

	<b>DELHI TRANSCO LIMITED</b> (A Govt. of NCT of Delhi Undertaking) An ISO 9001:2008 certified company Office of DGM(T) OS, Convener-OCC <b>1<sup>st</sup> Floor, Shakti Sadan, Kotla Road, New Delhi-110002</b> <b>Web:-www.dtl.gov.in, E-mail :- dgm.os@dtl.gov.in,</b> <b>Phone No.- (011)-23238882</b>
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No. F.DTL/831/F.4/2017-18/DGM (OS)/34

Date:-11.07.2017

To,  
All Members of Operation Co-ordination committee

<b>DTL</b>	General Manager (O&M)-I, Chairman OCC	Fax no. 011-23366160
	General Manager (O&M)-II	
	Executive Director (Planning)	Fax No.011-23622707
	DGM (O&M) - North, East, West, South	
	DGM (M/P)	Fax no. 011-23366160
	DGM(Plg.)	Fax No.011-23632031
<b>SLDC</b>	GM (SLDC)	Fax no. 011-23221069
	DGM (SO)	Fax no. 011-23221059/12,
<b>TPDDL</b>	HOD (PSC &AM)	Fax no. 011-66050602
	Sr. Manager (PSC)	Fax no. 011-66050602
<b>BRPL</b>	Asstt. Vice President (SO)	Fax no. 011-39996549
<b>BYPL</b>	General Manager (SO)	Fax no. 011-39996549
<b>NDMC</b>	Superintending Engineer	Fax no. 011-23235754
<b>IPGCL</b>	AGM (T) COS	Fax no. 011-23284797
	AGM (T) Opr. GTPS	Fax no. 011-23370884
<b>PPCL</b>	DGM (T) Opr. PPS-I	Fax no. 011-23378947
	DGM (T) Opr. PPS-III	Fax no. 011-27791175
<b>MES</b>	AEE/M.SLDC Officer	
<b>BTPS</b>	AGM (EEMG)	Fax no. 011-26944348
<b>BBMB</b>	Sr. Executive Engineer, O&M	Fax no. 011-28315542
<b>DMRC</b>	Addl. GM (Elect.)	Special Invitee
<b>DMRC</b>	General Manager (Elect.)	Special Invitee
<b>N. Railways</b>	Sr. DEE (TRD)	Special Invitee
<b>EDWPCL</b>	Director(EDWPCL)	Special Invitee
<b>Delhi MSWSL</b>	Station Incharge	Special Invitee

**Sub :- MOM of OCC Meeting held on 28.06.2017 at SLDC Minto Road.**

Dear sir/madam,

The OCC meeting was held on **28.06.2017 at SLDC Building, Minto Road, Opp. MCD Civic Centre, New Delhi-110002.**

The minutes of meeting are enclosed herewith for your kind perusal and further necessary action please. The same has also been uploaded on DTL website, www.dtl.gov.in under the Tab "News and Information – OCC Meeting".

Thanking You.

**Enclosure: MOM of OCC meeting.**

Yours Sincerely,  
 sd/-  
**(Hitesh Kumar)**  
**DGM(OS),DTL**  
**Convener-OCC**

**Copy for favour of kind information to:**

1. Member Secretary, NRPC, 18-A, SJS Marg, Katwaria Sarai, New Delhi-110016.
2. Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17.
3. Chairperson & Managing Director, DTL.
4. Chairperson, New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi.
5. Chairperson & Managing Director, Indraprastha Power Generation Company Ltd (Genco)/Pragati Power Corporation Ltd (PPCL), Himadri, Rajghat Power House, New Delhi-110002.
6. Director (Operations), DTL
7. Director (Finance), DTL
8. Executive Director (Planning), DTL
9. General Manager, NRLDC, SJS Marg, Katwaria Sarai, New Delhi-16
10. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019.
11. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-110092.
12. CEO, North Delhi Power Ltd, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009.
13. CWE (Utilities), MES, Kotwali Road, Near Gopi Nath Bazar, Delhi Cantt. New Delhi-110010.
14. General Manager, Badarpur Thermal Power Station, Badarpur, New Delhi-44.
15. General Manager (Project)-I, DTL
16. General Manager (Project)-II, DTL

**DGM(OS),DTL  
Convener-OCC**

## DELHI TRANSCO LIMITED

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

### MOM OF OCC MEETING DT. 28.06.2017

GM (O&M)-I, DTL, Chairman-OCC welcomed the members of OCC. List of participants are enclosed herewith as Annexure-1.

The meeting was started with the presentation on review of grid operation for May 2017. It was informed that peak demand of 6021 MW for May-2017 was met on 16.05.2017 at 15:32:19 hrs. Discom wise load as well as generation within Delhi during the peak and load curve for all the Discoms during the May month was depicted. Planning of Grid operation for July 2017 was also discussed, wherein it was explained that the anticipated peak demand for July 2017 would be around 6600 MW.

The point-wise deliberations made during the OCC meeting are as below:

#### **1. Confirmation of minutes of OCC meeting held on dated 26.05.2017.**

The OCC meeting for the month of May 2017 was held on 26.05.2017. Minutes of the aforesaid OCC meeting were issued vide letter dt. 07.06.2017. No comments were received regarding the contents of MOM. **As such the minutes of OCC meeting held on 26.05.2017 were confirmed.**

#### **2. DTL Agenda :**

##### **2.1 Status of Hot Reserve of transformers at all levels.**

The status of hot reserve of transformers at all levels were discussed and the updated status are as under:-

S. No.	Transformation Capacity	Present population in nos.	Present updated status
1.	400/220kV Tx 315 MVA ICT	14	It was deliberated that the 315 MVA ICT EMCO make dismantled from Bawana Sub-stn which is being repaired will be considered as hot reserve and will be commissioned at Tikri Kalan.
	400/220kV Tx 500 MVA ICT	2	Regarding the hot reserve of 500MVA Capacity, earlier Delhi OCC advised DTL to take up in NRPC OCC meeting. The matter was deliberated in NRPC meeting held on 24.04.2017. DTL informed NRPC that at Bamnauli sub-station 2x315 MVA, 400/220 KV ICT's have been upgraded to 2x500 MVA, 400/220 KV ICT's in previous years. However, Mandola (PGCIL) and Maharani Bagh (PGCIL) already have 500 MVA, 400/220 kV ICTs. The number of 500 MVA, 400/220 kV ICTs transformers in Delhi/NCR region have increased. The possibility of forced outages of 500 MVA transformers cannot be ruled out during stressed grid conditions. The restoration of ICT may take considerable time. PGCIL informed that spare transformers are being maintained by them at regional level. PGCIL had procured two nos. of spare transformers, one for Delhi, UP, Uttarakhand & Rajasthan and another for rest of the states of NR. PGCIL further informed that the spare ICTs are for PGCIL Sub-stns in NR.

2.	220/66kV Tx 160 MVA	22	DTL informed that the case for hot reserve of 160 MVA Tr. to be commissioned at 400 kV Sub-stn Tikri kalan will be discussed in the upcoming steering committee meeting. The upcoming new 160 MVA Tr. at Kanjhawala will be a regular transformer for which case is under approval stage.
3.	220/33 kV Tx 100 MVA	41	It was informed by DTL that the 220/33kV, 100 MVA Tr. meant for Karpura project will be diverted to Patparganj Sub-stn as hot reserve.
4.	220/66 kV Tx 100 MVA	41	Further, The 220/66kV (dual ratio Tr.) 100 MVA Tr. dismantled from Pappankalan-I Sub-stn will be treated as hot reserve after its repair and will be kept at 220 kV Sub-stn Pappankalan-I.
5.	66/11 kV 20 MVA Tx.	24	DTL informed that as decided in the recent steering committee meeting, Discom will provide transformer to DTL on loan basis as and when required in case of exigencies.
6.	33/11 kV, 20/16 MVA Tx.	16	

## 2.2 Implementation of Special Protection Scheme

The matter has been deliberated in the previous OCC meetings, wherein it was decided that to meet the expected Summer demand of 6600 MW and to avoid cascading outage of any transmission element, Special Protection Schemes be devised to obviate complete blackout of sub-stations in case of outage of any of the system elements during peak time, where severe constraints are in existence. Crucial transmission system including 220 kV transmission lines and 220/66 kV & 220/33 kV Transformers have been identified which are likely to be over loaded during the peak time this Summer.

The operation of Special Protection Scheme has to be activated when the loading of 220 kV transmission Lines consisting of Zebra Conductors reaches to 700 Amp. It was decided that scheme to be worked out so that the tripping command of 66 kV, 33 kV feeders and 11 kV incomers can be given in stages so as to disconnect the load before the parallel over loaded upstream feeder/transformer Over current Relay initiate trip command on Over current protection. The feeders have been identified by the DISCOMs for disconnection in such scenario for the following specific transmission lines and are as under:

S. No.	Name of the Circuit	66/33 kV Feeders which can be switched off during the exigencies.
1	220 kV Bamnauli-Papankalan-I ckt-I & ckt-II	66 kV BindapurCkt-I & II 66 kV BudhelaCkt-I & II
2	220 kV Bamnauli-Papankalan-II ckt-I & ckt-II	66 kV Matiala-I & II
3	220 kV Bawana-Rohini-I ckt-I & ckt-II	66 kV RG-24 Ckt.-I & II 66 kV DC-I & II
4	220 kV Ballabgarh-BTPS –I & II	The committee decided that during the exigency at Ballabgarh-BTPS –I & –II, the 66 kV Malaviya Nagar-III, 33 kV Tughlakabad and 20 MVA Tr.-1 & 2 shall be switched off from 220 kV Okhla grid.
5	220 kV Mandola-GopalpurCkt –I & II	33 kV Model Town-I & II 33 kV Indira Vihar-I& II

6	220 kV BTPS-Mehrauli-I &II	Scheme is already commissioned. Tripping of 66 kV Malviya Nagar –I & II and 66 kV C Dot-I & II for reliability of DIAL supply and to avoid isolation of BTPS from Bamnauli when the system is interconnected.
7	220 kV Mundka-Peeragarhi-I &II	Manual load management
8	220 kV Mundka-Najafgarh	2 nos Local Transformers, 66 kV Nangloi, 66 kV Jafarpur
9	220 kV BTPS-Okhla-I &II	The committee has decided that during the exigency at Ballabgarh-BTPS ckt. I & II, The 66 kV Malaviya Nagar-III, 66 kV Okhla phase-1 ckt.-1 & 2 & 33 kV Tughlakabad shall be switched off from 220 kV Okhla grid.
11	220 kV Pragati-Park street-I &II	Manual load management
12	220 kV Mandaula-SOW-I,II,III and IV running parallel	66 kV Shastri Park at SOW and all 33 kV feeders at Geeta colony.
13	220 kV Ridge valley- Naraina	Scheme is already commissioned. Tripping of 33 kV Inderpuri –I and II in Stage -1 and 220 kV Bus Coupler in Stage –2 to avoid overloading of Ridge-Valley cable when Maharani Bagh and Bamnauli supply are interconnected through this link.

The Special Protection Scheme (SPS) will be configured in respective Numerical Relays by the Protection Deptt. As decided in the previous OCC meeting, the work of laying and termination of 4Cx2.5sq. mm Control Cable from 220 kV Feeder Relay panel to the respective 66/33 kV panel in respect of 220 kV transmission lines as mentioned above is to be done by the respective Sub-Station In-charge in consultation with the Protection Deptt., where the scheme are to be implemented.

**During the last OCC meeting, It was informed by DTL that the Special Protection Scheme (SPS) has been implemented for all the above 220 kV feeders except 220kV BTPS-Okhla ckt.-I & II. No representative from BTPS were present in the meeting.**

**However, it was deliberated that BTPS should provide 1 no. output contact for each 220 kV BTPS-Ballabgarh ckt.-1 & 2 to be used for load shedding at 220 kV Okhla Sub-stn by using SPS. DTL has already completed their work for installation of Teleprotection panel and necessary communication link at BTPS and Okhla end. The necessary configuration in the relay at BTPS end be done by BTPS in consultation with DTL. The work of laying and feruling of control cable between relay panel to teleprotection panel will be done by BTPS and DTL will assist for the termination of the cable.**

**OCC advised for necessary expeditation of the work at BTPS/DTL end for successful implementation of SPS. Further time setting for SPS may be reviewed as case to case basis.**

**2.3 Tripping of 220 kV Bamnauli-Pappankalan II Ckt.-1 & 2 from Bamnauli end on dt.-20.05.2017 at 23:53 hrs. and 23:57 hrs. respectively.**

On dt.-20.05.2017, 220 kV Bamnauli-Pappankalan II Ckt-1& 2 got tripped at 23:53 hrs and 23:57 hrs respectively at Bamnauli end on backup protection and the supply at PPK-II got failed due to radial feed from Bamnauli grid. Later on it was came to notice that the fault was at BRPL 66 kV Hastal grid at the 11 kV end. The fault of 11 kV level should have been cleared at 11 kV or 66 kV level at the BRPL station, but it was not cleared leading to fire. In this particular case at the time of fault at BRPL end the current of 66 kV Hastal feeders was probably less than 800 Amp so the 66 kV feeder was not supposed to trip. Whereas the current of 220 kV feeder as noted from disturbance record of Bamnauli end was 1000 Amp and the feeder has rightly tripped on over current setting resulting supply at PPK-II got failed due to radial feed from Bamnauli grid.

BRPL should provide the following details before the OCC for deliberation of the above incident-

- A. Single line diagram of the 66 kV Hastal Grid substation.
- B. System configuration at the time of incident
- C. Connectivity of the BRPL Power network.
- D. Incident report by BRPL alongwith DR and SOE.
- E. Tripping analysis report by BRPL
- F. Details of the SCADA Connectivity along with DATA acquisition configuration of 66 kV Hastal to BRPL System Control Room (Balaji) for monitoring of the unmanned substation.
- G. Immediate Remedial measure to avoid such type of incident.

During the previous OCC meeting, It was informed by BRPL that there was a line fault in 11kV feeder which led to fire in 11kV panel board due to which the DC supply got failed. However, a committee has been formed by BRPL for detailed analysis of the breakdown/fire. OCC requested BRPL to update the breakdown analysis by their committee in the next OCC meeting with all the desired details. BRPL agreed for the same. The matter was referred to protection sub committee for detailed analysis of the breakdown and suggesting the remedial measures to avoid the reoccurrence of such events.

**During the discussions, BRPL informed OCC Members that the report is under finalization stage and will be updated in the next OCC meeting.**

#### **2.4 Installation of Line differential relays in 66kV/33 kV O/G feeders from DTL.**

As decided in the 6<sup>th</sup> Delhi GCC Meeting DISCOMs are supposed to provide Line differential relay for faster and selective fault clearance. The matter was also discussed in the last protection sub committee meeting, in which the need was felt to install Line Differential Relays in 66 kV/33 kV O/G feeders from DTL. As per present scenario many of the DISCOM feeders emanating from DTL S/Stns are not being provided with Line differential relay which also require the fibre connectivity to be provided by DISCOM along with cable between DTL S/Stns to DISCOMs S/Stns along with the new commissioned feeders.

Earlier in last OCC meeting, It was deliberated that the discoms will submit the action plan for installation of line differential relays in the feeders emanating from DTL as well as in the feeders of their own network in the next OCC meeting.

**During the meeting, It was informed by the Discoms that Line differential protection scheme will be implemented in all the new upcoming feeders. However, for existing feeders Line differential protection can't be implemented as OFC needs to be laid along with cable for which digging permission is difficult to obtain. OCC referred to Protection sub committee for regular monitoring.**

#### **2.5 Disturbance in Delhi power supply on 21<sup>st</sup> May 2017 following rain and thunderstorm.**

The power supply in Delhi got disturbed on 21<sup>st</sup> May 2017 following rain and thunderstorm due to various trippings. Discoms are requested to provide the list of manual load sheddings if any.

**It was informed by discoms that from safety point of view some 11 kV feeders are switched off manually by them. OCC opined that as per NRPC guidelines, all the feeders are to be categorized in two lists, one which don't require manual opening (in view of safety requirements) and the other with safety concern. The list with safety concern shall be progressively reduced. As per the report of NRLDC, Load crash to the tune of 1500 MW was seen in Delhi region due to the disturbance, which is a matter of concern for grid security.**

## **2.6 Storage of scrap material by BRPL Najafgarh at the common road at 220 kV DTL Substation Najafgarh**

The matter has been discussed in previous OCC meetings, wherein it was informed by Mgr(O&M), DTL (N-3) that BRPL Najafgarh is using the common road from Main Security Gate (at Main Road) to Security Gate at DTL 220kV Najafgarh Substation Security Gate which is creating the hindrance to men and material of DTL and common public at large too. The problem enhances and get gruesome when general public park their vehicles while visiting the BRPL office encroaching the corridor. It can also not be ruled out that in case of major chaos, if any fire breaks out at DTL installation at Najafgarh or similar exigency, fire tenders/emergency vehicles may not be able to enter the premise due to space crunch created by storage of damaged & old scraps in the form of LT transformers, electrical poles and also due to parking of vehicles by general public.

**It was informed by BRPL that some transformers have been removed from site and for removal of rest transformers, a scrap disposal committee have been formed by BRPL which will remove rest of the transformers by the next month.**

**OCC advised BRPL for expediting the same. DTL should follow up with BRPL.**

## **2.7 Unequal sharing of load on 100 MVA, 220/33 kV Tr. No.-1 & 2 at 220 kV Wazirpur Sub-stn. due to non switching of 33 kV Bus coupler at TPDDL end.**

It has been informed by DTL that on dt.-06.06.2017, when the total Delhi load was 6450 MW, there was unequal sharing of load on 100 MVA, 220/33 kV Tr. No.-1 & 2 at 220 kV Wazirpur Sub-stn. Load on 100 MVA Tr.-1 on dt.-06.06.2017 at 3:26 PM was 83 MW, while that on 100 MVA Tr.-2 was 58 MW. **The load couldn't be balanced due to non switching of 33 kV Bus coupler at TPDDL end.**

**TPDDL informed that testing of their 33 kV Bus coupler at TPDDL end is in progress and status will be updated within one week. DTL(O&M) to follow up with TPDDL.**

## **2.8 Non provision of 33kV cable holding arrangement by NDMC and improper sealing of 33kV cable duct/trench at 220/33 kV Sub-stn HCML and AIIMS Trauma centre.**

### 220 KV GIS S/Stn. AIIMS Trauma Centre

There are 18 Nos. 33 KV outgoing feeders at 220 KV GIS S/Stn. AIIMS Trauma Centre out of which 12 Nos. pertains to NDMC, 02 No. pertains to BRPL and 04 Nos. are spare at present. Cable holding arrangement is not provided in any feeders resulting damage of cable end termination box due to stress in the event of fault. Cable end termination box of 33 KV bay No. 19 along with PT was damaged due to same reason. Replacement of multi cable end termination box is very costly amounting to Rs. 27Lacs approx and time consuming being OEM item. It is pertinent to mention here that cable end termination box in which cable is to be inserted pertains to the user entity. Further, cable duct/trench are not properly sealed hence

water and mud enters through entry points/pipes in the 33 KV GIS basement in rainy season. Matter was taken up with NDMC since 06.04.2015 but no progress has been made.

#### 220 KV GIS S/Stn. HCML

There are 15 Nos. 33 KV outgoing feeders at 220 KV GIS S/Stn. HCML out of which 09 Nos. pertains to NDMC, and 06 Nos. are spare at present. Cable holding arrangement is not provided in any feeders resulting damage/flash of cable end termination box due to stress in the event of fault. Recently on 01.06.2017, there was heavy flash on cable end termination of 33 KV feeder Connaught place (Bay No. 02) during fault and in outage since then. Further, cable duct/trench are not properly sealed hence water and mud enters through entry points/pipes in the 33 KV GIS basement in rainy season. Matter was taken up with NDMC since 06.04.2015 but no progress has been made.

**It was deliberated that a committee comprising of following officers of DTL and NDMC will meet at 220 kV Sub-stn AIIMS Trauma centre on dt.-06.07.2017 at 11:00 AM to resolve the issue and the status be updated in next OCC.**

**(i)Sh. L.P. Kushwaha, DGM(O&M)-South, DTL**

**(ii)Sh. Hitesh Kumar, DGM(OS), DTL**

**(iii)Sh. Hari Gopal, Mgr.(T)-O&M, DTL**

**(iv)Sh. Amit Singh, Mgr.(T)-Planning, DTL**

**(v)Sh. K.S. Meena, XEN(M/F), NDMC**

#### **2.9 Open access for various RSS of DMRC in Delhi**

In reference to DMRC letter dt. 19.05.2017 wherein DMRC have stated that they have signed a Power Purchase Agreement for 25 years to procure solar power from REWA ULTRA MEGA SOLAR LIMITED for procuring solar power through OPEN ACCESS.

Vide their letter dt. 19.05.2017 DMRC quoted a reference of meeting held on 13.01.2017 with DTL and stating that DTL had principally agreed to DMRC's request for change of CTs and PTs at DTL end by DMRC at their own cost.

As per guidelines issued by Hon'ble DERC, the metering equipment and arrangement are to be installed at open access consumers premises. However, vide their letter dt. 19.05.2017 quoting reference of Minutes of Meeting held on 13.01.2017, DMRC is asking for change of CT/PT at DTL end.

Further, as per Hon'ble DERC guidelines for open access metering "Metering CT/PT should be exclusive for metering purpose. These will not be allowed for protection purpose." This also needs clarification from Hon'ble DERC that CT/PT having Metering & Protection core on the same CT/PT are to be allowed OR not for open access metering OR separate CT/PT for metering and protection to be installed.

**It was deliberated that DMRC will first apply for Long Term Agreement (LTA) with STU as per DERC order dt.-01.06.2017 and further modalities will be decided separately after the approval of LTA.**



### 3. SLDC Agenda

#### 3.1 Peak Demand loading analysis

The peak demand of Delhi has occurred on 06.06.2017 at 15.31.37 hrs. During the time the demand of 6526MW was met.

The loading of 400kV and 220kV Grid sub stations occurred at the time of peak was analysed.

The gist of the analysis is as under :

Voltage level	Total number of stations	Number of sub-stations / lines where n-1 criteria does not meet	Details of Sub-stations/ Lines where n-1 criteria does not meet
400kV	6 (Including 400kV Mandola & Maharani Bagh of PGCIL)	1	without 500MVA at Bamnauli
220kV	36 (including 220kV Maharani Bagh)	10	Gopalpur, Shalimarbagh, Khanjawala, Okhla, Geeta Colony, Park Street, Subzi Mandi, Trauma Centre, Wazirpur & Peeragarhi.
400kV lines	13 pairs (26 nos)	--	
220kV lines	51 pairs (102 nos.)	11 pairs	Bamnauli – Dial Ckt I&II, Bamnauli – Papankalan-I Ckt. I&II Bamnauli – Papankalan-II Ckt. I&II Bawana – Rohini Ckt. I&II BTPS – Ballabgarh Ckt. I&II Gopalpur – Mandola Ckt. I& II BTPS – Mehrauli Ckt. I& II Narela – Rohtak Road Ckt. I& II BTPS – Okhla Ckt. I& II Pragati – Park Street Ckt. I& II Mandola –Wazirabad Ckt. I, II, III & IV

The Sub station wise, Line wise loading and Capacity utilization of the elements is enclosed as annexure.

**The following was apprised to OCC in the meeting:-**

**(i) Sub-stns where n-1 criteria does not meet-**

S.No.	Details of Sub-stations where n-1 criteria does not meet	Relief possible by upcoming Sub-stn/ Bays/ Transformer	Target completion date
1.	400 kV Bamnauli	500 MVA addition is planned	FY 2019-20
2.	220 kV Gopalpur	1. 2x160 MVA and 66 kV GIS at Gopalpur.	FY 2019-20
		2. 220/33 kV GIS substation at Timarpur	FY 2019-20
		3. 400/220 kV GIS at Gopalpur (CENTRAL DELHI)	FY 2020-21

		4. 03 nos 100MVA Power Tr. And 33Kv GIS at 220kV Goplapur s/stn	FY 2020-21
3.	220 kV Shalimar bagh	1. 220/66kV GIS at SGTN	FY 2018-19
		2. 2 nos. 160 MVA Transformer and 66kV GIS at Shalimar bagh	FY 2020-21
4.	220 kV Kanjhawala	Installation of new 220/66 kV, 160 MVA ICT at Kanjhawla	FY 2018-19
5.	220 kV Okhla	100 MVA ICT to 160 MVA ICT capacity augmentation at Okhla	FY 2018-19
6.	220 kV Geeta Colony	1. Short term plan:- DISCOM needs to shift the partially load at Preet Vihar to give instant relief to maintain n-1 criteria at Geeta colony.	
		2. Long term plan:- Installation of new 220/33 kV, 100 MVA ICT at Geeta colony	FY 2019-20
7.	220 kV Park Street	1. Short term plan:- NDMC needs to shift the partially load at Electric Lane to give instant relief to maintain n-1 criteria at Park Street for 33kV level.	
		2. Long term plan:- 220/33 kV GIS at Dev Nagar.	FY 2019-20
8.	220 kV Subzi Mandi	1. 220/33 kV GIS substation at Timarpur	FY 2019-20
		2. 220/33 kV GIS at Dev Nagar.	FY 2019-20
		3. Addition of 1 no. 100MVA with 220kV GIS conversion.	FY 2020-21
9.	220 kV Trauma Centre	1. 220/66 & 220/33 kV GIS at R K Puram	FY 2018-19
		2. Installation of new 220/33 kV, 100 MVA ICT at AIIMS	FY 2020-21
10.	220 kV Wazirpur	Installation of new 220/33 kV, 100 MVA ICT at Wazir Pur	FY 2018-19

11.	220 kV Peeragarhi	Installation of new 220/33 kV, 100 MVA ICT at Peeragarhi	FY 2017-18
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**(ii) Lines where n-1 criteria does not meet-**

S.No.	Details of lines where n-1 criteria does not meet	Relief possible by upcoming line	Target completion date
1.	220 kV Bamnauli-DIAL Ckt.-I & II	LILO of Mehrauli-BTPS at Tughlakabad	FY 2018-19
2.	220 kV Bamnauli-PPK-I Ckt.-I & II	1.S/C LILO of 220kV Bamnauli-Naraina at PPK-I	FY 2017-18
		2.D/C from 400kV Dwarka	FY 2019-20
3.	220 kV Bamnauli-PPK-II Ckt.-I & II	1.S/C LILO of 220kV Bamnauli-Najafgarh D/C at PPK-II	FY 2018-19
		2. D/C from 400kV Dwarka	FY 2019-20
4.	220 kV Bawana-Rohini ckt.-I & II	HTLS conductor (with polymer insulator) of 220kV D/C Bawana - Rohini	FY 2018-19
5.	220 kV BTPS-Ballabgarh ckt.-I & II	DTL is not the owner of this transmission line, however, the decision of re-conductoring with HTLS of this line is under discussion. Further, after commissioning of 400kV Tughlakhabad, this line would not have any importance to Delhi.	FY 2018-19
6.	220 kV Gopalpur-Mandola ckt.-I & II	Up gradation to 400kV of 220kV Gopal Pur is proposed	FY 2020-21
7.	220 kV BTPS-Mehrauli ckt.-I & II	LILO of Mehrauli-BTPS at Tughlakabad	FY 2018-19
8.	220 kV Narela-Rohtak road ckt.-I & II	After commissioning of 220/33kV Dev Nagar, the load of Rohtak Road will be shared by Dev Nagar. Further, DTL is going to initiate the proposal to take over 220 kV Narela-Rohtak Road line with Rohtak Road substation for Operation & Maintenance purpose then DTL can upgrade this line with HTLS.	FY 2018-19

9.	220 kV BTPS-Okhla ckt.-I & II	Double circuit Okhla feeder termination at Tughlakabad	FY 2018-19
10.	220 kV Pragati-Park street ckt.-I & II	Single circuit underground cable (Lodhi Road -Park street-Electric Lane-Lodhi Road)	FY 2018-19
11.	220 kV Mandola-SOW Ckt.-I,II,III,IV	After Commissioning the 400kV Tughlakhabad with its associated tie lines and more evacuation from Maharani Bagh by Pragati-MB, MB-Lodhi Road & up-coming Lodhi Road -Park street-Electric Lane-Lodhi Road links will reduce the loading of these lines significantly and shall meet n-1 criteria. And further HTLS re-conductoring will be done in future plans.	FY 2018-19

### 3.2. Load shedding at the time of Peak

It has been reported that load shedding occurred in BRPL Areas due to issues in EHV System. The details are as under :

S.No.	Name of S/Stn	MW	Reason
1.	D.C.SAKET	3	DUE TO OVER LOADING OF 33kV MASJID MOTH-D.C. SAKET CKT.
2.	MALVIYA NAGAR	3	DUE TO OVER LOADING OF 66kV MEHRAULI MALVIYA NGR CKT.
3.	NDSE	5	DUE TO OVER LOADING OF 33kV R.K. PURAM -1 CKT.
4.	NANGLOI	3	DUE TO OVER LOADING OF PR.TR.-II
5.	WATER WORKS	9	DUE TO BREAK DOWN OF PR.TR.-III
6.	SARAI JULIANA	4	DUE TO OVER LOADING OF 33kV JASOLA - SARAI JULIENA CKT.

**BRPL informed that the load shedding was due to following reasons:-**

- (i) There was no load margin at Okhla sub-stn.**
- (ii) The loading needs to be checked and necessary corrective action will be taken subsequently.**
- (iii) Outage of 100 MVA Tr. at Lodhi Road.**
- (iv) Tripping of Tr. at BRPL end**
- (v) Tripping of Tr. at BRPL end**
- (vi) After commissioning of Meetapur grid, the problem will be sorted out.**

### 3.3. Low Voltage problem persisting in the Grid.

With the onset of Peak demand season the voltages at various grid sub stations started sinking down. At the time of occurrence of peak demand Delhi power system was

drawing about 490MVAR from the Grid. The drawal of reactive power by different utilities at the time of Delhi Peak was observed as under :

Utility	Drawal in MVAR
TPDDL	80
BRPL	168
BYPL	178
NDMC	50
MES	7
<b>TOTAL</b>	<b>483</b>

It was also observed that the capacitors installed at following sub stations of DTL were found not operative.

Name of Sub station	Voltage level	Capacity down (MVAR)	Remarks
Lodhi Road	33kV	20	Capacitors are dismantled due to shortage of space for working for the commissioning of 220kV GIS and removal of the faulty 100MVA transformer.
Sarita Vihar	11kV	5.04	The capacitors are not in operating condition.
Vasant Kunj	11kV	5.04	The capacitors are not in operating condition.
I.P. Stn.	33kV	10	Breaker problem
<b>Total</b>		<b>40.08</b>	

SLDC have requested that all the utilities to ensure the operation of capacitors as per the guidelines and revive the capacitors lying under breakdowns for maintaining normal voltage.

**DTL informed that that all the capacitor banks as mentioned above except at Lodhi Road are in operating condition. At Lodhi Road, the capacitor bank will be revived soon.**

**OCC advised that all out efforts be taken by all the utilities/discoms to keep their capacitor bank in operating condition so as to keep it ON as and when required to improve the voltage profile.**

### **3.4. Details of power consumption, supply and demand as per various users (residential, industrial etc) for monitoring of Perspective Plan for Infrastructural Services – MPD -2021.**

Delhi Development Authority vide their letter no. F.15(02)/2017/92 dated 24.02.2017 has requested for providing the details of power consumption, supply and demand as per various users (residential, industrial etc) regarding monitoring of Perspective Plan for Infrastructural Services-MPD 2021.

The detailed requirement is as under :

TENTATIVE CHECKLIST OF THE INFORMATION TO BE INCLUDED W.R.T. UPDATION OF PERSPECTIVE PLANS FOR INFRASTRUCTURE SERVICES IN MASTER PLAN OF DELHI.

POWER SECTOR

1. Status / Action taken w.r.t. implementation of Perspective Plan, 2021 as annexed in MPD-2021.
2. Updated / Current scenario and future projections / Augmentation Plan (to be shown also on MAPS) w.r.t. :
  - a. Details of Power consumption, supply and demand as per various uses (residential, Industrial, etc. )
  - b. Details of existing and propose power generation stations with capacity (in MW).
  - c. Detail of transmission networks, sub station, grids, etc
  - d. Details of issues / action plan/proposal to supplement power requirements through non conventional sources of energy, solar energy or incorporation in MPD.
  - e. Detail of issues/action plan / proposals for energy conservation for demand side management for incorporation in MPD.
  - f. Any other requisite information as applicable.
3. Ongoing projects : Project Components, area & population covered.
4. Future plans and proposals in next 5-10 years and 20 years (including target areas, estimated requirements, sources, distribution, etc) for necessary inclusion in the Master Plan taking into consideration emerging issues w.r.t. land constraints, technology advancements, environment etc.
5. Any other new information / notified amendments related to policy, rules legislation etc as applicable for updation / incorporation in the Master Plan.

SLDC vide its letter dt. 31.05.2017 requested the Discoms to provide the information.

**It was deliberated that the desired details as mentioned above be provided to SLDC by all the utilities/discoms at the earliest.**

### **3.5 Providing reliable and efficient data communication of G.T. to SLDC.**

The real time SCADA data of GT Station is presently available to SLDC through SIC (Supervisory Interface Control) panel installed at GT Control room under ULDC phase-I scheme in the year 2002 by PGCIL. The digital and analog data is provided through cable laid from the SIC panel in GT Control room to IP Extension control room of DTL, where the RTU and communication equipments are installed.

Presently, the data of GT is very irregular/intermittent which is mainly due to the outdated transducers, CMRs and the aged long length cables laid out from the GT control to IP Extension control room.

NRPC/PGCIL vide their letter dt.01/07/16 had already directed NR constituents to replace their RTUs/equipment installed under ULDC phase-I since they have outlived their life and no OEM support is available for them. This has also been repeatedly discussed in the various TEST meetings wherein the representatives of IPGCL/PPCL were present. The equipments have to be replaced by the utilities of their own for which NRPC has already issued final RTU specifications on their website.

In this regard, DTL has initiated a proposal for replacement of RTUs installed at various S/Stations in line with the latest NRPC approved specifications of RTU. Further as per Delhi Grid Code "Clause No. 17.0" All users are required to install necessary equipments at their end to provide real time data upto SLDC.

In view of the statutory provisions with regard to provide real time operational data to SLDC for efficient grid operation, IPGCL has to provide RTUs and communication for delivering real time data to SLDC. The OCC may impress upon the same.

**The following was deliberated in the meeting :-**

It was informed that NRPC vide its letter No. NRPC/OPR/108/02/2016/7622 dated 17.08.2016 addressed to Managing Director, DTL explained the following :-

***"Remote Terminal Units (RTUs) are primary source of data acquisition, which is further communicated to various Control Centres to facilitate supervision/control of the grid by the RLDC. Most of the presently working RTUs (AREVA make S900) were installed at EHV sub-stations/switchyards of State and Central Sector Utilities in the year 2002 under ULDC Phase-I and will complete their fair life in July 2017.***

***The maintenance of these RTUs is presently being carried out by POWERGRID. In a letter dated 01.07.2016 by Executive Director(NR-I) addressed to all the utilities of Northern Region, POWERGRID has intimated that M/s AREVA has already phased out above mentioned RTUs from production and has stopped support services for the same. POWERGRID had also informed that the replacement/maintenance of these RTUs after completion of useful life of 15 years will have to be carried out by utilities concerned. This issue was deliberated in the 7<sup>th</sup> and 8<sup>th</sup> meeting of TeST sub-committee held in January 2016 and July 2016 respectively. This issue has again been highlighted by Director(Operations), POWERGRID in the letter dated 25.07.2016."***

It was also brought out that the matter was discussed in the Special Tele Communication, SCADA and Telemetry (TeST) Sub-Committee held on 16<sup>th</sup> November, 2016 wherein it has further clarified that the life of RTUs installed in ULDC Phase-I Project is going to expire by August 2017 after completion of its useful life of 15 year. The numbers of obsolete RTUs identified for DTL is 25 nos. During the TeST Meeting it was emphasized that the utilities should replace the RTUs by themselves.

It was explained that the issue with regard to G. T Station was that in the Ist phase of ULDC Scheme there was no RTU at G.T . For Data Communication with SLDC , only Transducers and CMRs (Contact Multiplication Relays) were installed in Supervisory Interface Control (SIC) Panels which was connected through long length of cable (approximately 1 km. Long) to the RTU installed at the nearest sub-station i.e. I.P. Extension(Pragati).

It was again explained by SLDC that data transfer from G.T Station to SLDC is intermittent because of long length of cable and old obsolete Transducers and CMRs. Being the generating station and important feeders, including that of DMRC, are fed from the station, SLDC needs to have viable data communication from the Station to the SLDC.

IPGCL Representative stated the following:-

- 1) IPGCL GTPS has installed Transducers at GTPS for real time data transmission to SLDC as per the requirements of SLDC, DTL, the termination details of these were provided to DTL and SLDC earlier at the time of data connectivity implementation. The transducers installed at GTPS are working satisfactorily.

- 2) SLDC/DTL has terminated their cable ends at these terminals in the Panels of GTPS and the cables are being managed by SLDC/DTL only. These cables go to the nearest RTU installed by SLDC/DTL in their 220kV IP Extn. (Pragati) Sub-Station.
- 3) The RTU is installed by SLDC/DTL and is being managed by DTL/SLDC only. This RTU is presently taking data from GTPS to SLDC.

It was further stated that present available equipment for data communication to SLDC was installed and managed by SLDC at their own sub-station. The replacement/up gradation of the same may be carried out by SLDC being the 'Users'.

It was clarified by SLDC that 'User' as per Delhi Grid Code is defined as under:-  
"User" refers to persons, including in-State Generating Stations, Distribution Licensees, Consumers of the Distribution Licensees directly connected to State Transmission System (STS) and those availing of Open Access and connected to and /or using the STS, as more particularly identified in each Section of the DGC.

As such, G.T Station being the 'User' of Power System, it is their responsibility to upgrade and provide reliable communication data to SLDC for reliable power system operation.

It was clarified by SLDC that the Transducers / SIC panel were provided in pre- 2002 period when the entire power sector was operated by DVB. Following the unbundling, each utility has become the 'users' and the responsibility gets shifted to the respective organization to carry out such works.

After discussions in the meeting, IPGCL Representative requested SLDC to install RTU and associated equipment if, it is necessary for reliable data communication to SLDC as per the provisions of Indian Electricity Grid Code (IEGC) and Delhi Grid Code(DGC).

On insistence they agreed to bear the cost of the RTU/communication equipment and its maintenance thereof, as is being proposed for the various sub-stations of the DTL. However, they requested for estimated cost of the project for internal approvals.

BYPL and BRPL utilities requested for the details of discussion taken in appropriate forum for replacement of RTUs after the useful lives (i.e. 15 years from the date of commercial operation) . SLDC intimated that as mentioned above, there is a technical forum called Tele Communication, SCADA and Telemetry (TeST) Sub-Committee, wherein the decision for replacement of RTU have been taken in its 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> meeting, Minutes of which are available on NRPC Website at the 'Meeting Portal'.

Concluding the discussion, OCC advised SLDC/DTL to carry out the work for replacement of RTU and other accessories at GT Stations for the reliable data communication for the interest of the Operation of the system in a reliable manner.

SLDC was further advised to provide the estimated cost for completion of the Project. However, cost would be borne by GT and payment should be made by IPGCL to SLDC/DTL as and when the same is claimed.

### **3.6 System Study for Capacitor Requirement in Northern Region for the year 2016- 17 and 2017-18.(134 th & 135 th NRPC OCC),(Agenda by SLDC)**

A study for Capacitor bank requirement was carried out by CPRI on request of NRPC for 2017-18.

CPRI has submitted the detailed report for capacitor bank requirement in Northern Region for 2017-18.

Recommended Compensation for the Delhi as per Draft report:



S. No	Utility	Existing Capacitor Bank		Newly Recommended Banks (c) (MVAR)	Total (d=a+c) (MVAR)
		Operational (a) (MVAR)	Not in operational (b) (MVAR)		
1	DELHI	0	0	712.56	712.56

# The modelling for system study for capacitor bank requirement done at 132kV Voltage level and above.

The above details has also been discussed in 17<sup>th</sup> GCC Meeting.

The detail report is available on NRPC website:  
[http://www.nrpc.gov.in/Reports/other/Report-NRPC\\_Draft.pdf](http://www.nrpc.gov.in/Reports/other/Report-NRPC_Draft.pdf)

NRPC is asking comments on the draft report.

**It was deliberated that SLDC has not received any comments from DTL/Discoms on the draft report. As such, all the discoms and DTL (Planning) department were again requested to submit their comments to SLDC latest by 15<sup>th</sup> July, 2017. OCC further advised that matter for capacitor requirement within Delhi be deliberated in Steering Committee Meeting.**

#### 4. TPDDL Agenda

##### 4.1 Power up issue for newly commissioned TPDDL communication equipment at DTL end:

TPDDL had installed their MPLS Communication Equipment, Rack, Battery set, power and control cable and auxiliary switches and other devices at 6 nos. DTL Grid Sub Stations to improve communication technology. Now to power up these equipment power source is required from Grid Substation. Some Grid Manager has raise concern about energy consumed by TPDDL equipment and its billing. TPDDL have informed that **Max. Power Consumption by MPLS equipment is only 4 Amps (while battery set is fully charged) and 6- 8 Amps (while battery set is discharged).**

TPDDL have requested to suggest whether meter is required for such low consumption and if required what will be the procedure for installing single phase energy meter.

DTL Grid S/stn where new Communication equipment (MPLS) has been installed are –

1. 220kV Rohini- 1,
2. 220kV Rohini- 2,
3. 220kV Shalimar Bagh
4. 220kV Gopalpur
5. 220kV Peeragarhi
6. 220KV Kanjawala

**The matter was deliberated and it was agreed upon that in view of very less power requirement, TPDDL may be allowed for power connection of their MPLS**

**communication equipment at the above six nos. 220 kV Sub-stns of DTL without its separate metering/billing.**

#### **4.2 Intimation of variable cost pertaining to Delhi Genco power plants on daily basis.**

TPDDL have informed that they have power allocation from Delhi Genco gas based stations namely Pragati-1, GT & Bawana (PPS-3). In this regard they have requested IPGCL/PPCL to intimate them on a daily basis for-

- (a) The variable cost of power
- (b) Related generation capacity of the plant considering daily gas availability (APM, Non APM, Spot Gas, RLNG etc.)

The same would help them in optimum scheduling of power from these stations considering the merit order dispatch.

They have requested to send the information on a daily basis at the following mail ids:-

- (a) power.manager@tatapower-ddl.com
- (b) mehra.deepak@tatapower-ddl.com

**The matter was deliberated and it was agreed upon by IPGCL/PPCL to send the desired information on the above e-mail ids on daily basis. TPDDL to follow up with IPGCL/PPCL for the same.**

### **5. Proposed Planned Shutdowns**

#### **5.1 Proposed shutdowns of O&M, DTL**

DTL O&M deptt. has proposed the planned shutdowns for the month of July 2017 as per enclosed Annexure.

**After deliberation, the shutdowns were approved subject to some minor changes and as per real time loading conditions prevailing at the time of shutdown.**

#### **5.2 Shutdown request of Power Grid for Loop in Loop out of 220 kV Bamnauli-Naraina Transmission line at 220/66 kV Pappankalan-III Sub-station.**

M/s Powergrid have requested the shutdown of 220 kV Bamnauli-Naraina Transmission line for Loop in Loop out at 220/66 kV Pappankalan-III Sub-station. They have informed that if the shutdown is deferred, the construction agencies engaged for LILO and for Sub-stn work shall be forced to detain their manpower, for which financial implications if any will be on DTL part.

**DTL enquired PGCIL about readiness of sub-station of Pappankalan-III. PGCIL informed that erection work is in progress and they will inform after confirming from sub-station erection wing.**

**After deliberation, PGCIL was asked to intimate DTL about the readiness of 220/66 kV Pappankalan-III Sub-station before taking any decision about the proposed shutdown.**

#### **5.3 Shutdown request of PPS-III, Bawana, PPCL**

PPS-III Bawana, PPCL have requested shutdown of **400 kV Bus-II on dt.-01.08.2017** w.e.f. 07:00 hrs. to 17:00 hrs. for the following work :-

- (i) Alignment of bus isolator of new 400 kV bay no. 412 by BHEL TBG.

(ii) Stability test for bay no. 411 by BHEL TBG.

(iii) Attending a hot spot (111°C, Ambient temp.-40°C, Load-388A) at Y-Phase of Bus isolator clamp (bus side) of bay 413).

**After deliberation, OCC recommended the shutdown and advised PPCL / SLDC for putting up in 137<sup>th</sup> NRPC OCC Meeting.**

**6. Long/Recent outage of Elements in Delhi power system.**

Members updated the status of following Long/Recent outage of Elements in Delhi Power system:

S.N	Element's Name	Discom/ DTL	Date and Time of outage	Status as on 28.06.2017
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. Expected 31.12.2017.
2.	33kV RIDGE VALLEY - KHEBAR LINE CKT.-II	BRPL	31.01.2016	R-PHASE SINGLE CABLE FAULTY. Expected by 31.12.2017.
3.	66kV VASANT KUNJ INSTL.AREA-RIDGE VALLEY CKT.-I	BRPL	26.03.2017	UNDER SHUTDOWN. Expected by 31.08.2017.
4.	33kV LODHI ROAD - EXHIBITION GROUND -II	BRPL	04.06.2017	CABLE FAULTY. Expected by 31.08.2017.
5.	33kV RIDGE VALLEY-AIIMS CKT	BRPL	16.06.2017	CABLE FAULTY. Expected by 31.07.2017.
6.	66kV SAGARPUR - REWARI LINE CKT.	BRPL	30.07.2016	'B' PH. CABLE FAULTY. RE-ROUTING BEING DONE. Expected by 31.12.2017.
7.	66kV BUS COUPLER AT G-15 DWARKA	BRPL	22.11.2016	CT BLAST. Expected by 15.07.2017.
8.	30MVA PR.TR. AT NANGLOI	BRPL	18.03.2017	PROBLEM IN RELAY. Under dismantling process.
9.	66kV MUNDKA-NANGLOI CKT	BRPL	08.05.2017	B & Y-PHASE CABLE FAULTY. Expected by 31.08.2017.
10.	33kV NARAINA(220kV) - MAYA PURI CKT.-I	BRPL	03.06.2017	R & B-PHASE SINGLE CABLE FAULTY. Expected by 31.08.2017.
11.	33kV NANGLOI - UDYOG NAGAR CKT-II	BRPL	20.06.2017	Y-PHASE SINGLE CABLE FAULTY. Energized on 20.06.2017.
12.	33KV ROHTAK ROAD - VISHAL CKT	BRPL	22.06.2017	CONDUCTOR SNAPPED. Energized on 23.06.2017.
13.	33KV PANDAV NAGAR - DMS CKT.	TPDDL		CABLE FAULTY. Expected by 31.08.2017.

14.	33kV SUBZI MANDI - SHAHZADA BAGH CKT-II	TPDDL		SINGLE CABLE FAULTY. Energized on 02.07.2017.
15.	33KV PARK STREET - BAIRD LANE CKT	NDMC		Expected to be energized by 05.07.2017.
16.	33KV ELECTRIC LANE -33kV CONNAUGHT PLACE CKT	NDMC	01.06.2017	R-PHASE CABLE WAS FAULTY. Expected by 05.07.2017.
17.	66KV GT - SCHOOL LANE CKT-I& II	NDMC	08.06.2017	CABLE WAS FAULTY. Energized on 23.06.2017.
18.	33KV TRAUMA CENTRE - SAFDARJUNG AIRPORT CKT	NDMC	19.06.2017	CABLE WAS FAULTY. Energized on 02.07.2017.
19.	400kV BAMNAULI - JHAKTIKARA CKT.-I	DTL	22.05.2016	Dead end Tower No.-169 along with gantry collapsed at Bamnauli end. Another 400kV Bamnauli - Jhatikara Ckt.-II is charged on ERS. Work is under progress.Expected by 2 <sup>nd</sup> week of Aug 2017.
20.	400kV BAWANA - MUNDKA CKT.- I&II	DTL	14.05.2017	Legs of tower no.-116 twisted due to fire beneath the line. Ckt.-I & II is energized upto tower no. 115 from Bawana end. Jumper is opened at tower no. 115. Expected by Aug 2017 end.
21.	220KV MAHARANI BAGH- MASJID MOTH CKT-II	DTL	14.06.2017	B-phase underground cable is faulty.
22.	220/33kV 100MVA PR.TR.-II AT 220kV LODHI ROAD	DTL	22.03.2017	Transformer Tripped on differential, protection and Buchhloz relay. Transformer is declared faulty and to be replaced. However, another new 100 MVA Tr. is under final stage of energization at Lodhi Road.
23.	220/33kV 100MVA PR.TR.-IV AT 220kV OKHLA	DTL	07.04.2017	Transformer has been charged on 23.06.2017

The meeting ended with vote of thanks to the Chair.

NOTE:-The MOM of OCC meeting can also be seen on DTL website (www.dtl.gov.in) under the Tab “News and Information – OCC Meeting”.

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