



MAHARASHTRA STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
(CIN NO U40109MH2005SGC153646)

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MSETCL/CO/STU/Sys/MTC/No - 1064

Date: 14 FEB 2023

To,
As per mailing list

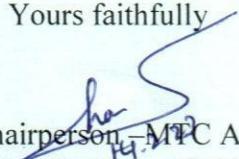
Sub: Minutes of 6th Maharashtra Transmission Committee (MTC) meeting held on 07, February, 2023.

Please find enclosed herewith minutes of the 6th Maharashtra Transmission Committee (MTC) meeting held on 07, February, 2023 at 11:00 Hrs. at State Load Despatch Centre (MSLDC), Airoli.

It is to be noted that the minutes of above meeting is also available on website www.mahatransco.in in STU section.

Thanking you.

Yours faithfully


Chairperson - MTC And
Chief Engineer (STU)

Copy s.w.r. to:

- 1) The Director (Operations), CO, MSETCL, Mumbai

List of MTC Members

Sr. No.	Name of Organization	Name of Nominee & Designation	Committee position	Email ID
1	State Transmission Utility (STU)	Chief Engineer-STU	Chairperson	CESTU@mahatransco.in
2	State Transmission Utility (STU)	Superintending Engineer - STU	Member Convener	sesys@mahatransco.in
3	SLDC	Chief Engineer-SLDC	Member	cesldc@mahatransco.in
4*	MSETCL	Superintending Engineer (Project Scheme-I)	Member	SE1prj@mahatransco.in
5	MSEDCL	Chief Engineer (Distribution), CO, Mumbai	Member	cedist@mahadiscom.in
6	MSPGCL	Rahul Sohani (Superintending Engineer)	Member	cegwmahagenco.in , seest1@mahagenco.in
7	Maharashtra eastern grid Power Transmission co ltd	Atul Sadaria	Member	atuli.sadaria@adani.com
8	Adani Electricity Mumbai Ltd. (Transmission Business)	Rakesh Raj (Head Planning – AEML Transmission)	Member	rakesh.raj2@adani.com
9	Tata Power Co. Ltd.- Mumbai- Transmission	Sh. Kiran Desale (Head-Transmission)	Member	desalekv@tatapower.com gstawre@tatapower.com
10	Central Railway	S.S.Parihar (Chief Electrical Engineer/Electrical Energy Management/CR)	Member	dyceetrdcrly@gmail.com
11	M/s Tata Power Company Ltd. (Distribution)	V T Narayanan	Member	vtnarayanan@tatapower.com
12	Adani Electricity Mumbai Ltd. (Distribution Business)	Abaji Naralkar (Asst. Vice President)	Member	abaji.naralkar@adani.com
13	BEST Undertaking	Shri. Sunil Namdeo Pawar.Divisional Engineer (Project)	Member	depro@bestundertaking.com

Minutes of the 6th Maharashtra Transmission Committee (MTC) Meeting held on 07, February, 2023 at 11:00 Hrs. at State Load Despatch Centre (MSLDC), Airoli.

The 6th Maharashtra Transmission Committee (MTC) was held on 07, February, 2023 at 11:00 Hrs. at State Load Despatch Centre (MSLDC), Airoli. Chief Engineer (STU) presided over the meeting. The list of members/participants is enclosed as **annexure-I**.

Chief Engineer (STU), Chairperson of MTC, Welcomed all the MTC members & other participants in the 6th MTC meeting. After brief introduction of the participants, SE (STU) Member Secretary of MTC, requested members to conform 5th MTC Meeting MOM.

a. Confirmation of the minutes of 1st Maharashtra Transmission Committee (MTC)

- i. Member Secretary (MTC) stated that minutes of the 5th meeting of Maharashtra Transmission Committee (MTC) held on 01, November 2022 were circulated vide MSETCL/CO/STU/Sys/MEGC/No. 7730 dated. 03, November 2022 & the same was also published on the website (www.mahatransco.in). No comments were received from constituents on the minutes.
- ii. TPC-T representatives requested Chairman of MTC to revise the 5th MoM Agenda Point No. 23 & 24 as the same scheme is already approved by STU.
- iii. The committee recommended the said proposals and for referring the same to GCC.
- iv. Accordingly, Minutes of 5th meeting of MTC were confirmed by members

Thereafter agenda items were taken up for discussion.

Agenda Point No. 1:

Augmentation of Substation by Replacement of 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 220kV Chakan PhaseII Substation under EHV O&M Division, Manchar in Pune Zone.

MSETCL representative placed before the MTC a proposal for Augmentation of Substation by Replacement of 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 220kV Chakan PhaseII Substation under EHV O&M Division, Manchar in Pune Zone.

MSETCL representative explained that his substation feeds power to MIDC area (MIDC-90%, Urban- 10%).

For completion of Package A, B, C for construction of 220kV PGCIL Talegaon- Hinjewadi line, continuous outage will be required on 220kV Urse-Chinchwad line. Also, EHV O&M Circle Pune office has proposed corridor conversion of D/C to M/C in respect of 220kV Chinchwad-Lonikand-II considering aging of existing towers and future load growth. For this, continuous outage will be required on various 220kV links on this corridor in phased manner. Further, the load can be taken

on all 132kV lines bays at Lonikand-II which are idle due to insufficient ICT capacity at 400kV Lonikand-II.

To facilitate above said outages, 220kV/132kV Bus of Chinchwad need to be fed through alternate lines. In the present scenario same can be done through 220KV Chakan Ph-2 S/s - 132kV Chakan (Bajaj tap) - Chinchwad (HTLS completed) and 132kV Chinchwad-Lonikand-II (proposed for connection).

At present, it is difficult to manage the load of one of the ICT in case of outage/tripping on other ICT. i.e. the substation does not fulfil the N-1 criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand replacement of 2x100 MVA, 220/132kV ICT to 2x200 MVA, 220/132kV ICT is proposed at 220kV Chakan-II S/s.

After detailed deliberation and discussion, the committee recommended the said proposals of Scheme for Augmentation of Substation by Replacement of 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 220kV Chakan PhaseII Substation under EHV O&M Division, Manchar in Pune Zone for submission to GCC for approval.

Agenda point no. 2:

Augmentation of substation by replacement of 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 400kV Lonikand II Sub-Station under EHV O&M Division, Manchar in Pune Zone.

MSETCL representative Proposed & presented the proposal for Augmentation of substation by replacement of 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 400kV Lonikand II Sub-Station under EHV O&M Division, Manchar in Pune Zone.

MSETCL representative explained that 400kV Lonikand II S/s is critical MSETCL substation in grid. It cater the urban load of 132kV Pune Ring Main. At present, it is difficult to manage the load of one of the ICT in case of outage/tripping on other ICT. i.e. the substation does not fulfil the N-1 criteria.

Hence, to satisfy (N-1) criteria & also to meet the future load demand replacement of 2x100 MVA, 220/132kV ICT to 2x200 MVA, 220/132kV ICT is proposed at 400kV Lonikand II S/s.

After detailed deliberation and discussion by members, the committee recommended the above proposal of Augmentation of substation by replacement of 2x100 MVA, 220/132kV ICT by 2x200 MVA, 220/132kV ICT at 400kV Lonikand II Sub-Station under EHV O&M Division, Manchar in Pune Zone for submission to GCC for approval.

Agenda Point No. 3:

Augmentation of Substation by providing additional 1x25 MVA, 132-110/33kV T/F at 110kV Kale S/s under Karad Zone.

MSETCL representative explained that there are 2x25MVA 110/33kV transformers operating parallel at 110kV Kale S/s. The loading of these transformers has reached about 70% of its capacity.

There are total 3 numbers of 110kV lines at 110kV Kale S/s and all are connected to Co-generations. Out of these, 110kV DY Patil Cogen-Kale is radially connected source line, whereas 110kV Kumbhi-Kale is LILO at Kumbhi Cogen & 110kV Asurle Porle-Kale is LILO at Asurle-Porle Cogen. Addition with this, 110kV Kale S/s have one no. of 110/11kV Power T/F which is feeding 5 numbers of 11kV feeders.

There are total 6 numbers of 33kV outgoing feeders which feed industrial load in area of Panhala & Gaganbawda Taluka under Kolhapur district. Additional new agricultural load demand of 5MVA has requested by MSEDCL.

At present, during peak load condition it is difficult to manage the load during tripping/ outage on any one T/F i.e. substation does not fulfill N-1 criteria. Hence, to satisfy N-1 criteria & also to meet the future load demand additional 1x25 MVA, 132-110/33kV T/F is proposed at 110KV Kale S/s.

After detailed deliberation and discussion, the committee recommended the above proposal of Augmentation of Substation by providing additional 1x25 MVA, 132-110/33kV T/F at 110kV Kale S/s under Karad Zone for submission to GCC for approval.

Agenda Point No. 4:

Augmentation of Substation by replacement of existing 1x25 MVA, 220/33kV T/F by 1x50 MVA, 220/33kV T/F at 220kV Halkarni S/s under Karad Zone.

MSETCL representative placed before the MTC a proposal for Augmentation of Substation by replacement of existing 1x25 MVA, 220/33kV T/F by 1x50 MVA, 220/33kV T/F at 220kV Halkarni S/s under Karad Zone.

MSETCL representative explained that There are 2 numbers of power T/Fs (i.e.1x25MVA, 220/33kV T/F & 1X50MVA, 220/33kV T/F) installed at 220kV Halkarni S/s.

This substation is connected to Hydro generation at Tillari, Mahalaxmi & Bagasse based Co-generation. There are 9 numbers of 33kV feeders at 220kV Halkarni S/s which are feeding to MIDC Halkarni, Sub-urban areas of Chandgad, Halkarni & surrounding villages in Chandgad as well as Gadhinglaj Taluka under Kolhapur district.

At present, during peak load condition it is difficult to manage the load during tripping/ outage on any one T/F i.e. substation does not fulfill N-1 criteria. The proposed substation fulfills P-I criteria

of augmentation scheme. Hence, to satisfy N-1 criteria & also to meet the future load demand replacement of 1x25 MVA, 220/33kV T/F to 1x50 MVA, 220/33kV T/F is proposed at 220kV Halkarni S/s.

After detailed deliberation and discussion, the committee recommended the above proposal of Augmentation of Substation by replacement of existing 1x25 MVA, 220/33kV T/F by 1x50 MVA, 220/33kV T/F at 220kV Halkarni S/s under Karad Zone for submission to GCC for approval.

Agenda Point No. 5:

Construction of 220kV lines from 765kV Shikrapur (PGCIL) s/s

MSETCL representative placed before the MTC a proposal for Construction of 220kV lines from 765kV Shikrapur (PGCIL) s/s

MSETCL representative further stated that Supply to Pune district is mainly fed from 400kV Lonikand-I, Lonikand-II, Chakan & Jejuri s/stn. 400 kV Lonikand-I & II s/stn are interconnected and feds from 400 kV Talegaon PGCIL, 400 kV Chakan- II s/stn & 400 kV Parali through 400kV Karjat s/stn respectively. Also, both s/stns cater the 220 kV load of Theur, Bhosari, Khadaki, VSNL, Ranjangaon, Kathapur & extended upto Magarpatta & Alephata.

At present Pune ring main system facing critical operational constraint due to increase in loading of Pune District. 220 kV level creation at 765 kV Shikrapur (PG) s/s will help to cater the fast load growth demand in Pune district and support 220 kV Network.

Above scheme will provide the following benefits:-

- Direct strong source of 765kV Shikrapur PG will be available to 220kV network of Pune ring main system.
- Reduction in loading of 400kV Talegaon PG-Chakan SC line is observed.
- Improvement in Bus voltages of 400kV Chakan, 400kV Jejuri, 220kV Ranjangaon & 220kV Kathapur s/s is observed.
- Saving in losses of 9.83MW.

After detailed deliberation and discussion, the committee recommended the above proposal of Construction of 220kV lines from 765kV Shikrapur (PGCIL) s/s for submission to GCC for approval.

Agenda Point No. 6:

MV Switchgear replacement at 110KV Kalyan RSS with additional feeder for DISCOM.

TPC-T representative placed before the MTC a proposal for MV Switchgear replacement at 110KV Kalyan RSS with additional feeder for DISCOM.

Estimated cost (In Crs.) - 40

5 year STU Plan (FY 23 -27) – FY 2024-25

Necessity of the scheme:

- Requirement of additional 06 separate Outlets with load requirement of about 41.5 MW is submitted by MSEDCL for various upcoming switching stations. Existing 22 kV switchyard cannot be extended due to nonavailability of space.
- The existing 22 kV Outdoor Switchgears at Kalyan is difficult to maintain due to non-availability of spares. OEM have stopped manufacturing these types of breakers (ABB-OHB, Siemens-3AA3, 3AH3) and its spares. Various elements of 22 kV switchyard are developing defects resulting in failure.
- 22kV Switchyard at Kalyan is surrounded by Chemical factories. Due to polluted weather, there is problem of frequent rusting of switchyard equipment.

Details of the scheme:

- Existing 02 outdoor bus sections will be replaced with 03 GIS Bus Sections.

Status:

- Letter received from MSEDCL Kalyan West Division for feasibility 11.01.2022
- Letter received from MSEDCL Kalyan East Division for feasibility 28.03.2022
- DPR with relevant documents submitted to STU on 29.04.2022
- MSEDCL has submitted the requirement to STU on 28.09.2022

As recommended in the 5th MTC meet held on 01.11.2012, STU and TPC-T had conducted site visit and the report has been submitted. Approval is requested.

SE (STU), Member Secretary informed that STU team has visited the site to review the necessity of scheme & has confirmed the same.

After detailed deliberation and discussion, the committee recommended the above proposal of MV Switchgear replacement at 110KV Kalyan RSS with additional feeder for DISCOM for submission to GCC for approval.

Agenda Point No. 7:

MV Switchgear replacement at 110KV Vikhroli station with segregation of back-to-back feeders.

TPC-T representative placed before the MTC a proposal for MV Switchgear replacement at 110KV Vikhroli station with segregation of back-to-back feeders.

Estimated cost (In Crs.) 51

5 year STU Plan (FY 23 -27) - 2024 – 25

Necessity of the scheme

- OEM have stopped manufacturing these types of breakers and its spares. The poles of HPA24 Make Breakers are not available in the market as OEM had discontinued the product as well as support to old switchgear.
- There are back-to-back connected feeders at Vikhroli RS. It is unsafe to work on one feeder for maintenance / fault repairs while other feeder is in service. It is proposed to segregate these back-to-back feeders in this switchgear replacement scheme thereby enhancing safety.
- It will not be possible to accommodate additional outlets requirement of DISCOMs in the available space for any future requirement.

Details of the scheme

- Existing 02 AIS bus sections will be replaced with 03 GIS

Status

- DPR with all the relevant documents submitted to STU on 05.05.2022
- TPC-T has submitted consent letter to STU regarding allotment of 05 nos of outlets to TPC-D for segregation of back to back feeders via letter dated 28.09.2022. This was in response to STU letter dated 27.09.2022

As recommended in the 5th MTC meet held on 01.11.2022, STU and TPC-T had conducted site visit on 01.12.2022 and the report has been submitted.

SE (STU), Member Secretary informed that STU team has visited the site to review the necessity of scheme & has confirmed the same.

After detailed deliberation and discussion, the committee recommended the above proposal of MV Switchgear replacement at 110KV Vikhroli station with segregation of back-to-back feeders for submission to GCC for approval.

Agenda Point No. 8

Replacement of 110KV AIS by GIS Bays at Malad s/s.

TPC-T representative placed before the MTC a proposal for Replacement of 110KV AIS by GIS Bays at Malad s/s.

Estimated cost (In Crs.) – 134

5 year STU Plan (FY 23 -27) - FY 2024-25

Necessity of the scheme:

- Malad RS is built on dumping ground. There are issues of sinking in Main Control room Building and Switchyard resulting in alignment of Switchyard equipment and tilting of

panels in Switchgear room. There is constant release of obnoxious gases which cause chemical reaction within copper & other materials resulting in various defects like hot spots and corrosion.

- Existing switchyard has become congested due to addition of bays for Western Railway & Metro Rail bays in switchyard at different location. This is causing operation constraints.
- All the relevant documents are submitted with DPR (Ambient air test report, defect notifications details, equipment failure report)

Details of the scheme:

- Installation and Commissioning of 110 kV Outdoor GIS bus with 12 nos. of bays.
- Installation and commissioning of protection, SCADA and communication systems in new Control room building.

Status:

- DPR submitted to STU on 05.04.2022
- As recommended in the 5th MTC meet held on 01.12.2022, STU and TPC-T had conducted site visit on 17.01.2023 and the report has been submitted. Requesting MTC to approve the scheme.

SE (STU), Member Secretary informed that STU team has visited the site to review the necessity of scheme & has confirmed the same.

After detailed deliberation and discussion, the committee expressed that the Replacement of 110KV AIS by GIS Bays at Malad S/S being a very typical issue hence recommended the proposal based on the site visit for submission to GCC for approval.

Agenda Point No. 9 & 10:

Construction of new 220KV Dharavi Mahalaxmi line (new).

Construction of new 220KV Mahalaxmi Backbay line (new).

As per the request of TPC-T Representatives and permission of Chairman of MTC the above agenda points have already been discussed and informed TPC-T to submit the DPR in the 5th MTC. STU has already in-principally recommended the above proposals.

After detailed deliberation and discussion, the committee recommended the above proposal of Construction of new 220KV Dharavi Mahalaxmi line (new) & Construction of new 220KV Mahalaxmi Backbay line (new) for submission to GCC for approval.

Agenda Point No. 11:

Augmentation of source and transformation capacity of existing 110KV Powai station. Upgradation of 110KV system to 220KV.

TPC-T representative placed before the MTC a proposal for Augmentation of source and transformation capacity of existing 110KV Powai station. Upgradation of 110KV system to 220KV

Estimated cost (In Crs.) - 350

5 year STU Plan (FY 23 -27) – FY 2025-26

Necessity of the scheme:

- **Load growth (33 kV and 110 kV) is envisaged in vicinity of TPC-T Powai RSS in future.**
- The estimated requirement of about 250 MVA of load for 33 kV and 110 kV consumers is needed to be catered.
- To meet the existing and future load requirement it will be necessary to augment the existing 110 kV Powai RSS at 220 kV level with additional 220 kV / 33 kV Transformer.
- Details of the scheme
- Installation and commissioning of 220 kV 05 bay GIS at Powai.
- Installation and commissioning of 2 X 125 MVA, 220 kV / 33 kV Transformers.
- (Existing 01 no of 110 kV / 33 kV, 90 MVA Transformer will be replaced by 220 kV / 33 kV, 125 MVA Transformer. 01 no of 110 kV / 33 kV, 90 MVA Transformer will be retained)
- Loop In Loop Out of 220 kV Salsette Saki # 7 line.

Status:

- TPC-T has already submitted proposal with feasibility for 220 kV level creation at Powai on 17th Nov 2022

In view of future load requirement upgradation of Powai RSS is necessary. Further, MERC has opined to upgrade existing 110 kV Stations to 220 kV level in view of long-term transmission planning, TPC-T requests MTC to approve the scheme.

After detailed deliberation and discussion, the committee inferred that Hon'ble MERC has given directives to M/s TPC-T to explore the Upgradation of 100 kV network to 220 kV network, hence a comprehensive study needs to be jointly carried out for overall 100 kV Mumbai network up gradation to 220 kV including the interconnections along with connected utilities. As such TPC-T to submit a comprehensive plan & DPR for Upgradation of 100 kV network to 220KV level alongwith execution plan which can be implemented in stages.

Agenda Point No. 12:

Installation of new 220/33KV Station at Vile parle.

TPC-T representative placed before the MTC a proposal for Installation of new 220/33KV Station at vile parle.

Estimated cost (In Crs.) – 490 Cr

5 year STU Plan (FY 23 -27) – FY 2024-25

Necessity of the scheme:

- At present, there is no EHV station on the western periphery of Mumbai between 110 kV Tata Power Malad RSS to Tata Power Versova and between Tata Power Versova and Tata Power Mahalaxmi RSS. Load demand in Western suburbs is increasing at an average 3 to 4 % per annum.
- To meet additional Load demand of DISCOMs of 80 MVA in Juhu / Vile Parle area.

Details of the scheme:

- 220 kV source from TPC-T 220 kV Versova RSS.
- 220 kV GIS (07 bays) and 33 kV GIS (13 bays) along with Protection, Communication and Auromation.
2 X 220 kV / 33 kV, 90 MVA Transformers.

Status:

- DPR submitted to STU on 02.07.2022
- The scheme was discussed in 2nd MTC meet held on 20th Dec 2021. STU directed to TPC-T and AEML to conduct joint study for the proposals of 220 kV Vile Parle (TPC) and 220 kV Khardanda (AEML) and submit report.
- Joint study conducted by TPC-T and AEML. Report submitted to STU on 28.12.2022
- Requesting MTC to approve the scheme.

After detailed deliberation and discussion, SE (STU), Member Secretary informed that the Joint study report by TPC-T & AEML is submitted to STU for the proposals of 220 kV Vile Parle (TPC) and 220 kV Khardanda (AEML) alongwith site visit & survey details & is under review of STU. Further decision in this regard shall be taken after the review & shall be informed to stakeholders accordingly. The decision shall be ratified in the ensuing MTC.

Agenda Point No. 13:

Construction of new 220KV/33KV station at Dharavi.

TPC-T representative placed before the MTC a proposal for Construction of new 220KV/33KV station at Dharavi.

Estimated cost (In Crs.) – 300 Cr

5 year STU Plan (FY 23 -27) – FY 2026-27

Necessity of the scheme:

- Dharavi redevelopment project is one of the largest slum clusters in Mumbai, spread over 2.8 sq km. Dharavi slum area will be transformed into a cluster of high-rises with improved urban infrastructure. Installation of new station is necessary to cater load requirement arising from the redevelopment project.

Details of the scheme:

- 220 kV source from LILO of 220 kV Trombay Dharavi line.
- 220 kV GIS (07 bays) and 33 kV GIS (13 bays) along with Protection, Communication and Automation.
- 2 X 220 kV / 33 kV, 125 MVA Transformers.

Status:

- This is new scheme and part of approved 5 year STU Plan.
- Tata Power has land in the same project.

Requesting MTC to approve the scheme

After detailed deliberation and discussion, the committee suggested that the DPR of the scheme should be submitted prior to the inclusion of the agenda item in MTC. This would give the committee the chance to discuss the issue in details. TPC-T to submit the DPR so that the same can be discuss in ensuing MTC. The project is subject to the actual progress of Dharavi slum Rehabilitation work & land availability. Hence need to be deliberated accordingly.

Agenda Point No. 14:

Upgradation of 110KV Kalyan RSS to 220KV.

TPC-T representative placed before the MTC a proposal for Construction of new 220KV/33KV station at Dharavi.

Estimated cost (In Crs.) – 250 Cr

5 year STU Plan (FY 23 -27) – FY 2025-26

Necessity of the scheme:

- Kalyan existing 22 kV peak load is 90 MVA and there is MSEDCL requirement of 35 MVA (06 nos of feeders). Existing 110 kV C Rly peak load is 110 MVA. Future peak load (22 kV, 110 kV) by FY 25 of Kalyan RSS will be approximately 250 MVA.
- To cater existing & future load requirement and reducing dependency from MSETCL Kalwa S/S, it is necessary to upgrade existing 110 kV Kalyan RSS to 220 KV level.

Details of the scheme:

- Installation and commissioning of 220 kV 05 bay GIS at Kalyan.
- Installation and commissioning of 2 X 250 MVA, 220 kV / 110 kV Transformers.
- 220 kV connectivity by upgrading of existing 110 kV Kalwa Kalyan line to 220 kV

Status:

- TPC-T to will submit DPR once the scheme is approved by MTC.

Requesting MTC to approve the scheme.

After detailed deliberation and discussion, the committee inferred that Hon'ble MERC has given directives to M/s TPC-T to explore the Upgradation of 100 kV network to 220 kV network, hence a comprehensive study needs to be jointly carried out for overall 100 kV Mumbai network up gradation to 220 kV including the interconnections along with connected utilities. As such TPC-T to submit a comprehensive plan & DPR for Upgradation of 100 kV network to 220KV level along with execution plan which can be implemented in stages.

Agenda Point No. 15:**220kV Dahisar EHV Scheme DPR.**

AEML-T representative placed before the MTC a proposal for 220kV Dahisar EHV Scheme DPR.

- Scheme : 220/33kV GIS EHV S/s; 220kV D/C Cable system from Ghodbunder EHV S/s
- 09.11.2020 - DPR submitted to STU
- Scheme discussed during 5 Yr Plan STU Meeting on 25.05.2021
- STU data gap response submitted on 06.04.2022
- Scheme discussed during 2nd MTC on 20.12.2021, 4th GCC on 04.05.2022
- On 10.10.2022, STU Committee conducted site visit, AEML presented need of the scheme. STU data gap response submitted on 18.11.2022.
- Request Committee/STU to approve the DPR

Estimated Cost (incl IDC): 660.94 Cr

Lad Location: Land options identified.

Need Validation:

- No Transmission Substation between Ghodbunder -Borivali over ~ 10 Kms stretch.
- Major residential / commercial / Business hub in Dahisar area, Huge development potential and anticipated growth of power demand in & around Dahisar area
- Connectivity between Link Road/ SV Road/Western Express Highway is established and four major Metro lines i.e. Metro 2A, 7, 7 Extension/ 4 Extension are planned from this region, expected to boost development & load growth going forward

After detailed deliberation and discussion, the committee informed that the committee report for necessity of 220 kV Dahisar substation is received to STU and requirement of

substation is established, hence recommended the proposal for submission to GCC for approval.

Agenda Point No. 16:

220kV Malad EHV Scheme DPR.

AEML-T representative placed before the MTC a proposal for 220kV Malad EHV Scheme DPR

Scheme: 220/33kV GIS EHV S/s; LILO of 220kV Aarey – Borivali line

- 11.12.2020 - DPR submitted to STU
- Scheme discussed during 5 Yr Plan STU Meeting on 25.05.2021
- Scheme discussed in 2nd MTC on 20.12.2021
- All data gap response submitted (last 07.04.22).
- Scheme discussed in 4th GCC Meeting dated 04.05.2022
- STU formed committee to review necessity of scheme on 01.07.2022.
- On 12.10.2022, STU Committee conducted site visit, AEML presented need of the scheme.
- Request Committee/STU to approve the DPR

Estimated Cost (incl IDC): 441.78 Cr

Lad Location: Land options identified.

Need Validation:

- Between Aarey upto Borivali, over 15 kms, there is no Transmission infrastructure available. Distribution licensee draws long distance 33kV feeders from Aarey, Goregaon, Borivali substation to feed consumer demand in/around Malad (E) – Goregaon (E) area.
- Existing AEML 220kV Aarey EHV Sub-Station peak load near to its firm capacity, located far away from load points, has been approaching towards its firm capacity.

After detailed deliberation and discussion, the committee inferred that the committee report for necessity of 220 kV Malad substation is received to STU and requirement of substation is not established as the MSETCL's 220 kV Goregaon Filmcity is already approved in the vicinity on the basis of filmcity load & MSEDCL requirement. Hence AEML-D may explore the possibility of aligning their load requirement from the same.

Agenda Point No. 17:

220kV Khardanda EHV Scheme DPR.

AEML-T representative placed before the MTC a proposal for 220kV Khardanda EHV Scheme DPR

Scheme: 220/33kV GIS EHV S/s; 220kV D/C Cable system from AEML-Versova EHV S/s

- 03.12.2020 - DPR submitted to STU
- Scheme discussed during 5 Yr Plan STU Meeting on 25.05.2021
- Scheme discussed in 2nd MTC on 20.12.2021
- STU data gap response submitted on 07.04.2022
- Scheme discussed on 4th GCC Meeting dated 04.05.2022
- MTC MoM / STU advised for Joint Study report with TPC vide letter dated 20.05.2022
- Joint meeting with TPC-T held 26.07.2022 & 23.12.2022.
- On 28.12.2022 final Report submitted to STU.
- Request Committee/STU to approve the DPR

Estimated Cost (incl IDC): 956.50 Cr

Lad Location: Land options identified.

Need Validation:

- No Transmission substation between Versova to Bandra covering a stretch of ~15 kms on western side of suburb
- Huge development potential and anticipated growth of power demand in & around Khardanda area due to upcoming re-development, up gradation in transport infrastructure like proposed Metrorail project, fly overs connecting west / east area, development of commercial establishment etc.
- In absence of sufficient Transmission capacity, laying long 33kV feeders from nearby EHV stations, will lead to high losses & undue CAPEX burden. In view of above, it is proposed to commission 220/33kV EHV Substation

After detailed deliberation and discussion, SE (STU), Member Secretary informed that the Joint study report by TPC-T & AEML is submitted to STU for the proposals of 220 kV Vile Parle (TPC) and 220 kV Khardanda (AEML) alongwith site visit & survey details & is under review of STU. Further decision in this regard shall be taken after the review & shall be informed to stakeholders accordingly. The decision shall be ratified in the ensuing MTC.

Agenda Point No. 18:

220kV Uttan EHV Scheme DPR.

AEML-T representative placed before the MTC a proposal for 220kV Uttan EHV Scheme DPR

- Scheme : 220/33kV GIS EHV S/s; LILO of 220kV Boisar – Versova line
- Scheme discussed in 3rd MTC meeting dated 18.05.2022.
- MTC suggested to submit proposal to STU
- DPR submitted to STU for its consent on 25.07.2022
- STU executive visited site 09.12.2022
- All STU Data Gap responded. [15.11.2022 and 21.12.2022]

- Request Committee/STU to approve the DPR

Estimated Cost (incl IDC): 956.50 Cr

Lad Location: Land options identified.

Need Validation:

- No Transmission S/s in/around Bhayander-West/Uttan/Gorai/Manori area.
- Growing power demand further causes stress on existing 11kV / 33kV distribution network, affecting quality and reliability of power supply in the region
- The entire area is currently being fed by 11kV & 440V network, making it vulnerable for disturbances, long time for fault restoration and higher technical losses.
- Also, due to long distance distribution network in and around Uttan/Manori area, complaints have been registered in this area for High/Low or Fluctuation in voltage.
- As load grows, for feeding reliable quality power supply in/around Uttan, 220kV EHV substation is a critical requirement
- STU executive visited site 09.12.2022 and all STU Data Gap responded.

SE (STU), Member Secretary informed that a STU team visited site on 09.12.2022 to review necessity of 220 kV Uttan substation and also review the proposal to verify the upcoming load in Uttan area. The 100 MW load of De-salination Plant of MCGM is proposed in Uttan area and also 41 MW of new load is proposed by Discom. The said proposed substation is useful to relief the load of existing Ghodbunder and Versova substation.

After detailed deliberation and discussion, the committee confirmed that based on the visit report, the requirement of substation is established, hence recommended the proposal for submission to GCC for approval.

Agenda Point No. 19:

220kV Reactor at Chembur EHV s/s DPR.

After detailed deliberation and discussion, the committee informed that STU had already recommended the need of 220 kV reactor at Chembur after load flow study, hence the committee recommended the proposal for submission to GCC for approval.

Agenda Point No. 20:

Augmentation of Substation by addition of 1X50MVA, 220/33kV T/F with allied civil works at 220kV Lote S/s under EHV (O&M) Division, Ratnagiri under Karad Zone

MSETCL representative placed before the MTC a proposal for Augmentation of Substation by addition of 1X50MVA, 220/33kV T/F with allied civil works at 220kV Lote S/s under EHV (O&M) Division, Ratnagiri under Karad Zone.

MSETCL representative explained that 220kV Lote Substation was commissioned on 31.03.1992 having installed capacity of 100MVA which includes 2X50MVA, 220/33kV transformers. 220kV Lote S/s is fed by 220kV lines from 400kV Koyna & 220kV Dasturi S/s

Presently, 10 numbers of 33kV feeders emanating from 220/33kV Lote S/s supplying load to Lote MIDC, Guhagar Taluka, part of Dapoli Taluka, part of Chiplun Taluka and sometimes to Khed Taluka in case if main feeder from 220/33kV Dasturi S/S gets faulty. 220kV Lote S/s maximum load reached upto 62.94 MW in FY 2022-23.

In future, the substation will need to serve with higher capacity for which projected calculation is as stated below:

- i) Existing Capacity- 2X50 MVA, 220/33kV
- ii) Existing Maximum load reached- 62.94 MW
- iii) Expected Load (Total 20MW)
 - a) 10MW (Konkan LNG)
 - b) 5MW (Konkan Railway proposed sanction load)
 - c) 5MW (Laxmi Organic proposed sanction load)

Total Expected substation load- 82.94MW At present, if there is outage/tripping on any of 50MVA T/Fs, the part of Guhagar, Chiplun and Dapoli Talukas' load of about 17MW gets affected since total load can't be managed on other 50MVA T/F. i.e. not satisfying (N-1) criteria. Hence, to satisfy (N-1) criteria & also to meet the future load demand additional 1X50MVA, 220/33kV T/F is proposed at 220kV Lote Substation.

After detailed deliberation and discussion, the committee recommended the above proposal of Augmentation of Substation by addition of 1X50MVA, 220/33kV T/F with allied civil works at 220kV Lote S/s under EHV (O&M) Division, Ratnagiri under Karad Zone for submission to GCC for approval.

Agenda Point No. 21:

Augmentation of substation by providing additional 3x167 MVA, 400/220/33 kV, ICT along with HV & LV bays & other related works with its allied equipment at 400kV R.S. Talandge under Karad Zone

MSETCL representative placed before the MTC a proposal for Augmentation of substation by providing additional 3x167 MVA, 400/220/33 kV, ICT along with HV & LV bays & other related works with its allied equipment at 400kV R.S. Talandge under Karad Zone.

MSETCL representative explained that 400kV Talandge S/s caters 60% load of Industrial & Urban area. Presently, the load on all three ICTs (2x500MVA & 1x315MVA) has reached above 70% of its capacity.

In case of failure /outage of one ICT, the load cannot be managed on the remaining two ICTs without any load shedding i.e. the substation does not fulfill the N-1 criteria. The interstate load of Goa and Karnataka is fed through this substation & required to be provided without interruption.

The load of Kolhapur District is also important as this area is rich soil water content for throughout the year. Due to extreme loading conditions on 19.05.2022 the forced load shedding was carried out at 400kV R.S. Talandge.

The present load demand of Kolhapur district is about 1190 MW which is expected to increase at 5 % every year. Considering this scenario and immediate summer season after Co-gen. withdrawal, the present capacity will not be sufficient in coming 2-3 years. Hence, in order to have proper load management & to cater the future load, addition of 3X167 MVA, 400/220/33kV ICT is proposed at 400kV Talandge S/s.

Above scheme will provide the following benefits:-

- Redundancy in case of outage / tripping of any one T/F.
- To meet continuous increasing load demand forecasted by MSEDCL.
- To reduce overloading of existing PTRs/ICTs.
- To meet future load growth.
- Improvement in overall availability, reliability and efficiency of transmission system.

After detailed deliberation and discussion, the committee recommended the above proposal of Augmentation of substation by providing additional 3x167 MVA, 400/220/33 kV, ICT along with HV & LV bays & other related works with its allied equipment at 400kV R.S. Talandge under Karad Zone for submission to GCC for approval.

Agenda Point No. 22:

Establishment of 220/22 kV Kaman GIS s/s Dist. Palghar.

MSETCL representative placed before the MTC a proposal Establishment of 220/22 kV Kaman GIS s/s Dist. Palghar.

MSETCL representative explained that Kaman is adjacent to Thane, Bhivandi, Mumbai area connected by Mumbai-Ahmedabad Highway and by rail as well. This area comprises of Industrial consumers and Urban consumers.

Supply to Kaman and surrounding area of Vasai is being fed from 220/22 kV Nalasopara (240 MVA) & 100/22 kV Vasai (200 MVA) EHV s/s. The commissioning of Kaman EHV s/s shall provide reliability and redundancy of power supply to industrial consumers.

Scope of work includes:

- MVA, 220/22 kV Transformer with bays
- Construction of 220 kV DC line by making LILO on 220 kV Padghe-Kamba line for prop. 220 kV Kaman s/s - 1.5 kms (using O/H and U/G cable)
- 220 kV line bay (GIS) — 02 nos.
- 22 kV GIS outlet — 8 nos.

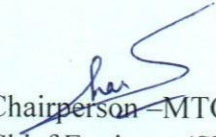
The details of 22 kV feeders to be diverted on proposed 220kV Kaman GIS sub-station is given below:

S.No.	Name of EHV s/s from where feeders are diverted	22 kV feeders to be diverted on prop. 220 kV Kaman s/s	22 kV s/s to be diverted	Load to be connected (MVA)
1	100 kV Vasai	Kaman	Agarwal	8.38
		Bapane	Juchandra	3.81
		Sasunavghar	Juchandra	4.57
		Kaman Deodal	Agarwal	4.57
		Juchandra	Juchandra	7.24
2	220/22 kV Nalasopara	Naikpada-I	Naikpada-I	4.57
		Naikpada-II	Naikpada-II	4.95
Total existing load to be diverted on proposed s/s (A)				38.09
3	Prop. feeders	Poman	Poman	6.85
		Poman	Poman switching	5.71
		Juchandra	Juchandra	5.98
Proposed load to be connected (B)				18.54
Total load on prop. 220 kV Kaman GIS s/s (A)+(B)				56.63 MVA

After detailed deliberation and discussion, the committee recommended the above proposal of Establishment of 220/22 kV Kaman GIS s/s Dist. Palghar for submission to GCC for approval.

- Chairman, MTC informed the members of the committee that henceforth for inclusion of schemes as agenda in MTC, Prior submission of detailed project report (DPR) should be carried out to STU and only such schemes will to be taken up for discussion, deliberation and recommendation of MTC.

SE (STU), Member Secretary offered the vote of thanks to all the MTC members and other participants.


 Chairperson-MTC
 Chief Engineer (STU)