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DELHI TRANSCO LIMITED

Office of DGM (OS & Lines)

Convener (Operation Co-ordination Committee) Room No. 10, 1st floor, 220KV S/ Stn. Bldg., Naraina, Ring Road, New Delhi-110010

No. F.DTL/831/F.4/2013-14/DGM (OS & Lines)/23

To: Members of Operation Co-ordination committee

DTL General Manager (O&M)-I Chairman OCC Fax no. 011-23366160

General Manager (O&M)-II

GM (Planning) Fax No.011-23622707

DGM (O&M)-I, II & III

DGM(400kV)

DGM (M/P) Fax no. 011-23366160 DGM(Plg.) Fax No.011-23632031 General Manager (SLDC) Fax no. 011-23221069

DGM (SO) Fax no. 011-23221059, 23221012

 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
 Dy. General Manager (SO)
 Fax no. 011-39996549

BYPL Dy. General Manager (SO) Fax no. 011-39996549

NDMC Superintending Engineer Fax no. 011-23235754

IPGCL DGM (I/C) RPH

DGM (0) GTPS
PPCL DGM (0) PPCL
MES AEE/M.SLDC Officer

SLDC

BTPS AGM (EEMG) Fax no. 011-26944348
BBMB Sr. Executive Engineer, O&M Fax no. 011-28315542,
NR Sr. DEE (Northern Railway) Special Invitee Fax No. 011-23742667
DMRC DGM (Electrical) Email: mck2305@yahoo.co.in

विषय: प्रचालन समन्वय उपसमिति बैठक दिनांकित 25.04.2014 (श्क्रकार) अपराहन 03:00 बजे का कार्यवृत्त ।

Sub: MOM of OCC Meeting dated 25.04.2014 (Friday) at 03:00 PM

प्रचालन समन्वय उपसमिति की बैठक दिनांकित **दिनांकित 25.04.2014 (शुक्रवार) अपराहन 03:00 बजे**, , महाप्रबन्धक (प्रचालन एवं रखरखाव)-।, पार्क स्ट्रीट, **नई दिल्ली** में आयोजित की गई। उक्त बैठक के कार्यवृत्त की एक प्रति सूचनार्थ व आवश्यक कार्यवाही हेतु इस पत्र के साथ संलग्न है।

The OCC meeting was held on dt. 25.04.2014 (Friday) at 03:00 PM in the Office of GM (O&M)-I, Park Street, New Delhi. A copy of the minutes of meeting is enclosed herewith for favour of information and necessary action.

Sd/-(लवलीन सिंह) (Loveleen Singh) उपमहाप्रबंधक (प्रचालन सेवाएं एवं लाइन्स) Dy.General Manager (Operation Services & Lines) संयोजक, प्रचालन समन्वय उपसमिति Convener, Operation Coordination Committee

Date: 07.05.2014

Enclosure:

प्रचालन समन्वय उपसमिति बैठक दिनांकित 25.04.2014 का कार्यवृत्त । MOM of OCC meeting dt.25.04.2014

DELHI TRANSCO LIMITED

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

Office of Dy. Gen. Mgr. (OS & Lines)

220KV S/Stn. Bldg. Naraina, New Delhi-110010

Tele: 25683304

MINUTES OF OCC MEETING DT. 25.04.2014

GM (O&M)-I, DTL, Chairman-Delhi OCC welcomed the members and distinguished guests to the meeting. DGM (OS&L), DTL ó Convener Delhi OCC requested that since summer season has arrived, all possible efforts are required to be made for meeting the Summer Load. OS department has given the presentation on the Operational Grid Scenario for the month of March, 2014. SLDC informed that the anticipated demand during the month of May 2014 is 5700MW.

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

1.0 Confirmation of minutes of OCC meeting dt. 31.03.2014.

Last OCC meeting was held on 31.03.14 in accordance with the agenda circulated vide letter dt.26.03.14. Minutes of the aforesaid OCC meeting were issued vide letter dt. 11.04.2014

BYPL informed that their Control Room at Shankar Road is operational from dt.31.03.14.

Members confirmed the MOM of OCC meeting dtd. 31.03.2014.

2.1 Setting up of control room by MES.

In OCC meeting dt. 03.03.14, SLDC informed that they are providing consultancy to MES for setting up of control room at Khyber Line. The estimate has been prepared by SLDC. The tendering process shall be done by MES.

MES could not attend the meeting. SLDC informed that the vetting of agreement is being done by MES.

(Action by MES)

2.2 Shifting of Control Room of NDMC from SLDC building

NDMC informed that their new control room at Nirman Bhawan is operational and the control activities has been shifted from SLDC Minto Road.

In earlier OCC meeting, NDMC informed that two of their fiber cables i.e. Minto Road ó Connaught Place and Minto Road ó Raja Bazaar which are connected to newly constructed control room of NDMC at Nirman Bawan got damaged which need to be rectified. It was also informed that controlling of 28 nos. of NDMC substations shall be carried out from the newly constructed Control Room of NDMC, once the work of the same is completed.

DTL requested NDMC to lay communication fiber cable for SLDC data requirement across the route on Minto Road- Connaught Place-Raja Bazaar to strengthen the Delhi communication network. NDMC requested that a letter in this regard to be written to them by DTL and action shall be taken accordingly.

OCC once again advised DTL to write a letter to NDMC for the aforesaid Communication requirement.

(Action by DTL, NDMC)

2.3 Establishment of new Control Room for DTL

In OCC meeting dtd. 03.03.14, TPDDL requested for status of DTL Control Room proposed to be set up at Maharani Bagh. DTL informed that a trial operation of 33KV feeders at HCML and Trauma Centre Grid has been done. The process for establishment of control room is being initiated.

DTL informed that they are planning to have DTL & Control room nearer to SLDC for which PG Cell needs to be shifted. DTL informed that their Planning division is exploring the location for establishing DTL Control Room. Members suggested PG Cell at Minto Road may be shifted to Civic Center building.

(Action by DTL)

2.4 Defects in overhead power lines crossing railway traction

Divisional Railway Manager, Northern Railway vide its letter no. DO No. 230-Elect/TRD/14/46 dt. Dec 24. 2013 informed DTL that joint survey for listing the defects of overhead Power Line crossing over electrified railway track was carried out last year with the representatives of Delhi area. The matter had been persuaded several times with the concerned officials but these defects have not been yet attended even after passing more than a year.

Railways requested DTL and Discoms for removal of defects of overhead power line crossings with railways at the earliest to avoid any breakdown and detention to Railway traffic on this account. It has also been requested to depute representatives again for joint checking of latest status of defects of overhead crossings.

TPDDL inform that in some cases the height of the line needs to be raised or convert it to underground cables for which power block is required without any charges.

BRPL requested railways to look into the issue of providing clearance for conversion of Overhead circuit to Underground cables near Bhairon Road on 33kV IP-Kilokari line.

DTL also requested railways to arrange free power block for carrying out necessary maintenance at the location where conductor repair is required.

Railways informed that they shall look into the possibility of providing free power block to attend the defects noticed during joint survey by officials of Railways and DTL.

Earlier, OCC advised DTL and DISCOMS to take up with Railways for free power block for attending the defects. DTL informed that they have written a letter to railways for providing free power block to carry out the necessary maintenance and attending to the defects identified during joint survey by the officials DTL and Railways.

Railways informed that they have sent for the approval to their board for free block to DTL and Delhi DISCOMs.

OCC advised to have Joint inspection for the current period along with Railways to identify the defects in Transmission lines/ Under Ground Cables. The earlier joint inspection took place in the year 2010.

OCC advised DTL and Discoms to write a letter to Railways regarding the Joint inspection and the possible schedule dates for the same.

(Action by DTL)

2.5 BBMB issues on 220kV Rohtak Road S/S

A joint team of the officers from DTL, TPDDL, BRPL and BBMB visited the 220kV BBMB Rohtak Road S/Stn. on dt. 10.02.14 to explore options for establishment of 220kV Substation at Rohtak road by connecting it to 400kV Mundka substation as per decision taken in the 10th GCC Meeting held on 29.01.2014. The possibilities have been explored and the following observations have been made during the visit:

Option (A)

- 1. Presently, DTL is laying Double circuit 220 KV cable from Peeragarhi to Wazirpur which is passing from Punjabi Bagh Road Crossing, which is about 500 Mts from the existing 220KV Rohtak Road Grid substation.
- **2.** At Rohtak Road substation, in the switch yard of BBMB, space is available for establishments of 2 Nos. 220 KV, AIS bays on **single bus connectivity system.**
- 3. It will be possible to loopóin and loop-out of one circuit of 220 KV Peeragarhi to Wazirpur ckt. and connected with the 220 KV Bus of Rohtak Road.
- 4. This will provide alternate source to Rohtak road, and also helpful in availing shut down of both the circuits of Narela Rohtak Road of BBMB, or any other contingences.

Ontion (B)

i) Loop in and Loop out of both the circuits of 220 KV Peeragarhi- Wazirpur circuit at Rohtak road.and

ii) Establishment of 220KV GIS at Rohtak Road, <u>11(Bays)</u> so as to meet the growing power demand of the area and to provide grid connectivity to Rohtak Road substation, in the existing space available in the AIS yard.

Option (C)

- 1. Establishment of a 400 K V GIS substation at Rohtak Road, and to provide 400 KV infeed by using the existing Corridor of 220KV Narela \acute{o} Rohtak Line , by means of up gradation of existing 220 kV Narela Rohtak Road transmission line , so as to provide a reliable solution of power supply in the area. This would be in line with CEA observation of providing a 400KV substation in the area (proposed Karampura, however , establishing a new 400KV would cause right off way issues and additional CAPEX)
- 2. In this situation (A) above is also required for meeting the power supply during construction period of two to three years.

Option (D)

- 1. Conversion of existing 33KV AIS to 33K V GIS at Rohtak Road substation of TPDDL and subsequently establishment of 220KV GIS substation on the space vacated, by means of loop in & loop out of 220 KV Peera garhi Wazir pur cables, in line with the proposal of TPDDL in the 9th GCC meeting.
- 2. This would require approval of the CAPEX to establish a 33KV GIS and subsequently removal of the existing AIS to create space for 220KV GIS, as there is no additional space in the present AIS area to create 220KV GIS.

DTL informed that meeting with BBMB was held in CEA on 21.02.2014. The action shall be initiated as per the minutes of meeting of CEA.

During the meeting with CEA, the following deliberations were made:

It was decided that DTL and BBMB would jointly discuss & finalise the course of action to be adopted prior to re-conducting of Narela-Rohtak Road line without loss of supply from the Grid. DTL agreed to take up re-conducting works of Narela-Rohtak Road. The proposal for setting up of GIS substation can be put up by DTL to the Standing Committee on Power System Planning.

Other decisions taken in regard to re-conductoring of 220kV Narela-Rohtak Road D/C line are as given below:

- 1. Independent joint inspection by DTL and BBMB to identify and if needed, test apparently weak towers could be done at the earliest and if required, those could be changed.
- 2. The work of re-conductoring of line will be taken up by DTL as deposit work of BBMB.
- 3. All the expenses in connection with re-conductoring of line including replacement of worn tower members will be borne by BBMB, who will also arrange all kinds of clearances including those from Railways.

(Action by BBMB, DTL)

2.6 Status of Installation of Capacitors – Study by Planning Deptt., DTL

The draft reports on reactive power study in Delhi system was received from CPRI and forwarded to DISCOM through e-mail dated 08-11-2013 for furnishing their comments.

In last OCC meeting, TPDDL informed that their network data used by CPRI need to be reviewed by their planning department and report shall be expected by 01st December, 2013. DISCOMs informed that they need some clarifications in the methodology adopted by CRPI for calculations they made for which they requested to call for a separate meeting with CPRI.

A meeting was held on 8th &9th January, 2014 at SLDC conference room with CPRI and the representatives of DISCOMS. A detailed presentations was made by CPRI giving the methodology, criterion adopted in carrying out the studies, the data given by DTL, distribution companies, assumptions made by CPRI, the existing & proposed compensation to be provided by DTL and distribution companies based on the study results. During the meeting, on the request of distribution companies and DTL, CPRI agreed to carry out one case study for light load condition 2740MW at 11:00Hrs. on dt.30.03.13and 1261MW at 03:00Hrs. on dt 05.12.13.DTL has to provide all data as sought by CPRI earlier(active and reactive power flows on transmission lines, imports/exports bus voltage levels, P&Q of feeders DISCOMS wise).

All the distribution companies were to provide the data in the prescribed format of the two dates and time given by DTL.

In the last OCC meeting, DTL informed that data provided to CPRI is not matching with the available data earlier submitted to them. DISCOMs requested that direct discussion with the CPRI may be arranged to clarify the doubts. OCC advice DTL planning, arrange the same.

DTL planning informed that the data of BRPL, BYPL & NDMC and the S/Stn. pertains to DGM (O&M) -II & 400KV S/Stn., DTL for both the dates and the data for TPDDL for the date 30.03.13 have been made available to CPRI. In respect of MES, it has been decided that lump load of 33KV Feeder will be considered for the study. Further, TPDDL has been informed through e-mail dated 22.04.14 that their SCADA could not record the data on 05.12.13 at 03.00 hrs due to outage of their SCADA system, hence, the same cannot be made available.

TPDDL informed that they shall provide the requisite data for dt. 04.12.13 or dt. 06.12.13 as they do not have the data for dt. 05.12.13. O&M division of DTL informed that they have provided the requisite data to Planning department of DTL.

Accordingly, DTL requested TPDDL to provide the data for dt. 06.12.13 at 03:00Hrs.

(Action by TPDDL)

2.7 Status of Hot Reserve of transformers at all levels.

The status of hot reserves as on dt. 25.04.14 is as below:

S. N o	Capacity	Present populati on in nos.	Status of the hot reserve as on 31.03.14	Remarks
1	400/220kV	12	One Tx at 400kV Mundka would	
	, 315MVA ICT,		be hot reserve.	transformer at Mundka remain as hot reserve.
2	220/66kV,	7	160MVA Tx earmarked for	DTL informed that 160
	160MVA		220kV Pappan Kalan-II was	MVA transformer at
	Tx		proposed be the hot reserve.	Papankalan óII will remain
				hot reserve
3	220/66kV,	42	DTL informed that 220/66-	DTL informed that
	100MVA		33/11kV, 100MVA Tx at 220kV	foundation work is in
	Tx		Patparganj S/Stn. proposed as	progress.
4	220/33kV,	33	hot reserve is at site i.e. at	
	100MVA		220kV S/Stn. Patparganj.	
	Tx,			

On the DTL proposal to keep 1 No. 100 MVA 220/33/11kV power transformer as hot reserve at 220kV Patparganj station so as to serve as a standby arrangement in case of emergency, since procurement of new transformer usually takes around 1 year and to meet any exigencies arising out of any power transformer, for use as hot reserve for restoration of power supply, in a meeting held on dated 11.02.2014, DERC asked DTL to explore the option of keeping a transformer in cold reserve, as it may not be easy to transport an oil filled transformer.

In last OCC meeting, DTL informed that the transformer can be kept as cold reserve and the entire requisite test for health monitoring of Power transformer should be done periodically. BYPL requested that the practices of PGCIL regarding keeping the transformer as cold reserve may be confirmed and action may be taken accordingly.

OCC once again advised DTL to take up with PGCIL regarding their practices of keeping the transformer as cold reserve.

(Action by DTL)

2.8 Long/Recent outage of Elements in Delhi power system as on 23.04.2014 at 08:00 Hrs.

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

S. No.	Element's Name	DISCO M/DTL	Date and Time of outage	Remarks/ Status as on 25.04.2014
1	33kV BAY -3 (IP - KILOKRI)	BRPL	22.02.11	Clearance from Railways for laying of Underground cables near Bhairon Road is pending. BRPL to write a letter to Railways.
2	33kV OKHLA(220kV) -	BRPL	17.09.13	GIS bay at Alkananda Grid is

	ALAKHNANDA CKTI			faulty. BRPL informed meeting with BHEL, Bhopal taken place spares are being arranged. Expected by end of May, 2014
3	66kV MUNDKA(400kV) - NANGLOI CKT. (PUT OFF)	BRPL	12.01.14	There is an issue regarding IOC pipeline crossing. Expected by end of April, 2014.
4	66kV VASANT KUNJ - RIDGE VALLEY CKTS.	BRPL	13.01.14	BRPL informed that one of the cables is expected by the end of May, 2014. The other cable is expected by the end of December, 2014.
5	33kV BAY -1 (IP - KILOKRI) SINGLE CABLE	BRPL	23.01.14	Energized on 01.04.14
6	20MVA PR.TRI AT IIT	BRPL	08.02.14	Expected by the end of May, 2014.
7	33/11kV 16MVA PR.TRIII AT OKHLA PHII (SHUT DOWN)	BRPL	08.02.14	Expected by 15 th May, 2014.
8	33kV BAY-5 (IP - LAJPAT NAGAR) ALONG WITH 33KV ½ BUS AT LAJPAT NAGAR	BRPL	01.03.14	GIS bay at Alkananda Grid is faulty. BRPL informed meeting with BHEL, Bhopal taken place spares are being arranged. Expected by end of May, 2014
9	33kV KILOKRI - JAMIA CKT. ('R' & 'B' PH. CABLE)	BRPL	15.03.14	Expected by 7 th May, 2014.
10	33kV OKHLA(220kV) - EAST OF KAILASH CKT. (SINGLE CABLE)	BRPL	24.03.14	Expected by 15 th May, 2014.
11	66/11kV 20MVA PR.TRII AT MALVIYA NAGAR (UNDER SHUT DOWN)	BRPL	31.03.14	Expected by 5 th May, 2014.
12	30MVA PR.TRI&II AT VASANT KUNJ 'B' BLOCK	BRPL	02.04.14	Expected by 7 th May, 2014.
13	33kV NIZAMUDDIN - EXHIBITION GROUND -I (Ý' PH. CABLE)	BRPL	07.04.14	Expected by 5 th May, 2014.
14	25MVA PR.TRI AT NDSE (LT SIDE 'Y' PH. CABLE)	BRPL	09.04.14	Expected by 15 th May, 2014.
15	66kV NAJFGARH(220kV) - JAFFARPUR CKTI (BREAKER PROBLEM)	BRPL	16.04.14	Expected by 5 th May, 2014.
16	33kV MALVIYA NAGAR(66kV) - O/H D.C. SAKET CKT. (SINGLE CABLE)	BRPL	19.04.14	Energized on 24.04.14
17	33kV DEFENCE COLONY - KILOKRI - R.K. PURAM CKT.	BRPL	15.04.14	Energized on 22.04.14
18	33kV BHAGIRATHI - DWARKAPURI CKT. (ONE	BYPL	23.02.14	Shifting work is being done due to the Metro works. Expected by 10 th

	CABLE)			May, 2014.
19	33kV BHAGIRATHI - DWARKAPURI CKT. (2ND CABLE)	BYPL	18.03.14	Shifting work is being done to the Metro works. Expected by 10 th May, 2014.
20	66kV GT-AKSHARDHAM CKT.	BYPL	12.04.14	Expected by 5 th May, 2014
21	33kV GEETA COLONY (220kV) - KANTI NAGAR CKTII ('R'PH. SINGLE CABLE)	BYPL	17.04.14	Expected by 28 th April, 2014
22	33kV GONDA - SEELAMPUR - T-OFF DWARKAPURI CKT. ('R'PH. CABLE)	BYPL	21.04.14	Expected by 28 th April, 2014
23	66KV MUNDKA(400kV) - MANGOLPURI CKT.(T-OFF NANGLOI)	TPDDL	05.06.13	Multiple faults in the Cable. Expected by 30 th April, 2014.
24	220kV MAHARANI BAGH - TRAUMA CENTRE CKTI&II	DTL	31.05.13	Cables got punctured during trenchless digging work carried out by Delhi Jal Board near Lajpat Nagar. Repair/restoration estimates are under approval. Expected by the end of May, 2014

OCC advised members to expedite the work.

(Action by DTL, BRPL, BYPL and TPDDL)

2.9 Shifting of Control Room at 220kV Indra Prastha Substation.

OCC in its meeting on 30.09.13, advised DTL to visit the control room of IP S/Stn. along with all concerned GMs to look into the current situation and accordingly take appropriate action as existing control room and control wiring at IP is in dilapidated condition due to dismantling of erstwhile IP Power station.

DTL informed that 220kV GIS is proposed at existing 220kV IP Substation and the same is under process for approval with Board of Directors, DTL. Further, the Control Room is to be shifted from first floor of generation main building (being dismantled) to new place in the switchyard.

Sub-Station site was visited by GM (O&M)-I along with Protection team & planning department and the site near the gate of switchyard has been found suitable & finalized for making temporary control room using Porta Cabin. The land up to the bay no. 8 would be required to be cleared by dismantling the gantry and idle lying 10MVA power transformer.

During last OCC meeting held on 30-10-2013 IPGCL stated that IPGCL has a dedicated bay No. 39 at IP S/Stn. and they will erect their own transformer for their LT supply. DTL should make arrangement for LT supply at their own.

DTL further informed that 220/33kV 100MVA Tx-I at 220kV IP S/Stn. got tripped on 28.12.13 due to the damage of control cables which occurred during dismantling work carried by IPGCL. Such trippings/ break-down occurred at IP substation affects the power supply to VVIP areas of NDMC region and walled city region of Delhi. DTL also informed to avoid such occurrences; Control room needs to be shifted from 1st floor of generation building to near to switchyard at the earliest.

In view of above, DTL again requested IPGCL to remove the idle lying 10MVA power transformer from bay no. 8 at IP sub-station at the earliest for sparing the space for the construction of new control room.

In meeting dated 30.12.13, OCC advised IPGCL to take necessary care while carrying dismantling works or any such other works and to take urgent action in removing the idle lying 10MVA power transformer.

During earlier OCC meeting, IPGCL was requested to expedite the work of removal of idle lying 10MVA power transformers.

In last OCC meeting, OCC advised DTL to carry out Joint inspection along with IPGCL for reallocation of land.

DTL informed that budgetary offers for establishing control room at IP have been invited. IPGCL could not attend the meeting.

(Action by DTL, IPGCL)

2.10 Diversion of Load from 220kV S/S Rohini to 220kV S/S Rohini-II.

In earlier OCC meeting, TPDDL requested that 220kV Rohini óII S/Stn. should be directly connected to 400kV Bawana S/Stn. to have full capacity utilization as presently it is T- OFF from circuit II of 220kV Bawana-Rohini transmission line.

DTL informed that procurement of tower material is under process and the work of erection of circuit of 220kV Bawana ó Rohini-II will take another six months. TPDDL also informed that no more load shifting to Rohini-II is possible.

(Action by DTL)

2.11 Non-trippings of breakers at BRPL end for 11kV feeders emanating from 220kV S/S Najafgarh.

DTL informed that the below mentioned trippings occurred at 220kV Substation Najafgarh in 11kV System.

Sr.	Feeder Name	Date	and	Restoration	Tripping	Remarks
No.		Time	of	Time	details	

		Breakdown			
1.	11KV 7 Panel	02.01.2014	02.01.2014	Feeders trip on	Cable end boxes
	board	1:35 Hrs.	18:45 Hrs.	earth fault	connected with DTL
				with heavy	switch gear panel got
				sound.	burnt.
2.	11KV Deenpur	07.01.2014	07.01.2014	Feeders trip on	It was noticed that
		05.15 Hrs.	14:00 Hrs.	earth fault and	cable end boxes
				O/C	connected with DTL
					switch gear panel got
					burnt.

In each of the above trippings, the cable end boxes of the feeders got damaged/ burnt and supply remained affected. It is gathered that fault was not cleared at BRPL end due to which one CT of the affected feeder got damaged.

DTL informed that Najafgarh Substation is experiencing frequent trippings at 11kV level due to unhealthy protection system at BRPL end. OCC advised BRPL to check up the healthiness of protection system at their end to avoid damage to DTL system. During last OCC meeting BRPL inform that on these feeders first switching protection by passed and they are taking necessary action for retrofit and repair.

OCC once again advised SLDC for joint inspection by the committee already constituted in past of first switching substation of DISCOMs to ensure the healthiness of system.

(Action by DTL, DISCOMs)

2.12 Under utilization of 66kV bays at 400kV Tikri Kalan (Formerly Mundka) S/stn.

At present 400kV Tikri Kalan S/stn. is having transformation capacity of 950MVA (two 315 MVA Transformers and Two 160MVA transformers). But the available transformation capacity is not being optimally utilized.

Presently out of thirteen Nos 66 KV feeders only five nos. feeders are being utilized to feed the supply to DISCOMS. The maximum load on currently utilized feeders is as under

Sr No	Name of element	Date	Time	Load in MW
1	66 KV Nangloi Feeder	11-07-2013	15:00	85
2	66 KV Nangloi Water works Feeder	11-07-2013	17:00	78
3	66 KV Mangol puri Feeder	21-06-2012	14:00	80
4	66 KV DMRC Feeder	08-07-2012	14:00	16
5	66 KV Ghevra Feeder	22-03-2013	21:00	27

Out of five, two nos of 66kV feeder namely Mangole Puri, Nangloi are normally under breakdown as detailed below.

	66 KV Nangloi Feeder						
S.NO.	Break down	Restoration	Relay indication				

	Date	Time	Date	Time	
1	05/06/2013	09:51	27/06/201	14:46	Dist. Protection ,RYB Phase ,Z-I ,86relay
			3		
2	19/07/2013	16:54	24/07/201	14:30	Dist. Protection ,Y Phase ,Z-I, Gen.Trip ,DT
			3		O/C,86relay
3	24/07/2013	14:35	29/07/201	16:41	Dist. Protection ,RY Phase ,Z-I, Gen.Trip ,DT
			3		O/C,86relay
4	27/08/2013	16:42	30/08/201	12:50	Dist. Protection ,B Phase ,Z-I, Gen.Trip ,DT
			3		O/C,86relay
5	30/08/2013	13:12	31/08/201	20:33	Dist. Protection ,B Phase ,Z-I,86relay
			3		
6	08/09/2013	00:59	11/09/201	17:47	Dist. Protection ,RYB Phases ,Z-I, SOFT,DT
			3		O/C, 86relay
7	11/09/2013	18:46	11/01/201	20:01	Dist. Protection ,Y Phase ,Z-I, Gen.Trip ,86relay
			4		
8	12/01/2014	07:42	Till date		S/OFF By S/C on request of BSES(Balaji)

Further it is learnt that readily available 8 nos. 66kV feeders at 400kV Tikri Kalan (Mundka) s/stn. have been allocated to DISCOMs as detailed below

- 1. One No. for Kirari
- 2. One No. for Sultan Puri
- 3. One no for Paschim Puri
- 4. Two nos, for Bakkarwala
- 5. One no. for Mangol puri
- 6. Two nos. under construction for 66kV Tikri Kalan S/stn.

OCC advised to refer the aforesaid point to Steering Committee for status.

2.13 A: Preparedness for Summer/Monsoon 2014.

Delhi State meets maximum demand during Summer/Monsoon months and therefore proper arrangement for meeting demand, demand management, handling network congestion are important. The following may be considered for summer/monsoon preparedness

- a. Anticipated power DISCOMS wise in terms of peak demand and energy demand.
- b. Anticipated peak and energy shortage.
- c. Arrangements made by the DISCOMS to bridge the gap between requirement and availability.
- d. Assessment of Total Transfer Capability for import of power in the State by the SLDC.
- e. Implementation of Automatic Demand Management Scheme to maintain drawal within schedule.
- f. Segregation of feeders used for manual load shedding (peak demand management) and for automatic load shedding (through df/dt, UFR, SPS, UVLS)
- g. To ensure that the envisaged relief from the defense schemes is available all the time.
- h. Switching on/off the shunt capacitor banks for maintaining voltage within IEGC band.

- i. Maintaining good scheme (line-wise /area-wise) for affecting load shedding for keeping drawal as per schedule.
- j. Arrangements for sudden load throw due to storms etc.

DISCOMs informed that the above points are being taken care in close co-ordination with SLDC. However, a separate meeting at SLDC may be scheduled to discuss on the summer/monsoon preparedness.

(Action by SLDC, DTL)

B: Constraints in Delhi Network discussed in NRPC OCC meeting held on 22.04.2014:

The following constraints were discussed during NRPC OCC meeting held on dt 22.04.2014;

1. Bawana CCGT units are not generating.

SLDC informed that the units are not generating since October 2013 due to high cost of generation and scheduling is done on merit order dispatch principle being the generation injected at 400kV bus and by considering the transmission network constraints. However, the units may generate upto the 300MW generation depending upon the gas availability during the peak summer season.

2. Overloading of ICT at 400 KV Mandola and Bamnauli.

The loading of Mandola may be eased after the commissioning of 400kV Harsh Vihar S/Stn and 220kV Maharani Bagh ó Gazpur D/C line. All out efforts are being taken to commission these lines by end of May 2014. As far as Bamnauli 400kV S/Stn is concerned, the loading would be eased after the commissioning of 220kV Maharani Bagh ó Trauma Center Ckt. which is expected by end of May 2014.

3. 400 KV network of Mundka and Maharani Bagh are not being utilized.

The loading of Mundka would be increased after the completion of LILO of 220kV

Najafgarh ó Kanjhawala at Mundka. This is expected by end of June 2014. As far as 66kV system, Discoms are taking steps to ensure the evacuation through the existing 66kV Nangloi, Nangloi Water Works and Mangolpuri circuits.

4. Transmission Constraints at BTPS.

Due to less scheduling of BTPS in merit order principle, the 220kV infeeds namely 220kV BTPS ó Ballabhgarh D/C line gets overloaded during summer season. To combat the overloading during summer season, BTPS generation would be maintained to the maximum capacity to ease the transmission constraints. To reduce the loading on Mandola, the generation at RPH, GT and Pragati would also be maintained at maximum level during peak season.

OCC noted the above.

5. Vulnerability of 220KV Mandola-SOW-Geeta colony-PPG-IPStn. Sections.

SLDC informed that this section is fully loaded and outage of any circuit in the section leads to tripping of the Generating units connected to it. DTL informed that major tripping on this section are of transient nature and are mainly due to unauthorized constructions under this section. DTL informed that they issued notices to owners of unauthorized constructions besides carrying out the maintenance activities on this section.

6. Status of 400 KV Dadri-Harsh Vihar line.

Expected by end of June 2014.

7. Status of 220 KV Maharani bagh-Gazipur Double circuit line.

DTL informed that the Cable is expected by 31st May, 2014.

2.14 Authorization of DMRC staff for DMRC # 1 and 2 RSS.

DMRC vide letter no. DMRCO&M/Traction/AMEL/DTL/01 dtd.11.04.14 informed that that the following staff of DMRC are authorized to take power block on 66kV feeders 1 and 2 at DTL substation for DMRC Airport RSS. Earlier, the authorization to take power block was with M/s Reliance.

S. No.	Name	Designation	Emp. No.
1	Rambilash Sah	ASE	80632
2	Raju	JE	5886
3	Kaml Deo Sah	JE	5846
4	Shamshad	ASE-II	80643
5	Arvind Kumar	Technician	80534

OCC noted.

(Action by SLDC, BRPL, DTL and DMRC)

2.14 Contingency Plan for 220kV Substation Indra Prastha.

The operation and maintenance activities of 220 KV S/Stn. Indraprastha has been entrusted to DTL since Jan, 2010 after closure of IP Generating Stn. Main control room of sub-station is situated in main generation building which is about half kilometre away from switchyard. Following are the main problems in operation of sub-station-

- 1. Main control room is in worst condition due to dismantling process of generation equipments by the contractor of IPGCL. Wall & ceiling of control room is damaged at various places and in every rainy season rainy water showers in control room & on panels which leads to many unwanted tripping / breakdowns.
- 2. During the process of dismantling of control cables from the switchyard to the control room, the control cables got damaged many times and for restoring the system joints are

made in the control cables, moreover tracing the faulty control cable and revival of system is very difficult as well as time consuming. As the control room is around half kilometer away and situated on second floor in generation building, it takes around two working days to replace a control cable.

- 3. In the recent past, there are several incident of cutting/ damaging of control cables by some mischievous elements leading to many trippings and affecting the metering of feeders. Control cables laid for protection and control system were replaced to restore the system whereas energy meter reading of 12 nos. 33KV feeders is still affected and in the process of revival. Many times control cables and optical fiber laid for SCADA system got damaged resulting in loss of data communication to SLDC which created problems for System Operation in maintaining the Grid system of Delhi. Control cables laid for data communication of 220KV feeders replaced many times to restore the data communication and communication of data of all 33KV feeders is still affected.
- 4. Boundary wall of IP sub-station is not proper and it is only covered by boundary wall from Ring road side. Several incidents of theft/ attempt of theft are reported in this substation making the sub-station very unsafe for staff and material.
- 5. There is a pack of stray monkeys which moves freely in the switchyard, control room and offices due to access from the damaged control room walls and ceiling and smash up in control room again making it very unsafe for staff and equipments.
- 6. One small control room is also situated in switchyard for control & operation of 100MVA No. III and 33KV Incomer No. III. There are several wide cracks in wall & roof of this room which makes it very unsafe to operator and control panels.

In view of above circumstances O&M wing is not able to run this sub-station smoothly & reliably as most of the above problems are beyond control of O&M department. It is pertinent to mention here that 24 nos. 33KV outgoing feeders emanates from this sub-station feeding the load in the VVIP areas covered under the jurisdiction of BRPL, BYPL & NDMC and possibilities of this sub-station for going in long outages in a part or in whole cannot be ruled out.

DTL requested that matter may be deliberated and contingency plan in case of outage in part or whole of Indraprastha substation may be prepared by the affected DISCOMS in consultation with SLDC.

NDMC informed that they have provision to shift the load from IP stn during contingency conditions at IP stn BRPL informed that they shall shift the load from IP stn subject to load margin at Lodhi Road. BYPL informed that they have provision to shift the load from IP stn except for IG Stadium circuit.

3.0 SLDC Agenda Points

3.1 Power map of 66/33kV network of Distribution companies.

In the OCC meeting dt. 30.12.12, SLDC informed that they require Geographical Information System (GIS) map of all DISCOMs and the color coding is same as informed earlier. DISCOMs informed that they have already submitted GIS maps to SLDC. SLDC informed that they shall confirm the same in next OCC meeting.

During the last OCC meeting, SLDC informed that the data received from BRPL does not contain geographical information which needs to be provided.

SLDC requested that the power map is required in GIS format and requested DISCOMs to submit the same. TPDDL informed that they shall arrange the same within a week times.

SLDC informed that they have received the power map from TPDDL. SLDC advised NDMC, BRPL and BYPL to submit the map in GIS format. OCC advised SLDC to write a letter to NDMC regarding the same.

(Action by BRPL, BYPL, NDMC and SLDC)

3.2 Augmentation of 66kV Circuits emanating from GT Station.

The issue was earlier deliberated in Delhi OCC meeting dtd. 30.07.2013 and in GCC meeting dated 06.08.2013.

BYPL raised the issue of load constraints faced on 66 KV O/G feedes from GTPS. Due to long outage of 220 KV BTPS-Gazipur line, it is required to take maximum load on 66 KV GTPS-Akshardham feeder (to be further distributed to MVR-1 & 2 areas). This arrangement can reduce the loading on 220 KV Patparganj Transformers thereby load-shedding in East Delhi area. However, due to under-sized conductor used at O/G bays at GTPS, loading above 300-350 Amps is not allowed, while the capacity of the Akshardham feeder is about 550 Amps. (630 sq.mm. cable).

In aforesaid meetings, GTPS informed that a complete shutdown of 66kV half bus is required to augment the conductor of outgoing bays. During shutdown, both the station auxiliary transformers will remain affected as these are installed on the same half bus vicinity. This will require complete shutdown of the station as there will be no supply to the station auxiliaries and it may take around 72 Hrs. to restart generations after the shutdown.

In order to avoid complete shutdown of the station, GCC suggested exploring the possibility to arrange the auxiliary supply through 11kV sources by BYPL so that the shutdown of the complete station can be obviated. BYPL had agreed to provide 11kV supply for auxiliary needs on temporary basis.

In the 9^{th} GCC meeting, it was advised to IPGCL to plan the augmentation work during weekend days (Saturday and Sunday) after 2^{nd} week of October, 2013 provided auxiliary needs are

arranged through 11kV BYPL sources. IPGCL representative informed since they have not heard anything from BYPL for providing 11kV feed to meet the auxiliary needs of IPGCL & GT station to avoid safe shutdown of the units, the work could not be undertaken.

A Joint visit carried out by BYPL and GTPS to check the feasibility. BYPL confirmed in the meeting that modalities to be decided and GTPS was advised to write a letter to BYPL.

GTPS could not attend the meeting.

3.3 Submission of information/details corresponding to commissioning of new elements with Grid.

As per the para 3.2 of Operating procedure of Northern Regionø in CEAøs grid standards, the following details are required:

- Acceptance of NRLDC with regards to registration as regional entity.
- Signed Connection Agreement if applicable.
- Availability of telemetry of station/Element at the NRLDC/SLDC.
- Availability of voice communication with the station at NRLDC/SLDC.
- Interface meter installed and tested by downloading data and forwarding it to NRLDC.
- Single Line Diagram
- Healthiness of Protection System/ Protection Setting.
- Affidavit that all Statutory clearance has already been obtained.

In view of impact of new elements on the grid and proper co-ordination, a checklist has been devised by NRLDC. The details/ documents as mentioned in the check-list needs to be submitted to NRLDC at least one month in advance in respect of anticipated commissioning of new elements in grid.

SLDC informed that the aforesaid details are required at least one month in advance before commissioning of new elements.

(Action by DTL, DISCOMs)

4.0 Agenda points of TPDDL.

4.1 Supply Failure Cases from DSIDC Narela of TPDDL to Narela/TSS during the Year of 2013.

TPDDL provides 2 Noøs 66 KV Power supply source to Railways from DSIDC-1 Narela grid station. In the FY-2013-14 there have been 10 instances of Power supply interruption to Railways thereby interrupting Mail/Express and goods train. It is envisaged to commission an in house scheme for faster restoration of supply to M/S Railways.

7 of the total 10 instances of power supply interruption are due to source failure from 220/400KV end, and 3 of them due to network faults. Though the duration of none of the

interruptions has crossed 10-12 minutes, it is still a concern for TPDDL as Railways being an essential supply. The possibilities for faster restoration from TPPDL are as below:

- a) To explore the possibility of changing the NOC of M/s Railways at DSIDC-1 and thereby providing supply from two separate sources i.e. 220 KV NRL & 220 KV BWN DSIDC.
- b) To provide Auto changeover switch at DSIDC-1 for restoration of Power supply to Railways in the event of failure of Main supply from 220KV NRL, if both Railway circuit are on same supply source and running in parallel.

Analysis of TPDDL for the above possibilities is as below:

- a) Auto changeover scheme can be adopted at DSIDC-1 grid to improve the reliability of power supplied to M/s Railways .To implement the scheme, it is desired that NOC (Normal Operating Condition) should remain as maintained till date. Scheme will work only in the event of supply failure and there will not be changeover operation during trippings in the sub transmission network. However, loading condition at DSIDC-1 & 2 indicates that in case of supply failure from Narela before the changeover load shedding may be required at DSIDC-1 or DSIDC-2 to avoid over loading on Lines fed from Bawana and load trimming will also be required either at DSIDC-1 or DSIDC-2. This would mean that after the supplies are restored an interruption would have to be given to Railways to restore the NOC.
- b) Best option would be that Power supply to Railways shall be fed from two independent sources that are running one ckt. on each bus at DSIDC -1 and in case of failure of any one supply changeover can be done by Railways at their end. This would have greater flexibility and control at Railway end.

Railways informed that they shall look into the issue.

Action by Railways)

4.2 Proposed Shutdown of DTL Grids:

In last OCC meeting, TPDDL requested to provide list of shutdowns of next month so that planning can be done efficiently.

SLDC advised TPDDL to submit their outage plan for co-ordinated outage planning of transmission system.

5.0 BRPL Agenda Points

5.1 Status of additional allocated bay for Bodela-1 grid.

In OCC meeting, BRPL requested DTL the status of work being done for one additional allocated bay for Bodela 1 grid. At present, both ckts are connected on single bay. Bay work has been pending since long due to requirement of some material for the job by DTL. DTL informed that the same could be updated in next OCC meeting.

In the last OCC meeting DTL informed that the bay shall be made available within 20 days. DTL requested BRPL to submit the copy of Connection agreement.

BRPL informed that request has been sent to DTL Commercial department which needs to be expedited.

OCC advised BRPL to take up with DTL Commercial department. DTL informed that the bay is ready.

(Action by BRPL)

6.0 Proposed Shutdowns

6.1 Proposed shutdown by DTL Protection – Metering department

OCC approved the following shutdowns proposed by DTL to carry out Accuracy Testing of CT, PT & metering system to comply the metering regulations.

S. No.	Proposed Date & time of S/D	Name of the 220kV S/Stn	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected	Approved Date & time of S/D
1.	01.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	11kV Local trans.		Feeding to DTL	01.05.2014(10:00 Hrs to 17:00Hrs)
2	02.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	DMS		Feeding to BYPL	02.05.2014(10:00 Hrs to 17:00Hrs)
3	03.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	11 KV Gopi Nath Bazar	Accuracy Testing of CT &	Feeding to BRPL	Deferred
4	05.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	33 KV Kirbi Place.I	PT & metering system to comply the	Feeding to MES	05.05.2014(10:00 Hrs to 17:00Hrs)
5	06.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	33 KV Kirbi Place.II	metering regulations	Feeding to MES	06.05.2014(10:00 Hrs to 17:00Hrs)
6	07.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	33 KV KHB Lane.I	regulations	Feeding to MES	07.05.2014(10:00 Hrs to 17:00Hrs)
7	08.05.2014(10:00 Hrs to 17:00Hrs)	Naraina	33 KV KHB Lane.II		Feeding to MES	08.05.2014(10:00 Hrs to 17:00Hrs)
8	09.05.2014(10:00 Hrs to 17:00Hrs)	Geeta Colony	33kV Incomer-1	Accuracy	Feeding to BYPL	09.05.2014(10:00 Hrs to 17:00Hrs)
9	12.05.2014(10:00 Hrs to 17:00Hrs)	Geeta Colony	33kV Incomer-2	Testing of CT & PT & metering system to comply the	Feeding to BYPL	12.05.2014(10:00 Hrs to 17:00Hrs)
10	13.05.2014(10:00 Hrs to 17:00Hrs)	Patparganj	33kV Incomer-1	metering regulations	Feeding to BYPL	13.05.2014(10:00 Hrs to 17:00Hrs)
11	14.05.2014(10:00 Hrs to 17:00Hrs)	Patparganj	33kV Incomer- III	1080100110	Feeding to BYPL	14.05.2014(10:00 Hrs to 17:00Hrs)
12	15.05.2014(10:00 Hrs to 17:00Hrs)	Patparganj	33kV Incomer- IV	Accuracy Testing of CT & PT & metering system to	Feeding to BYPL	15.05.2014(10:00 Hrs to 17:00Hrs)

13	16.05.2014(10:00 Hrs to 17:00Hrs)	Patparganj	11kV LOCAL	comply the metering	Feeding to DTL	16.05.2014(10:00 Hrs to 17:00Hrs)
14	17.05.2014(10:00 Hrs to 17:00Hrs)	Patparganj	11kV LOCAL	regulations	Feeding to DTL	17.05.2014(10:00 Hrs to 17:00Hrs)
15	19.05.2014(10:00 Hrs to 17:00Hrs)	Lodhi Road	33kV Incomer-I		Feeding to BRPL	Deferred
16	20.05.2014(10:00 Hrs to 17:00Hrs)	Lodhi Road	33kV Incomer-II		Feeding to BRPL	Deferred
17	21.05.2014(10:00 Hrs to 17:00Hrs)	Lodhi Road	33kV Vidyut Bhawan		Feeding to NDMC	21.05.2014(10:00 Hrs to 17:00Hrs)
18	22.05.2014(10:00 Hrs to 17:00Hrs)	Okhla	33kV Incomer-I		Feeding to BRPL	During 1 st week of May, 2014
19	23.05.2014(10:00 Hrs to 17:00Hrs)	Okhla	33kV Incomer-II	Accuracy Testing of CT & PT & metering	Feeding to BRPL	Deferred
20	24.05.2014(10:00 Hrs to 17:00Hrs)	Okhla	33kV Incomer- III	system to comply the	Feeding to BRPL	Deferred
21	26.05.2014(10:00 Hrs to 17:00Hrs)	Okhla	33kV Incomer- IV	metering regulations	Feeding to BRPL	Deferred
22	27.05.2014(10:00 Hrs to 17:00Hrs)	Okhla	11kV LOCAL		Feeding to DTL	27.05.2014(10:00 Hrs to 17:00Hrs)
23	28.05.2014(10:00 Hrs to 17:00Hrs)	Masjith Moth	33kV Incomer-I	Accuracy Testing of CT &	Feeding to BRPL	Deferred
24	29.05.2014(10:00 Hrs to 17:00Hrs)	Masjith Moth	33kV Incomer-II	PT & metering system to comply the	Feeding to BRPL	Deferred
25	30.05.2014(10:00 Hrs to 17:00Hrs)	Shalimar Bagh	33kV Incomer-I	metering regulations	Feeding to NDPL	30.05.2014(10:00 Hrs to 17:00Hrs)
26	31.05.2014(10:00 Hrs to 17:00Hrs)	Shalimar Bagh	33kV Incomer-II		Feeding to NDPL	31.05.2014(10:00 Hrs to 17:00Hrs)

The testing is a statutory requirement as per metering regulation. The outage during aforesaid shutdowns shall be considered as deemed available since the testing enervate comprehensive system requirement effecting DISCOMs and DTL and is statutory requirement as per CEA guidelines and metering regulations, grid code.

Further, DISCOMs representatives shall be present during testing for witnessing the test as required.

(Action by DTL, DISCOMs)

6.2 Proposed shutdown at 220kV S/Stn. Najafgarh

OCC approved the following shutdowns proposed by DTL at 220kV S/Stn. Najafgarh:

S. No.	Proposed Date & time of S/D	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected	Approved Date & time of S/D
1.	01.05.14(06: 00Hrs. To 13:00Hrs.)	66KV Incommer-3 with 66KV bus- II	To attend the hot spot point on B-Ø Bus-II isolator, Bus-II side.	(i) 20MVA Trsf. NO.3 with 11KV I/C No.3 (11KV outgoing feeder, Anazmandi, 7 Panel Board, Kakrola and Chawala feeder). (ii) 66KV Nangloi Ckt. (iii) 66KV Jaffarpur CktII	01.05.14(04:0 0Hrs. To 10:00Hrs.)
2	02.05.14(06: 00Hrs. To 13:00Hrs.)	220KV Khanjawala Ckt. Alongwith 220KV Bus-I	To attend the hot spot point on B-Ø Bus-I Isolator side.	Load Transferred on Bamnauli Ckt.	27.04.14(06:0 0Hrs. To 13:00Hrs.)
3	03.05.14(06: 00Hrs. To 13:00Hrs.)	220KV Bawana Ckt.	To attend the hot spot point on B-Ø CT line isolator clamp and Y-Ø Bus-I isolator common side.	Load Transferred on Bamnauli Ckt.	26.04.14(06:0 0Hrs. To 13:00Hrs.)
4	04.05.14(06: 00Hrs. To 13:00Hrs.)	66KV Budhela CktI	To attend the hot spot point on Y-Ø Bus-I isolator clamp common side.	Load Transferred by BSES.	06.05.14(04:0 0Hrs. To 10:00Hrs.)
5	05.05.14(06: 00Hrs. To 13:00Hrs.)	66KV Budhela CktII	To attend the hot spot point on Y-Ø Bus-I isolator clamp common side.	Load Transferred by BSES.	05.05.14(04:0 0Hrs. To 10:00Hrs.)
6	06.05.14(06: 00Hrs. To 13:00Hrs.)	66KV Nangloi W/W	To attend the hot spot point on Y-Ø CT clamp towards breaker, B-Ø & R-Ø line isolator clamp towards LA	Load Transferred by BSES.	04.05.14(04:0 0Hrs. To 10:00Hrs.)
7	07.05.14(06: 00Hrs. To 13:00Hrs.)	66KV I/C No.II	To attend hot spot point on Y-Ø breaker bottom clamp	Load Transferred on Incommer-I, III & IV	07.05.14(06:0 0Hrs. To 13:00Hrs.)
8	08.05.14(06:	100MVA Trsf.	to attend the hot spot	Load Transferred on	08.05.14(06:0

00Hrs. To	No.4	point on Y-Ø line	100MVA Trasf. No.1,2 & 3.	0Hrs. To
13:00Hrs.)		isolator clamp towards		13:00Hrs.)
		CT		

(Action by DTL)

6.3 Proposed Shutdown at 220kV S/S Naraina

OCC approved the following shutdowns proposed by DTL at 220kV S/S Naraina:

S. No.	Proposed Date & time of S/D	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected	Approved Date & time of S/D
1.	07.05.14 (08:00 HRS TO 13:00 HRS)	220 KV NARAINA - RIDGE VALLEY CKT	TAN DELTA TESTING OF 220 KV CVT & CT DCRM AND TO ATTEND DEVELOPING HOT POINT	LOAD SHALL BE MANAGED BY SYSTEM	Deferred due to non-availability of second source
2	08.05.14 (08:00 HRS TO 13:00 HRS)	BAMNAULI -I	TAN DELTA TESTING OF 220 KV CT, CVT	LOAD MET BY BAMNAULI-II	08.05.14 (06:00 HRS TO 11:00 HRS)
3	12.05.14 (08:00 HRS TO 13:00 HRS)	BAMNAULI -II	TAN DELTA TESTING OF 220 KV CT	LOAD MET BY BAMNAULI-I	12.05.14 (06:00 HRS TO 11:00 HRS)

(Action by DTL)

6.4 Proposed Shutdown at 220kV S/S Ridge Valley

OCC approved the following shutdowns proposed by DTL at 220kV S/S Ridge Valley subject to loading conditions:

S. No.	Proposed Date & time of S/D	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected	Approved Date & time of S/D
1.	28.04.14	160MVA	TAN DELTA TESTING AND	LOAD MET BY	28.04.14
	(08:00HRS TO	TRANSFORMER-I	PREVENTIVE	160MVA TX-II	(08:00HRS TO
	16:00HRS)		MAINTENANCE CHECKS		16:00HRS)
2	07.05.14 (08:00	220 KV NARAINA	DCRM OF CB	LOAD SHALL BE	Deferred
	HRS TO 13:00	- RIDGE VALLEY		MANAGED BY	
	HRS)	CKT		SYSTEM	

(Action by DTL)

6.5 Proposed Shutdown at 220kV S/S DIAL

OCC approved the following shutdowns proposed by DTL at 220kV S/S DIAL subject to system loading conditions:

S. No.	Proposed Date & time of S/D	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected	Approved Date & time of S/D
1.	10-05-14(09:00HRS	66KV DMRC -1	PREVENTIVE	LOAD CAN BE	10-05-14(09:00HRS
	TO 13:00HRS)		MAINTENANC	MET BY DMRC -2	TO 13:00HRS)
			E SHUTDOWN	FEEDER	

(Action by DTL)

6.6 Proposed Shutdown at 220kV S/S Vasant Kunj

OCC deferred the following shutdowns proposed by DTL at 220kV S/S Vasant Kunj:

S. No.	Proposed Date & time of S/D	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected
1.	12.05.2014(06:00Hr s to 11:00Hrs)	220kV Mehrauli Ckt-II	Conscitones and ton	Load can be shifted to 220kV Mehrauli Ckt-I
2.	12.05.2014(11:30Hr s to 13:30Hrs)	220kV Bus Coupler	Capacitance and tan delta testing of 220kV CT/CVT	and Bus-Coupler is in OFF position.
3.	13.05.2014(06:00Hr s to 11:00Hrs)	220kV Mehrauli Ckt-I	CI/CVI	Load can be shifted to 220kV Mehrauli Ckt-II
4.	18.05.2014(06:00Hr s to 17:30Hrs)	11kV Half busbar-I along with associated feeders viz. a) 11kV C-8 VKunj S/Stn. No-1. b) C-9 VKunj S/Stn. No-5. c) Rangpuri d) IAAI Colony	Half yearly maintenance as per schedule	Load can be shifted by BSES to other alternate sources
5.	25.05.2014(06:00Hr s to 17:30Hrs)	11kV Half busbar-I along with associated feeders viz. a) C-9 VKunj S/Stn. No-2 b) C-8 VKunj S/Stn. No-2 c) I.S.I HOSPITAL d) NANGAL DIARY e) A.B.HOTEL f) MAHIPALPUR	Half yearly maintenance as per schedule	Load can be shifted by BSES to other alternate sources

7.0 Trippings in DTL system during the month of April, 2014.

The following trippings were occurred in DTL system during April, 2014:

a. Tripping of 220kV Maharani Bagh – Masjid Moth circuit-II at 220 kV Sub Station Maharani Bagh on 05/04/2014.

Brief: The 200 kV substation Maszidmoth is connected from 220 kV substation Maharanibagh through 220 kV under- ground cables by 2 circuits. The 2 nos 100 MVA Transformers feed to 33 kV bus 1 &2 separately.

The following tripping occurred at 220 kV substation Maharanibagh and Masjidmoth due to peacock on 33 kV bus 2 at 7.24 am on 05.04/2014 :

S.No.	Name of 220 kV	Name of Feeder/	Relay	Tripped at	Restored	Fault
	substation.	Transformer	Indication		at	clearing
						Time
1.	Maharanibagh	220 kV Maharanibagh ó	Overcurrent,	07:24Hrs	12:45Hrs	750 ms.
		Maszidmoth circuit-II.	1.5/ 3 kA.			
2.	Masjidmoth	220 kV Maszidmoth -	Overcurrent,	07:24Hrs	12:45Hrs	750 ms
		Maharanibagh circuit-II.	2/3 kA.			
3.	Masjidmoth	33 kV I/C II from 100	O/C & E/F	07:24Hrs	12:45Hrs	800 ms.
		MVA Transformer no.II	14 kA.			

The following observations were made:

- The :Time Marginø was less between the two breakers of HV and LV of 100 MVA Transformer.
- Intentionally →No Time Marginø is provided between the two relays i.e. Maharani Bagh and Masjid moth for 220 kV circuit. The tripping from Maharani Bagh is justified.

The following action has been taken by the Protection department of DTL:

• The :Time Marginø of 100 ms between the two breakers of HV and LV of 100 MVA Transformer is provided

b. Tripping of 160 MVA Transformers at 220 kV substation Pragati with the damage of 220 kV Lightning Arrester on 15/04/2014.

The following tripping occurred at 220 kV sub-station Pragati on 15.04.2014 at 18:39 Hrs:

S.	Name of 220	Name of Feeder/	Tripped at	Restored	Relay Indication	Fault clearing
No.	kV substation.	Transformer		at		Time
1.	Pragati	220/66kV, 160	15.04.14 at	16.04.14 at	DIFFERENTIAL,	60 ms.
		MVA Tr II.	18:39Hrs	20:24Hrs	REF, HV, 86, 86	
2.	Pragati	220/66kV, 160	15.04.14 at	15.04.14 at	INTER TRIP, 86,	1000 ms.
		MVA Tr I.	18:39Hrs	18:50Hrs	86	
3.	GT (GENCO).	66 kV I/C I(160	15.04.14 at	15.04.14 at	3.2 KA (2.3 kA	1000 ms.
		MVA Tr-I).	18:39Hrs	18:50Hrs	Backup Relay	
					GTPS).	
4.	GT (GENCO).	66 kV I/C 2(160	15.04.14 at	16.04.14 at	2.9/5.4 kA. (5.4 kA	1000 ms.
		MVA Tr-II).	18:39Hrs	20:24Hrs	Backup Relay	
					GTPS).	

The following observations were made by the DTL Protection department:

- 1. The tripping of 220 kV CB of Tr. II is justified.
- 2. The tripping of 66 kV CBs after 1000 ms is not justified. The time coordination is required which is pending since 2012. The transformers are not safe under the prevailing operating conditions.
- 3. GENCO informed that the 66 kV CB of transformer II was not closed at GTPS.

This requires further investigation:

- A) How the 66 kV side Backup Relays at GTPS of both the transformers recorded the fault current.
- B) How the Differential Relay recorded the secondary fault current for Tr II.
- C) How the Event Recorder at SLDC Minto road recorded the change of status of 66 kV CB of Tr-II.

OCC advised DTL to refer the aforesaid trippings to PCC Delhifor discussion.

(Action by DTL)

8.0 Additional agenda points with the permission of the Chair.

8.1 Proposed shutdown at 400kV Tikri Kalan (Mundka) S/Stn.

OCC approved the following shutdown proposed by DTL at 400kV Tikri Kalan S/Stn.:

S. No.	Proposed Date & time of S/D	Name of the feeder / equipment	Work to be carried out	Remarks/ Areas affected	Proposed Date & time of S/D
1	07.05.14 (0930Hrs)	160MVA Tx-III Bay	Replacement of IV	Load will be shared	03.05.14 (0000Hrs)
	to 12.05.14(1730Hrs)	No. 213 and 623, I/C-3	side Y Ph Bushing	by 160MVATx-II	to 05.05.14(2400Hrs)
2	15.05.14(09:30Hrs to	Nangloi, Bay No. 618			
	17:00Hrs)				
3	19.05.14(09:30Hrs to	Nangloi Water Works,	Preventive		
	17:00Hrs)	Bay No. 619	Maintenance	Load shall be	Deferred
4	21.05.14(09:30Hrs to	Ghevra, Bay No. 622	Checks	managed by SLDC	Deferred
	17:00Hrs)		CHECKS		
5	27.05.14(09:30Hrs to	Mangol Puri, Bay No.			
	17:00Hrs)	621			

(Action by DTL)

9.0 Meeting ended with vote of thanks to the Chair.

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. Chairman and 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

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