICT works in 16 EHV S/s in various Zones of MSETCL (132kV Gunj, 132kV Ausa, 132kV Chakur, 132kV Pishor, 220kV Deogaon Rangari, 132kV GCR Parli, 110kV Mayani, 220kV New Satara MIDC, 132kV Talegaon, 132kV Kharada, 132kV Rahuri, 132kV Shrigonda, 220 kV Babhaleshwar, 220kV Kopergaon, 132kV Manegaon, 132kV Mandrup)

STU representative placed before the GCC a proposal for scheme identified in MSKVY 2.0 for Augumentation of T/F / ICT works in 16 EHV S/s in various Zones of MSETCL (132kV Gunj, 132kV

Ausa, 132kV Chakur, 132kV Pishor, 220kV Deogaon Rangari, 132kV GCR Parli, 110kV Mayani, 220kV New Satara MIDC, 132kV Talegaon, 132kV Kharada, 132kV Rahuri, 132kV Shrigonda, 220 kV Babhaleshwar, 220kV Kopergaon, 132kV Manegaon, 132kV Mandrup)

STU representative explained that Revised data received from MSEDCL regarding Solar Projects in 33/11 kV Substations in MSEDCL & EHV substations (132 kV and above) under MSKVY 2.0. MSEDCL has submitted the district wise Data of MSKVY 2.0 Generation (9169 MW) on dated 10/05/2024 for 28 Districts in Maharashtra. Based on the data submitted by MSEDCL and load flow study; STU section has identified source EHV substations for the 33 kV MSEDCL feeder for districts forwarded by MSEDCL and simulated Load flow study for each substation.

STU representative highlighted that CE(STU) vide O.N. 739 dated 23.08.2024 has asked to process the scheme identified under “MSKVY” of Govt of Maharashtra on priority basis for smooth evacuation of proposed solar power.

The MSETCL has submitted details of S/s, with scope of works and cost as follows:

Sr.No	Name of Substation	Scope	Year of inclusion in STU Plan	Estimated Cost
1	132kV Gunj	Addition of 1x25MVA, 132/33kV T/F (Existing T/F Capacity:2x50MVA, 132/33kV T/F	2026-27	Rs 573.81 Lakhs
2	132kV Ausa	Addition 1x50MVA, 132/33kV T/F (Existing T/F Capacity:2x50MVA, 132/33kV T/F)	2025-26	Rs 883.79 Lakhs
3	132kV Old GCR Parli	Replacement of existing 1 x25 MVA 132/33kV T/F by 1 X 50 MVA 132/33kV T/F (Existing T/F Capacity:1x50MVA, 132/33kV T/F,1x25MVA, 132/33kV T/F)	2026-27	Rs 620.21 lakhs
4	132kV Pishor	Replacement of existing 1 x25 MVA 132/33kV T/F by 1 X 50 MVA 132/33kV T/F	2026-27	Rs 853.36 Lakhs

		(Existing T/F Capacity:1x50MVA, 132/33kV T/F,1x25MVA, 132/33kV T/F)		
5	220kV Devgaon Rangari	Addition of 1x50MVA, 220/33kV T/F (Existing T/F Capacity:2x50MVA, 220/33kV T/F)	2025-26	Rs 1055.61 Lakhs
6	132kV Chakur	Addition of 1x25MVA, 132/33kV T/F (Existing T/F Capacity:2x25MVA, 132/33kV T/F)	2024-25	Rs 453.28 Lakhs
7	110kV Mayani	Addition of 1X50 MVA, 110/33kV T/F (Existing T/F Capacity:2x25MVA, 110/33kV T/F, 1x50MVA, 110/33kV T/F, 2x25MVA, 110/32kV T/F)	2025-26	Rs 670 Lakhs approx.
8	132kV Talegaon	Addition of 1x25MVA, 132/33kV T/F (Existing T/F Capacity:2x25MVA, 132/33kV T/F)	2025-26	Rs 788.73 Lakhs approx.
9	132kV Kharda	Addition of 1x25MVA, 132/33kV T/F (Existing T/F Capacity:2x25MVA, 132/33kV T/F)	2025-26	Rs 653.02 Lakhs
10	132kV Rahuri	Addition of 1x50MVA, 132/33kV T/F (Existing T/F Capacity:2x50MVA, 132/33kV T/F)	2025-26	Rs 700.00 Lakhs Approx.
11	132kV Shrigonda	Addition of 1x25MVA, 132/33kV T/F (Existing T/F Capacity:2x50MVA, 132/33kV T/F, 1X25MVA, 132/11kV T/F)	2025-26	Rs 629.70 Lakhs

12	220kv Babhaleshwar	Addition of 1x50MVA, 220/33kV T/F (Existing T/F Capacity: 4x50MVA, 220/33kV T/F)	2025-26	Rs 826.95 Lakhs
13	220kv Kopargaon	Addition of 1x50MVA, 220/33kV T/F (Existing T/F Capacity: 2x50MVA, 220/33kV T/F)	2025-26	Rs 826.00 Lakhs approx.
14	132kv Manegaon	Addition of 1x50MVA, 132/33kV T/F (Existing T/F Capacity: 2x50MVA, 132/33kV T/F)	2025-26	Rs 830.00 Lakhs approx.
15	132kv Mandrup	Addition of 1x50MVA, 132/33kV T/F (Existing T/F Capacity: 2x50MVA, 132/33kV T/F)	2025-26	Rs 826.95 Lakhs approx.
16	400 kV Lonikand II	Addition of 1x200 MVA, 220/132kV ICT	2025-26	Rs.2675.00 Lakhs

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.39 :

Providing additional 1x200MVA, 220/132kV ICT along with HV & LV bays at 400kV Lonikand-II S/s.

STU representative placed before the GCC a proposal for the “Providing additional 1x200MVA, 220/132kV ICT along with HV & LV bays at 400kV Lonikand-II S/s”.

STU representative submitted that 400kV Lonikand-II S/s is critical MSETCL substation in grid & commissioned on 26.03.2012. It cater the load of 132kV Pune Ring Main. 400kV Lonikand-II S/s connects to 220kV Bhosari, VSNL, Ranjangaon & 400kV Lonikand-I S/stns through interconnector.

STU representative highlighted that at present, 400kV Lonikand-II S/s caters the load of 132kV Sanaswadi & 132kV Markal S/stn because it is not possible to manage load of all four 132kV substations on existing 2x100MVA, 220/132kV ICTs. The maximum load of 132kV Sanaswadi & 132kV Markal S/stn is 175MW, which is more than 75% of total capacity of existing ICTs. Also, the load of 132kV Theur & 132kV Sanaswadi cannot managed on existing ICTs.

STU representative added that the scheme in respect of augmentation by replacement of existing 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 400kV Lonikand-II substation is already approved vide BR No. 166/22 dtd. 19.01.2024. But considering the existing load & future upcoming load at 132kV level, this scheme completion will not fulfilled the N-1 criteria of augmentation at 400kV Lonikand-II S/s.

Hence, to satisfy (N-1) criteria & also to meet the future load demand, additional 1x200 MVA, 220/132kV ICT is proposed at 400kV Lonikand II S/s by CE, EHV PC(O&M) zone, Pune.

The Estimated cost of the scheme is ₹ **2675 Lakh**. The Scheduled Commission year for scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.40:

Replacement of 2x100MVA, 220/132kV ICTs by 2x200MVA, 220/132kV ICTs at 220kV Kumbhari S/s.

STU representative placed before the GCC proposal for the Replacement of 2x100MVA, 220/132kV ICTs by 2x200MVA, 220/132kV ICTs at 220kV Kumbhari S/s.

STU representative submitted that the 220kV South Solapur S/s was commissioned on 07.06.2012. At present, there are 2Nos. of 100MVA, 220/132kV ICTs are in service at 220kV South Solapur S/s, operating parallel feeding load of 132kV South Solapur-Bale & 132kV South Solapur- Akkalkot lines, 132kV DC line of Gokul Sugar Co-gen (10MW generation) & 132kV Chetak Solar Generation (12MW generation) plants are connected with 132kV South Solapur-Akkalkot line by making LILLO arrangement. In addition to that, new 132kV South Solapur-MIDC line proposed, will increase the load demand at 220kV South Solapur S/s. It is difficult to manage the load in case of tripping/outage on any of the ICTs i.e. Not fulfill N-1 criteria.

Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 2x100 MVA, 220/132kV ICTs by 2x200 MVA, 220/132kV ICTs is proposed at 220kV South Solapur S/s.

The Estimated cost of scheme is ₹ **2315 Lakhs**. The Scheduled Commission year for scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.41:

Providing additional 1x50MVA, 220/22kV T/F along with HV & LV bays at 220kV Chakan-II S/s.

STU representative placed before the GCC a proposal for the “Providing additional 1x50MVA, 220/22kV T/F along with HV & LV bays at 220kV Chakan-II S/s”.

STU representative submitted that the 220/132/22kV Chakan Phase-II Sub-Station was commissioned on Dt. 06.03.2016. 220kV Chakan-II S/s is very important & critical S/s in Chakan MIDC area. Maximum load on existing 2x50MVA, 220/22KV T/Fs is 90MVA i.e.; 90% of installed capacity. It feeds the Chakan MIDC, 4 Nos of EHV Consumers having 3 no. of oxygen production plants, Chakan MIDC Phase-2, Talegaon MIDC Phase-2, Urban & Rural Part of Chakan/Ambethan/Varule/Rajgurunagar and nearby villages of Pait, Kadus, Karanjvihare.

STU representative highlighted that it is difficult to manage the load in case of tripping/outage on any of the T/Fs i.e. Not fulfill N-1 criteria. The proposed scheme fulfils the augmentation criteria.

Hence, to satisfy (N-1) criteria & also to meet the future load demand, additional 1x50 MVA, 220/33kV T/F is proposed at 220kV Chakan-II S/s by CE, EHV PC(O&M) zone, Pune.

The Estimated cost of the scheme is ₹ **1522 Lakh**. The Scheduled Commission year for scheme is **FY 2026-27**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.42:

Replacement of 1x25MVA, 132/22kV T/F by 1x50MVA, 132/22kV T/F at 132kV Markal S/s.

STU representative placed before the GCC a proposal for the Replacement of 1x25MVA, 132/22kV T/F by 1x50MVA, 132/22kV T/F at 132kV Markal S/s.

STU representative submitted that 132kV Markal substation commissioned on dtd. 21/12/2001 to cater the power supply of Markal MIDC, residential & commercial load of Alandi, Dhanore & Markal area.

STU representative highlighted that the technical feasibility is sanctioned for 22kV PMPML & PMAY of load 4.5MVA & 3.363MVA respectively from 132kV Markal S/Stn and these 22kV PMPML & PMAY will be charged within few months. It is difficult to manage the load in case of tripping/outage on any of the T/Fs i.e. Not fulfill N-1 criteria.

Hence, to satisfy (N-1) criteria & also to meet the future load demand, replacement of 1x25 MVA, 220/22kV ICTs by 1x50 MVA, 220/222kV T/Fs is proposed at 132kV Markal S/s by CE, EHV PC(O&M) zone, Pune.

The Estimated cost of scheme is ₹ **464 Lakh**. The Scheduled Commission year for scheme is **FY 2025-26**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.43:

Providing additional 1x50MVA, 220/33kV T/F along with HV & LV bays at 220kV Kurkumbh S/s.

STU representative placed before the GCC a proposal for “Providing additional 1x50MVA, 220/33kV T/F along with HV & LV bays at 220kV Kurkumbh S/s”.

STU representative submitted that 220kV Kurkumbh S/s is commissioned in 2007 & caters the load of Kurkumbh MIDC, Shirsai LIS & part of Daund & Baramati Taluka through 2x50MVA, 220/33kV T/Fs. There is requirement of load of MSEDCL at 220kV Kurkumbh S/s i.e. new Kurkumbh Patas MIDC with 10MVA & Roti with 05MVA load.

STU representative highlighted that 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, 220/33kV T/F is proposed at 220kV Kurkumbh S/s by CE, EHV PC(O&M) zone, Pune.

The Estimated cost of the scheme is ₹ **945 Lakhs**. The Scheduled Commission year for scheme is **FY 2026-27**.

In view of the requirement to fulfill present & future load requirement, to address the overloading problems, enhance system reliability and present N-1 non compliance after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.44:

Establishment of 132/33 kV Sawana s/s at Village Sawna, Tal. Sengaon, Dist. Hingoli

STU representative placed before the GCC a proposal for, a “Establishment of 132/33 kV Sawana s/s at Village Sawna, Tal. Sengaon, Dist. Hingoli

STU representative submitted that 33 kV Kokalgaon ,33kv Goregaon feeders emanating from 132/33kv Sengaon s/s and 33 kV Goregaon feeder from 132 kC /33 kV Hingoli s/s has low VR and tail end voltage. Further around 1195 MW RE Generation applications for Grid Connectivity have been received in the area. The existing EHV network in the area seems insufficient to evacuate the upcoming generation. Therefore, 132/33 kV Sawana S/s required.

STU representative highlighted objective of said scheme is as follows:

- 1) RE power evacuation in Hingoli District.
- 2) To bring source nearer to load pockets of Sengaon Taluka
- 3) To Reduce line length of 33 kV feeders and solve low voltage problem by improving Voltage Regulation.

The estimated cost for the subject project is ₹ 70.23 Crores. This scheme will be execute in FY 2026-27.

Considering the additional load requirement of MSEDCL, re-orientation of existing load and voltage Regulation improvement after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.45:

Establishment of 220/132/33 kV Bhabhulgaon s/s, Dist. Yawatmal

STU representative placed before the GCC a proposal for, a “Establishment of 220/132/33 kV Bhabhulgaon s/s, Dist. Yawatmal

STU representative submitted that at present, the supply of Babhulgaon Taluka is fed by 33 kV Babhulgaon Feeder emanating from 220 kV Yavatmal s/s. Maximum, Average and Minimum load observed at substation which are feeding proposed substation area and surrounding area:

Sr. No.	Name of EHV substation	Installed Capacity MVA	Maximum load MVA	% loading
1	220 kV Yavatmal	150 (3x50)	112.25	74.83
2	220 kV Dhamangaon	50 (2x25)	36.73	73.46
3	132/33 kV Yavatmal	50 (2x25)	38	76
4	220/33 kV Ner	50 (2x25)	22	44.40

Further, there is no space for additional 33 kV feeder bays at 220/132/33kV Yavatmal s/s. At present 220 kV Ner S/s is connected to 220 kV Badnera S/s with 220 kV SCDC line. 100 MW solar project by M/s. Avaada MH Solar Pvt. Ltd. is connected at 220 kV level at Ner S/s. Now, various Solar IPPs have proposed their plants in Yavatmal district in the vicinity of Ner and Babhulgaon Taluka. About 800 MW Solar Plants are proposed in the Ner-Babhulgaon corridor.

STU representative added that any tripping / breakdown on any one line results in Back down of generation as well as overloading of these lines, which in turn increases commercial & system losses. Creation of 132 kV level in near future and 220 kV & 132 kV interconnection lines from Babhulgaon S/s will help in strengthening of 220 kV & 132 kV network in Yavatmal district. This will also be helpful in interconnecting two district grids of Amravati and Yavatmal.

STU representative mentioned that with this present & upcoming power scenario as stated above, it is utmost essential to establish 220 kV substation at Babhulgaon, which will not only provide reliable & quality supply to end consumers in Babhulgaon Taluka, but also facilitate the evacuation of RE power from upcoming Solar IPPs in Ner and Babhulgaon Taluka

STU representative highlighted objective of said scheme is as follows:

- 1) Evacuation of RE power from upcoming solar projects in Ner & Babhulgaon Taluka.
- 2) After establishment of 220/132/33 kV Babhulgaon S/s the voltage profile nearby will be improved due to reduction in line lengths.

- 3) EHV network in Yavatmal District will be strengthened.
- 4) The future load demand of MSEDCL/HT/EHV consumer can be met.
- 5) Restoration time in case of breakdown will get reduced. The system availability will be increased.
- 6) Reliable and quality of power supply will be achieved.
- 7) Saving in Losses.

The estimated cost for the subject project is ₹ **32534.01 Lakhs**. This scheme will be execute in **FY 2027-28**.

Considering the additional load requirement of MSEDCL, to address the overloading problems, for evacuation of RE power and to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.46:

Establishment of 220/132/33kV Substation at Kesurdi MIDC, Tal. Khandala, Dist. Satara

STU representative placed before the GCC a proposal for Establishment of 220/132/33kV Substation at Kesurdi MIDC, Tal. Khandala, Dist. Satara

STU representative highlighted that The MIDC has proposed development of Kesurdi Phase-II. The EHV consumers and HT consumers will come up in this area. The Kesurdi MIDC is expected to be developed rapidly. It is near to Pune and National Highway-4 the prospective load demand of 91 MVA in Kesurdi MIDC area.

STU representative mentioned that at Present the area near Kesurdi is fed from 132kV Shirwal S/s. 42MVA load from 132kV Shirwal s/s is to be diverted on proposed 220/132/33kV Kesurdi s/s. The installed capacity of 132kV Shirwal s/s is 150 MW. There are 09 Nos. of 33 kV & 08 Nos. of 22kV feeders emanating from 132kV Shirwal substation. There is no alternate provision at existing 132/33/22kV Shirwal s/s to meet the upcoming load demand and to get load relief at existing Shirwal s/s. Establishment of EHV s/s at Kesurdi MIDC is essential.

STU representative highlighted that the length of 22kV Khandala feeders emanating from 132kV Shirwal s/s is 70 Kms and voltage regulation is 15.69% which is very high as specified by MERC.

STU representative explained that presently, 220kV Lonand s/s and 220kV Phursungi s/s are connected through 132kV Veer Hydr-Nipro-Ijlin-Shirwal-Bhatghar-Kamthadi line grid. The 132kV network load of more than 90 MW is mainly fed by 220 kV Lonand s/s. In case of tripping /outage

on any source line, the total load of the network cannot be catered on single source and loading constraint at source substations. To maintain uninterrupted power supply to EHV consumers and MIDC, 132kV level is essential at proposed 220kV Kesurdi s/s.

132kV Wai s/s mainly feeding tourists places, Industrial and urban area having only sources of 220kV Lonand s/s. To provide alternate source, LILO on 132kV Wai – Lonand line is proposed. Hence, for maintaining uninterrupted power supply to EHV consumers and MIDC area, tourist places, 132 kV level is essential at proposed 220 kV Kesurdi MIDC s/s.

STU representative highlighted benefits as below:

1. After establishment of 220/132/33kV Kesurdi MIDC S/s the voltage profile nearby will be improved due to reduction in line lengths.
2. EHV network in Satara District will be strengthened.
3. The future load demand of MSEDCL/HT/EHV consumer can be met easily.
4. Redundancy to 132kV network in Kesurdi MIDC area, Pachgani and Mahabaleshwar commercial pocket can be achieved. So that uninterrupted & quality power supply to EHV consumers & MIDC, tourists area can be provided.
5. Restoration time in case of breakdown will get reduced. The system availability will be increased.

The estimated cost for the subject project is ₹ **151.58 Crores**. This scheme will be executed in **FY 2027-28**.

Considering the additional load requirement of MSEDCL, to address the overloading problems, and to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.47:

Establishment of 220/132 KV Narsi S/S, Dist: Nanded

STU representative placed before the GCC a proposal for Establishment of 220/132 KV Narsi S/S, Dist: Nanded

STU representative highlighted that at present, 132 kV Narsi & Degloor S/s are radially connected and are fed through a SC line (length — 67 kms) from 220/132 kV Waghala s/s. Also 132 kV Kundalwadi & Mukhed s/s have only one source i.e. 220 kV Waghala s/s. Therefore, to provide another source to 132 kV Mukhed, Kundalwadi, Narsi & Degloor S/s. 132 kV level creation at 220

kV Krishnoor was proposed along with LILO on 132 kV Mukhed - Kundalwadi and 132 kV Narsi - Degloor at 132 kV Krishnoor.

STU representative added that establishment of 220/132 kV Narsi S/s will help in providing a strong and alternate source (apart from 220 kV Waghala) to 132 kV Kandhar. Mukhed, Kundalwadi, Narsi & Degloor S/s.

Establishment of 220/132 kV Narsi S/s is more beneficial as it helps to meet future load demand, improvement of overall availability & reliability to 132 kV Kandhar, Mukhed, Kundalwadi, Narsi & Degloor S/s there by reducing loading of 1CT's at 220 kV Waghala S/s.

The estimated cost for the subject project is ₹ 9746.59 Lakhs. This scheme will be execute in FY 2026-27.

To provide alternative source to to 132 kV Kandhar. Mukhed, Kundalwadi, Narsi & Degloor S/s and to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.48:

Establishment of 132/33kV s/s Shirsole, Tal. & Dist.- Jalgaon

STU representative placed before the GCC a proposal for Establishment of 132/33kV s/s Shirsole, Tal. & Dist.- Jalgaon

STU representative submitted that load of Jalgaon Area is mainly MIDC & Residential. These areas of Jalgaon Taluka is fed mainly from 132kV Old MIDC & 132kV New MIDC s/stns.

STU representative highlighted that 132kV Jalgaon OLD MIDC s/s, 132kV Dharangaon s/s, 132kV Erandol s/s & Jain irrigation s/s has source from 220/132/33kV (250MVA) Bambhori s/s. 132kV Jalgaon NEW MIDC s/s is connected to 132kV Deepnagar s/s & 132kV Jalgaon OLD MIDC through SC line.

STU representative added that Jalgaon NEW MIDC s/s has 33kV x 13 nos. of feeders with installed capacity is 149.76 MVA. Maximum demand reached is 107 MW. New 33kV s/stns. & addition of capacities are proposed with capacity 41 MVA.

Total installed capacity at Jalgaon NEW MIDC s/s will rise to 190.76 MVA against existing 150 MVA. New 33kV lines not feasible due to Urbanisation of surrounding Jalgaon (Old) and Jalgaon (MIDC) S/s, new. After implement, Load of 132/33kV Jalgaon NEW MIDC s/s will be shifted on proposed 132/33kV Shirsole s/s. After commissioning of 132/33kV Shirsole s/s and shifting of all the proposed feeders by MSEDCL to be meticulously adhered.

STU representative highlighted objective of scheme:

- 1) To improve voltage profile at DISCOM interface of Jalgaon area
- 2) Load relief to existing 132kV New MIDC, Jalgaon s/s
- 3) To provide reliability & availability at consumer end

The estimated cost for the subject project is ₹ 66.98 Crores. This scheme will be execute in FY 2027-28.

Considering the additional load requirement of MSEDCL, to address the overloading problems, improvement of voltage Regulation and to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan..

Agenda Point No. 4.49:

Establishment of 132/33kV s/s Lavale Dist.-Pune.

STU representative placed before the GCC a proposal for Establishment of 132/33kV s/s Lavale Dist.-Pune.

STU representative submitted that The Bhugaon-Bhukum area currently fed on the 22 KV Energia Skyi feeder, extending 25 kilometers from the 220/22 KV Pirangut EHV Substation. This area is undergoing rapid development, leading to a continuous increase in power demand.

STU representative added that MSEDCL has informed that total load demand of 120MW from various upcoming projects in the Lavale, Bhugaon & Bhukum area namely M/s. Knowledge City Lavale - 60MW, M/s. Kelidoscope -25 MW, M/s. Forest Trails -20 MW, M/s. Raheja Viva-6 MW and M/s. Energai Skyi -10 MW. The existing EHV s/s does not have the capacity to accommodate the projected additional load of 120 MVA.

STU representative mentioned that to address the escalating power demand and ensure a reliable power supply for both existing consumers and future developments, it is imperative to establish a new 132/22 kV substation in Knowledge City Lavale.

STU representative highlighted that objectives of scheme as follows:

- To cater existing and additional future increasing load demand in Bhugaon - Lavale – Bhukum area.
- To give load relief to existing 220/22 kV Pirangut S/s.

- There will be saving in losses to the tune of 1 MW.

The estimated cost for the subject project is ₹ 10569.78 Lakhs. This scheme will be execute in FY 2027-28.

Considering the additional load requirement of MSEDCL and to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.50:

Establishment of 220/22 kV Talegaon, MIDC Ph-II s/s

STU representative placed before the GCC a proposal for Establishment of 220/22 kV Talegaon, MIDC Ph-II s/s

STU representative submitted that Load of Talegaon Area is mainly industrial. 220/22kV Talegaon (Ambi) s/s (2x50MVA) is feeding DISCOM & Industrial load at the 22kV level. Talegaon (Ambi) s/s has 22kV x 08 nos, feeders with installed capacity is 86.41 MVA. Maximum demand reached is 65 MVA. MSEDCL has proposed new 6 x 22kV feeders with demand of 50 MVA.

STU representative highlighted that total installed capacity at Ambi s/s will rise to 136.4 MVA against existing 100 MVA. Due to space constraints at Talegaon (Ambi), addition of power T/f & 22 kV Bay is not feasible. With Proposed 220kV Talegaon MIDC phase-II s/s, EHV network grid of Talegaon and Chakan MIDC area will become stronger. Therefore, In case of line tripping, the load will not be affected.

Additionally, there will be a strong 400kV Talegaon PGCIL source to both prop. 220kV Talegaon Phase-II & 220kV Chakan Phase-II s/stns. Benefit in catering to the load demand of Talegaon MIDC, Chakan MIDC, as well as the nearby Pimpri-Chinchwad area.

STU representative highlighted benefits of the scheme:

- 1) Existing 220kV Talegaon MIDC phase-II s/s will get relief of existing 10 MVA + prop. 50 MVA.
- 2) It will cater upcoming load demand of EHV consumers in Talegaon MIDC, Chakan MIDC, as well as the nearby Pimpri-Chinchwad area
- 3) EHV network grid of Talegaon and Chakan MIDC area will become stronger.
- 4) Strong source from the 400kV Talegaon PGCIL s/s to both prop. Talegaon Phase-II & Chakan Phase-II s/stns. will be provided.

The estimated cost for the subject project is ₹ 9945.73 Lakhs. This scheme will be execute in FY 2025-26.

Considering the additional load requirement of MSEDCL, to address the overloading problems and to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.51:

Establishment of 220/33 kV s/s at Manor, Tal. Palghar, Dist. Palghar

STU representative placed before the GCC a proposal for Establishment of 220/33 kV s/s at Manor, Tal. Palghar, Dist. Palghar

STU representative submitted that At present, the supply to Manor, Vikramgad, Wada and Hamrapur located in Dist. Palghar is being fed from 132/33 kV Palghar substation.

Palghar is fast growing and developing town. It is the administrative capital of the newly formed palghar district. There is tremendous population growth & load growth. There is an upcoming and ongoing projects like CIDCO, HDIL Residential Park, Tata housing project and Mahindra Housing Project in palghar area totaling to 180.01 MVA.

132/33 kV Palghar S/s- IC: 150 MVA , Max Load:110.88 MVA with 09 nos. of 33kV Bays, No of Diverted feeder : 1 Nos with 1 HTC consumer . Capacity of diverted feeder -41.04 MVA.

The length of 33kV Manor feeder emanating from 132/33kV Palghar EHV s/s is 52.3km and voltage regulation on this lengthy feeder is 35.29%. Due to this consumers are facing low voltage issue.

STU representative highlighted that there are many upcoming projects at Mumbai Ahmedabad Highway such as KGN Enterprises, Sanjay G. Ranawat, Heritage pvt Ltd, Shelter Group of Hotels & Resorts Pvt. Ltd etc, which is to be fed by proposed Manor GIS s/s.The expected load of these projects is 11.32 MVA. Hence, to improve the voltage regulation and cater the future expected load, establishment of 220/33kV Manor GIS substation is necessary.

After establishment of 220/33kV Manor GIS substation the length of 33kV feeder will reduce and it will help to provide reliable and quality supply to consumers

The estimated cost for the subject project is ₹ 20988.06 lakhs. This scheme will be execute in FY 2026-27.

Considering the additional load requirement of MSEDCL, to address the overloading problems, for improving voltage Regulations & to enhance system reliability after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.52:

Establishment of 132/33 kV Shiradwad S/s

STU representative placed before the GCC a proposal for Establishment of 132/33 kV Shiradwad S/s.

STU representative submitted that the Ichalkaranji Town & nearby area is fed from 220 kV Tilwani & 110 kV Ichalkaranji s/s. However load demand is continuously rising due to urbanization, growth of power loom industries etc. The power loom industries which is dominant, the load of this area requires 24x7 Hrs continuous supply.

STU representative highlighted that to meet the current and future demand, the existing capacity of Kurundwad and Ichalkaranji EHV substation are insufficient. The capacity augmentation or addition power transformers at this existing EHV substation is not possible due to space constraints. Hence, to avoid the problem of overloading of existing EHV substation and to get reliable and quality supply, it is necessary to establish new EHV substation in this area. This will help in strengthening the network and avoiding the interruptions, overloading problems.

STU representative added that in order to meet the rising Load demand & to provide the reliable good supply to the consumers, MSEDCL has submitted the proposal for establishment of s/s at Shiradwad. The said scheme was already ratified in 9th GCC (Agenda No. 4.123). Post recommendation, Cost revised, hence resubmitted. By MSETCL.

STU representative highlighted benefits of scheme:

- 1) It will cater future load growth.
- 2) Voltage will be improve at the bus to Ichalkaranji s/s , 10/33kv Kurundwad s/s & 220kv Tilwani s/s
- 3) Will provide the reliable and quality supply to consumers.

The Estimated cost of scheme is ₹ **7064.35 Lakhs**. The Scheduled Commission year for scheme is **FY 2026-27**.

Chairman GCC suggested that MSETCL should review the reasons of substantial cost enhancement and after verification STU should seek the approval of GCC .

Agenda Point No. 4.53:

Upgradation and Augmentation of existing 110 kV Powai RSS by creation of 220 kV level: 220 kV AEML Chandivali-TPC-T Powai D/C line

STU representative informed that scheme has not yet been approved by MTC & thus requested to revoke this Agenda point. GCC allowed the same .

Agenda Point No. 4.54:

Installation of 110 kV /22 kV S/s Kailash Nagar, Wagle Estate, Thane

STU representative informed that scheme has not yet been approved by MTC & thus requested to revoke this Agenda point. GCC allowed the same .

Agenda Point No. 4.55:

Centralized Grid Connected Battery Energy Storage System (BESS) of 200 MW at Trombay S/s for Grid support in Mumbai Transmission System

STU representative informed that scheme has not yet been approved by MTC & thus requested to revoke this Agenda point. GCC allowed the same .

Agenda Point No. 4.56:

33 kV AIS to GIS at Aarey, Versova and Ghodbunder EHV S/s.

STU representative placed before the GCC a proposal for 33 kV AIS to GIS at Aarey, Versova and Ghodbunder EHV S/s.

STU representative submitted that AEML-T operates 3 AIS EHV SubStations (Aarey, Versova and Ghodbunder) commissioned around 1995 and 5 GIS EHV Stations (Goregaon, Saki, Chembur, Gorai, Borivali) commissioned around FY 2011/ 2012/ 2013.

On 26.02.2019 MERC approved Capex scheme, replacement of 07 Nos. of 33kV Indoor AIS boards to GIS boards (Aarey, Versova and Ghodbunder), Commissioned in FY2021. AEML shared details

w.r.t. balance 4 nos. of AIS Board remaining at Aarey (2 nos. since 2005), Versova (1 no. since 2005) and Ghodbunder (1 no. since 1999) stating that technology obsolescence, OEM support and spare related issues.

STU representative highlighted that 04 nos. of AIS boards were installed long back and are in operation over/around 20 years. Over the period, the network at Aarey, Versova and Ghodbunder EHV Station has grown, rising fault levels wrt operating limits of mentioned AIS boards.

STU representative mentioned that, 33kV AIS boards have maximum Short Circuit Current (ISC) of 26.3 kA for 3 sec which was manufactured and best available during commissioning period of these 33kV AIS boards.

Proposed scheme will establish required margin in terms of fault level of system as per CEA Planning criteria (Clause No. 5.1.5) *"The maximum short-circuit level on any new substation bus should not exceed 80% of the rated short circuit capacity of the substation equipment. The 20% margin is intended to take care of the increase in short-circuit levels as the system grows ..."*

Therefore, AEML-T proposed to replace old AIS 33kV Boards by New GIS Boards with Short Circuit Current of 31.5 kA.

The Estimated cost of above scheme is ₹ 79 crore. This scheme will completed in **FY 2027-28**.

In view of the technology obsolescence, spare related issues and match equipment ratings with other new equipments , after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.57:

Augmentation of OH line with HTLS/twin Conductor (DTPS-Boisar-Ghodbunder-Gorai-Versova-Aarey-Borivali OH lines)

STU representative placed before the GCC a proposal for Augmentation of OH line with HTLS/twin Conductor (DTPS-Boisar-Ghodbunder-Gorai-Versova-Aarey-Borivali OH lines)

STU representative submitted that out of total 573 ckt kms, ~500 ckt kms is overhead lines within AEML system, in operation since around 30 years, AAAC Zebra conductor, with power transfer capacity around 267 MW per ckt. As per future plan, under 400kV Velgaon scheme, DTPS/Boisar-Versova, DTPS-Ghodbunder lines (4 ckts) will be LILO. Upcoming Kandivali, Uttan, Malad-East & future Metro connectivity likely to be on OH lines. Hence, load on existing OH line is estimated to increase further. Load flow indicates, various scenarios under which load on OH lines rises.

HLC Report, Feb 2021, recommendations vide Chapter 6: Enhancement of Transmission System: Planning & Operational Aspects,

iv. *“In the MMR area, there are hurdles in constructing EHV lines in the new corridor due to Right of Way (ROW) problems. Therefore, the existing line corridor can be used for capacity enhancement either by reconductoring the lines through High Temperature Low Sag (HTLS) conversion or upgradation of the lines to a higher voltage level. “*

Hence, AEML-T proposed scheme to convert existing conductors by HTLS Conductor in AEML System (viz; DTPS – Boisar – Versova, DTPS – Ghodbunder, Ghodbunder – Gorai – Versova, Versova – Aarey – Borivali OH corridor lines)..

The Estimated cost of above scheme is ₹ 483 Crore. This scheme will be implemented in **FY 2027-28.**

GCC opined that in view of the LILO of these circuits at upcoming 400kV Velgaon substation and depletion of Dahanu generation this corridor needs to be strengthen to bring in more power to the Mumbai system. Thus to meet future load demand, mitigate severe ROW issues and to enhance system reliability and stability this corridor strengthening is essential. After due deliberations GCC ratified the scheme for inclusion in STU plan.

Augmentation of cable links between AIS & GIS installation AEML at MSETCL-Borivali

STU representative placed before the GCC a proposal for “Augmentation of cable links between AIS & GIS installation AEML at MSETCL-Borivali”.

STU representative submitted that MSETCL raised concern to AEML-T vide mail dated 19.04.2024 on full load rating capacity of 1200 sq mm cable system connecting AIS (MSETCL system) to GIS system (AEML) at MSETCL Borivali EHV S/s.

STU representative explained that there are 2 cables per phase laid in single trench, limiting its operating capacity to 1378 Amps. (689 Amps per circuit), and actual loading is approaching operating limits. Load flow study also indicates overloading under few system contingencies.

Therefore it is need to take preventive action to avoid a major incident which may lead to curtailment of load in Mumbai system. Hence, AEML-T proposed scheme to replace existing

cables with new ones by 2 x 2500 sq.mm., which will upgrade the current carrying capacity of said section to 1584 Amp (792 A each circuit).

The Estimated cost of scheme is ₹ 14.15 Crore. This scheme will be implemented in FY 2025-26.

GCC opined that the upgradation of cable links between AIS & GIS installation AEML at MSETCL-Borivali is essential to avoid transmission constrain during contingencies which would result in load curtailment in Mumbai system. Thus to avoid network constraints & enhance system reliability and stability, after due deliberations GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.59:

Replacement of 220 kV GIS Bays (Tr-5) w.r.t. space constraints and short circuit level issues at Aarey EHV

STU representative placed before the GCC a proposal for “Replacement of 220 kV GIS Bays (Tr-5) w.r.t. space constraints and short circuit level issues at Aarey EHV”

STU representative submitted that AEML mention short circuit Fault Current Carrying Capacity issues with existing 220kV GIS Bays at Aarey, commissioned in 2007 (designed – 40kA, for Transformer No. 5 + Incomer bays). Also observed short circuit Fault level indicates non-compliance w.r.t. CEA Planning Criteria. Other 220kV GIS Bays at Aarey EHV S/s have been installed under 220kV AIS to GIS scheme with 50 kA Fault Current Carrying Capacity recently.

In view of upcoming schemes, 4 new 220kV GIS bays are to be commissioned at Aarey (2 nos. for 2nd feed BKC scheme, recently approved by MERC, 2 nos. For 2nd feed Chandivali scheme recently recommended by MTC). Further, there are space constraints, as new GIS extension usually consumes space for adapter. Therefore, AEML-T proposes to replace existing TR-5 220kV GIS Bay with new bays along with upcoming commissioning of 2nd feed BKC scheme, under NDPR scheme.

The Estimated cost of scheme is ₹ 17 Crore. This scheme will be implemented in FY 2026-27.

GCC opined that in view of space constraints, maintaining parity of the short circuit capacity of the new and old switch gear and enhance system reliability and stability the proposal of AEML-T may be considered. After due deliberations, GCC ratified the scheme for inclusion in STU plan

Agenda Point No. 4.60:

Procurement of critical spare for AEML-T

The Chairman ,GCC & other Members opined that the matter does not come under the purview of MTC/GCC and Transmission licensees can directly approach to Hon.MERC for seeking directions in the matter.

Agenda Point No. 4.61:

Additional 765/400 kV, 1500 MVA ICT each at 765/400 kV Tiroda substation

STU representative placed before the GCC a proposal for “Additional 765/400 kV, 1500 MVA ICT each at 765/400 kV Tiroda substation”.

STU representative submitted that MEGPTCL was granted transmission license by Hon’ble commission for installing 2nd ICT at Tiroda substation and submit the DPR to commission for in-

principle approval in accordance with guidelines for capital investment. Presently there is only 1 x 1500 MVA 765/400kV ICT at Tiroda Substation.

Requirement of additional ICT at 765/400kV Tiroda Substation to meet N-1 and N-1-1/N-2 contingencies. Joint study carried out by STU and MEGPTCL indicated 400 kV Tiroda- Warora S/C line gets overloaded during contingency of other parallel circuit and ICT at Tiroda (N-1-1) under peak load conditions. Further considering events of tower collapse in recent past, in the case of outage of both the circuit (N-2 contingency) of Tiroda-Warora line the ICT will be loaded to 1890 MW which is nearly 120% of its rated capacity. With 2nd ICT at Tiroda both N-1-1 & N-2 contingencies all lines and ICT flows are within limit. Hence, MEGPTCL submitted proposal for Installation of additional 765/400kV ICT & associated bays at Tiroda substation of MEGPTCL.

The Estimated cost of cited scheme is ₹ 363.71 Crore.

In view of the requirement to fulfill present & future load demand, enhance system reliability, and present N-1-1/ N-2 non compliance for 765 kV level and the scheme already included in the License of MEGPTCL .After due deliberations, GCC ratified the scheme for inclusion in STU plan

Agenda Point No. 4.62:

Additional 765/400 kV, 1500 MVA ICT each at 765/400 kV Akola substation

STU representative placed before the GCC a proposal for “Additional 765/400 kV, 1500 MVA ICT each at 765/400 kV Akola substation”.

STU representative submitted that presently there is only 1 x 1500 MVA 765/400kV ICT at Akola Substation. There is requirement of additional ICT at 765/400kV Akola Substation to meet N-1 and N-1-1/N-2 contingencies.

STU representative highlighted that Joint study carried out by STU and MEGPTCL indicated 765/400kV Akola ICT gets overloaded during N-1-1/N-2 contingency of 765kV Akola II Aurangabad III D/C Line. Further in case of tripping of remaining ICT the 765kV system will collapse and there will be no path available for evacuation of 2 x 600 MW generation of Adani. With 2nd ICT at Akola both N-1-1 & N-2 contingencies all lines and ICT flows are within limit.

The Estimated cost of cited scheme is ₹ 275.44 Crore.

In view of the requirement to fulfill present & future load demand, enhance system reliability, and present N-1-1/ N-2 non compliance for 765 kV level and the scheme already included in the License of MEGPTCL .After due deliberations, GCC ratified the scheme for inclusion in STU plan.

Agenda Point No. 4.63:

Proposal for delta type suspension type tower strengthening of MEGPTCL 765 kV Tiroda – Koradi – Akola – Ektuni transmission lines

STU representative placed before the GCC a proposal for Proposal for delta type suspension type tower strengthening of MEGPTCL 765 kV Tiroda – Koradi – Akola – Ektuni transmission lines

STU representative submitted that 765 kV S/C Tiroda – Koradi – Akola – Aurangabad (Ektuni) transmission lines transfer the bulk amount of power from Northeastern Maharashtra to critical load centres of Maharashtra like Mumbai, Pune & Aurangabad which was commissioned in Feb. 2014.

The transmission system of MEGPTCL comprises of 1868 no. of 765 kV Wind Zone-2 delta type design towers. Since last few years, MEGPTCL is facing issue of 765 kV tower collapse, incidents as under:

STU representative highlighted that in the event of breakdown in any of these lines the Maharashtra state grid enters in the red alert (Critical) mode due to absence of N-1 contingency. Hence, there is need for strengthening of towers due to revised guidelines as per the revised IS 802 code & the climate change effects resulting into temperature rise and increased frequency of the localized cyclonic storms in Maharashtra region.

STU representative submitted that they have carried out route cause analysis with third party consultant & also obtained PGCIL inputs on tower design. MEGPTCL Tower collapse incidences were also discussed in 39th and 42nd NRPC meeting. NRLDC highlighted tower collapsed incidences of recent past years for the same design type of towers in Wind Zone 2.

STU representative mentioned that PGCIL has revised/ upgraded/ strengthened the 765 kV suspension delta type tower design due to persistent failure of delta type suspension towers.

STU representative added that as per CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 Clause 85, Sub clause (j) *mentioned that the “Delta configuration towers shall not be used for 765 kV single circuit line”.*

Considering the criticality of line & repeated nature of tower collapse incidents, MEGPTCL studied of the delta type towers and tower collapse incidents. It is also observed that their need for strengthening of Delta type towers in similar incidents faced by PGCIL. Further, MEGPTCL has also came across Order/ Report with respect to failure of EHV Transmission Line towers.

STU representative submitted that based on the analysis of CERC Order and CEA report, it is observed that there is issue with the delta type of towers and many incidents had happened of tower collapse. The Estimated cost of cited scheme is **₹ 110 Crore.**

Considering the criticality of the 765 kV Line corridor of Maharashtra Grid for North-Eastern Maharashtra to critical load centres Mumbai, Pune & Aurangabad the availability of corridor is very essential. Thus the strengthening of the delta type towers for 765 kV line of MEGPTCL are required to be carried out. After due deliberations, GCC ratified the scheme for inclusion in STU plan

Supplementary agenda from MSEDCL:

ED Commercial MSEDCL informed the forum regarding the resource adequacy plan of MSEDCL from Intra/Inter state resources till 2030 and stressed the need of timely availability of the transmission system to achieve the same.

The Chairman, GCC directed MSEDCL to submit their resource adequacy plan along with details of locations of Inter/ Intra state resources being tied up by MSEDCL according to the plan so as to enable STU to correlate the State Transmission plan for enhancement of Inter state TTC/ATC and development of the Intra state transmission network in matching timelines with the requirements.

With these discussions the meeting concluded with vote of thanks.

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Annexure A

List of participants for 10th GCC meeting held on 23.10.2024

Sr no	Name of member	Designation	Committee position
1	Shri Satish Chavan	Director (Operations), MSETCL	Chairperson
2	Shri Shashank Jewalikar	Executive Director (SLDC)	Member Convener
3	Shri Mahendra Walke	Chief Engineer (O&M), MSETCL, Mumbai	Member
4	Shri. Anil Kathoye	CE (Works), MSPGCL	Member
5	Shri P. D. Lone	S.E. Commercial, WRPC	Member
6	Shri Dinesh Agarwal	E.D (Comm), MSEDCL	Member
7	Shri Manoj Pise	General Manager, MEDA	Member
	Special Invitees		
8	Shri Peeyush Sharma	Chief Engineer, STU	---
9	Shri Girish Pantoji	Chief Engineer(I/c), MSLDC	---