



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

No. F.DTL/831/F.4/2016-17/DGM (OS)/94

Date: 09.03.2017

To,
All Members of Operation Co-ordination committee

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

Sub:MOM of OCC Meeting held on 28.02.2017 (Tuesday) at SLDC Minto Road.

Dear sir/madam,

The OCC meeting was held on **28.02.2017 (Tuesday) 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 our DTL website, www.dtl.gov.in under the Tab "News and Information – OCC Meeting".

Thanking You.

Enclosure: MOM of OCC meeting dt. 28.02.2017 (Tuesday)

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. Managing Director, DTL.
4. Chairperson, New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi.
5. 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. General Manager, NRLDC, SJS Marg, Katwaria Sarai, New Delhi-16
8. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019.
9. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-110092.
10. CEO, North Delhi Power Ltd, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009.
11. CWE (Utilities), MES, Kotwali Road, Near Gopi Nath Bazar, Delhi Cantt. New Delhi-110010.
12. General Manager, Badarpur Thermal Power Station, Badarpur, New Delhi-44.
13. General Manager (Project)-I, DTL
14. 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. 28.02.2017

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

The meeting was started with the presentation on review of grid operation for Jan 2017. It was informed that peak demand of 4168 MW for Jan-2017 was met on 20.01.2017 at 10.00.08hrs. Discom wise load as well as generation within Delhi during the peak and load curve for all the Discoms during the January month was depicted. The Load curve of MES was slightly different from other discoms may be due to data error. MES confirmed that the matter will be looked into. It was pointed out that as per the data it was revealed that Peak power demand has been reduced considerably probably due to mild winter condition. Planning of Grid operation for March 2017 was also discussed, wherein the anticipated peak demand for March 2017 would be around 3700 MW.

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

1.0 Confirmation of minutes of OCC meeting dated 30.01.2017.

Last OCC meeting was held on 30.01.17. Minutes of the aforesaid OCC meeting were issued vide letter dt. 10.02.17. No comments were received. As such, minutes of the meeting of the OCC held on 30.01.2017 were confirmed.

2.0 DTL Agenda

2.1 Status of Hot Reserve of transformers at all levels.

The updated status of hot reserve of transformers at all levels as on present date are as under:-

S. No.	Transformation Capacity	Present population in nos.	Status as on present date
1.	400/220kV Tx 500MVA ICT	2	At present, one no. 315MVA ICT removed from 400kV S/Stn Bamnauli after augmentation of the same to 500MVA ICT which was placed at 400kV Tikri kalan S/Stn was the hot reserve. The another 315MVA transformer removed from Bamnauli after its augmentation has been used in place of a damaged transformer (EMCO make) at Bawana.
	400/220kV Tx 315MVA ICT	14	On 11.12.2016 at 8.47hrs, the 400/220kV, 315MVA ICT No.1(BHEL make) at 400kV S/Stn Bawana caught fire and has been damaged. The 315MVA ICT available at 400kV S/Stn Tikri kalan as hot reserve has been transported to Bawana for replacing the damaged ICT. It was deliberated in the OCC meeting on 30.01.2017 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. The matter for hot reserve of 500MVA Capacity may be discussed in NRPC OCC as no. of 500MVA Transformers is growing. O&M-I Department will take up with NRPC in OCC meeting.

			It was deliberated in the OCC meeting on 28.02.2017 that DTL O&M-I Department will take up the matter with NRPC in OCC meeting regarding regional spare of 400/220kV 500MVA ICT.
2.	220/66kV Tx 160MVA	22	DTL informed that the newly erected 160 MVA transformer at Kanjhawala (previously considered as hot reserve) has been transferred to PPK-I and the 100MVA Tx at PPK-I has been routed to Park street for replacement of the failed 100 MVA transformer. OCC had advised DTL to start the process for purchase of a new 160MVA Power transformer as hot reserve. DTL Planning deptt. informed in the OCC meeting on 30.01.2017 that as decided in the recent Steering Committee meeting held on 04.01.2017, a new 160MVA Tr. is proposed for Kanjhawala Sub-stn and the same will be treated as hot reserve. Representative of DTL Planning deptt. informed OCC that the scheme for new 160MVA Tr. has been prepared and is under approval stage.
3.	220/66kV Tx 100MVA	42	DTL informed that one no. new 220/33kV, 100MVA Tx, IMP make which was earlier planned to be commissioned at 220kV Patparganj Substation as hot reserve is now being diverted to 220kV Sub-stn Geeta colony in view of the failure of 220/33kV, 100MVA Tx, BHEL make at 220kV Sub-stn Geeta colony.
4.	220/33kV Tx 100MVA	37	OCC had advised DTL planning deptt. to propose in steering committee meeting for having 2 nos. 220/66-33 KV (Dual ratio Tr.), 100MVA Tx as spare in DTL system. DTL Planning deptt. informed in the OCC meeting dt.-30.01.2017 that as decided in the recent steering committee meeting, DTL to explore the possibilities for repair of faulty 100MVA Tr. dismantled from Park street and Pappankalan-I Sub-stn and will be treated as hot reserve. During the OCC meeting held on 28.02.2017 it was informed by Planning deptt. that the 220/33kV, 100 MVA Tr. meant for Karpura project will be diverted to Patparganj Sub-stn as hot reserve. Further, The 220/66kV 100 MVA Tr. dismantled from Pappankalan-I Sub-stn will be treated as reserve after its repair. The place of commissioning and charging conditions, i.e. Hot/Cold reserve will be finalized by Planning deptt depending upon availability of space.
5.	66/11kV 20MVA Tx.	24	DTL Planning department informed that the scheme for 25MVA/31.5MVA power transformers has been prepared and the same are for replacement of aged transformer and not for hot reserve. OCC had advised DTL to get the approval of DERC for cold reserve transformers each at 66kV and 33kV level for further action.
6.	33/11kV 16MVA Tx.	16	

			DTL Planning deptt. confirmed that as decided in the recent steering committee meeting, Discom will give Transformer on loan basis as and when required in case of exigencies as there is a regulating embargo for building up 11kV assets.
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2.2 Shutdown for six months starting w.e.f. 07.12.2016 in r/o 220kV Maharani Bagh – Ghazipur (D/C) Line at 220kV Sub-Station Gazipur end for PWD work.

PWD had requested for Shutdown for nearly six months for the 220kV Maharani Bagh – Ghazipur (D/C) Line for construction of the elevated Road over Barapullah Nallah, starting from Sarai Kale Khan to Mayur Vihar, New Delhi.

OCC during its meeting held on 28.11.2016 had approved the shutdown of 220kV Maharani Bagh – Ghazipur (D/C) for one month w.e.f. 07.12.2016 subject to the real time loading conditions of the grid and also subject to condition that PWD will restore both the lines within two hours of DTL intimation in case of exigency.

It was deliberated during OCC meeting held on 29.12.2016 that PWD should gear up the work so as to complete the target before 1st April 2017 as during summer, the S/D of both lines are impossible. PWD was also asked to submit the action plan and bar chart to O&M deptt regarding the work being carried out. The extension of shutdown had been approved for further one month subject to real time loading conditions of the grid and subject to condition that PWD will restore both the circuits within two hours of DTL intimation if any abnormal situation arises.

During the OCC meeting held on 30.01.2017, DTL informed that shutdown beyond 31st March 2017 will not be possible due to increase in load demand. OCC approved the extension of shutdown upto March end subject to real time loading conditions of the grid and subject to condition that PWD will restore both the circuits within two hours of DTL intimation if any abnormal situation arises. Further, PWD informed that estimate for re-routing of transmission line has been submitted by M/s. L&T to PWD which has been forwarded to DTL planning deptt. for vetting the same as PWD is not having expertise in this electrical works. OCC advised the Planning Department of DTL for expediting the same.

DTL Planning deptt informed that some ambiguity has been observed in the estimate. PWD has further revised the route of the line also. The estimate would be vetted after finalizing the profile and other related issues. Joint site visit is also planned during the coming week. OCC advised for expediting the same.

2.3 Storage of scrap material by BRPL Najafgarh at the common road at 220kV DTL Substation Najafgarh

It was informed by Mgr(O&M), DTL (N-3&5) 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 man 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 further informed that the matter was also followed up with the then BRPL officers but no

action in this regard have been taken so far. An urgent and favourable action is required for vacating the common road by removing the old scraps in the form of LT transformers and Electrical Poles.

During the OCC meeting held on 28.11.2016, OCC advised BRPL that matter be looked into and resolve the issue raised by DTL in the interest of Grid O&M activities and safety of public.

During the OCC meeting held on 29.12.2016, it was informed by DTL that nothing remarkable has been done by BRPL. OCC advised that the matter be looked into by BRPL on priority basis in the interest of Grid O&M activities and safety of public. BRPL assured for the same.

During the OCC meeting held on 30.01.2017, it was informed by BRPL that 13 nos. Transformers will be removed within one week and rest will be removed in near future. OCC advised that the matter be expedited. BRPL assured for the same.

During the OCC meeting held on 28.02.2017, it was informed by DTL that despite of several assurance, nothing has been done by BRPL regarding shifting of transformers. BRPL again assured that 20 nos. Transformers will be removed within one week and rest will be removed in near future. OCC advised that the matter be expedited in the interest of Grid O&M activities and safety of public. BRPL assured for the same.

2.4 (a) Delay in entry at NTPC Badarpur premises at the time of availing Shut down

The Tower No. 1, 2 and 3 of BTPS-Sarita Vihar Ckt. are situated inside the premises of NTPC, Badarpur. It takes at least 02 Hrs. to enter in the premises of NTPC after issue of Gate pass by HR deptt. of NTPC. The security check procedure of CISF deployed at main gate is too lengthy and slow.

Further, NTPC intimated that gate pass will not be issued without ESI card of contractual labour as per their rule and working contractor of DTL was not having the ESI card of his labour. OCC has approved the shut down of BTPS Ckt. -II on 11.02.2017, but could not be availed in the absence of ESI card and Group Insurance of labour was also expired. The matter was discussed by the Manager(T)O&M-South V, DTL with AGM and Manager(E) NTPC, but gate pass was denied which resulted long outage.

Another emergency occurred on 14.02.2017 when BTPS Ckt.-I tripped at 08:10 Hrs. and Ckt.-II was already under PTW. It took about 02 hrs. for entry in NTPC premises resulted more outage and interruption of supply of DMRC etc.

It was also informed that 220kV BTPS – Sarita Vihar Ckt.-II was made off by System Operation on 12.02.2017 at 19:10 Hrs on the request of BTPS due to hot point on this ckt. However it was reported on 13.02.2017 afternoon to the maintenance staff. PTW was taken soon but work could not be done as gate pass was denied by NTPC resulting in long outages and the work was completed on 14.02.2017.

In view of above, NTPC was requested to take up the matter with CISF to minimize the entry time during shut down and entry during emergency shutdown may be allowed on the recommendation of PTW holder of DTL who is also a responsible officer / official.

It was deliberated that the delay in entry into NTPC premises was due to non availability/insufficient documents required for issuing gate pass to the contractual labours. OCC advised that the requisite documents be got ready by DTL in advance for smooth entry into NTPC premises. Necessary communication in this regard be made to

the contractor by DTL O&M deptt. However, such delay should not be recurred. To avoid the reoccurrence, the O&M Department may coordinate with BTPS authorities and amicable solutions be drawn out.

(b) Long outage of BTPS Ckt.-I & II.

It was inform that 220 KV Sarita Vihar- BTPS Ckt.-I & II were made off on 14.02.2017 at 20:45 and 20:55 hrs. respectively by System Operation, SLDC. This matter was discussed by operational staff and the concerned Manager(T) O&M-South V with System Operation many times since then but no logical reason was intimated. Both feeders were charged on 15.02.2017 at 19:45 Hrs. resulted in long outage.

SLDC representative informed that the opening and closing of 220kV Sarita Vihar-BTPS Ckts. is basically done for load management particularly in view of no generation at BTPS. Generally the information is given to sub-station also. It was also confirmed that in case SLDC put off ckts. for load management, to control high voltages etc, the outage would be treated as deemed available.

OCC noted the same.

2.5 (i) The details of tripping occurred on 14.02.2017 at 08.10 hrs are as under.:-

S. No	Name of the elements tripped	Relay indications, Fault current and fault clearing time
1	220kV BTPS – Sarita Vihar Ckt. –I	At Sarita Vihar – Dist prot, Zone-4, Y-Ph, Dist (-)2.43Kms. Jumper snapped at Tower no. 3. IR=284.4A, IY=13.68kA, IB=13.64kA
2	220kV Pragati – Sarita Vihar Ckt. –II	At Sarita vihar- supply fail At Pragati – Dist Prot, Zone-2 Fault current :- IY=IB=2.9kA Fault clearing time :- 350ms
3	220kV Bus coupler at Sarita Vihar	Tripped on O/C, E/F.
4	220kV BTPS-Mehrauli Ckt.-I	At Mehrauli-PSB trip Fault current:- IY=IB=4.5kA Fault clearing time:- 515ms

From the above, it appears that there was delay in fault clearance at BTPS end for the fault occurred in 220kV BTPS – Sarita Vihar Ckt. –I, resulting power swing at Mehrauli Sub-stn for 515 ms.

It was decided that the matter be referred to Protection Sub Committee wherein Protection deptt. of DTL, BTPS and PPCL would analyze the tripping and the suitable corrective action be adopted.

(ii) Load loss of GT#2 and STG at 220kV Pragati Sub-stn on dt.-14.02.2017 at 08.26 hrs.:-

Prior to incident which occurred at 220 kV Pragati Sub-Stn on 14.02.2017, at 08.26hrs, GT#2 and STG were connected on Bus-1 and was in synchronization with grid through

220kV Sarita Vihar –BTPS- Ballabgarh Link and 220kV Park street Ckt.-1 & 2 were also fed through 220kV Bus-I at Pragati. Despite of any disturbance in the grid, the load of GT#2 and STG which were on 220kV Bus-1 disappeared all of a sudden resulting in supply failure at Park street and Sarita Vihar Sub-Stn.

It was informed by PPCL that GT#2 and STG were running in radial mode and collapsed due to islanding from the grid on 14.02.2017 at 08.10 hrs.

3.0 Using both 220 kV Bus bars for PPS-1 for better stability of feeders and running machines in order to avoid blackout situation. (PPCL Agenda)

It was informed by PPCL that no. of disturbance occurred recently resulting into tripping of running units of Pragati G.T. Some of the details provided as under.

- a) Pragati Gas turbines were stopped by SLDC vide message No 01/127/4509 dated 25.01.2017 18:46 Hrs subsequently GT#2 desynchronized at 00:02 Hrs and STG desynchronized at 00:05 Hrs on 26.01.2017.

SLDC has asked to bring the units on bar and maintain 150 MW schedule at 07:00 Hrs on 27.01.2017 vide message No 01/134 4517 at 00:46 Hrs on dated 27.01.2017 and accordingly GT#2 and STG were put on Bar on 27.01.2017.

In order to attend hot spot at 220 KV Pragati Sub-Station, GT#2 was stopped and GT#1 was taken in service vide message No 1/148/4535 dated 30.01.2017 at 21:17 Hrs. *which could have been avoided if the same had been attended when plant was under Shut Down.*

Message No 1/157/4550 dated 31.01.2017 was given for swapping of GT#2 with GT#1 but the request was turned down by SLDC despite of repeated pursuance considering GT#2 as more efficient. Finally acceptance for swapping granted vide SLDC message No (1) 2/12/4568 dated 03.02.2017 at 16:19 Hrs and again (2) 2/13/4570 dated 04.02.2017 at 07:26 Hrs. to swap the machine on 04.02.2017 at 09:00 Hrs.

- b) On 14.02.2017 at 08:12 Hrs GT#2 and STG tripped due to tripping of associated transmission lines, as both the machines were on 220 KV Bus-1 eventually leading to tripping of both UAT's. Subsequently DG Set came into service.

It was reported that GT#1,GT#2 and STG was running after on 220 KV Bus-1 which should be separated in order to provide better stability to both machine and grid, otherwise it was required that 220kV Bus coupler may be put on. Further, frequent start and stop of Machine may lead to undue wear and tear resulting into pre-ponement of overhauling as per OEM guidelines. In the present scenario with up-gradation, GT#2 should be given the preference when one machine (GT) is to be taken in service because of being more efficient and delivering reduced Heat Rate.

The following was decided:-

(i)The request of PPCL was accepted by OCC wherein it was decided that DTL/SLDC should ensure that both GTs be kept on separate 220kV Buses for availability of auxiliary supply in case of failure of one of the 220kV Buses as well as for the safety of machines.

(ii)It was also agreed upon that SLDC should give preference for running the GT# 2 being recently overhauled machine during half module operation. However PPCL informed that all units are available for meeting the requirement.

(iii)OCC further advised that proper thermovision scanning be done by DTL at regular intervals and hot points be attended on priority basis. DTL should also carry out the necessary maintenance work within the outage of period for which the

shutdown have been availed by other agencies so as to optimize the duration of outage.

4.0 SLDC Agenda

4.1 Inter-state transmission losses in Northern Region

NRLDC vide letter dt.-03.02.2017 addressed to GM (SLDC), informed as under:-

In compliance to regulation 6.4.22 of IEGC 2010, actual net injection/drawl of regional entities (15 minute wise) is being computed out by NRLDC. Computations are based upon interface meters readings transmitted to NRLDC and CT/PT ratios being used. Net/percentage inter-state transmission losses for each time block are being computed by NRLDC as indicated herein below:

Net Loss(MWh)=Net Injection(MWh)-Net Drawl(MWh),

Where Net Injection=Algebraic sum of ISGS/Other Generators (Regional entities) Injections + Algebraic sum of inter regional injections.

For inter regional injection meters located at other ends of inter regional links are being used for computations. All the computations carried out including drawal points and CT/PT ratios are web casted by NRLDC in its website under the link "<http://nrldc.org/Commercial/SemData/>" and as such are open to all entities for checking/verification.

As per past trends Inter-state transmission losses increases during winter months but this year the losses are slightly on higher side. Therefore, these need thorough review from all angles by all concerned. The issue was deliberated in the OCC meeting held at NRPC on 16.01.2017. The drawal points of Delhi control area along with CT/PT ratios being used by NRLDC for computations are detailed as under.

NRLDC requested that drawal points & CT/PT ratios may be got validated and in case any mistake/omission is detected then same may be communicated to NRLDC. The details are as under :

S.NO	LOCATION ID	METER. NO	C.T. RATIO	P.T. RATIO	M/C/S/L	Description
1	DL-01	NP-1174-A	1000	3636.3636	M	ICT-1 (400KV) at Mandola-PG
2	DL-03	NP-1176-A	1000	3636.3636	M	ICT-2 (400KV) at Mandola-PG
3	DL-05	NP-2025-A	1000	3636.3636	M	ICT-3 (400KV) at Mandola-PG
4	DL-07	NP-3027-A	1000	3636.3636	M	ICT-4 (400KV) at Mandola-PG
5	DL-21	NP-1132-A	1000	3636.3636	M	ICT-1 (400KV) at Bamnauli-DTL
6	DL-23	NP-1505-A	1000	3636.3636	M	ICT-2 (400KV) at Bamnauli-DTL
7	DL-28	NP-1328-A	1000	3636.3636	M	ICT-3 (400KV) at Bamnauli-DTL
8	DL-45	NP-5040-A	1000	3636.3636	M	ICT-4 (400KV) at Bamnauli-DTL
9	HR-05	NP-1224-A	400	600	M	66KV Gurgaon-1 at Rohtak Road-BBMB
10	HR-06	NP-1138-A	400	600	M	66KV Gurgaon-2 at Rohtak Road-BBMB
11	HR-07	NP-1140-A	400	300	M	33KV Gurgaon -at Rohtak Road-BBMB
12	HR-08	NP-6649-A	500	300	M	33kV Bahadurgarh at Rohtak Road-BBMB
13	DL-13	NP-7698-A	1000	3636.3636	M	ICT -2 (400 kV) at Bawana-DTL

14	DL-15	NP-1173-A	1000	3636.3636	M	ICT -3 (400 kV) at Bawana-DTL
15	DL-56	NP-6641-A	3000	3636.3636	M	400 KV PPCL-III-1 bus Section-B-423 at Bawana-DTL
16	DL-58	NP-8196-A	3000	3636.3636	M	400 KV PPCL-III-2 bus Section-B-419 at Bawana-DTL
17	DL-70	NP-9928-A	1000	3636.3636	M	400 KV Bhiwani-PG at Bawana PPCL-III
18	DL-71	NP-6994-A	1000	3636.3636	M	400 KV Bahadurgarh-PG at Bawana PPCL-III
19	DL-73	NP-5182-A	2000	3636.3636	M	400KV Dadri-1 at Harsh Vihar (Loni)-DTL
20	DL-74	NP-1158-A	2000	3636.3636	M	400KV Dadri-2 at Harsh Vihar (Loni)-DTL
21	DL-31	NP-5327-A	600	2000	M	220kV MIA at BTPS
22	DL-33	NP-3051-A	600	2000	M	220KV Ballabgarh-1 at BTPS
23	DL-34	NP-5348-A	600	2000	M	220KV Ballabgarh-2 at BTPS
24	DL-36	NP-9966-A	800	2000	M	220KV Sahibabad-UPPCL at Ghazipur-DTL (Earlier it was Sahibabad-Patparganj)CT Ratio changed from 600 to 800 upon shifting to Ghazipur)
25	DL-38	NP-1114-A	800	2000	M	220KV sec 62 Noida-UPPCL at Ghazipur-DTL
26	DL-39	NP-7753-A	800	2000	M	220KV BTPS at Ghazipur-DTL
27	DL-25	NP-6601-A	600	2000	M	220KV Panipat-1 at Narela-DTL
28	DL-26	NP-6605-A	600	2000	M	220KV Panipat-2 at Narela-DTL
29	DL-27	NP-8070-A	600	2000	M	220KV Panipat-3 at Narela-DTL
30	HR-01	NP-1162-A	150	2000	M	ICT -1 (220KV) at Narela-BBMB
31	HR-03	NP-3024-A	300	2000	M	ICT -2 (220KV) at Narela-BBMB
32	HR-05	NP-1224-A	400	600	M	66KV Gurgaon-1 at Rohtak Road-BBMB
33	HR-06	NP-1138-A	400	600	M	66KV Gurgaon-2 at Rohtak Road-BBMB
34	HR-07	NP-1140-A	400	300	M	33KV Gurgaon at Rohtak Road-BBMB
35	HR-08	NP-6649-A	500	300	M	33KV Bahadurgarh at Rohtak Road-BBMB
36	DL-47	NP-7763-A	500	3636.3636	M	ICT-1 (400KV) at Maharanibagh-PG(315MVA)
37	DL-49	NP-5416-A	500	3636.3636	M	ICT-2 (400KV) at Maharanibagh-PG
38	DL-60	NP-6638-A	1000	3636.3636	M	ICT-3 (400KV) at Maharanibagh-PG(500MVA)
39	DL-62	NP-6671-A	1000	3636.3636	M	ICT-4 (400KV) at Maharanibagh-PG
40	DL-64	NP-5180-A	1000	3636.3636	M	ICT-2 (400KV) at Mundka-DTL
41	DL-66	NP-6816-A	1000	3636.3636	M	ICT-4 (400KV) at Mundka-DTL
42	DL-79	NP-8126-A	2000	3636.3636	M	ICT-3 (400KV) at Mundka-DTL

SLDC requested metering circle of DTL to validate the above data. It was confirmed by Manager (ICM), DTL that the above data including CT & PT ratio checked and found correct and intimated to NRLDC. With regard to ICT information of Mandola S/Stn of

PGCIL, NRLDC was requested to confirm the same as Mandola S/Stn did not share the same.

SLDC informed that the Intra State Transmission Losses are also found increased recently which may be looked into by Metering Division, if any changes occurred in CT, PT ratio get unnoticed. SLDC intimated the comparison of transmission losses in comparison with last years.

Intrastate Transmission ‘Losses in %age’

Weeks	FY 2014-15	FY 2015-16	FY 2016-17
1	1.22	0.78	0.89
2	1.34	0.81	0.84
3	1.07	0.79	0.86
4	1.26	0.41	0.93
5	1.16	0.45	0.90
6	1.13	0.48	0.95
7	1.01	0.64	1.02
8	1.09	0.84	1.03
9	1.07	0.90	1.02
10	1.02	0.83	1.02
11	1.10	0.88	0.99
12	1.07	0.86	1.02
13	1.17	0.85	1.03
14	1.15	0.86	0.93
15	1.13	0.84	0.92
16	1.16	0.80	0.93
17	1.04	0.86	0.43
18	0.88	0.81	0.86
19	0.80	0.75	0.86
20	0.75	0.73	0.93
21	0.68	0.74	0.89
22	0.65	0.83	0.79
23	1.02	0.86	0.84
24	0.79	0.87	0.85
25	0.75	0.93	0.88
26	0.72	0.90	0.86
27	0.71	0.92	0.93
28	0.80	0.94	0.88
29	0.73	0.84	0.55
30	0.61	0.84	0.83
31	0.68	0.82	1.00
32	0.65	0.78	1.19
33	0.62	0.79	1.13
34	0.75	0.76	1.13
35	0.50	0.93	1.10
36	0.68	1.04	
37	0.70	1.06	
38	1.00	0.91	
39	0.91	0.97	
40	0.95	0.98	
41	0.92	0.94	
42	1.27	0.96	
43	1.21	1.15	
44	1.25	1.13	
45	1.23	0.96	
46	0.96	1.00	
47	0.99	1.04	

48	0.98	0.94	
49	1.08	1.03	
50	1.01	0.99	
51	0.80	1.02	
52	0.83	1.02	
53	0.83	0.91	
Avg Losses	0.95	0.85	0.92

It was also informed by SLDC that the normative Intrastate Transmission Losses fixed by DERC is 0.85%. Whereas in the year 2014-15 it was 0.95%, in the year 2015-16 it was 0.85% & for 2016-17 (upto week 35) it is 0.92%.

The Manager (Metering Division) remarked that the CT, PT ratio mismatch chances are rare.

G.M. (SLDC) opined that normally losses remain high during winter season which is experiencing even in Northern Region. He referred the Regional Transmission Losses as under:

Northern Region Transmission 'Losses in %age'

Weeks	FY 2014-15	FY 2015-16	FY 2016-17
1	2.80	3.31	3.76
2	3.47	3.31	3.99
3	3.29	3.59	3.52
4	3.19	3.18	3.78
5	2.87	3.31	3.79
6	2.97	3.26	3.83
7	3.36	3.09	3.11
8	3.42	2.79	3.26
9	3.37	2.93	3.44
10	3.29	3.01	2.76
11	3.18	2.94	3.18
12	3.31	3.01	2.91
13	3.13	2.72	2.81
14	3.51	3.14	2.55
15	3.37	3.43	3.03
16	3.45	1.73	2.98
17	3.44	2.78	3.18
18	3.33	1.41	2.70
19	3.54	2.89	2.73
20	2.95	2.84	2.68
21	2.95	2.82	2.78
22	2.94	3.15	2.74
23	3.16	3.05	2.74
24	3.07	3.34	3.18
25	3.31	3.17	3.02
26	3.34	2.56	3.25
27	3.61	3.98	3.12
28	3.79	3.35	2.86
29	3.81	3.72	3.02
30	3.67	3.23	2.84
31	4.21	3.33	3.99
32	4.48	3.90	4.45
33	3.64	3.76	4.54
34	3.61	3.61	4.12
35	3.84	4.09	4.66
36	1.83	4.86	7.94
37	5.43	5.51	9.30

38	5.59	4.50	7.80
39	6.20	4.99	7.48
40	5.83	5.43	8.88
41	5.38	5.88	7.72
42	5.06	6.35	5.34
43	4.98	6.71	5.96
44	4.39	5.98	5.48
45	4.57	5.15	4.54
46	4.09	5.19	3.88
47	4.42	4.99	3.94
48	4.61	4.41	
49	3.46	4.84	
50	3.48	4.38	
51	3.55	4.09	
52	3.30	3.66	
Avg Losses	3.75	3.78	4.12

One of the reasons of high transmission losses in winter season could be due to loading of transformer even below 35% whereas the transformer would be more efficient when loading is about 70%. The reactive power injection during winter particularly during night time also contributes to increase system losses. G.M.(SLDC) mentioned that in respect of Regional Transmission Losses in winter remains high due to less hydro generation apart from low load center based generation like BTPS, Dadri (T) etc due to commercial consideration resulting into huge drawal of power from long distance pit head station to load centers.

Concluding the discussion it was decided that high transmission losses during winter would be discussed in detail in next OCC Meeting and requested DGM (OS) to give presentation in next OCC Meeting in this regard.

4.2 Injection of Reactive Power in the system by DMRC

It has been observed that the cable circuits of DMRC inject significant reactive power particularly during night time. The issue was discussed in details in the meeting convened under the chairmanship of Director (Ops), DTL on 09.02.2017 in SLDC. Various steps have been suggested to control the reactive power injection and to avoid high voltage which may result into tripping of the circuits including the essential load of DMRC. DMRC was requested to do the needful. G.M. (Elect) DMRC informed that they have already understood the gravity of the situation; they have started the opening 5 nos of 66kV feeders to control high voltage, during the period 00.00hrs. to 05.00hrs.

S. No.	RSS	Voltage Level (in kV)	DTL's substation
1	Dwarka	66	Papankalan-2
2	Mundka	66	Neelwal or Khanjhwala (one at a time)
3	Sarita Vihar	66	Sarita Vihar
4	Airport	66	Mahipalpur
5	Chattarpur	66	Mehrauli

G.M. (Elect) further intended to know the contribution of other category of consumers in reactive power injection causing high voltages.

SLDC informed that these information are available in SDLC website in 'Real time Loading' portal which can be referred by DMRC. It was further informed by SLDC that the analysis of reactive power injection during the year 2016 in the feeders namely, 220kV Shalimarbagh – DMRC Ckt., 220kV Kashmiri Gate – DMRC Ckt. I & II, 66kV Park Street – DMRC Ckt. I & II, 66kV Khanjawala – DMRC Ckt, 66kV Mundka – DMRC Ckt shows that due to reactive power injection by DMRC during high voltage the DISCOMs had to bear Rupees 97 lacs as penalty whereas DMRC is not paying any thing. Since the charges are passed through in ARR, other consumers bear the burden. The details are as under:

Energy in Million Reactive Units

Months	220 KV DMRC - Shalimar Bagh Ckt		220KV DMRC- Kashmir Gate Ckt-I		220KV DMRC- Kashmir Gate Ckt-II		66KV DMRC- Park Street Ckt-I	
	Energy Above 103%	Energy Below 97 %	Energy Above 103%	Energy Below 97 %	Energy Above 103%	Energy Below 97 %	Energy Above 103%	Energy Below 97 %
Jan-16	-4.33	0.00	0.00	0.00	-2.49	0.00	-0.43	0.00
Feb-16	-4.29	0.00	0.00	0.00	-3.16	0.00	-0.52	0.00
Mar-16	-4.55	0.00	0.00	0.00	-1.39	0.00	-0.36	0.00
Apr-16	0.13	0.00	-0.17	-0.02	-0.65	0.00	-0.08	-0.03
May-16	-1.71	-0.01	-0.05	-0.26	-0.07	-0.31	-0.02	-0.22
Jun-16	-0.85	-0.01	0.00	-0.48	-0.01	-0.42	0.00	-0.32
Jul-16	-1.56	0.00	-0.04	-0.12	-0.11	-0.08	0.00	-0.23
Aug-16	-2.51	0.00	-0.07	-0.02	-0.02	-0.07	0.00	-0.16
Sep-16	-1.97	0.00	-0.09	-0.06	-0.01	-0.09	0.00	-0.16
Oct-16	-3.66	0.00	-0.40	-0.03	-0.92	-0.01	-0.22	-0.07
Nov-16	-7.60	0.00	-1.57	0.00	-0.97	0.00	-0.55	0.00
Dec-16	-5.71	0.00	-1.20	0.00	-2.08	0.00	-0.44	0.00
Total	-38.61	-0.02	-3.58	-0.99	-11.86	-0.98	-2.63	-1.20
Amount paid by Discoms as Penalty in Rs. Lacs due to reactive power injection	52.12	(-)0.02	4.83	(-)1.33	16.01	(-)1.33	3.55	(-)1.62

Note : Reactive Energy (-) indicates injection.

Months	66KV DMRC- Park Street Ckt-II		66KV DMRC- Kanjhawala Ckt.		66KV DMRC - Mundka Ckt	
	Energy Above 103%	Energy Below 97 %	Energy Above 103%	Energy Below 97 %	Energy Above 103%	Energy Below 97 %
Jan-16	-1.67	-0.02	-1.22	0.00	-0.35	-0.01
Feb-16	-1.15	0.00	-2.12	0.00	-0.40	0.00
Mar-16	0.00	0.00	-0.75	0.00	-0.99	0.00
Apr-16	-0.36	-0.11	-0.69	-0.01	-0.05	-0.01
May-16	-0.07	-0.90	-0.85	-0.01	-0.01	-0.28
Jun-16	0.00	-1.37	-0.45	-0.01	0.00	-1.10
Jul-16	-0.01	-0.99	-0.90	0.00	0.00	-0.24
Aug-16	-0.01	-0.66	-1.39	0.00	0.00	-0.12
Sep-16	-0.01	-0.59	-0.64	0.00	0.00	-0.17
Oct-16	-0.93	-0.30	-1.01	0.00	-0.15	-0.01
Nov-16	-2.48	0.00	-2.48	-0.01	-0.62	0.00
Dec-16	-2.00	0.00	-0.45	-0.07	-1.39	0.00
Total	-8.69	-4.93	-12.95	-0.11	-3.96	-1.94
Amount paid by Discoms as Penalty in Rs. Lacs due to reactive power injection	11.73	(-)6.66	17.48	(-)0.15	5.35	(-)2.62
Net penalty given by Discoms due to injection of reactive power by DMRC = Rs. 97.33 Lacs.						

Intervening the discussion, ED (DMRC) intimated that the high voltage issue has already been taken very seriously by DMRC and even the international experiences to curb the high voltage due to Metro operations have also been sought for. The high voltage issue has turned

such importance only recently and DMRC would definitely extend all cooperation to overcome the high voltage issue.

OCC appreciated the view of DMRC and requested to do all the possible steps to curb high voltage in short term, medium term and long term basis as 125MVAR reactors planned to install in Delhi system may not be available before 2019-20 and we have to pass the winters of the years 2017 and 2018 without these voltage controlling devices.

DMRC informed that they are studying on the techniques to be adopted for controlling of MVAR injection. OCC advised that DMRC should take necessary corrective actions on priority basis for controlling of MVAR injection in the system to ensure reliable supply including that of DMRC.

5.0 66KV Feeder disruption at 220/66KV DTL Substation, Ghazipur during overvoltage situation (EDWPCL Agenda)

EDWPCL vide their e-mail dt.-24.01.2017 have informed the following:-

East Delhi Waste Processing Co. Ltd. (12MW Waste to Energy Power Plant) is drawing power from 220/66KV DTL Substation at Ghazipur. They are using this power to process Municipal Solid Waste (MSW) and also for start up of the power plant. Once the generator gets synchronized, power export is started. They have only one 66KV feeder for export and import of the power from 220/66KV DTL substation, Ghazipur.

In case of any outage of 220KV feeder or change over at DTL substation, they face a blackout situation at their plant. It hampers their Generation process and it takes around 2 to 3 hours to stabilize the plant again. During this period, they have to draw power from the substation to meet out the captive consumption and simultaneously they suffer a direct loss due to interruption in power generation during the period. They are regularly informing SLDC about this issue causing disruption in their operation during changeover process or 220KV feeder outage situations.

They have tremendous pressure at this time to run the plant as mentioned below:

- As per NGT directive, a Committee has been mandated to carry out a physical inspection of the plant
- DPCC/CPCB are supposed to carry-out the inspection of plant & conduct the test for emission parameters
- EDMC's mandate on the processing of MSW. It is also getting hampered.

As per SLDC advice a proper communication between our Ghazipur Plant and the SLDC Control Room needs to be established in order to avoid such discrepancy.

At present their plant is running and synchronized with the grid. They have informed that it is very difficult for them to export the power if 66KV feeder gets erratically disconnected due to over voltage and changeover in 220/66KV substation, at Ghazipur. Reliable power source at 66KV end is must to avoid the occurrence of such type of problems at their Power Plant.

They have requested to take necessary action for rectification of this issue.

The matter was deliberated in the OCC meeting held on 30.01.2017, wherein it was advised that to avoid interruption the changeover of 66kV supply be carried out in parallel operation after checking of phase sequence and voltage to avoid supply interruption. Operation for

changeover be done at Ghazipur Sub-stn in presence of officials of DTL, BYPL and EDWPCL and outcomes be deliberated in the next OCC meeting.

It was informed that during the last visit to Ghazipur grid on 06.02.2017 by officials of DTL, BYPL and EDWPCL for trial of parallel operation, the Waste to Energy plant at Ghazipur was under shutdown. OCC advised that trial for parallel operation be carried out on 08.03.2017 irrespective of the conditions of operation of the plant subject to consent of SLDC as per real time conditions.

**6.0 Joint Checking of Overhead Power Line crossings with railway representatives.
(Northern Railways Agenda)**

The status of joint checking of overhead lines as discussed in the previous OCC meetings are as under:-

S.No.	Section	Railway Location	Overhead Crossing between	System Voltage	Concerned Supply Authority	Present status
1	Tilak Bridge-Sahibabad	1532/5G-1532/9G	I.P. - Pragati	220 KV	DTL	As informed by Railways, Inspection of this line is not needed as the railway line beneath the power line is not in operation.
2	-do-	1532/15-17	I.P. - Sarita Vihar	220 KV	DTL	Already inspected on dt.-01.02.2017
3	-do-	-do-	I.P. - Sarita Vihar	220 KV	DTL	Already inspected on dt.-01.02.2017
4	-do-	2/25G-2/27G	I.P.- Patparganj	220 KV	DTL	Already inspected on dt.-29.11.2016
5	-do-	2/27G-2/29G	Geeta Colony-Patparganj	220 KV	DTL	Already inspected on dt.-29.11.2016
6	-do-	5/21G-5/23G	Patparganj-Vivek Vihar	66 KV	BYPL	Already inspected on dt.-09.01.2017
7	-do-	7/33G-8/1G	Patparganj-Vivek Vihar	66 KV	BYPL	Already inspected on dt.-09.01.2017
8	Delhi-Shahdra	2/11-2/13	Geeta Colony-SOW	220 KV	DTL	Already inspected on dt.-29.11.2016
9	Shahdra-Sahibabad	9/3-9/5	Vivek Vihar-Dilshad Garden	66 KV	BYPL	Already inspected on dt.-07.01.2017
10	Azadpur-Adarsh Nagar	8/7-8/9	Azadpur- Tri Nagar	33 KV	TPDDL	Already inspected on dt.-16.12.2016
11	Adarsh Nagar- Badli	11/15-11/17	Jahangir Puri-Pritampura	66 KV	TPDDL	Already inspected on dt.-16.12.2016

12	Hazrat Nizamuddin-Okhla	1528/15-16		33 KV	BSES	OCC in its meeting dt.-30.01.2017 advised Northern Railways to carry out joint inspection in coordination with BRPL.
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The joint inspection report/MOM be provided by DTL/Discoms so as to apprise the same to Northern Railways.

The matter was deliberated and it was mutually agreed upon that copy of joint inspection reports would be provided by the DTL/Discoms to OS Department of DTL.

7.0 Regarding ownership of equipments installed at 220kV S/Stn BBMB Delhi (BBMB agenda point)

BBMB vide their letter 19.10.2016 has informed that BBMB Rohtak Road have not any documentary proof regarding 'Ownership' of equipments installed by erstwhile DESU at 220kV Sub-Stn BBMB, Delhi, which is essentially required to maintain the equipments in the wake of uninterrupted power supply from BBMB Delhi Sub-Stn. Hence, **BBMB has desired to provide the list of Ownership of equipments installed at 220kV Sub-Stn Punjabi Bagh BBMB Delhi along with the supporting documents.**

It was brought that one no. 66/33kV 30MVA T/F was commissioned in 1982. The Name plate data of the transformer reflects that it is the DESU property. This transformer has achieved its useful life of 34 years. Due to ageing effect of T/F, the Frantic Compounds content is 2750, which is on higher side as compared to permissible limit. It indicates the severe deterioration of solid insulation in the T/F. The Tan Delta value of HV R-Phase bushing, checked by Protection team BBMB Panipat is 2.144% which is also on higher side. The Tan Delta value of winding of T/F is also on higher side and the **Protection Division has recommended to replace the Transformer with a new Transformer.**

In view of above facts, BBMB has requested to take appropriate action to replace the said Power T/F at the earliest to avoid any interruption in the Power supply in case of any outage due to breakdown of this T/F.

During the OCC meeting held on 28.11.2016, TPDDL informed that they were searching their records available with them and shall revert back by 15.12.2016.

During the OCC meeting held on 29.12.2016, it was deliberated that TPDDL should confirm the actual position latest by 15.01.2017.

During the OCC meeting held on 30.01.2017, it was informed by TPDDL that the records are to be checked since 2002 which are in hard copy. They have checked the records for the past five years. After checking the records, TPDDL will revert very soon.

During the OCC meeting held on 28.02.2017, TPDDL confirmed that they have already informed BBMB that the subject transformer is not part of TPDDL asset. OCC advised that BBMB should take necessary action for changing of the transformer immediately to ensure reliable power supply.

8.0 Proposed Planned Shutdowns

8.1 Proposed shutdowns of O&M, DTL

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

OCC approved the shutdowns subject to some minor change in timings and subject to real time conditions.

8.2 Proposed shutdowns of DTL Project Deptt.

DTL, Project Deptt. has proposed the planned shutdowns at 220kV Sub-stn Lodhi Road for the month of March/April/May 2017 in connection with the commissioning of 220kV GIS and additional 100MVA Tr as per following details:-

S. No.	Date from	Date to	Name of element	Work to be carried out	Remarks
1.	15.03.2017 08:00 hrs	24.03.2017 17:00 hrs	220 kV Ckt-1/ line-1 Lodhi Road to Maharani Bagh S/stn alongwith 100MVA T/F-1	To carry out the work of 220kV XLPE cable end termination bushings (3nos.) for connecting the existing 220 kV Ckt-1 /line-1 from Maharani Bagh S/stn to upcoming 220kV GIS at Lodhi Road S/Stn.	100 MVA Trf. no. 1 to be out during the shutdown period. Load may be transferred to 100 MVA Trf. no. 2.
2.	15.03.2017 08:00 hrs	14.04.2017 17:00 hrs	100MVA T/F-1, 220 kV Bay no-1	<ol style="list-style-type: none"> 1. Dismantling of existing 220 kV Bays equipments i.e Isolator, Circuit Breaker, CT LA, BPI alongwith supporting structure etc. 2. Demolishing & removing of existing 220 kV Bay's Equipments foundation of Isolator, Circuit Breaker, CT LA, BPI. 3. Construction of new foundations for 03 nos 220 kV cable end bushing, 03 nos LA & 06 nos BPI. 4. Erection of structure & equipments for 03 nos 220 kV cable end bushing, 03 nos LA & 06 nos BPI. 5. Making the connection of 100 MVA Pr Trf 	<p>100 MVA Trf. no. 1 to be out during the shutdown period. Load may be transferred to 100 MVA Trf. no. 2 and also load shared by newly 3rd 100MVA Transformer (M/s CGL make) at Lodhi Road S/Stn.</p> <p>Note- After dismantling of existing 220 kV Bay equipment foundations, the new foundations are to be constructed for connecting to upcoming 220kV GIS through 220kV cable at Lodhi Road</p>

				<p>Bushing to upcoming 220 kV GIS through 220 kV XLPE cable.</p> <p>6. Dismantling of RTCC panel of Transformer no-1 in old control building and shifting & installation of the same in 220 kV GIS Building.</p>	
3.	15.04.2017 08:00 hrs	24.04.2017 17:00 hrs	220 kV Ckt-2 / line-2 Lodhi Road to Maharani Bagh S/stn alongwith 100MVA T/F-2	<p>To carry out the work of 220kV XLPE cable end termination bushings (3nos.) for connecting the existing 220 kV Ckt-2 / line-2 from Maharani Bagh S/stn to upcoming 220kV GIS at Lodhi Road S/Stn.</p>	<p>100 MVA Trf. no. 2 to be out during the shutdown period. Load may be transferred to 100 MVA Trf. no. 1 & 3rd 100 MVA Pr. Trf .</p>
4.	15.04.2017 08:00 hrs	14.05.2017 17:00 hrs	100MVA T/F-2, 220 kV Bay no-2	<p>1. Dismantling of existing 220 kV Bays equipments i.e Isolator, Circuit Breaker, CT LA, BPI alongwith supporting structure etc.</p> <p>2. Demolishing & removing of existing 220 kV Bay's Equipments foundation of Isolator, Circuit Breaker, CT LA, BPI.</p> <p>3. Construction of new foundations for 03 nos 220 kV cable end bushing, 03 nos LA & 06 nos BPI.</p> <p>4. Erection of structure & equipments for 03 nos 220 kV cable end bushing, 03 nos LA & 06 nos BPI.</p> <p>5. Making the connection of 100 MVA Pr Trf Bushing to upcoming 220 kV GIS through 220 kV XLPE cable.</p>	<p>100 MVA Tr. no. 2 to be out during the shutdown period. Load may be transferred to 100 MVA Tr. no. 1 and also load shared by newly 3rd 100MVA Transformer (M/s CGL make) at Lodhi Road S/Stn.</p> <p>Note- After dismantling of existing 220 kV Bay equipment foundations, the new foundations are to be constructed for connecting to upcoming 220kV GIS through 220kV cable at Lodhi Road</p>

				6. Dismantling of RTCC panel of Transformer no-2 in old control building and shifting & installation of the same in 220 kV GIS Building.	
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OCC approved the shutdowns subject to real time and conditions and also subject to availability of 3rd 100MVA Transformer on 25.03.2017. A press release be issued by Project deptt. regarding the above shutdown. Status to be reviewed at the end of each month.

8.3 Proposed planned shutdowns of DMRC

Request for shutdown for the work of raising the height of 220kV O/H D/CT/L infringing DMRC corridor near MIA station to Bahadurgarh corridor of Delhi MRTS Phase-III (220kV Khanjawala – Mundka and 220kV Mundka – Najafgarh Ckts.)

DMRC vide their letter dt.-14.02.2017 have informed that three towers have already been erected and one tower is in progress out of six nos. (04 nos. lattice & 02 nos. Monopoles). Monopoles shall be erected in existing 220kV ROW. The shutdown is required for erection of two monopoles, stringing of conductors & completion of work in all respect. The schedule of shutdown is as under:

S.No.	Name of feeders	Area between	Date from	Date to	Total period	Remarks
1.	Kanjhawala to Mundka 220kV feeder	Near MIA Station, Mundka	03.03.2017 (09:00 hrs)	18.03.2017 (18:00 hrs)	15 days	Continuous basis
2	Kanjhawala to Najafgarh 220kV feeder					

Sh. T.R. Benwal (Mgr./Elect.) DMRC would coordinate.

DMRC have requested to arrange the above shutdown and provide permit to work to their representative at site. They have also requested for issuing suitable instructions to concerned DTL persons regarding the above.

After deliberations, the proposed shutdowns of DMRC were approved. The following was discussed in the meeting and mutually agreed upon:-

(i)The shutdowns have been approved w.e.f. 03.03.2017 to 15.03.2017. However, DMRC should gear up the work so as to complete before the scheduled date.

(ii)The work of OPGW stringing will be done by DTL on payment basis and the same will be reimbursed by DMRC.

(iii)DMRC should provide the drawing of lattice and monopole structure as well as civil foundation drawing alongwith copy of PO/NIT to Mgr.(O&M)N-3, DTL.

9.0 Long/Recent outage of Elements in Delhi power system.

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

S. No.	Element's Name	Discom/ DTL	Date and Time of outage	Status updated as on 28.02.2017
1.	33kV BAY -3 (IP – Kilokri)	BRPL	22.02.11	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 previous OCC meeting, It was deliberated that the above work shall be started after joint inspection with Railways. It was deliberated that the case be referred to the Coordination Committee of Railway constituted by Railway Ministry.
2.	33kV RIDGE VALLEY - KHEBAR LINE CKT.-II	BRPL	31.01.16	R-Ph single cable faulty. Expected by 15.03.2017.
3.	33kV IIT-JNU Ckt.	BRPL	27.11.16	CT problem. Expected by 15.03.2017.
4.	16 MVA Pr. Tr.-III at Adhchini	BRPL	04.02.17	Energized on 25.02.2017.
5.	50 MVA Pr. Tr.-I at 66kV Palam	BRPL	11.02.16	Energized on 11.02.2017.
6.	25 MVA Pr. Tr.-I at NDSE	BRPL	14.02.17	Energized on 27.02.2017.
7.	66kV Vasant Kunj Industrial Area-Ridge Valley Ckt.-II	BRPL	15.02.17	UNDER BREAK DOWN. Expected by 03.03.2017.
8.	20MVA Pr. Tr.-I at Batra	BRPL	15.02.17	UNDER SHUT DOWN. Expected by 15.03.2017.
9.	66kV Vasant Kunj B-Block-Liver instl. Area ckt.-1	BRPL	21.02.17	B-Ph Single cable faulty Energized on 25.02.2017.
10.	33KV IP-JLN Stadium (Bay-24)	BRPL	22.02.17	UNDER SHUT DOWN Expected by 10.03.2017.
11.	50MVA Pr. Tr.-I at Ridge valley	BRPL	22.02.17	UNDER SHUT DOWN. Expected by 15.03.2017.
12.	66kV Bus coupler at G-15 Dwarka	BRPL	22.11.16	CT Blast. Expected by 31.03.2017.
13.	33kV ROHTAK ROAD - MADIPUR CKT.	BRPL	28.05.16	Cable faulty.Road cutting permission awaited from PWD. Expected by 15.03.2017.
14.	66kV SAGARPUR - REWARI LINE CKT.	BRPL	30.07.16	'B' PH. CABLE FAULTY. RE-ROUTING BEING DONE. Expected by 31.03.2017.

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15.	66KV PPK-II – G-5 MATIALA CKT.-II	BRPL	21.01.17	R-PH CABLE FAULTY Expected by 10.03.2017.
16.	66KV PPK-I – BODELLA 1 CKT.-1	BRPL	26.01.17	CABLE FAULTY Expected by 06.03.2017.
17.	20 MVA Pr. Tr. –II at G-5 Matiala	BRPL	12.02.17	UNDER SHUT DOWN. Expected by 13.03.2017.
18.	33KV PEERAGARHI – MADIPUR CKT.	BRPL	16.02.17	Energized on 23.02.2017
19.	33KV CHAUKHANDI-PACIFIC MALL CKT.	BRPL	20.02.17	Energized on 22.02.2017
20.	66KV NAJAFGARH-NANGLOI CKT.	BRPL	22.02.17	Energized on 23.02.2017
21.	20 MVA Pr. Tr. –I at Bindapur	BRPL	22.02.17	Expected by 12.03.2017.
22.	33kV Subji Mandi (220kV)- B.G. Road Ckt.-I	BYPL	09.01.17	Single Cable faulty. Cable end box for GIS under procurement. Expected by 31.03.2017.
23.	33KV PANDAV NAGAR - DMS CKT.	TPDDL	03.04.16	PROBLEM IN RMU. Expected by 31.03.2017.
24.	33kV Jahangirpuri- Sanjay Gandhi Tr.Nagar Ckt.-1	TPDDL		R-PH CABLE FAULTY Expected by 15.03.2017
25.	66kV Pitampura-1 – Rohini 1 Ckt.-II	TPDDL		R-PH CABLE FAULTY Expected by 10.03.2017
26.	66KV S.G.T.N.(GIS) - PP 1 CKT.-1	TPDDL		Y-PH CABLE FAULTY Expected by 10.03.2017
27.	315MVA ICT-1 at 400kV Bawana	DTL	11.12.16	Tr. Damaged due to fire. Expected by 31.03.2017
28.	100MVA Tr.-2 at Geeta colony	DTL	01.12.16	DGA result of Tr. Oil is not within the permissible limit.Transformers is being replaced.Expected by 25.04.17.
29.	400kV BAMNAULI - JHAKTIKARA CKT.-I	DTL	22.05.16	Dead end Tower No.-169 along with gantry collapsed at Bamnauli end. Ckt.-II charged on ERS. Order placed. Expected by 30.04.17.
30.	220/66kV 100MVA PR.TR.-III AT 220kV PPK-I	DTL	04.09.16	HV SIDE 'Y' PH. WINDING DAMAGED. TO BE REPLACED WITH 160 MVA TR. AT KANJHAWALA. EXPECTED BY 10.04.17.

31.	220/33kV 100MVA PR.TR.-II AT 220kV PARK STREET	DTL	11.09.16	The transformer have been put Off due to rise in oil temperature and it will be replaced by the transformer at 220kV Pappankalan-I. Expected by 10.04.2017.
32.	220/33kV 100MVA PR.TR.-I AT 220kV WAZIRPUR	DTL	19.10.16	Tr. Tripped on Differential and Buchholz. Internal inspection has been carried out and the transformer is being sent to OEM for repair. The third 100 MVA Transformer of Preet Vihar Sub-stn to be diverted to Wazirpur. Expected by 30.04.2017.
33.	220kV Maharani Bagh-Ghazipur Ckt.-1 & 2	DTL	08.12.16	Shutdown availed by PWD till 31 st March 2017 for construction of extended portion of Barapullah flyover.

OCC advised all utilities to expedite the restoration.

Additional Agenda

1. TPDDL Agenda:-

1.0) Rearrangement of 11 kV O/G feeder at 220 Rohini-1 Grid

TPPDDL have informed that two 11kV feeders SPS-DDA Sector-25 and STP MCD Sector-25 are running on same bus and are alternate source for each other. They have also informed that these feeders are feeding to very important installations like Delhi Jal Board etc. Whenever there is an outage/breakdown on the bus both these feeders get affected. Since the consumer is of high importance and when supply to sewage and drinking water supply is affected the complaints are escalated to very high level & facing public wrath, it would be viable to rearrange feeders. TPDDL have requested for allowing them to interchange of one 11KV feeder from Bus No-1 with the feeder to Bus No-2 for ensuring reliability.

The matter was deliberated and was agreed upon by DTL.

2.0) Non Availability of 100MVA PTR at 220 Wazirpur Grid:

As per information given by DTL earlier, 100 MVA PTR-1 at 220kV WZP will be available by mid-Mar'17 at 220 WZP. Now, as per latest information received, it would be available by July'17.

Mostly load of 220 kV WZP can be shifted on 220kV SMB where there are 3x100 MVA PTRs. But out of these three, one will be converted to 220/66kV as an interim arrangement due to delay in commissioning of 220kV SGTN and new 160MVA PTRs at 220kV Gopalpur alongwith 66kV GIS.

Now TPDDL will have only 3 PTRs (220 SMB & 220 WZP) having capacity of 300 MVA to cater peak load of Shalimarbagh and Wazirpur region. Last summer peak load through these PTRs were 280 MW. In this situation, TPDDL won't be able to manage peak demand in summer during N-1 condition. In view of this TPDDL have requested for arranging to provide the 100 MVA PTR at 220 WZP Grid before March end.

It was informed that the matter was even reviewed at Secretary (Power), GNCTD level. The revival was planned at priority and it was informed that the 3rd 100 MVA, 220/33kV Power Transformer for Preet Vihar Sub-stn will be diverted to Wazirpur Sub-stn. for earlier commissioning. The transformer is expected to be energized at Wazirpur Sub-stn by April end.

3.0) Status of Reactor Installation in Delhi by DTL

In NRPC OCC meeting there is regular agenda on the subject. DTL has to take up subject matter with PGCIL for conducting a fresh study on Reactive Power compensation. Situation of Delhi Power Quality becomes miserable during winter off peak time due to excess high voltage. It was requested to take the matter on priority.

It was informed that DTL Planning deptt is continuously pursuing with PGCIL for the study of reactive power compensation as per 1500MW load during off peak hours condition instead of on 2500MW minimum load considered for the study. In the study it was concluded that 125MVAR Reactor is required at 400kV Mandola sub-station of PGCIL considering the fact that 125MVAR reactors are envisaged at the upcoming 400kV ISTS namely Dwarka, Mehrauli and Tuglakabad which are expected by Summer 2019. It was also informed that despite taking up regularly with the CTU (PGCIL) the study could not be carried out due to pre occupancy of CTU Personnel.

2. DTL Agenda:-

Disturbance in DMRC operation due to supply failure at Shalimar Bagh Substation on 13.02.17 at 12.14 hrs.

On 13.02.2017 at 12:14 hrs., 220kV Bawana – Shalimar Bagh Ckt. –II tripped at Bawana end resulting interruption in power supply at Shalimar Bagh Sub-stn. causing interruption in DMRC supply at Shalimar Bagh Sub-stn.

It is pertinent to mention that another 220kV Bawana-Shalimar Bagh Ckt. -I was already under shutdown at the time of tripping.

DMRC informed that during the incident the U/G 66kV cable, GTPS-New Delhi was already under Breakdown. Subsequently Load was taken at their Kashmere Gate RSS. But there was some voltage dip problem at their Kashmere Gate RSS and thereafter load was diverted to Jahangirpuri RSS being feed through DTL Shalimar Bagh Sub-stn. However, there was failure of Power supply at DTL Shalimar Bagh Sub-stn causing the disturbance in DMRC operation.

DMRC was requested to provide the DR of Kashmere Gate RSS to check the duration of voltage dip/disturbance etc. The DR can be mailed to E-mail id of DGM(OS), dgm.os@dtl.gov.in.

DTL informed that on 13.02.2017 at 12:14 hrs., 220kV Bawana – Shalimar Bagh Ckt. – II tripped at Bawana end on Broken conductor trip. The distance relay sensed broken conductor due to flow of negative sequence current beyond the set limit due to unbalance in load current. However, the Tripping due to broken conductor has now been deactivated and now there is only Alarm for broken conductors.

OCC advised DMRC to closely coordinate with SLDC through the TPC Control Rooms for which hotlines are also established with SLDC. OCC also advised SLDC to consider drawing out operational strategy at each DTL sub-station to provide dual sources to DMRC supply to take care of such exigency.

3. BRPL Agenda

BRPL have raised following issues:-

1. Permission may granted to verify ABT meters installed at various DTL grid s/stn to maintain the record at Discoms end and update it time to time, if required.

After deliberation, it was decided to grant the permission subject to condition that no photography be allowed with in the premises of DTL.

2. Second communication link with SLDC Minto Road from Ridge valley where BRPL have already installed all the equipment's but optical fiber link of DTL is pending.

OCC advised BRPL to take up the matter with Sh. Parvez Khan, Mgr. (Comm.) DTL.

3. Handing of 33kKV Double ckt from 220 KV Naraina to Khyber Line grid s/stn to MES as BRPL is not having any role in this Ckt, not drawing any power and not going billing.

MES informed as per their record, the elements is in the book of MES.

BRPL informed that if the asset is in MES account, the maintenance expenses incurred in the system should be reimbursed to them. After deliberation, it was decided to refer the issue to Commercial sub-committee.

4. PPCL Agenda :-

PPCL have requested for approval of shut down for the month of March-2017. The shutdown of 400KV lines of 400KV Bay No 413 & 415 (CCGT- Bhadurgarh & CCGT – Bhiwani) are required for repair / replacement of line end jumpers (Between 4"IPS & line dead End).

The annual testing of the Bay No 413 (CCGT- Bahadurgarh) shall also be taken up during this shut down.

The details of proposed shutdown are as under:-

S. No.	Date and Time from	Date and Time to	Voltage level	Name of element	Work to be carried out	Remarks
1.	20.03.17 10:00 hrs	20.03.17 14:00 hrs	400Kv	Bay No 415 (CCGT Bawana- Bhiwani Line)	To Repair/ Replace the jumpers between 4" Al IPS & Line & maintenace of bay equipments.	Line shut down with both end earth
2.	22.03.17 10:00 hrs	22.03.17 16:00 hrs	400Kv	Bay No 413 (CCGT Bawana- Bahadurgarh Line)	To Repair / Replace the jumpers between 4" Al IPS & Line & Annual testing of Bay Equipments.	Line shut down with both end earth

OCC advised SLDC to forward the shutdown to NRPC OCC.

5. DMSWSL (Delhi MSW Solutions Ltd.) Agenda :-

Declaration of CoD of Delhi MSW Solutions Ltd.-24MW Waste to Energy Plant at Bawana.

DMSWSL(Delhi MSW Solutions Ltd.) informed that CoD of 12MW out of 24MW of their Waste to Energy Plant capacity has been declared w.e.f. 00:00 hrs. of 10th Jan 2017.

They also informed that their 24MW Waste to Energy Plant at Bawana is ready for commercial operation w.e.f. 00:00 hrs. of 28.02.2017.

They further informed that DERC vide their order dt. 22.02.2017 has clarified the following.

"d) Issue regarding the Dispatch & Scheduling and Merit order dispatch

Discoms Submission

BRPL, BYPL & TPDDL seek compliance with scheduling and dispatch procedures as per DERC/CERC Regulations. The CERC has specified that municipal solid waste shall be subjected to scheduling and dispatch code as specified under CERC (Unscheduled Interchange and related matters) Regulations, 2009 including amendments thereto.

Petitioners Submission

DMSL has pleaded that the waste to energy plants should be excluded from scheduling.

Commission's view

The Commission noted that the sector is new and has no operational experience of MSW to energy plants and it is also noted that many other State Electricity Regulatory Commissions have provided some relaxation to waste to energy power projects for scheduling. The Commission opined that the MSW to energy projects shall forecast their generation as per the standard provision under the CERC/DERC Regulations. However, there shall be no Commercial/financial implication in case of deviation from the scheduled power for a period of maximum 2(two) year from the date of the commissioning of the project and the actual generation shall be treated as scheduled generation. The Commission may review the same thereafter.

10. The Discoms are required to take note of the abovementioned views of the Commission and incorporate necessary corrections in the draft PPA before execution of PPA with the Petitioner and submit a compliance of the same.
11. Accordingly, this petition is disposed of.
12. Ordered accordingly."

In view of the DERC order, Delhi SLDC would indicate actual energy delivered at 220kV DSIDC on monthly basis to incorporate the same in monthly energy accounts of Delhi and the scheduled energy would be replaced with actual generation for drawing out scheduled demand of beneficiaries. The metering Division of DTL would ensure the availability of actual energy data delivered at 220kV DSIDC BawanaS/Stn. on monthly basis by 24th day of succeeding month for issuance of state energy accounts.

OCC advised SLDC, Metering Division of DTL and DMSWCL to do the needful in wake of the DERC Order Dated 22.02.2017 and decision taken in the meeting held on 10.01.2017 in SLDC.

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”.