

MAHARASHTRA STATE LOAD DESPATCH CENTRE

CIN NO. U40109MH2005SGC153646

Office of The Executive Director

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Ref. No. ED/MSLDC/GCC/

No 0 2 5 6 6

Date: 15 DEC 2021

To,

As per mailing list

**Sub: 3rd Grid Co-Ordination Committee core group meeting
- Minutes of Meeting thereof.**

- Ref.:** 1. MOM Circulated vide MSLDC/TECH/ED/GCC/01510 Dated. 06.07.2021
2. T.O. Letter ED/MSLDC/ No- 1849 dtd. 30.08.2021 for agenda request.
3. T.O. Letter No. ED/MSLDC/GCC/2380 dtd. 18.11.2021.
4. T.O. Letter ED/MSLDC/ No- 2444 dtd. 29.11.2021.

Dear Sir,

In reference to the above subject, it is to inform you that the 3rd meeting of the GCC core group was held on **30th November 2021 at 11:30 Hrs at MSLDC, Airoli** through video conferencing.

In this respect, the Minutes of Meeting of the 3rd GCC meeting is enclosed herewith.

Encl: - As above.



(Shrikant Jaltare)
Executive Director
MSLDC, Kalwa &
Member Convener of GCC

Copy s.w.rs to:

The Director (Operations), MSETCL, Mumbai

To,

All GCC core group members as per list;

Sr. No.	Name of Organization	Name of Nominee/Designation	Committee Position	Contact No.	E-mail ID
1	MSETCL	Shri A.V. Kolap, Director (Operations)	Chairperson	022- 26592162	dirop@mahatransco.in
2	MSPGCL	Shri Girish Kumawar CE(Works)	Member	8411958588	cegw@mahagenco.in
3	MSEDCL	Shri S.V. Chavan Director (Commercial)	Member	022- 26474211 / 26472131	directorcommsedcl@ gmail.com
4	MSETCL	Shri. S. S. Rajurkar, Executive Director (Trans)	Member	9769509020	edtrans@mahatransco.in
5	WRPC	Shri P. D. Lone, S.E. Commercial	Member	9867622823	comml-wrpc@nic.in
6	MEDA	Shri Manoj Pise, General Manager(Co- ordination)	Member	9422319093	Pg1@mahurja.com
7	MSLDC	Executive Director (SLDC)	Member Convener	022- 27301931	edmsebholding@gmail. com

**Minutes of the 3rd Grid Co-ordination Committee Meeting convened on
30th November 2021 at 15.30 hrs. through VC**

The 3rd Grid Co-ordination Committee (GCC) meeting of Core Group was convened on 30th November 2021 at 15.00 hrs through Video Conferencing. The list of members/participants is enclosed as per **ANNEXURE - A**.

The Executive Director (MSLDC), Member Convener, GCC welcomed all the GCC members and other participants in the 3rd GCC Meeting.

The Executive Director (MSLDC) warmly welcomed newly appointed Director (Operations) MSETCL, Shri. Anil V. Kolap. He informed that the new Chairman of the GCC is having experience in the field of Transmission and has worked as a Chief Engineer (MSLDC) for around 3 years. Hence, GCC will be benefited by his experience in smooth functioning of the GCC in accordance with the provisions of the MEGC, 2020. Further he also stated that under the experienced Chairman, GCC will strive to achieve coordinated growth of power sector in Maharashtra.

The Director (Operations) MSETCL & the Chairman of GCC, in his opening remarks expressed gratitude towards the GCC members for his warm welcome and assured to provide all kind of support with his experience for smooth functioning of GCC.

With the permission of the Chair, the discussions of the 3rd GCC Core Committee commenced as below....

Agenda Point - 1: Confirmation of the minutes of Meeting of 2nd GCC Meeting held on 08th January 2021.

The Executive Director (MSLDC) informed that the minutes of 2nd GCC meeting held on 11st June 2021 at SLDC Airoli, were circulated vide letter No. MSLDC/TECH/ED/GCC/01510 dated 06.07.2021 and the same may please be confirmed.

All the members agreed to the MoM and hence, the MoM of the 2nd GCC Meeting are confirmed.

Agenda Point – 2: Discussions & Finalization of various draft Procedures developed under the aegis of MEGC, 2020.

The Executive Director (MSLDC) informed that MEGC, 2020, has entrusted responsibility of development of various procedures to SLDC & STU. Accordingly, MSLDC has developed various procedures “In House”. Further, there was detail deliberations on these developed procedures in OCC meeting held on 23.11.2021. As per the provisions of the MEGC, 2020, these procedures after consultation with GCC shall be circulated to the stakeholders in the State for implementation. Further as stipulated in MEGC 2020, these procedures shall be uploaded on MSLDC website and copy of the same will be submitted to Hon’ble MERC for information.

Agenda Point – 2.1: Draft Renewable Energy Curtailment Procedure

The Executive Director (MSLDC) informed that the draft Renewable Energy Curtailment Procedure has been developed by MSLDC inhouse. The said procedure was published on MSLDC website for seeking Stakeholder's consultation/comments. The comments from 18 Nos. of stakeholders were received. All the comments/suggestions received from various stakeholders were consolidated and the same have been ratified & discussed in the 3rd OCC meeting held on 25.10.2021. The OCC has recommended to submit the draft procedure with some amendments to GCC for further ratification & consultation.

The Executive Engineer (REMC-OP) I/c, MSLDC briefed the overview of RE Curtailment Procedure. He informed that as the RE is having "Must Run" status and under extreme emergencies, the RE needs to be curtailed as a last resort. Hence, in accordance with the guidelines viz. Transmission constraints, Force Majeure, High Frequency/Voltages & State is under drawing from ISTS when Conventional units within State are running at Technical minimum, etc, issued by Hon'ble APTEL in its order dated 02.08.2021 in the matter of Appeal No. 197 of 2019 & IA No. 1706 of 2019, the procedure has been prepared.

He further, briefed the recommendations on various comments/suggestions provided by the stake holders. The point-wise discussions held in the GCC are attached as **ANNEXURE – 1**.

After due deliberations, GCC Core Group consented to circulate the RE Curtailment Procedure after incorporating the suggestions by OCC & GCC among stakeholders for implementation. GCC further suggested to publish the same on MSLDC website and submit the copy to Hon'ble MERC for information as per the directions given in MEGC2020

Agenda Point – 2.2: LTS/SPS Committee Report for LTS Schemes in MMR

The Executive Director (MSLDC) informed that based on the recommendations from various Committees constituted to enquire Grid disturbance occurred on 12.10.2020, a committee was constituted to review the existing LTS/SPS schemes on the 400 kV & 220 kV lines.

He informed that the committee has submitted the report and the same has been duly deliberated in the 3rd OCC. The OCC has recommended the report for submission to the GCC for further ratifications & discussions. After recommendations from the GCC, the report will be submitted to PCM-WRPC for ratification & approval so that the same can be implemented.

The Superintending Engineer (Operation), MSLDC, briefed the LTS/SPS report in detail along with recommendations & LTS design. He informed that as per the present setting, the LTS of 400 kV Talegoan-Kalwa and 400 kV Talegoan -Kharghar will be triggered when the line loading will reach to 1200 Amp. The Director (Operations) informed that MSETCL has planned various activities viz. quadruple jumpering and conductor replacement between Loc. No. 30 to 34 in the ghat section of 400 kV Talegaon (PG) – Kalwa & 400 kV Talegaon (PG) – Kharghar lines. After completion of these works, the capacity of these lines will be increased which will be helpful to overcome existing Transmission constraint.

After due deliberations, GCC Core Group consented to submit the LTS/SPS report to the PCM-WRPC for further ratification & approval for implementation.

Agenda Point – 2.3: Draft Islanding Procedure

The Executive Director (MSLDC) informed that the draft Islanding Procedure has been developed by MSLDC. The said procedure was published on MSLDC website for seeking Stakeholders consultation/comments. The comments from 2 Nos. of stakeholders were received. All the

comments/suggestions received from various stakeholders were consolidated and the same have been discussed in the 3rd OCC meeting held on 25.10.2021. The OCC has recommended to submit the draft procedure with some amendments to GCC for further ratification & consultation.

The Executive Engineer (Operations), MSLDC briefed the Islanding Procedure to GCC core group members. The Superintending Engineer (WRPC) opined that the frequency settings during preparatory load shedding should be changed to 48.4 Hz and separation should be at 48.0 Hz. All the members accepted the suggestion of S.E. (WRPC).

After due deliberations, GCC Core Group consented to circulate the Islanding Procedure after incorporating the suggestions of OCC among stakeholders for implementation, publish on MSLDC website and submit the copy to Hon'ble MERC for information.

Agenda Point – 2.4: Draft TPC Hydro Black Start Mock Drill Procedure

The Executive Director (MSLDC) informed that the High-Level Committee constituted by Hon'ble MERC in its report has recommended to carry out Black Start Mock drill through alternate path. Accordingly, a draft all TPC Hydro Black Start Mock Drill procedure through an alternate path (via Ambarnath Kalyan) has been developed in consultation with the stake holders involved in alternate path.

The Superintending Engineer (Operation), MSLDC informed that the Hydro units at Bhira, Khopoli & Bhivpuri will be considered in black start operation. The supply these hydro stations will be extended to 110 kV Salsette S/s. through 110 kV Bhivpuri-Neral-Ambarnath-Kalyan-Salsette lines. Co-ordination meeting with MSLDC, WRLDC, TPC, Railway, MSEDCL, MSETCL has been conducted for carrying out the mock drill which is proposed on 05.12.2021.

After due deliberations, GCC Core Group noted the procedure and consented to use the same for carrying out black start operation of TPC units through alternate path of 110kv Bhivpuri-Neral-Ambarnath-Kalyan-Salsette lines.

Agenda Point – 2.5: Draft Standard Formats for Reportable Events

The Executive Director (MSLDC) informed that as per the Regulation No. 46.2.3 of the MERC (State Grid Code) Regulations, 2020, SLDC has developed “Standard Reporting Formats” in accordance with the Regulation No. 46.1.1. In accordance with the Regulation No. 46.2.3 of the MEGC, 2020, such formats are required to be agreed by GCC prior to the use by stakeholders.

The Executive Engineer (Operation), MSLDC briefed the Standard Reporting Formats.

After due deliberations, GCC Core Group took the note of developed formats and consented for use the same by various stakeholders for reporting events to SLDC.

Agenda Point – 2.6: Draft RSD Procedure

The Executive Director (MSLDC) informed that as per the Regulation No. 36.9 of the MERC (State Grid Code) Regulations, 2020, SLDC has formulated “Detailed Procedure for Instructing RSD of Generating Unit(s) of the generating stations in the state of Maharashtra”. Accordingly, draft procedure was prepared. As per the directives in the GCC Core Committee meeting held on 08.01.2021, the draft procedure was circulated for seeking comments/suggestions from various Stakeholders.

The Superintending Engineer (Operation), MSLDC informed that the comments from MSEDCL, MSPGCL, AEML, APML, TPCL, RIPL & DIL were received. All the comments/suggestions were consolidated and the draft procedure along with comments were discussed in the OCC Meeting held on 13.08.2021. OCC has recommended to submit the draft procedure with some amended clauses before the GCC for further ratification.

During discussion, the Superintending Engineer (Commercial) WRPC informed that as per the CERC Regulations, if schedules below technical minimum is issued to any Generator, then the said unit is withdrawn under RSD. He further requested to confirm whether such provision is applicable in the State. On this, the Executive Engineer (Operation), MSLDC informed that in Maharashtra, most of the generating units are contracted by single Discom. Further, the merchant generators having contracts with multiple buyers are excluded from RSD Procedure.

After due deliberations, GCC Core Group consented to circulate the RSD Procedure after incorporating the suggestions by OCC among stakeholders for implementation, publish on MSLDC website and submit the copy to Hon'ble MERC for information.

The whole meeting took place in conducive and positive atmosphere and finally ED(MSLDC) Member Convener offered vote of thanks to the Chair, all core group members and other participants.

Encl: As above



(Shrikant Jaltare)
Executive Director
MSLDC, Kalwa &
Member Convener of
GCC

ANNEXURE - A

Core Group members						
Sr no.	Name of the Officers	Designation	Orgnization	Mobile No.	Email - ID	Remark
1	Shri Anil Kolap	Director (Operations)	MSETCL	022-26592162	dirop@mahatransco.in	
2	Shri Shrikant Jaltare	Executive Director	MSLDC	022-27301931	edmsebholding@gmail.com	
3	Shri S. S. Rajurkar	Executive Director (Trans)	MSETCL	9769509020	edtrans@mahatransco.in	
4	Shri Agrawal	CE (PP)	MSEDCL	9769757766	ceppmsedcl@gmail.com	Representative Of Director (Commercial) MSEDCL
5	Shri Girish Kumarwar	CE (Works)	MSPGCL	8411958588	cegwmahagenco.in	
6	Shri Prasad Lone	SE (Commercial)	WRPC	9867622823	comml-wrpc@nic.in	
Other Participants						
7	Shri. Eknath Dhengale	CE (I/c)	MSLDC	9930401110	seea8000@mahatransco.in >	-
8	Shri. Mahesh Bhagwat	SE (Operation)	MSLDC	9167831551	seopr8000@mahatransco.in	-
9	Shri Gopichand Ghodke	S.E. (I/c) LM Cell	MSEDCL	9833980238	selmkalwa@gmail.com	-
10	Shri. Madhav Pande	E.E. (OP)	MSLDC	9833608212	ee1sldcop8000@mahatransco.in	
10	Shri. Sachin Lomate	E.E. (REMC-OP) (I/c)	MSLDC	9029800895	msldcre@gmail.com	-

Annexure - 1

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting

Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
1	It is not clear whether Merit Order Stack would be followed for RE Power curtailment. Hence, Merit Order stack to be followed for curtailment of RE Power	RE is single part tariff. There are different tariffs for each Generator connected to PSS. Further, practically, multiple WTGs/PV having different rates are connected to common feeder. Hence, it is not possible to have Merit Order Stack for RE.	GCC Members noted & consented the suggestions of OCC
2	Period on Natural calamities i.e Cyclone Period should be full exempted as during this period there is lot of fluctuation in wind speed hence accuracy in S&F cannot be obtained. Hence, complete Period of cyclone in the state should be exempted from forecast.	The issue of exemption from RE-DSM during Force Majeure is not under the purview of MSLDC and to be addressed by Hon'ble MERC.	GCC Members noted & consented the suggestions of OCC
3	Need to specify "Heavy injection" to avoid forceful curtailment since MSLDC is now aware of actual generation of all RE PSS. Secondly, Scenario -1 should be renamed as "Heavy Demand Crash during High RE injection" instead of "Heavy Demand crash & High RE injection"	The term "High RE injection" to be considered during low demand of the State normally in Monsoon periods predominantly during night & early morning hours. It will be redrafted as " <i>Demand crash during high RE Injection</i> "	GCC Members noted & consented the suggestions of OCC
4	If the RE generation contracted by Mumbai utilities is curtailed, then under DSM regime, de-centralized MoD, the schedules of conventional generators shall be revised by the quantum by which RE is curtailed. Hence, net impact of curtailment at State Periphery will not be obtained.	As the curtailment shall be implemented under extreme emergencies when State under-drawal is beyond volume limits, in most of the cases, centralized MoD will be operationalized against de-centralized MoD. Hence, such scenario will not be created.	GCC Members noted & consented the suggestions of OCC

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting			
Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
5	How will MSLDC will ensure that there is accuracy in backdown of conventional sources and how will they provide proof on the same to Re generators. Relevant proof to be provided by SLDC for backdown on conventional resources or running at technical minimum load.	The Daily Backing Down report of conventional generation & Daily System Condition Report are uploaded on MSLDC Website on daily basis through which the Generators can verify the details of System Conditions. Relavant clause of uploading of Backing down reports on Website will be added in the Procedure.	GCC Members noted & consented the suggestions of OCC
6	Periodic Operation and Maintenance (O&M) of transmission and distribution lines, Management of power evacuation system, time-bound augmentation/upgradation of evacuation system, timely construction of lines or any other similar activity associated with effective functioning of lines/evacuation system shall be the responsibility of CTU/STU/DISCOMs. Therefore, tripping of lines resulting due to Poor/ ill-timed O&M, Poor/ ill-timed management of evacuation system/lines, ill-timed augmentation/upgradation of evacuation system and construction of lines etc...shall not be treated as valid reasons for curtailment of wind and solar generations. Therefore, revenue loss to generators on account of such curtailments due to reasons mentioned under the clause 4.2.2. shall not be treated as prudent and therefore generators need to be compensated at their respective PPA rate against such energy loss.	MSLDC being a System Operator is responsible to operate the entire Grid & any part of the Grid under its Control Area within permissible parameters thereby maintaining reliability. However, tripping of any element may result in to endangering the Grid either partially or fully. Hence, to avoid such conditions, MSLDC need to curtail RE Power in-spite of reason for such curtailment. However, following condition can be added in the Procedure: "Under such conditions, MSLDC shall report such incidences to STU & concerned Transmission/Distribution Licensee to avoid such trippings by strengthening of network. Such issues shall be taken in the State Operational Coordination Committee meetings (OCC) where representation of RE Generators is also available." Further compensation related issue is not under the purview of MSLDC.	GCC Members noted & consented the suggestions of OCC with following change: "Under such conditions, MSLDC shall report such incidences to concerned Transmission/Distribution Licensee to avoid such trippings by strengthening of network. Such issues shall be taken in the State Operational Coordination Committee meetings (OCC) where representation of RE Generators is also available."

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting			
Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
7	To make curtailment procedure unambiguous, it is imperative to mention all the conditions comprehensively under which curtailments shall be made for grid security and safety by MSLDC in this procedure. APTEL in recent order dated 02-08-2021 in APPEAL NO. 197 of 2019 & IA NO. 1706 of 2019 specified certain conditions under which curtailment of Renewable Energy shall not be considered as meant for grid security. The same shall be incorporated under this procedure so as to avoid unnecessary protracted litigations.	MSLDC will develop a Web-based software through which the System Conditions during imposition of Curtailment in line with the guidelines issued by Hon'ble APTEL can be notified to the Stake holders.	GCC Members noted & consented the suggestions of OCC
8	What is the modality for curtailment? Order of preference for curtailment. Generators and QCA need to be aware of the complete procedure/protocol undertaken by the system operator identifying the PSS which has to be curtailed, along with duration and the quantum.	The curtailment will be issued to the PSS based on the required quantum and will be operated in sequence. No PSS will be issued repeated curtailment unless required by the System. Eg. based on system requirements, curtailment will be issued to 1st 10 Nos of PSS out of total 80 Nos of PSS. In case of next curtailment requirement, the 1st 10 PSS will be excluded and based on system requirements, curtailment will be issued to the next 10 PSS. The record of curtailment list will be maintained by MSLDC & will be made available on MSLDC website. Appropriate details will be added in Procedure.	GCC Members noted & consented the suggestions of OCC

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting			
Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
9	In case of planned outage, consent from RE generator is must and right to refusal outage in case of high wind period, always reserve with RE Generator or planned shut down. Any routine shutdown should not be planned during high wind period.	As per the MERC Amended F&S Procedure dated 19.12.2019, all the planned outages are to be availed with the approval from MSLDC so as to avoid curtailment of RE Generation. Also, before approval of such planned outages, MSLDC mandates the concerned Transmission Licensee to submit NoC from the Generators which are likely to be affected. In respect to the refusal for giving NoC by the Generators, type & severaity of the work needs to be considered so as to avoid further contingencies.	GCC Members noted & consented the suggestions of OCC

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting

Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
10	<p>The curtailment instructions shall have following information: Reason for curtailment: Grid security, transmission constraint, Grid safety. Generating Substation wise list of backing down instruction issued capturing following data with reference to each curtailment instruction passed:</p> <ol style="list-style-type: none"> 1. Identification number 2. Start time. 3. End time. 4. Quantum of backing down in MW. 5. Reasons for issuing such instruction. 6. Grid Frequency 7. Power demand of the state. 8. Power generation of the state. 9. Power import from outside the state. 10. Individual Generation quantum of all the generators <p>For each date and for each 15-minute time block on each day, the following information:</p> <ol style="list-style-type: none"> 1. Total demand in the State 2. Grid frequency 3. Total power generation in the State 4. Total generation from Solar Power Plants 5. Total generation from Wind Power Plants 6. Total generation from Thermal Power Plants 	<p>MSLDC will develop a Web-based software through which MSLDC will notify the System Conditions during imposition of Curtailment in line with the guidelines issued by Hon'ble APTEL.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting			
Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
11	N-1 and N-1-1 criteria is good for effective operation of Grid and shall be implemented at all locations. Repercussion due to Non-compliance of N-1 and N-1-1 criteria by transmission licensee will put additional unjust financial burden on wind and solar generators. It is therefore requested to compensate wind and solar generators against the curtailments till the compliance of N-1 and N-1-1 criteria is complied.	Under curtailment conditions during N-1 & N-1-1, MSLDC will report such incidences to STU & concerned Transmission/Distribution Licensee to avoid such trippings by strengthening of network. Such issues will be taken in the State Operational Coordination Committee meetings (OCC) where representation of RE Generators on rotational basis is also available. Relevat clause will be added in the Procedure. Further, compensation related issue is not under the purview of MSLDC.	GCC Members noted & consented the suggestions of OCC with following change: <i>"Under curtailment conditions during N-1 & N-1-1, MSLDC will report such incidences to STU & concerned Transmission/Distribution Licensee to avoid such trippings by strengthening of network. Such issues will be taken in the State Operational Coordination Committee meetings (OCC) where representation of RE Generators on rotational basis is also available."</i>
12	Curtailment revision shall be allowed in software within 24 hours.	As the REMC Schedules are integrated with State Scheduling Software, the schedules are considered in calculation of availability of contracted Discoms. In case of post-facto revisions, schedule changes will impact to the contracted Discoms. Hence, post-facto revisions can be made only under force majeure conditions.	GCC Members noted the suggestions of OCC

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting			
Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
13	The requested information shall also made public on MSLDC website so to bring transparency and an opportunity to generator to evaluate whether the curtailment instructions are prudent and in line with the said procedure and APTEL order dated 02-08-2021 in APPEAL NO. 197 of 2019 & IA NO. 1706 of 2019.	Appropriate format for maintaining Curtailment instructions along with the details of System Conditions specified in Hon'ble APTEL Order will be added in Procedure.	GCC Members noted & consented the suggestions of OCC
14	For proper and efficient implementation of the Procedure / Regulation it is necessary that the delegation of work to the stake holders is done after unravelling whole aspects and capacities of stakeholders on whom the responsibility to perform certain task is imposed, therefore, in this regards we would like to put forth before the SLDC that we as a QCA are solely responsible to perform the activities pertaining to forecasting, scheduling and carrying of deviation settlement, however, needless to mention that QCA doesn't have any control on the Generation from a power plant, therefore, it would be impossible for QCA to implement curtailment as efficiently as the O&M / Developers can considering the fact that they have total control on feeders. Instead of sending the curtailment information to QCA alone the SLDC can directly pass on the information to representative of the Generator or O&M / Developer, so that the curtailment can be done at earliest as per the directions of SLDC. further, needless to mention that as per this Draft Procedure the O&M's / Developer's / Generator's appointed nodal officer's details are to be provided to QCA with intimation to SLDC.	More than 1200 Nos. of RE Generators are connected to 118 Nos. of PSS and the numbers will further increase in future. It is difficult to pass on information for Curtailment to such large No of generators as implementation of the curtailment is primarily important in real time. As per the Procedure, the Generators & QCAs will develop protocol for sharing of information. Hence, passing the information to QCA and Nodal Office declared for the PSS is the most feasible solution as through the set protocol, QCA & Nodal Person can communicate to the Generators for implementation of the curtailment. QCA being Single Point contact, can ensure implementation of curtailment on behalf of MSLDC.	GCC Members noted & consented the suggestions of OCC

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting

Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
15	<p>Instructions of curtailment must be issued at least at PSS level along with QCA from MSLDC control room. Or One authorised contact person must be deputed by QCA at PSS level. This work should be done by QCA without claiming additional charges (Other than F&S service charges). More clarification is required on some important factors (e.g. charges), in case QCA fails to act as a nodal agency for the work of curtailment.</p>	<p>The issue of charges is not under the purview of MSLDC and the issue may be in accordance with the inter-se agreement between QCA & Generators.</p>	<p>GCC Members noted the suggestions of OCC</p>
16	<p>QCA should not be compelled to reschedule the generation. MSLDC itself should reschedule the generation.</p>	<p>There are some scenarios wherein curtailment will be partial in nature. In such cases, the schedules are to be submitted for the remaining capacity which is not curtailed. Hence, under partial curtailments, the schedule revisions need to be made by QCAs only. At the time of restoration, advance communication will be made by MSLDC so that QCAs can submit schedules in coordination with Generators.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>
17	<p>Since feeders are tripped at PSS level, such stoppage of Generation feeder creates many times fault in feeder. Hence any b/d after such curtailment should be considered for compensation to such affected RE Generators as deemed generation at tariff of RE generator as per APTEL order APPEAL NO. 197 of 2019 & IA NO. 1706 of 2019 Dated 2-Aug-2021.</p>	<p>It is not possible to identify whether feeders are out due to fault during restoration as there are other various reasons for break down of feeders. The compensation related issue is not under the purview of MSLDC.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting

Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
18	<p>Various/ multiple generators are connected to single PSS. Detailed guidelines need to be specified in regulation on how & which generator will implement curtailment either partially /fully. e.g. At Shivajinagar PSS there are 3 generators. MSPGCL is one of the generators & it has 2 O&M agencies as plant operators (M/s. LSEPL & M/s. MEIL) out of the 2 operators which operator should curtail the generation should also be specified clearly in case MSPGCL is instructed to curtail the generation.</p>	<p>As per the MERC F&S Regulations, the role of MSLDC is up to PSS. Within PSS, it is the responsibility of the QCA & Generators to act upon the instructions of MSLDC. However, considering large No of Generators & OEMs, protocol for implementation of Curtailment among OEMs/Generators need to be formulated jointly by QCAs, Generators & OEMS. In order to avoid disputes, MSLDC will provide guidelines for development of such protocol in the procedure. Eg. In case of full curtailment, all the generators will be curtailed, hence, no protocol will be required. However, in case of partial curtailment, the 33 kV or LV feeders can be tripped depending up on quantum of curtailment required. The QCA/Nodal Officer for the PSS mutually appointed by QCA & Generators can keep record of such feeder details so as to avoid repeated curtailment to the same feeders in future. Further, curtailment of total PSS can be made by changing the Pitch of all the WTGs or setting of Inverters on all Solar PV.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>
19	<p>If there is any delay in restoration and delay in providing instruction of restoration to generators, any curtailment due to these delays shall be fully compensated to generators.</p>	<p>Restoration instructions will be given through MSLDC's Web-based Software, hence, logs with time stamp shall be available. The compensation related issue is not under the purview of MSLDC.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>

Consolidated Statement of Comments/Suggestions on Draft RE Curtailment Procedure & deliberations in GCC Meeting			
Sr. No.	Comment/Suggestion	Discussion in OCC	Discussion in GCC
20	Since feeders are tripped at PSS level, such stoppage of Generation feeder creates many times fault in feeder. Hence any b/d after such curtailment should be considered for compensation to such affected RE Generators as deemed generation at tariff of RE generator as per APTEL order APPEAL NO. 197 of 2019 & IA NO. 1706 of 2019 Dated 2-Aug-2021.	It is not possible to identify whether feeders are out due to fault during restoration as there are other various reasons for break down of feeders. The compensation related issue is not under the purview of MSLDC.	GCC Members noted & consented the suggestions of OCC
21	The DISCOM having the contract with the RE generators which need to be curtailed, to be informed about the curtailment quantum & probable period so that they can take action at their end accordingly.	The REMC Scheduling Software is integrated with State Scheduling Software. As the revisions will be effective in 4th time block, the updated schedules after restoration will be available to concerned Discoms in advance.	GCC Members noted & consented the suggestions of OCC
22	Voice communication for Curtailment & Restoration could lead to misunderstanding between the two entities, therefore formal means of communication over email is recommended to be adopted.	MSLDC will issue curtailment instruction through Web-based System. However, implementation of curtailment & effect on real time network is most important as curtailment is issued only under extreme emergency conditions after exercising all the actions as a last resort. There are chances that the e-mails are not read by the concerned authorities resulting in to non-implementation of the instructions. Hence, in order to ensure the effectiveness of the curtailment, the voice communication is required. Appropriate changes will be made in the Procedure.	GCC Members noted & consented the suggestions of OCC

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23	<p>During zero load curtailment period by MSLDC, next 3 time block should be exempted as due to sudden load in the system, stabilisation time period is required for obtaining accuracy in S&F. Immediate next 3 time block of curtailment period should be exempted to obtain stabilisation in forecasting.</p>	<p>It is proposed that if the increasing trend is observed in the actual generation, the schedules for these 3 time blocks shall be replaced by actual generation. Appropriate clause will be added in the procedure.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>
24	<p>It is reiterated that curtailments are resulting into loss of revenue to generators and not legitimate if not supported by appropriate reasons and testimony. Also, irregular curtailment/backing down instructions despite having accorded must run status to wind and solar generator shall not be promoted and compensated appropriately. To put all stakeholders on equal footing it is imperative to also bring MSLDC activities/ obligations under Monitoring compliance. Hence, clause for non-compliance by MSLDC to be added.</p>	<p>The Procedure is developed by MSLDC and MSLDC has already set-out various self-responsibilities for adherence being apex body for integrated operation of electricity grid in the State as per Section 31 of EA. Hence, in case any Stake holders finds any non-compliance by MSLDC then based on the provisions of the said procedure & Regulations, the issue may be brought to the notice of MSLDC authorities for rectification & required actions. In case of non-resolution of such disputes, the same may be taken up with appropriate authorities such as OCC (representation of RE Generators is available), Regulators, Legislative authorities, etc. However, to provide assurance, relevant clause shall be added in the procedure.</p>	<p>GCC Members noted & consented the suggestions of OCC</p>

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25	In case of 100% curtailment the Generator needs to Turn off and Turn on the machine upon revival leads to damage of the machines so need to avoid 100% curtailment in case of RE. For RE Gen the import power during tripping Off/On the machine should not be consider for the billing.	The issue of charges towards import power is not under the purview of MSLDC and may be taken up with concerned Distribution Licensee.	GCC Members noted & consented the suggestions of OCC
26	As Many of the earliest generators doesn't have the option to operate under power optimized mode to regulate the generation as required to meet the curtailment in Real time. SLDC shall notify the Buffer quantum on actual generation as it is idealistic to meet the exact curtailment specified by it.	As curtailment will be issued under extreme emergencies and after exercising all the available options as a last resort. Hence, very less time will be available. Hence, curtailment need to be implemented immediately so that effect can be obtained at the end of 3 time blocks.	GCC Members noted & consented the suggestions of OCC
27	MERC shall form a committee with representatives from MERC, MSLDC, Transmission licensee, respective DISCOMs, Wind and solar Associations, POSOCO, CEA to publish a monthly report to evaluate the curtailment instructions prudency, the same shall also be made available on MERC website for public hearing/ comments.	As it is suggested to constitute a committee by Hon'ble MERC, issue may be taken up with Hon'ble MERC. However, the Monthly Curtailment Reports will be put forth in the quarterly OCC meetings for discussions wherein representation of RE Generators is available.	GCC Members noted & consented the suggestions of OCC