

	<p style="text-align: center;">DELHI TRANSCO LIMITED (A Govt. of NCT of Delhi Undertaking) An ISO 9001:2015 certified company Office of Mgr. (T) OS-II IInd Floor, ERP centre, SLDC Minto Road, New Delhi-110002 Website:-www.dtl.gov.in</p>
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No. F.DTL/2018-19/Mgr.(OS)-II/22

Date:03.08.2018

To,

All Members of Operation Co-ordination committee

DTL	General Manager (O&M)-I, Chairman OCC General Manager (O&M)-II General Manager (PMDM&S) General Manager (Planning) General Manager (C&MM) DGM (O&M) - North, East, West, South DGM (M/P) DGM (Plg.)
SLDC	ED (SLDC) DGM (SO)
TPDDL	HOD (PSC &AM) Sr. Manager (PSC)
BRPL	Vice President (SO)
BYPL	AVP (SO)
NDMC	Superintending Engineer
IPGCL	AGM (T) Opr. GTPS
PPCL	AGM (T) Opr.PPS-I AGM (T) Opr. PPS-III
MES	AEE/M.SLDC Officer
BTPS	AGM (EEMG)
BBMB	Sr. Executive Engineer, O&M
DMRC	Addl. GM (Elect.)

Sub :- MOM of Delhi OCC Meeting (04/18-19) held on 25.07.2018 at DTL, 220kV Sub-Stn Park Street Building.

Dear sir/madam,

Enclosed please find herewith the Minutes of Meeting of Delhi OCC meeting (04/18-19) held on **25.07.2018** in the **office of GM(O&M)-I, Delhi Transco Ltd. at 220kV Sub-stn Park Street Building, Opp. Talkatora Stadium, Near R.M.L. Hospital, New Delhi-110001.**


The same is also available on DTL website, www.dtl.gov.in under the Tab “News and Information” – OCC Meeting”.

Thanking You.

Yours Sincerely,
sd/-
(Shankar Kumar)
Mgr.(T) OS-II

Copy for favour of kind information to:

- (i)Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17.
- (ii)Chairperson & Managing Director, DTL.
- (iii)Director (Operations), DTL


Mgr.(T) OS-II

DELHI TRANSCO LIMITED

(Regd. Office: Shakti Sadan, Kotla Road, New Delhi-110002)

MOM OF DELHI OCC MEETING HELD ON 25.07.2018

Chairman, OCC welcomed all the members and representatives present in the meeting with a brief power scenario of Delhi for the month of June 2018. List of the officers attended the meeting is enclosed as annexure. Delhi peak demand for the month of June 2018 recorded 6934 MW on 09.06.2018 at 15:28:33 hrs and was successfully met. The anticipated peak demand for August 2018 is likely to be around 6540 MW.

The point-wise deliberations made in the meeting are as under:

1. Confirmation of minutes of previous Delhi OCC meeting held on dated 15.06.2018.

The previous Delhi OCC meeting was held on 15.06.2018 in accordance with the agenda circulated vide letter dt: 13.06.2018. Minutes of the aforesaid OCC meeting were issued vide letter dt.29.06.2018. The same was also uploaded on DTL website.

No comments have been made from any of the participated members on the contents of MOM. As such the minutes of Delhi OCC meeting held on dated 15.06.2018 were confirmed.

2. DTL AGENDA POINTS:**2.1 Status of Hot Reserve of transformers at all levels.**

The latest status of hot reserve of transformers as updated by DTL Planning deptt. during previous OCC meeting are as under:-

S.No.	Transformation Capacity	Population in no.	Hot Reserve (No.) Decided	Remarks
1.	400/220kV, 500MVA ICT	2	1x500MVA	One 400/220kV 500MVA transformer would be installed as hot reserve by the year 2019-20 and would be placed at Bamnauli. In case of damage of 315MVA transformer, the same would be replaced with 500MVA Tr.
2.	400/220kV, 315MVA ICT	14		DTL Plg. Deptt. confirmed in last OCC meeting that the PR for this Transformer is expected to be sent to DTL C&MM deptt. by Sep-18. This agenda is continuously discussed in OCC meeting from Jan-2017 and since then this scheme has not been prepared due to various constraints shown by planning deptt. Due to this the target for PR finalization of 500MVA Tr. as hot reserve has been shifted to Sep-2018 as informed by planning deptt., DTL. In view of

				<p>above the hot reserve for 400/220kV ICT is not getting finalized.</p> <p>OCC had taken this issue on very serious note that non-availability of this hot reserve may arise power crisis due to failure of any 315/500 MVA transformer in DTL system.</p> <p>OCC advised to put all efforts to procure this hot reserve to avoid power exigency in summer 2019.</p>
3.	220/66kV, 160MVA	22	2x160MVA	<p>The scheme for 160MVA Tr. as hot reserve at Mundka has been prepared and is under finance vetting. As informed by planning deptt. the PR for this Tr. could be sent to DTL C&MM deptt. within 02 months. The scheme for another 160MVA transformer as hot reserve at Mehrauli has been prepared and is under approval. PR for this Tr. is expected to be sent to DTL C&MM deptt. by Sep-2018.</p> <p>This agenda is continuously discussed in OCC meeting from May-2016 and since then this scheme has not been finalized due to various constraints shown by planning deptt. OCC had taken this issue on very serious note that non-availability of this hot reserve may arise high power crisis in upcoming seasons.</p> <p>OCC advised to put all efforts to procure this hot reserve to avoid power exigency in summer 2019.</p>
4.	220/66kV, 100MVA	42	1x100 MVA	<p>Steering Committee has already agreed for providing new 220/66kV, 100MVA hot reserve transformer at 220kV Pappankalan-I by 2019-20. DTL Plg. Deptt. confirmed that the scheme for 100 MVA Tr. at PPK-I has been prepared and estimation for same is awaited from civil deptt.</p> <p>This agenda is continuously discussed in OCC meeting from May-2016 and since then this scheme has not been finalized due to various constraints shown by planning deptt. OCC had taken this issue on very serious note that non-availability of this hot reserve may arise high power crisis in upcoming seasons.</p> <p>OCC advised to put all efforts to</p>

				procure this hot reserve to avoid power exigency in summer 2019.																									
5	220/33kV, 100MVA	37	2	<p>The scheme for 100MVA transformer as hot reserve at Okhla has been prepared and estimation for same is awaited from civil deptt.</p> <p>The scheme of 03 nos. 100 MVA Trf at Patparganj (01 no. 220/33kV Trf. as hot reserve and 02 nos. 220/66kV Trf. as augmentation) is already prepared and is under estimation and financial vetting. PR for PPG Trf is expected to be sent to DTL C&MM deptt. by Sep-2018.</p> <p>This agenda is continuously discussed in OCC meeting from May-2016 and since then this scheme has not been finalized due to various constraints shown by planning deptt. OCC had taken this issue on very serious note that non-availability of this hot reserve may arise high power crisis in upcoming seasons.</p> <p>OCC advised to put all efforts to procure this hot reserve to avoid power exigency in summer 2019.</p>																									
6	66/11kV 20MVA	24	NIL	<p>Steering Committee in its meeting held on 15.03.2017 has decided that in case of exigency, the Discoms may provide these transformer on returnable basis.</p> <p>As per the decision taken in the Steering Committee Meeting held on 30.10.17 the transformer augmentation has been planned as under:</p> <table border="1"> <thead> <tr> <th>S . N</th> <th>Sub Station</th> <th>Details of existing Tx.</th> <th>Augmentation Plan</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Lodhi Road</td> <td>2 no 33/11kV 20MVA</td> <td>2 no 33/11kV 25MVA</td> <td>2018-19</td> </tr> <tr> <td></td> <td>Lodhi Road</td> <td>2 no 33/11kV 16MVA</td> <td>2 no 33/11kV 25MVA</td> <td>2018-19</td> </tr> <tr> <td>2</td> <td>Najafgarh</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 66/11kV 31.5MVA</td> <td>2019-20</td> </tr> <tr> <td>3</td> <td>Okhla</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 66/11kV 31.5MVA</td> <td>2019-20</td> </tr> </tbody> </table>	S . N	Sub Station	Details of existing Tx.	Augmentation Plan	Year	1	Lodhi Road	2 no 33/11kV 20MVA	2 no 33/11kV 25MVA	2018-19		Lodhi Road	2 no 33/11kV 16MVA	2 no 33/11kV 25MVA	2018-19	2	Najafgarh	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2019-20	3	Okhla	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2019-20
S . N	Sub Station	Details of existing Tx.	Augmentation Plan	Year																									
1	Lodhi Road	2 no 33/11kV 20MVA	2 no 33/11kV 25MVA	2018-19																									
	Lodhi Road	2 no 33/11kV 16MVA	2 no 33/11kV 25MVA	2018-19																									
2	Najafgarh	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2019-20																									
3	Okhla	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2019-20																									
7	33/11kV 16MVA	16																											

4	Sarita Vihar	2 no 66/11k V 20MVA	2 no 66/11kV 31.5MV A	2019-20	
5	Pappan kalan-I	2 no 66/11k V 20MVA	2 no 66/11kV 31.5MV A	2020-21	
6	Mehrauli	2 no 66/11k V 20MVA	2 no 66/11kV 31.5MV A	2021-22	
<p>As informed by Plg. Deptt. the scheme of 04 nos. Trf of Lodhi Road is under finance vetting & its PR is expected to be sent to DTL C&MM deptt. by the end of July-2018.</p> <p>OCC opined that the scheme for Najafgarh, Okhla and Sarita Vihar be also prepared to meet the target date.</p> <p>This agenda is continuously discussed in OCC meeting from May-2016 and since then this scheme has not been finalized due to various constraints shown by planning deptt. OCC had taken this issue on very serious note that non-availability of this hot reserve may arise high power crisis in upcoming seasons.</p> <p>OCC advised to put all efforts to procure this hot reserve to avoid power exigency in summer 2019.</p>					

Planning Department of DTL informed that they have already drawn a detailed plan for augmentation/replacement of 220/66kV Tx in Business Plan 2017-22 as under:

Sr. No.	Name of the Sub Station	Qty. (No.)	Year	Latest status of Scheme
1	SaritaVihar (100 MVA to 160 MVA)	1	2018-19	Under tendering stage
2	Narela (100 MVA to 160 MVA)	1	2018-19	Under tendering stage
3	Najafgarh (100 MVA to 160 MVA)	2	2018-19	P.O. awarded
4	Okhla (100 MVA to 160 MVA)	1	2018-19	Under Approval stage
5	Mehrauli (100 MVA to 160 MVA)	1	2019-20	Under Approval stage
6	Patparganj (100 MVA to 160 MVA)	2	2019-20	Under Approval stage
	Total	8		

OCC opined that DTL should adhere the timelines for augmentation/replacement of Tx. as mentioned above.

All out efforts be taken to charge the hot reserve transformers within the target date to avoid any power crisis due to breakdown of transformer. Timelines for all associated works for ETC of Tr. such as civil works including Tr. Foundation, equipment replacement, cabling, etc. be also quantified. Monthly progress be apprised/updated in Delhi OCC meeting.

(Action by Plg. Deptt., DTL)

2.2 Status of Procurement of transformers, O&M minimum inventory/spares/services as well as equipments to be procured against PSDF schemes.

1. Procurement of 09 nos. 220/66kV 160 MVA transformers.

It has been gathered that the P.O. for 09 nos. 160 MVA Transformers (2 for SGTN, 2 for Budhela, 2 for Gopalpur, 2 for Najafgarh and 1 for Kanjhawala) have been awarded.

OCC advised that the above augmentation works at Gopalpur, Najafgarh & Kanjhawala need to be taken on priority basis. Considering the continuous growth in power demand and in view of recent failure of transformers, the transformers are essentially required to be commissioned at various DTL Sub-stns by/ before March-2019 to meet the power demand of next summer season. Order for civil & erection works to be placed for early commissioning of above Transformers to avert any untoward situation/crisis which may arise due to transformer failure.

(Action by C&MM deptt.)

2. Procurement of minimum inventory/spares.

No representative from C&MM deptt. were present in the meeting. However, the brief status was mailed. DTL C&MM deptt. informed that PR w.r.t availability of minimum inventory (PR No. 1100001602). is under approval.

During discussion, DTL O&M deptt. raised serious concern regarding long pendency/delay in procurement of inventory and pointed out that due to non-availability of spares the crucial elements of power network may go under outage and pose major threat to availability of power supply.

OCC pointed out that the issue is pending since last one year. C&MM deptt. to come out with major constraints regarding non finalization of procurement of min. inventory/spares. The power demand is touching new record every year. As such to meet the continuous growth in power demand, spare inventory is essentially required to tackle the breakdown situation. Since the delivery period of each inventory is more than 6-8 months, as such express procurement be initiated and work be done on war footing basis to avert any untoward situation/crisis which may arise due to power supply failure. In the next OCC meeting, C&MM deptt. representative will explain the major constraints being faced by them regarding non finalization of procurement of minimum inventory/spares.

(Action by C&MM deptt.)

3. Procurement of materials under PSDF scheme.

OCC directed that the procurement/execution against PSDF scheme is time bound activity. As such every effort be made to complete the PSDF scheme in time bound manner.

It has been gathered that the order is already placed for procurement of materials under PSDF scheme. However, the placing of order for erection/ services is still pending which needs to be expedite for utilizing the supplied material.

(Action by C&MM deptt.)

2.3 Reactive power compensation at 400kV & 220kV level in DTL network.

The status for installation of reactors in DTL system as updated by DTL Planning deptt. during previous OCC are as under:

S.No.	Bus Name	Voltage level (kV)	Reactor (MVAR)	Latest status
1	Mundka	400	125	DTL Planning deptt. confirmed that the scheme for installation of 2 nos. reactors for Mundka Sub-stn (1 no. 125 MVAR at 400kV level and 1 no. 25 MVAR at 220kV level) and 1 no. 50 MVAR reactor for Peeragarhi Sub-stn has been finalized. The PR will be sent to C&MM deptt. within 3 months. For rest of the Sub-stns, the schemes are under preparation.
2	Bamnauli	220	2x25	
3	Indraprastha	220	2x25	
4	Harsh Vihar	220	2x50	
5	Electric Lane	220	1x50	
6	Mundka	220	25	
7	Peeragarhi	220	1x50	
8	Maharani Bagh (PG)	400	125	To be installed by Powergrid.
9	Mandola (PG)	400	125	To be installed by Powergrid.
TOTAL			700	

OCC opined that DTL have witnessed numerous trippings on overvoltage during the last winter season. This is a very serious problem encountered during winter seasons, when the transmission elements are lightly loaded. To overcome such problems, Reactors are essentially required to be commissioned before Dec 2018.

OCC pointed out that the finalization of PR is pending since last one year & advised to expedite the same to achieve the targets before upcoming winter season.

(Action by Plg. Deptt., DTL)

2.4 Repeated trippings on 66 KV Malviya Nagar Ckt. No.-I & II at 220kV Okhla Substation.

220 kV Sub- Station Okhla was commissioned in 1985 and at present it has total transmission capacity of 500 MVA i.e. 300MVA at 220/33 kV level & 200MVA at 220KV/66KV level. Repeated trippings have been noticed on the 66kV O/G feeders of BRPL, whose details are as under:-

Sl. no.	Name of feeder	Tripping date	Tripping time	Restoration date	Restoration time	Outaged uration (Hrs.)	Relay
1	66 KV Malviya Nagar Ckt. No.-I	03.07.18	15:50	03.07.18	17:55	02:05	E/F
2	66 KV Malviya Nagar Ckt. No.-II	03.07.18	15:50	03.07.18	17:55	02:05	E/F, Distance 02 km
3	66 KV Malviya Nagar Ckt. No.-I	13.07.18	18:18	13.07.18	18:46	00:28	E/F
4	66 KV Malviya Nagar Ckt. No.-II	13.07.18	18:18	13.07.18	18:53	00:35	E/F, Zone-I, Zone-II, 86, 6.2 km
5	66 KV Malviya Nagar Ckt. No.-I	16.07.18	19:40	16.07.18	20:40	01:00	67 NX E/F
6	66 KV Malviya Nagar Ckt. No.-II	16.07.18	19:40	16.07.18	20:40	01:00	Zone-I, 1.9 km
7	66 KV Malviya Nagar Ckt. No.-I	19.07.18	09:18	19.07.18	11:50	02:32	67 NX E/F

8	66 KV Malviya Nagar Ckt. No.-II	19.07.18	09:18	19.07.18	11:50	02:32	67 NX E/F
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M/s. BRPL informed that the major cause of above mentioned tripping is due to rapid growth of tree branches in monsoon season.

OCC advised to BRPL for regular trimming of tree branches and take all precautionary actions to avoid the unwanted trippings & further electrical stress on DTL transformers as well as switchgears.

OCC pointed out that there might be improper time grading of back up relay at Discom/DTL end. Therefore this issue be discussed in the protection sub-committee meeting for reviewing the relay setting of all feeders which has been noted for frequent trippings. Also, the main protection of such feeders should remain healthy.

(Action by BRPL & DTL Prot. Deptt.)

2.5 (a) Tripping of GT#1, GT#2 and STG at 08:19 hrs. of 30.06.2018 at 220kV Pragati Sub-stn.

On dt.-30.06.2018 at 07:33 hrs., R-Ph LA became faulty of 220kV Patparganj-IP Ckt.-II at Patparganj end. However, both 220kV Patparganj-IP Ckt.-I & II got tripped at IP end.

At 220kV Sub-stn Pragati, the Bus configuration was as under:-

(i) The 220kV Bus-I which was connected with GT#2 and STG at Pragati was connected to grid through 220 kV Maharani Bagh.

(ii) The 220kV Bus-II was connected with GT#1 at Pragati, 160 MVA Tr.-I & II (through GTPS) and 220kV I.P.-Pragati Ckt.-I & II.

The 220kV Bus coupler was at OFF position.

After tripping of 220kV IP- Patparganj Ckt.-I & II, the GT#1 got disconnected from the grid. The 220kV Bus Coupler at Pragati which was in OFF position was tried to close at 7:45 hrs., but couldn't be synchronized due to large difference in voltage.

Further GT#1, GT#2 and STG tripped at 08:19 hrs. resulting failure of supply at Park street Sub-stn. There was a gap of 46 minutes between the two incidents. If 220kV Bus coupler at Pragati could have been closed, then the 220kV Park street supply would have not failed.

Data of both ends i.e DTL& PPCL need to be analyzed further and matter to be deliberated in Protection subcommittee. OCC further advised that DTL & PPCL to share the data mutually in similar occurrences.

(Action by DTL & PPCL Prot. Deptt.)

2.5(b) In the previous OCC meeting held on 20.04.2018, OCC advised DTL as well as PPCL to implement the following remedial measures to avoid the grid disturbance as occurred on 21.02.2018 at 12:28 hrs.:-

(i)The voltage and frequency of both 220kV Buses be provided by DTL to PPCL. Similarly, the voltage and frequency of the GTs be provided by PPCL to DTL. The supply of necessary meters, wires, etc. including its laying be done by PPCL.

(ii)PPCL to control the voltage, frequency parameters in order to synchronize both the 220kV bus at the earliest after the instruction of SLDC.

(iii)During islanding and after the instructions of SLDC, the DTL and PPCL control room staff will communicate with each other in order to synchronize both the 220kV bus at the earliest.

PPCL clarified that in respect to OCC meeting held on 20.04.2018, the synchronization facility in PPCL is at 11 kV after charging of HVCB. 220KV Bus synchronization is possible at DTL end. In this regard for controlling of parameters, DTL protection and O&M team shall visit the 220kV Pragati sub station and PPCL to analyze the feasibility of Bus coupler synchronization and modalities of implementation thereof.

(Action by DTL & PPCL Prot. Deptt)

2.6 Power evacuation plan for newly commissioned/to be commissioned R.K. Puram, Tughlakabad, Pappankalan-III and Preet Vihar.

The evacuation plan for newly commissioned/to be commissioned R.K. Puram, Tughlakabad, Pappankalan-III and Preet Vihar be submitted by Discoms for load optimization on DTL network.

The matter was deliberated and OCC emphasized that a huge investment has been done by DTL to bring the new Sub-stn as per the load demand at the above location. The representative from Discoms were requested to expedite the power evacuation from the newly commissioned DTL Sub-stations as per their bay allocation so as to bring load relief on the existing transmission network.

Discoms were agreed to submit the necessary schedule for evacuation plan upto March 2019 from the above DTL sub-stations in the next OCC meeting.

(Action by Discoms)

2.7 Identification of weak elements during largest ever Delhi peak demand of 7016 MW occurred on 10.07.2018 at 15:26.

The peak demand of Delhi surpassed all previous records and set a new record of 7016 MW occurred on 10.07.2018 at 15:26. SLDC to identify the weak element/transmission constraint/overloading of transformers as well as any other load constraints during the peak and to apprise the same to OCC. DTL Planning deptt. may note the observations and plan accordingly for next summer demand including augmentation works.

It was deliberated that considering the trend in percentage of load growth, the peak demand may cross 7800 MW in the next summer season. OCC advised that SLDC to identify & point out the weak elements/heavily loaded element in DTL network during the peak and the same should be communicated to Planning deptt. in writing to make the short term as well as long term planning to meet the power demand in future. Planning deptt. to expedite for necessary augmentation/upgradation in DTL network to meet the next summer demand.

Discoms were also requested to identify the weak element as well as heavily loaded element in their network during the Delhi peak demand and same should be discussed in steering committee meeting for necessary augmentation/upgradation in their network to meet the next summer demand.

(Action by SLDC, DTL Planning deptt. & All Discoms)

2.8 Proposed planned shutdowns of O&M, DTL

DTL O&M deptt. has proposed the planned shutdowns for the month of Aug-2018 as per enclosed Annexure.

The shutdowns were deliberated. OCC advised that in view of peak summer demand, only emergency shutdowns are allowed between 05 to 10AM. SLDC to take decision as

per the load optimization & as per the emergency. Discoms were also requested to apply only emergency shutdowns during morning hours.

2.9 Special Shutdown of 400kV Bamnauli-Ballabgarh Ckt.-I & II for replacement of tower.

On dated 22.05.2016 due to heavy storm tower no. 169 of Bamnauli-Jhatikra line got damaged and tower no. 173 got buckled. During the inspection of damaged tower no. 169 by CEA, tower no. 173 was also inspected and it was advised by CEA that tower no. 173 should be replaced along with foundation to avoid long outage of line due to collapse of tower. Tower no. 169 has already been erected. Further a P.O. has been placed by DTL on M/s Anil steel pvt. Ltd for replacement of tower no.173.

The schedule for replacement of tower no. 173 and shutdown proposed is as under :-

S. No.	Name of the Element	Shut-down from	Shut-down to	Work to be carried	Remarks
1.	400kV Bamnauli-Ballabgarh Ckt.-II	20.08.2018 9:30 hrs.	21.08.2018 17:30 hrs.	As per CEA recommendation tower no 173 of 400kV Ballabgarh double ckt is needed to be replaced. For the above mentioned purpose and line restoration purpose, ERS will needed to restore BLB ckt-2 circuit. So, shutdown is required for installation of ERS on Ballabgarh Ckt No.2.	Load shall be shared through Jhatikra ckt-1 and Jhatikra ckt-2.
2.	400kV Bamnauli-Ballabgarh Ckt.-I	20.08.2018 9:30 hrs.	10.11.2018 17:30 hrs	As per CEA recommendation tower no 173 of 400kV Ballabgarh double ckt is needed to be replaced. So, Shutdown is required for Replacement of tower no 173 of 400kV Ballabgarh double circuit.	1. Ballabgarh ckt-2 will be restored on ERS by 21.08.18 (17:30 hrs). 2. Load shall be shared through Ballabgarh ckt-2, Jhatikra ckt-1 and Jhatikra ckt-2

The matter was deliberated and it was informed by DTL O&M deptt. that the requisite material has not arrived at site. OCC advised that the complete schedule as well as bar chart be submitted to GM(O&M)-II before submitting the same to OCC for consideration of planned shutdown.

(Action by O&M deptt., DTL)

3. SLDC Agenda

3.1 400kV Shutdowns proposed by O&M Department.:

Following shutdowns were received to SLDC from OS Department to put up in 149th NRPC OCC meeting.

S. N.	Details of Transmission Element		Category	Shutdown Type	Shutdown period		Work to be Carried
	Voltage Level	Name			Date	Time	
1	400kV	400kV Bamnauli Ballabgarh ckt-2	A	Continuous	20.08.18 to 21.08.18	09:30 to 17.00hrs.	As per CEA recommendation tower no 173 of 400kV Ballabgarh double ckt is needed to be replaced. For the above mentioned purpose and line restoration purpose, ERS will needed to restore BLB ckt-2 circuit. So, shutdown is required for installation of ERS on Ballabgarh Ckt No.2.
2	400kV	400kV Bamnauli Ballabgarh ckt-1	A	Continuous	20.08.18 to 10.11.18	09:30 to 17.00hrs.	As per CEA recommendation tower no 173 of 400kV Ballabgarh double ckt is needed to be replaced. So, Shutdown is required for Replacement of tower no 173 of 400kV Ballabgarh double circuit.
3	400kV	400kV Bamnauli Jhatikra ckt-2	A	Daily Basis	17.08.18	09:30 to 17.00hrs.	For replacement of dropper conductor of R Phase

The above shutdown as sr. no 2 is on continuous basis for almost three months on 400kV Bamnauli – Ballabgarh Ckt. -I, it is therefore SLDC seeks concurrence of Delhi OCC before submitting to NRPC forum.

The matter for planned shutdown of 400kV Bamnauli-Ballabgarh Ckt.-I & II has already been discussed at Agenda S.No.-2.9. The shutdown of 400kV Bamnauli-Jhatikara Ckt.-II be planned after 15 sep. The planned shutdown be put up in NRPC OCC.

(Action by O&M deptt., DTL)

3.2 Real time availability of Delhi Genco gas based plants.

TPDDL has raised issue regarding real time availability of GTPS and Bawana plants. SLDC has received communication from TPDDL in which TPDDL questioned both the generating stations for their capability to generate upto their declared capacity.

TPDDL also cited certain incidents in which generating plants were requested to generate during the power requirement but the plants were not able to generate as per their declared capacity and it has been noted that the generating plants either revise its declared capacity immediately or the units got tripped or goes under breakdown.

The details of the incidents and letter no. Tata Power DDL/PMG/SLDC/24052018 dt. 24.05.2018 received from TPDDL are annexed as Annexure -1.

This agenda was deliberated and OCC advised that SLDC should study the remarks/comments as provided by TPDDL. The outcome of this study be informed to Discoms and Gencos.

(Action by SLDC)

3.3 System study for capacitor requirement in NR for year 2019-20.

The matter is a regular agenda in NRPC OCC to do system study for capacitor requirement in Northern Region. NRPC has approved the capacitor requirement study at 11/33kV level from CPRI to obtain the true requirement of capacitor for FY 2018-19. In this regard all NR utilities were requested to give peak summer data (Load/Voltage) and details as per format approved in NRPC. The format for data is attached as Annexure-II. As such, all utilities are requested to provide data in required format.

It was deliberated that the study of capacitor requirement in Delhi Power network is very crucial for preparation to counteract the low voltage problem during high load demand in next summer season. OCC advised to Discoms for providing the requisite data to SLDC as per attached format in Annexure-II. SLDC to follow up for the same.

(Action by Discoms)

3.4 Requirement of data for the GIS based energy map being developed by Energy Division of NITI Aayog.

This is in reference to the agenda item no. 19 of 149NRPC OCC meeting. Energy Division of Niti Aayog is preparing a GIS based energy map, therefore, Member Secretary, NRPC has requested all Discoms / Power Department to furnish the information regarding the Name, Voltage level, Capacity Longitude and Latitude of 33kV & 66kV S/Stns and Lines. The format for data is attached as Annexure –III.

The matter was deliberated and all the Discoms were requested to provide the data to SLDC as per attached format in Annexure-III. SLDC to follow up for the same.

(Action by Discoms)

3.5 Status Report

Status of following work needs to be updated.

Sr. No.	Name of Element	Action plan	Time line
1	400/220kV Tuglakabad S/Stn.	Evacuation plan of four feeders at 66kV Level namely 66kV Batra Ckt., 66kV Malviya Nagar ckt, 66kV Okhla ckt & 66kV MCIE Ckt. by BRPL	
2	220kV Rohini –II	Transfer of load from Rohini –I to Rohini-II by TPDDL	
3	220kV Electric Lane	Transfer of load from Park Street/I.P. to Electric Lane by NDMC	

4	220kV Khanjawala	New transformer 220/66kV 160 MVA by Planning Deptt. of DTL.	
5	220kV Gopalpur	New transformer 220/66kV 160 MVA by Planning Deptt. of DTL.	
6	220kV Shalimarbagh	New transformer 220/66kV 160MVA by Planning Deptt. of DTL.	
7	220kV Papankalan-III	Augmentation of new 66kV Cable of G-2 to transfer load of Papankalan-I to Papankalan –III by BRPL	
8	220kV Vasant Kunj	Revival of 66kV Vasant Kunj – Ridge Valley Ckt. by BRPL	
9	220kV Mandola – Gopalpur Ckt.	Reconductoring of existing ckts. by HTLS by DTL.	
10	220kV Mandola – Wazirabad Ckt.	Reconductoring of existing ckts. by HTLS by DTL.	
11	220kV Bawana – Rohini-I Ckt.	Reconductoring of existing ckts. by HTLS by DTL.	
12	66kV Mundka – Nangloi Ckt.	Revival of existing faulty ckt by BRPL in coordination with TPDDL.	
13	220kV Papankalan-III	Revival of 220/66kV Transformer .	

OCC requested DTL Planning Department and respective discoms to provide the latest status of aforesaid works in next OCC meeting.

(Action by DTL Planning deptt./ Discoms)

3.6 Automatic Demand Management System (ADMS) :

All utilities were once requested to submit update on the action plan & status of implementation of the ADMS in their organization as it is mandatory requirement of Grid code.

Delhi, Haryana, Utrakhand, & UP representative were requested to take up the matter expeditiously with their distribution companies. SE ,NPC stated that the problems if any in implementing the same may also be brought to the notice of the sub –committee as it is 10 years since the regulations were issued by CERC.

Punjab representative intimated that at SLDC level they were doing remote tripping for 96 locations. He added that the ADMS at 11 kv feeder level is to be implemented by Distribution Company. He added that the Tender specification had finalized and it has been targeted to complete it by 2020. He assured that the updated status would be submitted in this regard. The information was submitted by HP.

MS NRPC requested all SLDCs (except HP) to look into the issue and get the ADMS implemented soon in their States. All utilities (except HP) are requested to update.

The matter was deliberated and TPDDL, BRPL & BYPL gave their respective confirmation regarding commissioning of ADMS at their end. OCC advised that SLDC will verify the commissioning status as well as testing of settings, etc at Discom control

room. Further it was advised that MES & NDMC as well to provide the latest status on ADMS in their control area and accordingly it will be updated to NRPC after verification & testing by SLDC.

(Action by Discoms & SLDC)

4. PPCL Agenda

4.1 Shut down request of STG at PPS-1 for 7 days.

PPCL have requested the shutdown of STG at PPS-1 for 7 days to attend the problem being faced in LP ESV of steam turbine. During startup after any tripping, unit get delayed in synchronization which need to be attended on priority.

In view of the above, they have requested to allow the shut down of STG of PPS-1 for 7 days at the earliest to avoid any further consequential damage to the system.

PPCL proposed the STG shut down w.e.f 10.08.2018 to 16.08.2018 along with GT#2 shut down w.e.f 10.08.2018 to 19.08.2018 considering the urgency of work and to avoid any further consequential damage to the system. PPCL further submitted that the emergency stop valve of LP turbine and governing system of steam turbine is not working properly due to which difficulties are being faced in the normal running of the STG, particularly at the time of synchronizing the machine with grid. Latest being on 15.07.2018, when it took about 4-5 hrs for synchronization after tripping. PPCL also emphasized that the problem can aggravate at any time and may results into forced shut down.

OCC decided that shut down cannot be allowed in view of the Independence day ceremony falling within the proposed date of shutdown. However it was advised that PPCL to put up in next OCC for consideration of these shutdowns to be proposed in first week of September 2018.

(Action by PPCL)

4.2 Shut down request of STG#1 at PPCL-III, Bawana for 3 days.

PPCL-III Bawana has been generating in the range of 300-650 MW over the past few months consistently this Summer, with availability of 2*216MW+1*253.6 MW of installed capacity in Combined Cycle, and 2*216 MW of installed capacity in Open cycle. With this continuous run under peak Delhi-demand and coupled with the higher humidity levels prevalent over the past few weeks resulting into lower Cooling-tower effectiveness, one of the closely monitored operating parameters (cold-gas temperature) on STG #1 generator is on higher side and gradually inching towards alarming limit whereupon load-restriction will kick-in. The load restriction may create a sudden shortfall in meeting Delhi peak demand.

So, all the members of the Committee are requested to kindly consider and approve 3 days shutdown for our machine STG #1 towards predictive maintenance of the plate-heat-exchangers for restoration of referred operating parameter to a healthier condition. The other turbo-generators 4*216 MW shall be available for Open-cycle generation. The exact schedule of maintenance is indicated below for kind consideration.

Shutdown of turbo-generator (STG #1)

S. No	Unit	Rating	From (date)	To (date)	Remarks
1.	STG #1	253.6 MW	29.7.2018 (Sunday) 00:00 hrs	31.7.2018 (Tuesday) 24:00 hrs	Predictive maintenance of PHEs of STG #1.

This shutdown was approved for the period of 03 days from 27.07.2018 to 29.07.2018 subjected to real time basis power demand.

(Action by PPCL & SLDC)

5.TPDDL Agenda**5.1 Restoration of faulty 33kV Shahzada Bagh - Rama Road Cable No.-2 falling under DMRC premises.**

33kV cable from Shahzada Bagh to Rama Road (cable no-2) grid become faulty at 13th April 2018.

Fault Location: Beneath the stair case & escalator at gate no-4 at Inderlok Metro Station.

This 33kV cable is infringing with DMRC constructed stair case and escalator at gate no-4 Inderlok Metro Station.

DMRC refused digging beneath the existing stair case.

TPDDL stated that it is clear cut violation of CEA guidelines and had created very unsafe situation in respect of general public.

It is very hard to imagine the consequences if any miss happening occurs.

At present cable no-1 is in service and in parallel with the cable no-2 on same route.

In 2009, DMRC officials visited and a scheme was framed but DMRC had not deposited the shifting cost of Rs. 15, 06,774.

So, shifting could not be done. Scheme attached for reference.

Now M/s TPDDL want to restore the supply of cable no-2 to improve the system reliability and uninterrupted power supply.

OCC advised that DMRC & TPDDL will conduct a joint meeting to resolve the issue of shifting of power cable. On this DMRC agreed to look into this matter again and gave assurance to solve this matter by the end of July-2018.

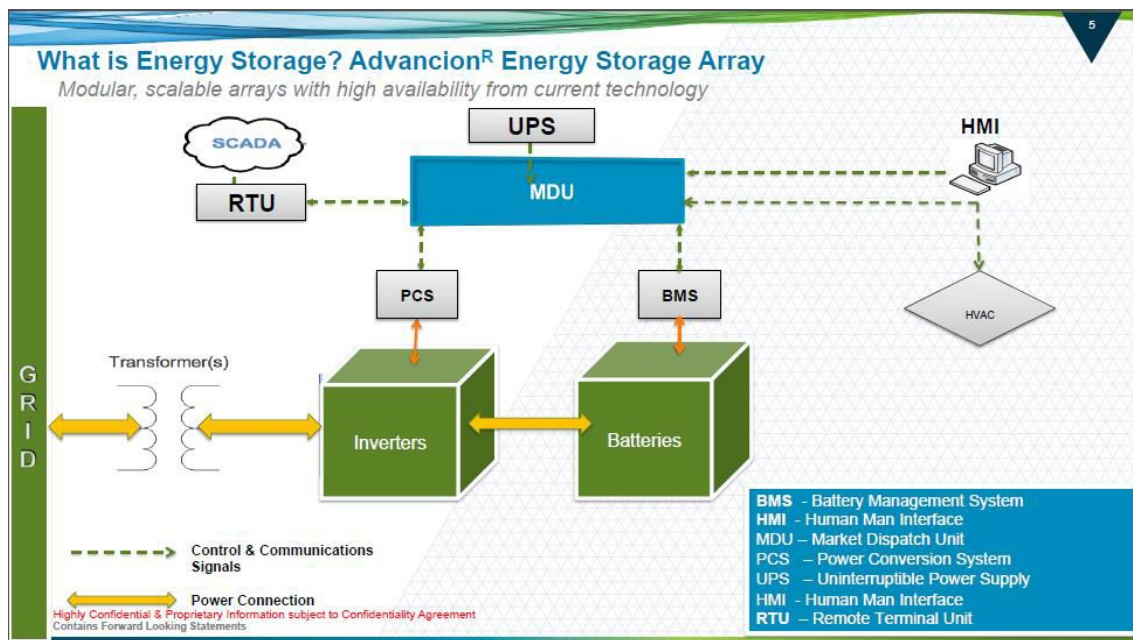
(Action by DMRC & TPDDL)

5.2 Installation of 10 MW Battery Energy Storage (BESS) at 66/11KV Grid RG-24 in Rohini by M/s TPDDL.

TPDDL have informed that TATA POWER-DDL is installing a 10 MW **Battery Energy Storage** (BESS) at 66/11KV Grid RG-24 in Rohini.

The BESS will be connected to TPDDL grid through 11KV MVpanels. The detailed of the Scheme/ interconnection SLD is given in the attached letter. It is worth mentioning that the proposed plant is duly approved by HonourableDERC.

Overview of scheme mentioned in SLD. They have requested to check and give remark if any.



Details objective of scheme

The major objective behind the installation of BESS is to provide dynamic support to the grid in condition of grid instability arising out of high demand / low generation and vice versa. As the proposed BESS has the capacity to inject/draw 10 MW power / 10 Mwh energy for 1-hour at its rated capacity and can be pressed into service within an extremely short duration of 30s, it is suitably placed to provide the necessary cushion in both directions during conditions of Overdraw and under drawl .In addition it can support the grid in various combinations of power and energy like 5MW for 2hrs, 2.5MW for 4 hours and so on. Besides grid support during high/low demand the BESS can provide many ancillary services like – AT&C loss reduction , T&D Equipment life extension, Privileged services to preferential consumers, Voltage and frequency regulations, back-up power for generation plants in case of black - outs and DMRC for evacuation power. In addition BESS can play a very important role in renewable energy integration to the grid. The BESS is to be operated for a pilot period of 21 Months post it’s commissioning during which the above mentioned applications will be tested and demonstrated by TPDDL and AGILION.

After deliberation, OCC advised that SLDC to conduct a meeting with TPDDL along with planning deptt., metering deptt. & protection deptt., of DTL to check the installing scheme of BESS which should be in line with the guidelines of DERC. Remarks/comments if any be communicated to TPDDL by SLDC.

(Action by SLDC, DTL & TPDDL)

5.3 Frequent Revision in DC by without prior information (Aravali Jhajjar)

TPDDL have informed that the information of DC revision from Aravali Jhajjar is not received before 4 time blocks i.e. one hour. There are many incident where the information of DC revision (through website) was received only 15-30 minutes before actual implementation of the schedule.

In such situation TPDDL are not able to make an alternate power arrangement hence real time scheduling is getting affected.

TPDDL have highlighted this issue in last NRPC OCC also. Final process agreed in the meeting was given below. ref. MoM 147th NRPC-OCC dated 22nd May 2018.

TPDDL representative highlighted the issue. NTPC representative informed that DC is being punched at NRLDC website as per IEGC provisions and no separate communication can be send to individual beneficiary in this regard. After due deliberation and discussion by the Sub Committee NRLDC representative assured that the matter would be taken up with Aravali Jhajjar to share the information that they send to NRLDC with TPDDL. APCL reluctantly agreed to look into the request of TPDDL.

TPDDL have further informed that they are still facing the same issue. Revision of DC is not communicated on time through any media.

Incidents of frequent DC revision by Jhajjar and late schedule creation by NRLDC which resulted in either MOD violation or ADSM penalties:

JUNE cases:

Case-1 :Dated 02-June-18

REVISION No.2 :Created On 01-06-2018 22:37:17		REVISION No.3 :Created On 01-06-2018 23:31:31	
Time Block	DC	Time Block	DC
00:00-00:15	1200	00:00-00:15	800
00:15-00:30	1200	00:15-00:30	800
00:30-00:45	1200	00:30-00:45	800
00:45-01:00	1200	00:45-01:00	800

As New DC and entitlement updated at 23:31 hrs of 01-06-18 , so we can lift other generation from 00:15 hrs of 02-06-18 , leading to generation loss of around **160MW** in slot **00:00 to 00:15** hrs.

Similarly on 01-06-18, DC was updated without providing any time to lift power in other generation.

REVISION No.95 :Created On 01-06-2018 23:16:17		REVISION No.96 :Created On 01-06-2018 23:28:20	
23:00-23:15	1150	23:00-23:15	1150
23:15-23:30	1150	23:15-23:30	1150
23:30-23:45	1150	23:30-23:45	1150
23:45-24:00	1150	23:45-24:00	947.5

CASE 2: Dated 05-June-18

REVISION No.2 :Created On 04-06-2018 22:16:32	REVISION No.3 :Created On 04-06-2018 23:51:43

Time Block	DC	Time Block	DC
00:00-00:15	1275	00:00-00:15	900
00:15-00:30	1125	00:15-00:30	900
00:30-00:45	1000	00:30-00:45	900
00:45-01:00	1000	00:45-01:00	900

In this case schedule is created on 23:51 of 04-05-18, so power can be lifted only from **00:30 hrs of 05-06-18**, leading to total generation loss of **140MW** in block **00:00-00:15** and **90MW** in **00:15-00:30 hrs**.

MAY cases:

Similar cases observed in MAY , two such instances mentioned below:

Case 1: Dated: 09-05-18

Declaration for 00:00-24:00 hrs	
Revision 3 Created on :08-05-2018 19:27:41	947.5
Revision 4 Created on :08-05-2018 22:39:04	750
Revision 5 Created on :08-05-2018 23:44:45	850

In this case revision can be punched and power can be lifted from 00:30 hrs of 09-05-18.

Case 2: Dated 13-05-18

REVISION No.3 :Created On 12-05-2018 22:41:00		REVISION No.4 :Created On 12-05-2018 23:33:56	
Time Block	Schedule	Time Block	Schedule
00:00-00:15	750	00:00-00:15	900
00:15-00:30	650	00:15-00:30	900
00:30-00:45	650	00:30-00:45	900
00:45-01:00	650	00:45-01:00	900

In this case also power can be lifted from 00:15 hrs of 13-05-18 .

Some of such cases were reported to NRLDC via mail on real time.

The matter was deliberated and OCC advised that the issue be settled after mutual discussion with SLDC.

(Action by SLDC)

6.BRPL Agenda

In recent days during month of June and July frequent tripping's occurred from 220KV Peeragarhi to 33KV outgoing feeders of BRPL. We need data related to protection and time coordination for tripping analysis and to set limits accordingly at our end. Data needed namely on following feeders. We contacted DTL protection for the same and reply is still awaited.

- 1) 220KV Peeragarhi to 33KB Mukherjee Park ckt-1 and ckt-2.

BRPL operating philosophy is as mentioned below.

Configuration of 220 KV Peeragarhi to Mukharjee Park double ckt. (first portion in both ckt. 3*400 mm sq. XLPE cable of route length 1.96 Km
IInd portion in both ckt. Goat conductor on same tower route length 5 Km)\
Both ckt. run in parallel in general.

2) Below mentioned tripping occurred on 10.7.18. Pl share tripping details and fault observed at 220KV Peeragarhi end.

From	To	Grid Name	Feeder or Equip Name/ PTR No	Tripping Details	Load in amp	Load in MW
19:45	19:59	PeeraGarhi_2 20KV	MukharjeePark CKT-1	Tripped off on master 86 relay , ZONE-1 RELAY	262/33KV	13
19:45		PeeraGarhi_2 20KV	Vishal	Tripped off on master 86 relay , 80C RELAY	260/33KV	13

3) 33 KV Overhead line parameters for single and double ckt.

4) NDPL requested to share O/C setting on Rewari line to Vishal as this feeder was tripped off on O/C of 436 amp on 19 July 2018.

5) DR needed of feeder tripped off from 220KV Okhla to 66KV Malviya Nagar ckt-1 & 2 on 19 July 2018.

OCC advised that the matter be discussed in the Protection sub committee meeting.

7. Long/Recent Outage/Breakdown of Elements in Delhi power system.

Members updated the latest status of following Long/Recent Outage/Breakdowns of elements in Delhi Power system as under:

S.N	Element's Name	Discom/ DTL	Date and Time of outage	Latest Status of outage
1.	33kV BAY -3 (IP – KILOKARI)	BRPL	22.02.2011	Clearance from Railways for laying of Underground cables near Bhairon Road is pending. OCC advised BRPL to inform DTL after awarding of the said work. During the OCC meeting dt.-28.11.2016, It was deliberated that the above work shall be started after joint inspection with Railways.
2.	66kV V.KUNJ INSTL.AREA-RIDGE VALLEY CKT.-I	BRPL	26.03.2017	UNDER SHUT DOWN. Expected by 25.09.2018.
3.	33kV ALAKHNANDA - OKHLA CKT.-I	BRPL	19.04.2018	BREAKER PROBLEM. Expected by 30.10.2018.
4.	33kV LODHI ROAD - EXHIBITION GROUND-II CKT.	BRPL	26.06.2018	'Y' AND 'B' PH. SINGLE CABLE FAULTY. Expected by 10.10.2018.
5.	33kV RIDGE VALLEY - KHEBAR LANE CKT.-II	BRPL	13.01.2016	'R' PH. SINGLE CABLE FAULTY. Expected by 18.09.2018.

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6.	66kV MUNDKA - NANGLOI CKT.	BRPL	08.05.2017	B & Y-PH. CABLE FAULTY. Expected by 05.10.2018.
7.	66kV PAPPANKALAN-II - HASTAL CKT-I	BRPL	21.06.2018	'B' PH. SINGLE CABLE FAULTY. Energized on 31.07.2018.
8.	66kV HASTAL - GGSH CKT.-I	BRPL	10.07.2018	'R'PH. CABLE FAULTY. Expected by 04.08.2018.
9.	33kV PANKHA ROAD - JANAKPURI CKT.-I	BRPL	15.07.2018	Y-PH. CABLE FAULTY. Energized on 22.07.2018.
10.	20MVA PR.TR.-I AT S.B. MILL	BRPL	16.07.2018	UNDER SHUT DOWN. Energized on 17.07.2018.
11.	66kV PAPPANKALAN-II - MATIALA CKT-I	BRPL	19.07.2018	R-PH. CABLE FAULTY. Expected by 13.08.2018.
12.	66kV HARSH VIHAR - GONDA CKT.-I	BYPL	18.07.2018	'B' PH. CABLE FAULTY. Energized on 25.07.2018.
13.	66KV MUNDKA- MANGOLPURI-I - T-OFF NANGLOI CKT.	TPDDL	09.03.2018	CABLE FAULTY. Expected by 10.09.2018.
14.	33kV SHAHZADA BAGH - T-OFF RAMA ROAD CKT.	TPDDL	13.04.2018	CABLE FAULTY. Expected by 15.09.2018.
15.	220kV SUBZI MANDI - 33kV SHAHZADA BAGH CKT.-I	TPDDL	13.07.2018	CABLE FAULTY. Energized on 23.07.2018.
16.	220/66kV 160MVA PR.TR.-III AT 220kV VASANT KUNJ	DTL	26.04.2018	TRANSFORMER BURNT DUE TO FIRE. TO BE REPLACED.
17.	33kV BUS COUPLER AT KASHMERE GATE	DTL		TRIPPING COIL PROBLEM. Accessories yet to arrive from ABB.
18.	220kV MAHARANI BAGH - ELECTRIC LANE CKT.-I	DTL	22.05.2018	CABLE DAMAGED DUE TO METRO WORK AT SARAI KALEN KHAN. Expected by 10.08.2018.
19.	220kV HARSH VIHAR (400kV) - PREET VIHAR CKT. -II	DTL	03.07.2018	PROBLEM IN PREET VIHAR GIS. Energized on 25.07.2018.
20.	STG-2 at PPCL Bawana	PPCL Bawana	01.10.2017 00:05 hrs.	Problem in Generator Transformer. Expected by 31.08.2018.
