



दिल्ली ट्रांसको लिमिटेड DELHI TRANSCO LIMITED

पंजीकृत कार्यालय : शक्ति सदन, कोटला रोड, न्यू दिल्ली-110002
(Regd. Office Shakti Sadan, Kotla Road, New Delhi-110002)

कार्यालय महाप्रबंधक (एस एल डी सी)

Office of General Manager (SLDC)

एस एल डी सी बिल्डिंग, मिनटो रोड, न्यू दिल्ली-110002

SLDC Building, Minto Road, New Delhi-110002

Ph: 23221092 FAX No.23221012

No. F./DTL/207/2017-18/GM(SLDC)/F./3/6

Dated : 21.04.2017

Subject: Agenda of the 17th meeting of Grid Coordination Committee.

Dear Sir, /

The 17th meeting of the Grid Coordination Committee (GCC) is scheduled to be held on 26.04.2017 at 10.30hrs at Tamarind Hall, India Habitat Centre, Lodhi Road, New Delhi-110003.

The agenda of the meeting has been uploaded on SLDC, Delhi website (www.delhisldc.org) in Meeting Portal.

It is requested to make it convenient to attend the meeting

Thanking you,

Encl : As above

Yours faithfully

(V. VENUGOPAL)
General Manager (SLDC)

To

- 01 **Sh. Prem Prakash, Chairperson, GCC**
Director (Operations), Delhi Transco Ltd, 1st floor, Shakti Sadan Building, Kotla Road, New Delhi-110002, Office-Phone- 011-23232715, Fax : 23232721
- 02 **Sh. Harjiwan Vyas, Executive Director (T), Planning Department, DTL, Delhi**
- 03 **Sh. V. Venugopal, G. M. (SLDC)**
- 04 **Sh. Birendera Prasad, G.M. (C&RA), Delhi Transco Ltd.**
- 05 **Sh. Mukesh Kumar Sharma, G. M. (Corporate Monitoring & SEM), DTL**
- 06 **Sh. A.C.Aggarwal, G. M. (Project)-I, Delhi Transco Ltd.**
- 07 **Sh. Suresh Kumar Sharma, G. M. (O&M)-II, Delhi Transco Ltd,**
- 08 **Ms. Kiran Saini, G. M. (Project)-II, Delhi Transco Ltd.**
- 09 **Sh. Lovleen Singh, G. M. (O&M)-I, Delhi Transco Ltd.**
- 10 **Sh. Rajeev Sharma, G.M. (Civil), DTL**
- 11 **Sh. P.K. Malik, General Manager (Finance), DTL**
- 12 **Sh. Ved Mitra Chief Engineer, DMRC, Inderlok Metro Station, Delhi, 9871165812**
- 13 **General Manager (NRLDC),**
18-A, SJSS Marg, New Delhi-110016, Office Ph: 011-26537351, Fax:011-26852747
- 14 **General Manager (Electrical), DMRC**
- 15 **Sh. Jagdish Kumar, Director(Tech), IPGCL / PPCL**
Himadri Building, RPH, New Delhi-110002. Phone:011-23273544, Fax: 011-23270590

- 16 **Sh. A.K. Sharma, Head (O&M), BYPL**
Shakti Kiran Building, Karkardooma, Delhi
- 17 **Sh. Mukesh Dadhichi, G.M. (SO), BYPL, Shankar Road, New Delhi**
- 18 **Sh. Sunil Kakkar, Head (PMG), BYPL, Shakti Kiran Building, Karkardooma, Delhi**
- 19 **Chief Engineer (Transmission System), BBMB**
SLDC Complex, Sector-28, Industrial Area Phase-I, Chandigarh.
- 20 **Superintending Engineer (O&M) Circle, BBMB**
400kV S/Stn, BBMB Complex, Panipat-132107, Mob. 09416017711, Fax .0180-2662992
- 21 **Sh. Sanjay Kumar Banga, Head (PEC, PM&BD), TPDDL**
SCADA Building, Near Netaji Place Subash Place Metro Station, Pitampura, Delhi 34
Phone Office: 011- 27468027, Fax: 011-27468023
- 22 **Sh. P. Devanand, HoD, (PSC & Smart Grid), TPDDL**
- 23 **Sh. Satinder Sondhi, VP, (System Operation), BRPL**
- 24 **Sh. Sanjay Srivastava, AVP (PMG), BRPL**
- 25 **Sh. N.K.Sinha, Group General Manager,**
NTPC, BTPS, New Delhi-110044 Office Phone: 011- 26949523, Fax: 011- 26949532
- 26 **Sh. A.K. Joshi, Chief Engineer (Elect)-II, NDMC**
Room No. 1706, 17th Floor, Palika Kendra, Sansad Marg, New Delhi-110001
- 27 **Sh. V.K. Pandey, Chief Engineer (Elec)-I, NDMC**
Room No. 1701, 17th Floor, Palika Kendra, Sansad Marg, New Delhi-110001
- 28 **Sh. Mahender Singh, Executive Director (Tariff), DERC**
DERC Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17
- 29 **Sh. U.K. Tyagi, Executive Director (Engineering), DERC**
DERC Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17
- 30 **General Manager (Commercial), NTPC**
NCR Headquarters, R&D Building, A8A, Setor-24, Noida-201301. Fax no. 0120-2410192
- 31 **Sh. Neelesh Gupta**
Whole Time Director, Timarpur – Okhla Waste Management Company Ltd
Jindal ITF Center, 28 Shivaji Marg New Delhi-110015, Ph. 45021983, Fax 45021982
- 32 **General Manager, Indira Gandhi Super Thermal Power Station, Jharli, Jhajjar Distt.**
Haryana Pin-124141, Fax no. 01251-266202, Ph. 01251-266265
- 33 **CWE (U), MES, MES Palam Road, Delhi Cantt, New Delhi-110010**
- 34 **GE (U), MES, Electric Supply, Kotwali Road, Delhi Cantt, Delhi-110010**
- 35 **Dy. G. M. (Fin-II), DTL Rajghat Power House New Delhi -110002**
- 36 **Sh. Pradeep Katiyar, Dy. G.M. (SCADA), SLDC**
- 37 **DGM (Market Operation), NRLDC, 18-A, SJSS Marg, New Delhi-110016**
- 38 **Sh. Naveen Goel, Manager (Energy Accounting), Delhi SLDC**
- 39 **Manager (SO)-Shift, Delhi SLDC**
- 40 **Ms. Parul Kapadia, Manager (HW), SLDC**
- 41 **Ms. Anjali Das, Manager (Software), SLDC**
- 42 **Sh. SSBV Phanni Kumar, A.M. (Finance), SLDC**
- 43 **Sh. I.P George, Project Head, DMSWL, Sector-5, Pocket N-1, Bawana Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039**
- 44 **Project-in-Charge, 12MW East Delhi Waste Processing Company Ltd, Near Veterinary Hospital, Gazipur, Delhi-110096, Ph.22782152**

Copy for favour of kind information to :-

1. Secretary (Power), Govt. of NCT of Delhi,
2. Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-110017
3. Chairman & Managing Director, DTL
4. Chairperson, NDMC, Palika Kendra, Sansad Marg, New Delhi-110001
5. Member Secretary, NRPC, Katwaria Sarai, New Delhi-110016
6. Director (Operations), NTPC, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003
7. Managing Director, IPGCL / PPCL, Himadri, Rajghat Power House, New Delhi-02
8. Director (Operations), DMRC, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi-110001.
9. Director (Electrical), DMRC
10. Director (Finance) DTL
11. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019
12. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-92
13. CEO, TPDDL, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009
14. Chief Engineer, Delhi Zone,(CEDZ), MES Palam Road, Delhi Cantt, New Delhi-10
15. Addl. Secretary (Power), Govt. of NCT of Delhi, Delhi Secretariat, New Delhi.



DELHI TRANSCO LTD.

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

[Office of Dy. General Manager (SO)]

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Phone No.23221149, 23221175, Fax 23221012, 59

AGENDA FOR 17th MEETING OF GRID CO-ORDINATION COMMITTEE

Time & Date of GCC meeting : 10.30 Hrs. on 26.04.2017

Venue : Tamarind Hall, India Habitat Centre, Lodhi Road, New Delhi-110003.

1 CONFIRMATION OF THE MINUTES OF 16TH MEETING OF GCC HELD ON 18.01.2017.

The minutes of the 16th meeting of GCC held on 18.01.2017 have been circulated vide letter no. No. F/DTL/207/17-18/DGM(SO)/04 dated 10.04.2017. No comments have been received so far.

GCC may confirm the minutes of the 16th meeting of GCC held on 18.01.2017.

2 FOLLOWUP ACTION ON THE DECISIONS TAKEN IN THE PREVIOUS GCC MEETINGS

2.1. PROVISIONS OF HOT RESERVE OF TRANSFORMERS.

The updated status of the issues discussed in the 16th meeting of GCC held on 18.01.2017 is as under:-

S. N o.	Transformation Capacity	Present population in nos.	Status as on present date
1.	400/220kV Tx 500MVA ICT	2	Delhi OCC has requested O&M-I Department to take up the matter with NRPC for regional spare to optimize the cost of hot reserve transformer.
2.	400/220kV Tx 315MVA ICT	14	The transformer damaged at Bawana being repaired and would be placed at Mundka as a hot reserve.
3.	220/66kV Tx 160MVA	22	The 160MVA Tx to be procured would be placed at Kanjhawala. Steering Committee in its meeting held on 15.03.2017 has decided that the transformer would be used for meeting the load requirement. In future, for hot reserve, the capacity would not be treated as available transformation capacity. For hot reserve, new 160MVA Tx is required to be procured.
4.	220/66kV Tx 100MVA	42	The Tx. damaged at Pappankalan-I would be repaired and would be kept as a hot reserve depending upon the space availability to be decided by Planning Department of DTL.

S N.	Transformation Capacity	Present population in nos.	Status as on present date																																													
5	220/33kV Tx 100MVA	37	One 220/33kV 100MVA Tx. meant for Karampur S/Stn would be kept as a hot reserve at Patparganj.																																													
6	66/11kV 20MVA Tx.	24	Steering Committee in its meeting held on 15.03.2017 has decided that in case of exigency, the Discoms having spare capacity may provide these transformers depending upon the exigency as there is a regulatory embargo for creating 11kV assets in DTL. However, as per the Business Plan of DTL, there is plan to replace the transformers with 25/31.5MVA capacity based on the recommendations of the Transformer Committee of DTL.																																													
7	33/11kV 16MVA Tx.	16																																														
			<table border="1"> <thead> <tr> <th>S N</th> <th>Sub Station</th> <th>Details of existing Tx.</th> <th>Augmentation Plan</th> <th>Year of Augmentation as per Business Plan</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Lodhi Road</td> <td>2 no 33/11kV 16MVA</td> <td>2 no 33/11kV 25MVA</td> <td>2016-17</td> </tr> <tr> <td>2</td> <td>Najafgarh</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 33/11kV 31.5MVA</td> <td>2016-17</td> </tr> <tr> <td>3</td> <td>Okhla</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 66/11kV 31.5MVA</td> <td>2017-18</td> </tr> <tr> <td>4</td> <td>Sarita Vihar</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 66/11kV 31.5MVA</td> <td>2017-18</td> </tr> <tr> <td>5</td> <td>Gopalpur</td> <td>2 no 33/11kV 16MVA</td> <td>2 no 33/11kV 25MVA</td> <td>2018-19</td> </tr> <tr> <td>6</td> <td>Subzi Mandi</td> <td>2 no 33/11kV 16MVA</td> <td>2 no 33/11kV 25MVA</td> <td>2019-20</td> </tr> <tr> <td>7</td> <td>Pappankalan-I</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 66/11kV 31.5MVA</td> <td>2020-21</td> </tr> <tr> <td>8</td> <td>Mehrauli</td> <td>2 no 66/11kV 20MVA</td> <td>2 no 66/11kV 31.5MVA</td> <td>2021-22</td> </tr> </tbody> </table>	S N	Sub Station	Details of existing Tx.	Augmentation Plan	Year of Augmentation as per Business Plan	1	Lodhi Road	2 no 33/11kV 16MVA	2 no 33/11kV 25MVA	2016-17	2	Najafgarh	2 no 66/11kV 20MVA	2 no 33/11kV 31.5MVA	2016-17	3	Okhla	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2017-18	4	Sarita Vihar	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2017-18	5	Gopalpur	2 no 33/11kV 16MVA	2 no 33/11kV 25MVA	2018-19	6	Subzi Mandi	2 no 33/11kV 16MVA	2 no 33/11kV 25MVA	2019-20	7	Pappankalan-I	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2020-21	8	Mehrauli	2 no 66/11kV 20MVA	2 no 66/11kV 31.5MVA	2021-22
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2.2 IMPLEMENTATION OF AUTOMATIC DEMAND MANAGEMENT SCHEME BY DISCOMS

The implementation of ADMS is being monitored by CERC and in suo moto petition no. 5/2014 in the matter of “non compliance of Regulation 5.4.2(d) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulation 2010 wherein the following has been directed :

.....however, considering the request of the respondents to grant time to implement ADMS, we grant time till 30.06.2016 to the respondent to implement ADMS failing which they will be liable for action under Section 142 of the Act for non compliance of the Regulation 5.4.2(d) of the Grid Code and order of the Commission. RLDCs are directed to submit the report in this regard by 31.08.2016”.

The position updated by the utilities in the 16th GCC meeting was as under:-

TPDDL : SCADA being updated -would be provided along with updated SCADA by March 2017.

BYPL : Already in place as soon as activated when Delhi as a whole over draws and BYPL also over draws would be picked up from SLDC website. The data accuracy needs to be ensured to avoid unwanted load curtailment.

BRPL : SCADA being updated- would be provided by March 2017.

NDMC: To be provided by March 2017.

MES : Exempted due to very small utility and considering strategic important load to be catered.

Utilities to confirm the status.

2.3 OUTSTANDING DUES

i) OUSTANDING DUES OF GENCOS AND DTL

Non payment of Outstanding dues of DTL by BRPL and BYPL

BSES utilities are not paying dues to DTL since October, 2010 due to which DTL is facing acute financial crisis. Due to financial crunch, DTL is not able to expand its network as per plans. Even, maintenance activities are also suffering badly. The outstanding dues owed to BSES utilities are increasing month by month. Hon'ble Supreme Court vide its orders dated 26.03.2014, 12.05.2016 has directed BSES Discoms to clear the current dues of DTL i.e. dues w.e.f. 01.01.2014 but BSES utilities are not even complying the directions of Hon'ble Supreme Court.

The details of outstanding dues on BSES utilities are as under :-

SUMMARY OF TOTAL OUTSTANDING DUES (INCLUDING LPSC) PAYABLE BY BRPL TO DTL FOR THE BILLING PERIOD 01.10.2010 TO 28.02.2017]

figures in Rs. Crores

Billed amount	TDS	STOA Adjustment	Net Payable by Discom (B-C-D)	LPSC	Total Payable by Discom including LPSC (E+F)	Payment Received			Total Outstanding (Principal+LPSC) (100%) (G-J)
						Payment Received from BRPL	Subsidy Received from GNCTD	Total received (H+I)	
B	C	D	E	F	G	H	I	J	K
2216.01	184.36	165.87	1865.78	539.08	2404.86	640.89	394.40	1035.29	1369.57

SUMMARY OF CURRENT DUES PAYABLE (WITHOUT LPSC) BY BRPL DISCOMS TO DTL FOR THE BILLING PERIOD 01.01.2014 TO 28.02.2017

figures in Rs. Crores

Billing period	Total Bill amount	TDS amount deducted by Discom	Net Payable by Discom	Minimum payable amount (as per direction of Hon'ble Supreme Court Orders)	Total minimum payable amount (as per direction of Hon'ble Supreme Court Orders)	Payment received (in Rs.) till 31.03.2017	Balance minimum amount of current dues payable as per direction of Hon'ble Supreme Court
01.01.14 To 30.04.16	752.51	75.25	677.26	677.26	884.25	253.84	630.41
01.05.16 to 28.02.17	301.73	6.03	295.70	206.99			

SUMMARY OF TOTAL OUTSTANDING DUES (INCLUDING LPSC) PAYABLE BY BYPL TO DTL FOR THE BILLING PERIOD 01.10.2010 TO 28.02.2017]

figures in Rs. Crores

Billed amount	TDS	STOA Adjust ment	Net Payable by Discom (B-C-D)	LPSC	Total Payable by Discom including LPSC (E+F)	Payment Received			Total Outstanding (Principal +LPSC) (100%) (G-J)
						Payment Received from BRPL	Subsidy Received from GNCTD	Total received (H+I)	
B	C	D	E	F	G	H	I	J	K
1366.44	116.13	103.22	1147.09	354.68	1501.77	242.88	358.49	601.37	900.40

SUMMARY OF CURRENT DUES PAYABLE (WITHOUT LPSC) BY BYPL DISCOMS TO DTL FOR THE BILLING PERIOD 01.01.2014 TO 28.02.2017

Billing period	Total Bill amount	TDS amount deducted by Discom	Net Payable by Discom	Minimum payable amount (as per direction of Hon'ble Supreme Court Orders)	Total minimum payable amount (as per direction of Hon'ble Supreme Court Orders)	Payment received (in Rs.) till 31.03.2017	Balance minimum amount of current dues payable as per direction of Hon'ble Supreme Court
01.01.14 To 30.04.16	473.37	47.37	426.30	426.30	536.78	106.76	430.02
01.05.16 to 28.02.17	161.05	3.22	157.83	110.48			

In view of above, the above beneficiaries may kindly be impressed upon to liquidate the outstanding dues of DTL at the earliest.

Non furnishing of LCs by BRPL & BYPL:-

BRPL and BYPL have not furnished LCs to DTL. Letters were issued to both the Distribution Licensees for providing LCs for FY 2017-18 for amount of Rs. 34,85,67,550/- and Rs. 19,58,70,264/- respectively but no LCs have been provided by both the Discoms so far.

Non payment of surcharge bill by NDMC:-

NDMC has not made the payment of surcharge bill for amount of Rs. 10,07,88,563 /- on account of Power Purchase bill for the period 2002-07

Utilities may update.

ii) Regulation of Power to BRPL and BYPL.

As on date, the following power regulations are going on to BRPL and BYPL utilities.

Sr. No.	Name of the station	Installed Capacity in MW	Share of BRPL		Share of BYPL		Regulation w.e.f.
			In %age	In MW	In %age	In MW	
1	Aravali Jhajjar	1500	26.745	372	5.281	73	05.09.2016
2	SJVNL	1500	--	--	2.40	36	28.03.2015
	Total	3000	--	372	--	113	

In the last meeting, GCC advised the utilities to take all possible steps to lift the regulations so that the cheaper power may not be denied to the consumers of Delhi apart from power cuts due to shortage of power availability.

BRPL and BYPL may update the status.

2.4 STATUS OF IMPLEMENTATION OF RECOMMENDATIONS OF EXPERT COMMITTEE ON GRID DISTURBANCES OCCURRED ON 30.07.2012 AND 31.07.2012 IN THE GRID.

The updated position is as under:

Clauses	RECOMMENDATIONS	STATUS AS ON DATE																						
9.1.1	Periodical 3 RD Party Protection Audit – Time frame – within one year	<p>The Protection Audit was completed before CWG-2010. The deficiencies pointed out and the latest status on the issue of removal of deficiencies is as under :-</p> <table border="1"> <thead> <tr> <th>S/N</th> <th>Description of Issue</th> <th>Sub-Stn</th> <th>Action taken/proposed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DR and Event Logger to be provided or to be kept in order</td> <td>Bamnauli</td> <td>The 400 kV EL is in place. EL for 220kV under procurement and installation expected to be completed by December 2016. DR already available with 400kV system. DR for 220kV system is the inbuilt feature of Numerical Relays which have already been installed.</td> </tr> </tbody> </table> <p>(Basic Protection Audit carried out on 400kV S/Stn Bamnauli before CWG)</p> <p>It was also advised by NRPC that DTL should go for fresh third party protection audit of entire DTL system. In 95th OCC meeting held on 21.01.2014 at NRPC, DTL submitted the list of 25 numbers of 220kV Grids S/Stns identified for third party audit. Out of these, TPA of 400kV Mundka, 220kV Shalimar Bagh, 220kV Rohini-I and 220kV Mehrauli S/Stn were completed by 25.05.2014. The main observation was regarding replacement of static relays by Numerical relays.</p> <p>In the last GCC Meeting DTL representative informed that remaining static relays have been covered under the PSDF scheme of Govt. of India for which action has already been initiated; scheme prepared and is under tendering process.</p> <p>DTL may update the status.</p>	S/N	Description of Issue	Sub-Stn	Action taken/proposed	1	DR and Event Logger to be provided or to be kept in order	Bamnauli	The 400 kV EL is in place. EL for 220kV under procurement and installation expected to be completed by December 2016. DR already available with 400kV system. DR for 220kV system is the inbuilt feature of Numerical Relays which have already been installed.														
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9.1.4	Complete independent audit of time synchronization of DRs, EL and PMs should be carried out - Time frame – within one month	<p>As far as IPGCL and PPCL systems are concerned, they informed that DR is available at CCGT Bawana and Pragati. EL is not required at generating stations as generators have inbuilt features of EL. PPCL / IPGCL informed the following:</p> <table border="1"> <thead> <tr> <th rowspan="2">Name of Utility</th> <th colspan="3">Time synchronization</th> </tr> <tr> <th>DR</th> <th>EL</th> <th>PMU</th> </tr> </thead> <tbody> <tr> <td>DTL</td> <td>Implemented</td> <td>Implemented</td> <td rowspan="2">Not installed in DTL system</td> </tr> <tr> <td>RPH</td> <td>Not required on 33kV feeders</td> <td>: Two Nos of 33 kV bays i.e. Bay No. 1 and 2 are already having Numerical relays installed. The switchyard maintenance is now being taken care of by DTL.</td> </tr> <tr> <td>PPCL</td> <td>DRs are installed at all the three units of PPS-I. The DRs are time synchronized.</td> <td>Latest numerical relays are installed on GT-1 & 2 and the process of installing Numerical relays on GRPs of STG is being done in phased manner. The same is expected to be completed in 05-06 months. Complete independent audit of time synchronization shall be carried out within one month of installation completion.</td> <td></td> </tr> <tr> <td>GT</td> <td>The process of installing of DRs on the units of GTPS is being taken up on priority in phased manner. Further, 06 nos units out of nine are having numerical relays installed and the process of installing of latest numerical relays on the rest of the units is under progress in phased manner.</td> <td>One of the STGs relay retrofitting is planned during next overhauling. Numerical relays have been installed in almost all 66kV feeders / bays and rest are being envisaged. The same is expected to be completed in 5-6 months. Complete independent audit of time synchronization shall be carried out within one month of installation completion.</td> <td></td> </tr> </tbody> </table> <p>However, delay is occurring mainly due to fund crisis mainly non payment of dues by Discoms.</p>	Name of Utility	Time synchronization			DR	EL	PMU	DTL	Implemented	Implemented	Not installed in DTL system	RPH	Not required on 33kV feeders	: Two Nos of 33 kV bays i.e. Bay No. 1 and 2 are already having Numerical relays installed. The switchyard maintenance is now being taken care of by DTL.	PPCL	DRs are installed at all the three units of PPS-I. The DRs are time synchronized.	Latest numerical relays are installed on GT-1 & 2 and the process of installing Numerical relays on GRPs of STG is being done in phased manner. The same is expected to be completed in 05-06 months. Complete independent audit of time synchronization shall be carried out within one month of installation completion.		GT	The process of installing of DRs on the units of GTPS is being taken up on priority in phased manner. Further, 06 nos units out of nine are having numerical relays installed and the process of installing of latest numerical relays on the rest of the units is under progress in phased manner.	One of the STGs relay retrofitting is planned during next overhauling. Numerical relays have been installed in almost all 66kV feeders / bays and rest are being envisaged. The same is expected to be completed in 5-6 months. Complete independent audit of time synchronization shall be carried out within one month of installation completion.	
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RPH	Not required on 33kV feeders	: Two Nos of 33 kV bays i.e. Bay No. 1 and 2 are already having Numerical relays installed. The switchyard maintenance is now being taken care of by DTL.																						
PPCL	DRs are installed at all the three units of PPS-I. The DRs are time synchronized.	Latest numerical relays are installed on GT-1 & 2 and the process of installing Numerical relays on GRPs of STG is being done in phased manner. The same is expected to be completed in 05-06 months. Complete independent audit of time synchronization shall be carried out within one month of installation completion.																						
GT	The process of installing of DRs on the units of GTPS is being taken up on priority in phased manner. Further, 06 nos units out of nine are having numerical relays installed and the process of installing of latest numerical relays on the rest of the units is under progress in phased manner.	One of the STGs relay retrofitting is planned during next overhauling. Numerical relays have been installed in almost all 66kV feeders / bays and rest are being envisaged. The same is expected to be completed in 5-6 months. Complete independent audit of time synchronization shall be carried out within one month of installation completion.																						

Clause	RECOMMENDATIONS	STATUS AS ON DATE																																																																																																												
9.2.1	Tightening of Frequency band and be brought very close to 50Hz.	<p>CERC has already issued the amended Grid Code to be implemented from 17.02.2014 in which the allowable frequency band is 49.90Hz to 50.05Hz. The Deviation Settlement Mechanism has also been introduced according to the tightening to the frequency band. The main thrust of the amended Grid Code is the utilities should always strict to its scheduled drawal. Further, the following are the main issues:-</p> <ol style="list-style-type: none"> No over drawal by Delhi if frequency is below 49.90Hz. No under drawal by Delhi if the frequency is more than 50.05Hz. Every (12) time blocks the polarity of drawal should change. <p>In the regular OCC meetings of NRPC, the adherence of the above provisions is monitored. As far as Delhi is concerned, the main violation is occurring in respect of non change of polarity in 12 time blocks.</p> <p>The details of the violations of Delhi are as under:-</p> <table border="1"> <thead> <tr> <th>Duration</th> <th>17.02.14 to 11.05.14</th> <th>12.05.14 to 22.06.14</th> <th>23.06.14 to 27.07.14</th> <th>28.07.14 to 24.08.14</th> <th>25.08.14 to 28.09.14</th> <th>29.09.14 to 02.11.14</th> <th>01.11.14 to 30.11.14</th> </tr> </thead> <tbody> <tr> <td>Violation of drawal limit 150MW if freq \geq49.7Hz and above</td> <td>OD - 4 UD-19</td> <td>OD - 9 UD-24</td> <td>OD - 7 UD-30</td> <td>OD - 5 UD-19</td> <td>OD - 9 UD-1</td> <td>OD-4 UD-17</td> <td>OD-2 UD-21</td> </tr> <tr> <td>Violation of non polarity change of drawal</td> <td>405</td> <td>198</td> <td>56</td> <td>116</td> <td>34</td> <td>158</td> <td>135</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Duration</th> <th>01.12.14 to 31.12.14</th> <th>01.01.15 to 31.01.15</th> <th>01.02.15 to 28.02.15</th> <th>01.03.15 to 31.03.15</th> <th>01.04.15 to 30.04.15</th> <th>01.05.15 to 31.05.15</th> </tr> </thead> <tbody> <tr> <td>Violation of drawal limit 150MW if freq \geq49.7Hz and above</td> <td>OD-8 UD-NA</td> <td>OD-5 UD-15</td> <td>OD-3 UD-14</td> <td>OD-13 UD-6</td> <td>OD-9 UD-4</td> <td>OD-7 UD-18</td> </tr> <tr> <td>Violation of non polarity change of drawal</td> <td>--</td> <td>91</td> <td>124</td> <td>127</td> <td>115</td> <td>126</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Duration</th> <th>01.11.15 to 30.11.15</th> <th>01.12.15 to 30.12.15</th> <th>01.01.16 to 31.01.16</th> <th>01.02.16 to 29.02.16</th> <th>01.03.16 to 31.03.16</th> </tr> </thead> <tbody> <tr> <td>Violation of drawal limit 150MW if freq \geq49.7Hz and above</td> <td>OD-11 UD-14</td> <td>OD-4 UD-4</td> <td>OD-3 UD-10</td> <td>OD-9 UD-4</td> <td>OD-10 UD-1</td> </tr> <tr> <td>Violation of non polarity change of drawal</td> <td></td> <td>64</td> <td>110</td> <td>100</td> <td>100</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Duration</th> <th>01.04.16 to 30.04.16</th> <th>01.05.16 to 31.05.16</th> <th>01.06.16 to 30.06.16</th> <th>01.07.16 to 31.07.16</th> <th>01.08.16 to 28.08.16</th> </tr> </thead> <tbody> <tr> <td>Violation of drawal limit 150MW if freq \geq49.7Hz and above</td> <td>OD- 5 UD-4</td> <td>OD-6 UD-34</td> <td>OD-15 UD-8</td> <td>OD-17 UD-7</td> <td>OD-12 UD-8</td> </tr> <tr> <td>Violation of non polarity change of drawal</td> <td>100</td> <td>100</td> <td>105</td> <td>109</td> <td>116</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Duration</th> <th>01.09.16 to 25.09.16</th> <th>Oct.16</th> <th>Nov. 16</th> <th>Dec. 16</th> <th>01.01.17 - 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Clause	RECOMMENDATIONS	STATUS AS ON DATE
		<p>It has been observed that maximum violation of OD is due to that of BRPL. In the last GCC Meeting, all utilities were advised to adhere to the Grid discipline for secure operation of the Grid. The deviation of actual from schedule should be ensured minimum. GCC advised BRPL to consider the posting of an executive on round the clock basis in SLDC control room for scheduling and operation purpose for better coordination for overall improvement of scheduling activities. So far, no representative from BRPL available in SLDC control room on round the clock basis.</p> <p>CEO, BRPL assured that the posting would be done before summer months.</p>
9.2.2	<p>Review of UI mechanism. Frequency control through UI maybe phased out in a time bound manner and generation reserves and ancillary services may be used for frequency control</p> <p>Time frame – 3 months</p>	<p>UI Regulation has been replaced with DSM Regulations from 17.02.2014. CERC has further notified Ancillary Services Operations Regulations, 2015 on 13.08.2015. Detailed procedure for operationalization of Ancillary services has been finalized and approved by CERC vide communication no. 1/10/2012-Reg.Aff.(REC-Gen)/CERC dt. 10.03.2016.</p>
9.4	<p>All out efforts should be made to implement the provisions of IEGC with regard to Governor Action - POSOCO to take up the matter with Central Commission</p> <p>- Time frame – 3 months</p>	<p>CERC in its order dated 31.12.2012 reiterated the need for compliance by generators and directed as to why they may not be held responsible for non-implementation of RGMO / FGMO mode of operation. A task force has been constituted by CEA under Member (Thermal), CEA to develop a procedure for testing of primary response of Generating units. Activity in progress.</p> <p>As far Delhi Gencos are concerned, PPCL informed that the generating stations in Delhi mainly gas based stations are exempted from FGMO/RGMO. They quoted section 5.2(f)(iii) of IEGC indicating “<i>all other generating units including the pondage upto 3 hours gas turbine / combined cycle power plants, wind and solar generators, and nuclear power plants are exempted from operation of RGMO / FGMO till the Commission review the situation. However, all the 200MW and above thermal machines, should have the RGMO / FGMO.</i>”</p> <p>BTPS representative intimated that clause is applicable to the capacity above 200MW units. As far as BTPS is concerned, the units are fitted with mechanical governors as BTPS has old LMZ make Russian turbines with no electro hydro governing system. However to meet the grid code stipulations, 210MW machines would be provided with RGMO facilities in the proposed R&M activities to be approved by CERC.</p> <p>In the last GCC Meeting BTPS representative informed that they had already filed a Petition in CERC vide Petition No.MP/65/2014 in the month of September 2014 and admitted by the CERC for exemption till R&M activities are carried out in the 210MW machines. BTPS further informed that a committee has been formed by CERC for examining the issue.</p> <p>BTPS informed that the scheme has been commissioned in Unit-4 & 5.</p>
9.7	<p>In order to avoid frequent outages / opening of lines under over voltages and also providing voltage support under steady state and dynamic conditions, installation of adequate reactive power compensators should be planned.</p> <p>Action : CTU/STUs and CEA</p> <p>– Time frame 6 months</p>	<p>NRPC has already concluded the study done through CPRI. During the study, it was concluded that 125MVAR reactor is required to be installed at Mandola 400kV side by Power Grid. NRPC OCC has already cleared the study and put the same for approval for NRPC meeting. NRPC has also cleared the scheme PGCIL was further advised to finalize the reactor requirement considering 1500MW minimum load instead of 2500MW considered in the study.</p> <p>As far as Capacitor requirement of Delhi is concerned, CPRI has already conducted the study in 2013 wherein it was concluded that no additional capacitor is required to be installed in Delhi.</p> <p>For conducting the fresh study for requirement of Reactors, the matter is being pursued with PGCIL.</p>
9.9.1	<p>Regulatory provisions regarding absorption of Reactive Power by generating units need to be implemented :</p> <p>Posoco Time frame : immediate</p>	<p>In 79th NRPC's OCC meeting, NRLDC informed that they have taken up the matter with Regional Generators to absorb reactive power as per the capability during high voltage conditions. They advised SLDCs to do the same. In 84th Operation Coordination Committee meeting of NRPC held on 19.02.2013. It was decided to monitor the reactive power generation on real time basis at RLDC / SLDC level through SCADA.</p> <p>Now, reactive power generation of all plants is available on real time basis.</p>

Clause	RECOMMENDATIONS	STATUS AS ON DATE									
9.12	Efforts should be made to design islanding scheme based on frequency sensing relays so that in case of imminent Grid failure, electrical island can be formed. These electrical islands not only help in maintaining essential services but would also help in faster restoration of Grid. Action : CEA, RPCs, CTU, STUs, SLDCs and generators Time Frame : six months	As per CPRI Study, it was concluded that due to variation of generation in the Delhi Island envisaged earlier, the chances of survival of single island including the generation of Dadri generating complex, Jhajjar, Bawana, BTPS and Pragati generating stations would be more. The Islanding Scheme has been reviewed after getting approval of NRPC's Protection Committee meeting held on 30.11.2016. However, the scheme will be placed before NRPC in next meeting for its approval.									
9.13.1	System Operation needs to be entrusted to independent system operator. In addition, SLDCs should be reinforced for ring fences for ensuring function autonomy. Action : Govt. of India, time frame : one year	Though Delhi SLDC is operated by DTL it has full autonomy with regard to grid operation. Further it has separate ARR approved by DERC for financial autonomy. Further a committee constituted for creation for SLDC as a separate company has already given its report to State Government. Decision is likely in line with the decision of Govt. of India on Independent System Operator (ISO).									
9.13.2	Training and certification of system operators need to be given focused attention. Sufficient financial incentives need to be given to certified system operators so that system operation gets recognized as specialized activity. Action : Govt. of India State Govt. Time frame : 3 months	CERC has notified 'Fee and Charges Regulation of RLDC' on 18.05.2015 for grant of incentives to the personals working in System Operation. The relevant clause is reproduced hereunder:- 30. Certification linked incentive to the employees of RLDCs and NLDC: (1) The employees of Regional Load Despatch Centres and National Load Despatch Centre who acquire the certificate of basic level and specialist level in their respective areas of specialization and are deployed in system operation or market operation shall be allowed a fixed incentive during the currency of such certificate period as per the following parameters: <table border="1"> <thead> <tr> <th>S. N</th> <th>Certification level</th> <th>Fixed Incentive (Amount in Rs) (Month)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Basic level</td> <td>5000</td> </tr> <tr> <td>2</td> <td>Specialist level</td> <td>7500</td> </tr> </tbody> </table> <p>It was suggested that if the regulations is implemented for SLDC operators, there would be more chances of more certified operators in SLDC. SLDC has been sending its officers / officials for training conducted by PSTI and other organization to update their knowledge. At present, SLDC has 8 certified System Operators. For increasing the certified operators, matter is being taken up with concerned authorities.</p>	S. N	Certification level	Fixed Incentive (Amount in Rs) (Month)	1	Basic level	5000	2	Specialist level	7500
S. N	Certification level	Fixed Incentive (Amount in Rs) (Month)									
1	Basic level	5000									
2	Specialist level	7500									
9.15.2	The communication network should be strengthened by putting fiber optic communication system. Further, the communication network should be maintained properly to ensure reliability of data at Load Despatch Centers.	Laying of 286 Kms of OPGW for strengthening of communication system across Delhi is under progress. It was informed that work 95% of the OPGW laying work has been completed and balance is likely to be completed by April 2017. It was also informed that the work remains only for 400kV Bawana – Bamnauli Double circuit line and 220kV Bawana – Kanjhawala D/C line. The terminal equipments have also been received. The entire would be completed by end of June 2017 after arranging proper shut-downs.									
9.18	There is need to reinforce system study groups in power sector organizations to analyze the system behaviour under different network status / tripping of lines /outage of generators. Where these do not exist, these should be created. Action by : CEA, STU, CTU Time frame : one year	It was clarified that the System Study Group is already in existence in DTL. State Steering Committee also does system studies.									
9.20	For smooth operation of Grid system, it is absolutely important that all the power generating and distribution stations are connected on a very reliable telecom network. i) A proper network may be built up preferably using MPLS (Multi Protocol Label Switching) which is simple, cost effective and reliable. In remote place where connectivity is a problem, the stations can use dedicated fiber cable from the nearest node. Since POWER GRID has its own fiber optic cables, practically covering all major nodes and power stations, a proper communication / IT network may be built using dedicated fibres to avoid any cyber attack on the power system.	CTU have informed that they already have a dedicated independent communication network in place. Further, they are in the process of developing a Grid Security Expert System (GSES) at an estimated cost of about Rs.1300 Crore which involves laying of optical fiber network costing about Rs.1100 Crore for reliable communication and control of under-frequency & df/dt relay based load shedding, etc. System will include substations of 132kV level and above. It was informed that the work of Delhi NCR, 95% of the OPGW laying work has been completed and balance is likely to be completed by April 2017. It was also informed that the work remains only for 400kV Bawana – Bamnauli Double circuit line and 220kV Bawana – Kanjhawala D/C line. The terminal equipments have been also received. The entire would be completed by end of June 2017 after arranging proper shut-downs.									

3 OPERATIONAL ISSUES

3.1 POWER SUPPLY POSITION

A) The power supply position for Summer 2017 (May to September) is anticipated as under:-

All figures in MW

DELHI AS A WHOLE

TIME	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
MAY 2017										
DEMAND	5550	4850	5000	5650	5600	6100	5500	5800	6500	6400
AVAILABILITY	6005	5930	5930	6091	6262	6090	5930	5930	6231	6347
SURPLUS (+) / SHORTAGE (-)	455	1080	930	441	662	-10	430	130	-269	-53

TIME	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
JUNE 2017										
DEMAND	6000	5500	5500	6500	6100	6200	5600	5900	6550	6450
AVAILABILITY	6511	6198	6198	6703	6831	6720	6336	6336	6872	7066
SURPLUS (+) / SHORTAGE (-)	511	698	698	203	731	520	736	436	322	616
JULY 2017										
DEMAND	6400	5350	5700	6600	5950	6000	5400	5350	6300	6200
AVAILABILITY	6612	6279	6279	6696	6940	6621	6232	6232	6680	6923
SURPLUS (+) / SHORTAGE (-)	212	929	579	96	990	621	832	882	380	723
AUG 2017										
DEMAND	5700	4950	5300	6000	5950	5300	4500	5000	5350	5650
AVAILABILITY	6353	5932	5932	6350	6684	6323	5927	5927	6345	6654
SURPLUS (+) / SHORTAGE (-)	653	982	632	350	734	1023	1427	927	995	1004
SEP 2017										
DEMAND	5150	4250	4800	5250	5200	5400	4650	5150	5550	5600
AVAILABILITY	6225	5805	5805	6121	6482	6125	5705	5705	6021	6382
SURPLUS (+) / SHORTAGE (-)	1075	1555	1005	871	1282	725	1055	555	471	782

BRPL

MONTH	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
MAY 2017										
DEMAND	2354	2040	2042	2322	2359	2586	2293	2372	2684	2705
AVAILABILITY	2543	2468	2468	2581	2723	2568	2468	2468	2581	2748
SURPLUS (+) / SHORTAGE (-)	189	428	426	259	365	-18	176	97	-103	43
JUNE 2017										
DEMAND	2546	2290	2235	2664	2547	2621	2330	2405	2690	2705
AVAILABILITY	2768	2643	2643	2823	2971	2868	2743	2743	2923	3071
SURPLUS (+) / SHORTAGE (-)	222	353	409	159	423	247	413	338	233	365
TIME	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
JULY 2017										
DEMAND	2712	2213	2315	2705	2477	2532	2236	2163	2582	2587
AVAILABILITY	2811	2618	2618	2798	2996	2811	2593	2593	2773	2996
SURPLUS (+) / SHORTAGE (-)	99	406	303	93	519	279	358	430	191	409
AUG 2017										
DEMAND	2405	2038	2154	2457	2468	2229	1840	2014	2159	2345
AVAILABILITY	2653	2435	2435	2615	2838	2603	2410	2410	2590	2788
SURPLUS (+) / SHORTAGE (-)	248	398	281	158	369	374	570	397	431	442
SEP 2017										
DEMAND	2184	1741	1950	2149	2181	2288	1915	2104	2279	2333
AVAILABILITY	2545	2320	2320	2432	2725	2445	2220	2220	2332	2625
SURPLUS (+) / SHORTAGE (-)	361	579	370	284	544	157	305	116	53	291
BYPL										
MONTH	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
MAY 2017										
DEMAND	1361	1180	1181	1343	1364	1496	1326	1372	1552	1565
AVAILABILITY	1352	1352	1352	1363	1370	1412	1352	1352	1423	1430
SURPLUS (+) / SHORTAGE (-)	-10	172	171	20	6	-84	26	-20	-129	-135
JUNE 2017										
DEMAND	1473	1325	1292	1541	1473	1516	1347	1391	1556	1565
AVAILABILITY	1471	1352	1352	1489	1491	1509	1390	1390	1527	1529
SURPLUS (+) / SHORTAGE (-)	-2	27	59	-52	18	-7	42	-1	-29	-36
JULY 2017										
DEMAND	1568	1280	1339	1565	1432	1464	1293	1251	1494	1496
AVAILABILITY	1410	1410	1410	1428	1430	1388	1388	1388	1406	1408
SURPLUS (+) / SHORTAGE (-)	-159	130	71	-137	-2	-76	95	137	-88	-88

TIME	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
AUG 2017										
DEMAND	1391	1179	1246	1421	1427	1289	1064	1165	1248	1356
AVAILABILITY	1382	1352	1352	1400	1402	1402	1372	1372	1420	1422
SURPLUS (+) / SHORTAGE (-)	-9	173	106	-22	-26	113	308	207	171	65
SEP 2017										
DEMAND	1263	1007	1128	1243	1261	1323	1108	1217	1318	1350
AVAILABILITY	1400	1370	1370	1411	1417	1400	1370	1370	1411	1417
SURPLUS (+) / SHORTAGE (-)	137	363	242	168	156	76	262	153	93	68
TPDDL										
MONTH	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
MAY 2017										
DEMAND	1644	1425	1427	1622	1648	1806	1601	1657	1875	1890
AVAILABILITY	1787	1787	1787	1824	1846	1787	1787	1787	1904	1846
SURPLUS (+) / SHORTAGE (-)	142	362	360	201	198	-20	185	130	29	-44
JUNE 2017										
DEMAND	1779	1600	1561	1861	1779	1831	1628	1680	1879	1890
AVAILABILITY	1949	1880	1880	2068	2046	2020	1880	1880	2099	2143
SURPLUS (+) / SHORTAGE (-)	170	280	319	207	267	189	252	199	219	253
JULY 2017										
DEMAND	1894	1546	1617	1890	1730	1769	1562	1511	1804	1807
AVAILABILITY	2068	1928	1928	2147	2191	2099	1928	1928	2178	2196
SURPLUS (+) / SHORTAGE (-)	173	382	310	257	461	330	366	417	374	389
AUG 2017										
DEMAND	1680	1424	1505	1717	1724	1557	1285	1407	1508	1638
AVAILABILITY	1995	1822	1822	2012	2121	1995	1822	1822	2012	2121
SURPLUS (+) / SHORTAGE (-)	315	398	317	295	397	438	536	415	504	483

TIME	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
SEP 2017										
DEMAND	1525	1216	1362	1501	1523	1598	1338	1470	1592	1630
AVAILABILITY	1957	1792	1792	1954	2016	1957	1792	1792	1954	2016
SURPLUS (+) / SHORTAGE (-)	432	576	430	453	493	359	454	323	362	386
NDMC										
MONTH	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
APRIL 2017										
MAY 2017										
DEMAND	160	170	310	325	200	180	250	360	350	210
AVAILABILITY	276	276	276	276	276	276	276	276	276	276
SURPLUS (+) / SHORTAGE (-)	116	106	-34	-49	76	96	26	-84	-74	66
JUNE 2017										
DEMAND	170	250	370	390	260	200	260	380	380	250
AVAILABILITY	276	276	276	276	276	276	276	276	276	276
SURPLUS (+) / SHORTAGE (-)	106	26	-94	-114	16	76	16	-104	-104	26
JULY 2017										
DEMAND	190	270	380	390	270	200	270	380	380	270
AVAILABILITY	276	276	276	276	276	276	276	276	276	276
SURPLUS (+) / SHORTAGE (-)	86	6	-104	-114	6	76	6	-104	-104	6
AUG 2017										
DEMAND	190	270	350	360	290	190	270	370	390	270
AVAILABILITY	276	276	276	276	276	276	276	276	276	276
SURPLUS (+) / SHORTAGE (-)	86	6	-74	-84	-14	86	6	-94	-114	6
SEP 2017										
DEMAND	150	250	320	320	200	160	250	320	320	250
AVAILABILITY	276	276	276	276	276	276	276	276	276	276
SURPLUS (+) / SHORTAGE (-)	126	26	-44	-44	76	116	26	-44	-44	26

MES										
MONTH	1st Fortnight					2nd fortnight				
	00-03	03-09	09-12	12-18	18-24	00-03	03-09	09-12	12-18	18-24
MAY 2017										
DEMAND	30	35	40	38	30	32	30	40	40	30
AVAILABILITY	47	47	47	47	47	47	47	47	47	47
SURPLUS (+) / SHORTAGE (-)	17	12	7	9	17	15	17	7	7	17
JUNE 2017										
DEMAND	32	35	42	45	40	32	35	43	45	40
AVAILABILITY	47	47	47	47	47	47	47	47	47	47
SURPLUS (+) / SHORTAGE (-)	15	12	5	2	7	15	12	4	2	7
JULY 2017										
DEMAND	35	42	48	50	41	35	40	45	40	40
AVAILABILITY	47	47	47	47	47	47	47	47	47	47
SURPLUS (+) / SHORTAGE (-)	12	5	-1	-3	6	12	7	2	7	7
AUG 2017										
DEMAND	34	40	45	45	40	35	40	45	45	40
AVAILABILITY	47	47	47	47	47	47	47	47	47	47
SURPLUS (+) / SHORTAGE (-)	13	7	2	2	7	12	7	2	2	7
SEP 2017										
DEMAND	28	35	40	38	35	30	39	40	40	37
AVAILABILITY	47	47	47	47	47	47	47	47	47	47
SURPLUS (+) / SHORTAGE (-)	19	12	7	9	12	17	8	7	7	10

*As per the present information available, Delhi will be having sufficient power to meet the demand. However, during 2nd fortnight of May 2017 shortages are anticipated. Distribution licensees should make sufficient arrangements to avoid Overdrawal and resulting into grid violation and load shedding in Delhi.

* No power regulation is anticipated.

* Two units of 210MW at BTPS are also anticipated in operation.

All utilities assured in the meeting convened by Chief Secretary, GNCTD, Secretary (Power), GNCTD, DERC etc no load shedding would be occurred due to shortage of power during summer months.

B) System Operation during Summer 2017

System Study carried out by simulating the load demand of 6600MW with the commissioning of 220kV Harsh Vihar – Preet Vihar – Patparganj D/C (1200 mm²) cable circuit and 220kV Maharani Bagh – Pragati Ckt, 220kV Meharani Bagh – Sarita Vihar Ckt and LILO of one Ckt. between Naraina and Bannauli at Pappankalan-I, it was found that the case-3 is best suited to meet summer demand of 6600MW. Case-II is as under:-

Case No.3

220kV supply from 400kV Mandola, Harsh Vihar closed loop operation, 220kV supply from Bamnauli along with 220kV BTPS – Ballabgarh in closed loop operation and 220kV Bus coupler opened at Pragati.

Operation at 220KV supply independently i.e. Mandola and Harsh Vihar together, BTPS- Bamnauli-Ballabgarh together and Maharani Bagh supply with 2 units of Pragati. In this case, it was found that almost all circuits are running at normal loading conditions except the circuits at 220kV Bamnauli-Pappankala-I, Gopalpur-Mandola, 220kV BTPS – Okhla Ckts circuits which are basically due to feeding of radial loads as mentioned above. Improvement is significant at 220KV Wazirabad- Mandola circuit loading & it is seen as running on normal condition.

Subsequently, the Delhi Protection Sub Committee and Delhi OCC in its meeting held on 28.03.2017 have devised the Special Protection Scheme to avoid complete black out of the stations where reliability issue exist as under:-

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

S.No	Name of the Circuit	66/33 kV Feeders which can be switched off during the exigencies.
1	220kV Bamnauli-Papankalan -I ckt-I & ckt-II	66kV Bindapur Ckt-I & II 66kV Budhela Ckt-I & II
2	220kV Bamnauli-Papankalan-II ckt-I & ckt-II	66 kV Hastsal and Local Transformers.
3	220kV Bawana-Rohini-I ckt-I & ckt-II	66kV RG-24 Ckt.-I & II 66kV DC-I & II
4	220kV Ballabgarh-BTPS -I & II	The committee has decided during the exigency at Ballabgarh-BTPS -I & -II. The 66 kV Batra ,66 kV Tuglakabagh and local transformers shall be switched off from 220 kV Okhla grid.
5	220kV Mandola-Gopalpur Ckt -I & II	33kV Model Town-I & II 33kV Indira Vihar-I
6	220kV BTPS-Mehrauli-I & II	Scheme is already commissioned. Tripping of 66kV Malviya Nagar -I & II and 66kV C dot-I & II for reliability of DIAL supply and to avoid isolation of BTPS from Bamnauli when the system is interconnected.

S.No	Name of the Circuit	66/33 kV Feeders which can be switched off during the exigencies.
7	220kV Mundka-Peeragarhi-I &II	The committee has decided to take load on the U/G cable up to maximum capacity.
8	220kV Mundka-Najafgarh	2 nos Local Transformers, 66kV Nangloi, 66 kV Jafarpur
9	220kV BTPS-Okhla-I &II	The committee has decided during the exigency at Ballabgarh-BTPS -I &-II. The 66 kV Batra ,66 kV Tuglakabagh and local transformers shall be switched off from 220 kV Okhla grid.
11	220kV Pragati-Park street-I	33 kV Motia khan, 33 kV Faiz Road, 33 kV Prasad Nagar and 66 kV School Lane. In case of the emergency the NDMC shall shift the load.
12	220 kV Manduala-SOW-I,II,III and IV running parallel	66 kV Shastri Park at SOW and all 33kV feeders at Geeta colony.
13	220kV Ridge valley-Naraina	Scheme is already commissioned.Tripping of 33kV Inderpuri -I and II in Stage -1 and 220kV Bus Coupler in Stage -2 to avoid overloading of Ridge-Valley cable when Maharani Bagh and Bamnauli supply are interconnected through this link.

S. N	Name of the GRID	Remarks
1	Bamnauli(2*315 & 2*500)	Manual Load management by SLDC.
2	Maharanibagh(2*315 & 2*500)	Manual Load management by SLDC.
3	Mundka(3*315)	Manual Load management by SLDC.
4	Narela (3*100MVA)	Manual Load management by SLDC.
5	Rohini-I(4*100MVA)	Manual Load management by SLDC.
6	Wazirpur(2*100MVA)	Manual Load management by SLDC.
7	Kanjhawala	Manual Load management by SLDC.
8	Najafgarh(4*100MVA)	Manual Load management by SLDC.
9	Papankalan-I(2*100MVA & 2*160MVA)	Manual Load management by SLDC.
10	Papankalan-II(2*100MVA & 2*160MVA)	Manual Load management by SLDC.
11	Okhla(2*100MVA 220/33kV & 2*100MVA 220/66kV)	66 kV Batra Feeder
12	Geeta colony(2*100MVA)	Manual Load management by SLDC.
13	Park Street(2*100MVA 220/33kV & 2*100MVA 220/66kV)	Manual Load management by SLDC.
14	Sabjimandi(2*100MVA)	33 kV Bus Coupler to be kept open
15	IP station(3*100MVA)	Manual Load management by SLDC.

It was decided that Special Protection (SPS) for immediate load relief is to be implemented by 30th April, 2017. The scheme will be configured in respective Numerical Relays by the Protection Deptt. It was also decided that the work of laying and termination of 4Cx2.5sq.mm Control Cable from 220KV Feeder Relay panel to 66/33KV panel in respect of 220KV transmission lines as mentioned above is to be done by the respective Sub-Station In-charge in consultation with the Protection Deptt., where the scheme are to be implemented. The work of the laying and termination of Control Cables be completed by 15th April, 2017

GCC may deliberate.

3.2 SYSTEM IMPROVEMENT WORKS PLANNED FOR ENSURING RELIABLE SUPPLY IN DELHI.

A) Transmission System

Based on the series of meetings taken by Secretary (Power), GNTD, the transmission system improvement works planned to ensure reliable power supply in the areas of TPDDL, BRPL and BYPL are as under:-

TPDDL Area

Sr. No	Details of transmission bottleneck	Remedial measures	Target for commissioning	Remarks
1	Only one 220/66kV 100MVA Tx. is available at Gopalpur. System reliability issue due to non availability of contingency in the event of outage of this transformer. No 66kV bay at Gopalpur to feed TPDDL's 66kV DJB.	Augmentation of transformation capacity with 2 nos. 220/66kV 160MMVA Txs along with 66kV GIS	Feb. 2019	The target date for floating tender is 10.05.2017, tender award date – 10.08.2017, date of commissioning – 28.02.2019.
2	Commissioning of 220kV Sanjay Gandhi Transport Nagar (SGTN) – TPDDL already laid 4 circuits to get feed from this S/Stn	--	Feb. 2019	--do--
3	Commissioning of 220/66kV Tikri Khurd S/Stn.	The proposal to be revisited considering the requirement. December 2018		
4	220kV Subzi Mandi – Radial feeder. No plan for contingency available	220kV Chandrawal S/Stn and 220kV Dev Nagar S/Stn	Timapur : Feb. 19 Dev Nagar: Feb 19	For Timapur : Due to space constraints and infeed issues, the site of the Chandrawal has been shifted to Timapur. Tender floating date 30.04.2017 Tender award date 30.07.2017 Date of Commissioning 28.02.2019

Sr. No	Details of transmission bottleneck	Remedial measures	Target for commissioning	Remarks
				For Dev Nagar : Date for Board approval 15.05.2017 Tender floating date 30.05.2017 Tender award date 30.08.2017 Date of Commissioning 28.02.2019
5	220kV Narela – Rohtak road double circuit owned by BBMB – no redundancy – frequent trippings of 220kV Narela – Rohtak Road Ckts	Commissioning of 220kV Punjabi Bagh S/Stn.	March 2019	For augmentation of 220kV Narela – Rohtak Road D/C line, Govt. of India is being approached.
6	Commissioning of 400kV ISTS Maharani Bagh	Due to outlet constraints, it is proposed to shift the site to Gopalpur with the same target of March 2019.	March 2019	Standing Committee on Power System Planning, CEA is being approached for intimation by Power Grid after conducting the studies.

BRPL Areas

Sr. No	Details of transmission bottleneck	Remedial measures	Target for commissioning	Remarks
1	BTPS Island Any one 210MW unit trips or 220kV BTPS – Ballabgarh Ckt trips, load shedding in South Delhi for longer duration in summer	Commissioning of 400kV ISTS at Tuglakabad.	March 2018 (on best efforts basis)	The matter of augmentation of 220kV Samaypur – Ballabgarh - BTPS link capacity was discussed in the summer preparedness meeting held on 31.03.2017 chaired by Secretary (Power), Govt. of India. The Chairman CEA was advised to resolve the issue at the earliest.
		Augmentation of 220kV Samaypur – Ballabgarh – BTPS circuits	The matter is with CEA. To be pursued.	

Sr. No	Details of transmission bottleneck	Remedial measures	Target for commissioning	Remarks
2	220kV BTPS – Okhla double circuit line - Radial feeder Fully loaded S/Stn Okhla - no contingency in case of failure of supply from BTPS and load shedding occurs in case of tripping of one of the circuit.	Commissioning of 400kV ISTS Tuglakabad. - Augmentation of transformation capacity from present 200MVA to 300MVA at Masjid Moth	March 2018 (on best efforts basis) 31.05.2017	
3	Over loading of 220kV Bamnauli – Mehrauli – BTPS link	Commissioning of 400kV Tuglakabad by PGCIL -Augmentation of circuits with HTLS conductors	March 2018 (on best efforts basis) Target of 220kV Bamnauli – Mehrauli Ckt – Dec-2017 (on best efforts basis) Mehrauli – BTPS by March 2018(on best efforts basis)	Tender opened. Evaluation is under progress.
4	Augmentation of 66/11kV 20MVA Txs at Pappankalan-I & Najafgarh	BRPL to provide 31.5MVA Tx to DTL on loan basis.	March 2017	In the OCC meeting held on 28.03.2017, BRPL intimated that they do not have any spare capacity to share. Even out of six 31.5MVA transformers ordered, only 4 transformers are under dispatch to be erected in their own system. However, OCC advised DTL to place the requisition to BRPL to that this can be procured and made available at least by next summer. SLDC records also show that no urgency in this matter considering the load conditions.
5	Over loading of 220kV Bamnauli – Pappankalan-I Ckt-I &II No redundancy in case of failure of supply from 400kV Bamnauli. Even tripping one ckt. would be resulting to load shedding in the areas fed from Pappankalan-I	Establishment of LILO of one of the circuit between Naraina and Bamnauli at Pappankalan-I as a temporary measure till the commissioning of 400kV ISTS at Dwarka	LILO by 31.07.2017 and 400kV ISTS Dwarka by March 2019	At present 220kV Pappankalan-I is having 2 nos. of 220/66kV 160MVA Txs and 2 nos. of 220/66kV 100MVA Txs. As such transformation ratio is not an issue.

Sr. No	Details of transmission bottleneck	Remedial measures	Target for commissioning	Remarks
6	Augmentation of transformation capacity at Lodhi Road from present level of 200MVA to 300MVA with the commissioning of 220kV GIS at Lodhi Road as at present no redundancy in case of outage of any transformer or 220kV Maharani Bagh – Lodhi Road Ckts	Commissioning of 220kV GIS with additional 220/33kV 100MVA Tx.	May 2017	One 100MVA Tx. got damaged on 22.03.2017 at 22.30hrs. All out efforts are on to energize 3 rd Tx by 30.04.2017 so that during summer 2017 at least two Txs are available. Due to severe space constraints additional Tx can be commissioned only after the damaged Tx is taken out.
7	Augmentation of transformation capacity at AIIMS from present level of 200MVA to 300MVA to have (n-1) contingency. 33kV additional 4 bays are also required to accommodate BRPL's 33kV AIMS-II S/Stn(2 bays), 33kV Hudco and 33kV NDSE-II feeder	33kV bays extension has been finalized in the Steering Committee. The additional Tx is proposed in 2019-20.		
8	Commissioning of 220kV Jasola S/Stn	Proposal to be dropped in view of the revised requirement and site feasibility conditions		
9	Provision of 66kV feed in Jhatikara area	DTL's suggestion to create 66kV level at Bamnauli S/Stn is to be considered by Steering Committee.		
10	11kV feed to Fatehpur Beri S/Stn of BRPL	The permission for provisional arrangement for creation of RMU at Mehrauli S/Stn has been given to BRPL		
11				
Other works				
S.No.	Scheme Details	Agency	Previous Target	Revised Target as per the Secretary (Power) meeting on 12.01.2017 / Latest status
A	Schemes need Immediate attention			
1	220 kv Grid Substation at Ghummanhera / Jhatikalan	DTL	Immediate	Creation of 66kV level at 400kV Bamnauli S/Stn DTL. BRPL and DTL would carry the load requirement and draw out further course of action.
2	Allocation of 2 Nos. 11 kv Panels at 220 kV Mehrauli for temporary supply to Fatehpur Beri Area to meet the load of Summer 2017	DTL	Immediate	Immediate. RMU to be installed at Mehrauli sub-station of DTL after joint site visit. – Has already been done.

B	Schemes for meeting Summer 2017 & 2018			
3	220/66KV S/Stn at Papankalan-III	DTL	Mar-17	August 2017
4	S/C LILO Bamnauli-Naraina at Papankalan-I	DTL	Mar-17	June 2017
5	Additional Power Transformer at Peeragarhi	DTL	Mar-17	June 2017
6	HTLS conductor D/C Bamnauli-Mehrauli-BTPS	DTL	Mar-17	Bamanauli - Mehrauli by Dec'17 and Mehrauli-BTPS by April'18
7	400/220KV GIS at Tuglakabad	PGCIL	Mar-18	Dec-18
8	LILO of 400kV D/C Bamnauli – Samaypur O/H line at Tuglakabad	PGCIL	Mar-18	Dec-18
9	220/66KV GIS at Tuglakabad	DTL	Mar-18	Dec-18
10	LILO 220 kv Mehrauli BTPS at Tuglakabad	DTL	Mar-18	
11	220 kV Tuglakabad - Masjid Moth	DTL	Mar-18	
12	220 kV Tuglakabad - Okhla	DTL	Mar-18	
13	400/220KV GIS at Dwarka	PGCIL	May-17	Dec-18
14	400KV S/C LILO Bamanauli-Jhatikalan at Dwarka	PGCIL	May-17	Dec-18
15	220/66KV GIS at Budella	DTL	Mar-18	Dec-18
16	LILO of Najafgarh-Bamnauli S/C O/H at Budella	DTL	Mar-18	Dec-18
17	Dwarka - Bodella U/G Cables	DTL	Mar-18	Dec-18
18	S/C LILO Bamnauli-Najafgarh at Papankalan-II	DTL	Mar-17	Scheme under revision
C	Schemes for meeting demand of Summer 2018 & 2019			
1	LILO of D/C U/G Ridge Valley-AIIMS at RKPuram	DTL	2018-19	Mar-18
2	220/66KV and 220/33KV GIS at R K Puram	DTL	2018-19	May-18
3	220kV D/C Tuglakabad – Masjid Moth U/H line from 400 kV Tuglakabad	DTL	2018-19	Dec-18
4	220kV D/C Masjid Moth – Okhla U/G line	DTL	2018-19	Dec-18
5	220/33KV GIS at Punjabi Bagh	DTL	2018-19	Dec-18
6	220/33KV GIS at Janakpuri	DTL	2018-19	Dec-18
7	220/33KV GIS at Jasola	DTL	2018-19	Land not yet handed over
8	220/33KV GIS at Maharani Bagh	DTL	19-Mar	To be taken up with Maharani Bagh 2nd 400 kV ISTS
9	LILO of Second S/C Pragati - Sarita Vhar at 400 KV Maharni Bagh	DTL	2018-19	To be taken up with Maharani Bagh 2nd 400 kV ISTS

10	220/33KV GIS at Nehru Place	DTL	2018-19	FY 2020-21
11	LILo of 220kV D/C Masjid Moth – Maharani Bagh at Nehru Place	DTL	2018-19	FY 2020-21
12	220kV D/C Papankalan-I to Janak Puri	DTL	2018-19	FY 2020-21
13	220/66KV GIS at Rang Puri	DTL	2018-19	Scheme has been dropped
14	LILo of D/C Mehrauli-DIAL O/H line at Rang Puri	DTL	2018-19	Scheme has been dropped
15	Establishment of 220kV Bharthal S/Stn and associated feed	DTL	Tender to floated -2018-19	
16	Establishment of 220kV S/Stn at Nehru Place and associated in feed	DTL	Tender to floated - 2018-19	Planning Department to complete the formalities for taking over the land from DMRC and prepare the scheme.
17	Taking over of BTPS 220kV yard	DTL	Oct-2017	Planning Department to complete the paper work for taking over.

BYPL Areas

Transmission System works related to BYPL area

S. No.	Scheme	Implementing Agency (DTL/PGCIL)	Previous Target Date	Target dates as per Secretary (Power) meeting on 16.01.2017 / Latest status
1	220kV U/G Cable Harsh Vihar to Patparganj D/C & LILo at Preet Vihar	PGCIL / DTL	Dec-16	Works has already been completed
2	220/33 kV GIS at Preet Vihar	PGCIL / DTL	Dec-16	One Tx. commissioned on 09.03.2017. The 2 nd 100 MVA Tx will be commissioned by 31.03.2017 whereas BYPL shall ensure the laying of 4-8 nos. of underground cables for evacuation of power by March 2017 from Preet Vihar Grid.
3	LILo of Sarita Vihar – Pragati Ckt at MaharaniBagh	DTL	Feb-16	LILo has been charged on 15.02.2017.
4	2 No. 33kV bay Addition at 220/33kV Geeta Colony substation	DTL	Mar-17	DTL will ensure installation of 2 nos. ways by Oct 2016. However to feed the Krishna Nagar S/Stn, a temporary arrangement would be made by BYPL till the bays are constructed at Geeta Colony.
5	Addition of Four Bays at 220 KV Park Street Grid	DTL	Mar-17	DTL expressed inability to arrange 04 numbers Bays before March 2017. It was decided that DTL will commissioned 2 nos. of additional bays by 25th March 2017 and BYPL will ensure laying of additional cable for Shankar Road and Prasad Nagar simultaneously so that power is evacuated immediately after commissioning of 2 nos. bays. However, DTL has already completed 2 bays.
6	Park street 220/33kV transformer faulty and under replacement.	DTL	Mar-17	DTL will ensure replacement of faulty transformer by 100 MVA available at Papankala - I by 15.04.2017

S. No.	Scheme	Implementing Agency (DTL/PGCIL)	Previous Target Date	Target dates as per Secretary (Power) meeting on 16.01.2017 / Latest status
7	Geeta colony 220/33kV Tx has become faulty and is under replacement .	DTL	Mar-17	Tx. commissioned on 25.04.2017
8	Replacement of the existing conductor with the HTLS conductor in the 220 KV Mandola-Wazirabad circuit	DTL	-	Considering the commissioning of 220kV Harsh Vihar – Patparganj D/C link and impending commissioning of 400kV ISTS at Maharani Bagh, the augmentation of conductors is not considered necessary at present.
9	In feed constraint at the following places Shankar Road, Prasad Nagar, DMS, Delhi Gate, GT Road Dwarkapuri, Kondli	DTL	DTL to start the work at Dev Nagar	MD DTL informed that the land is yet to be taken from the land owing agency. He was advised to expedite the same. It was also advised to expedite the work of Dev Nagar on priority by DTL.

GCC may deliberate.

B) Distribution System augmentation.

The utilities updated the position in the last meeting as under:-

BYPL (2016-17)

S. No.	Details of augmentation	Scheduled completion date	DTL's integration requirement & updated status
1	Establishment of 33/11 KV I/D GIS Grid Sub-Stn with 2X25MVA, Power Transf. at Tibia College	March' 17	Total 4 Nos. 33kV bays are required at Park Street. Steering Committee meeting (SCM) approved the scheme of 33kV Tibia College in its meeting held on 30.06.2016. Two bays have already been readied at Park Street. Other two bays would be readied when downstream system is ready.
2	Providing In-feed to the Tibia College Grid from 220 KV Park Street Grid	March' 17	-do-
3	GH-II 25 MVA	March' 17	-
4	Dallupura 25 MVA	June' 17	-
5	Ghonda 25 MVA	July' 17	-
6	Dwarkapuri 25 MVA	Apr 17	-
7	15 to 25 MVA BG Road	March' 17	-
8			
9	Conversion of O/H portion into U/G cable from 33 KV Narayna Grid to DMS Grid.	March' 17	-
10	Replacement of 33 KV MOCB with VCB	March' 17	-
11	Replacement of 66 KV MOCB with SF6 Circuit Breakers	March' 17	-
12	Replacement of Old CRP	March' 17	-
13	Modification In DMS Grid	March' 17	-
14	220kV Preet Vihar to Preet Vihar and CBD-I		Allocation of two Bays at 220 KV Preet Vihar Grid. 33kV feeder alignments have been discussed in the SCM held on 10.07.2015, 20.10.2015 and 10.03.2016 wherein following feeder arrangements have been finalized. <ul style="list-style-type: none"> • Preet Vihar – April 2017 • CBD-1 – April 2017

S. No.	Details of augmentation	Scheduled completion date	DTL's integration requirement & updated status
			<ul style="list-style-type: none"> • Guruangad Nagar –Apr-2017 • Shakar Pur –Apr-2017 • CBD-2 -2017-18 • Dwarka puri 2017-18 • Jhilmil Indl. Area2017-18 • GT Road -2017-18 • Karkardooma-2017-18 • Kanti Nagar-2017-18 <p>Steering Committee had also stressed to ensure more evacuation from the S/Stn., so that existing S/Stns./Systems are not over stressed and to ensure maximum evacuation from 945MVA, 400kV Harsh Vihar S/Stn. The Preet Vihar S/Stn. has already been established by PGCIL on behalf of DTL.</p>
15	220kV Preet Vihar to Guru Angad Nagar and ShakarPur By LILO	June' 17	-do-
16	Addition 25 MVA at Vivek Vihar	May' 17	-
17	Providing 33KV Infeed for New Grid, C-Block Krishna Nagar	Apr 2017	Installation of equipments in 2 Nos Bays (already allocated to BYPL) at 220 KV Geeta Colony. The work has been awarded. Expected by Oct. 2017. In the meantime, a temporary arrangement is being done to feed 33kV Krishna Nagar.
18	Shifting of EHV network at NH-24 due to widening of Road by NHAI	May' 17	-

BYPL(2017-18)

S. No.	Details of priority work for FY 2017-18	Scheduled completion date	DTL's integration requirement and updated status
1	Establishment of 33/11 KV I/D GIS Grid Sub-Stn with 2X25MVA, Power Transformer at Laxmi Nagar District Centre	March' 18	Allocation of two Bays at 220 KV Preet Vihar. The scheme was put up for the consideration of Steering Committee in its meeting held on 30.06.2016 and was approved. Since, there are 24 33kV bays available at 220/33kV S/Stn. Preet Vihar which has already been established by PGCIL for DTL. The infeed can be accommodated.
2	Providing In-feed to the Proposed Laxmi Nagar grid from 220kV Preet Vihar Grid	March' 18	
3	Add. 25 MVA at DSIDC Jhilmil	March' 18	-
4	Additional 25 MVA at Mayur Vihar-1	March' 18	-
5	16 to 25 MVA BG Road	March' 18	-
6	16 to 25 MVA Kailash Nagar	March' 18	-
7	16 to 25 MVA Fountain	March' 18	-
8	16 to 25 MVA CBD-1	March' 18	-
9	16 to 25 MVA Jama Masjid	March' 18	-
10	Preet Vihar To Kanti Nagar and Dwarkapuri with Additional Bay	March' 18	Allocation of two Bays at 220 KV Preet Vihar Grid. Details already mentioned at S No. 14 under the works for 2016-17.
11	Laying of new 33 KV feeder from Park Street to Shankar Road	March' 18	The scheme was proposed by BYPL in the SCM held on 12.08.2016 and same has been approved. With regard to additional 33kV bays at Park Street, details have already been established at S No.1 of 2016-17
12	Laying of new 33 KV feeder from Park Street to Prasad Nagar	March' 18	Allocation of one Bay at 220 KV Park Street Grid and making it ready. The scheme was proposed by BYPL in the SCM held on 12.08.2016 and same has been approved.

BRPL (2016-17)

S. No.	Details of augmentation proposed	Scheduled completion date	DTL's integration requirement and updated status
1	Additional Power Transformer at Jaffarpur	Oct-16	Commissioned
2	Additional Power Transformer at Jamia	Apr 17	Commissioning of 220/33 kV S/Stn. at Maharani Bagh. Board of Directors of DTL has approved the scheme in its meeting held on 26.12.2015. 20/33kV GIS is also envisaged to be established by Powergrid in MoU Route on behalf of DTL. 400kV ISTS at Maharani Bagh (instead of Rajghat) is being established. All possible efforts are taken for commissioning of S/Stn. by Dec 2018 as minimum time line for completion of such type of GIS is 2 years along with 400/220kV ISTS
3	Additional Power Transformer at A-4 Paschim Vihar	Mar,17	Additional 1x100MVA Power Transformer at Peeragarhi. For reliability of the S/Stn. is concerned, the 3 rd 100MVA Tx. is likely to be commissioned by June 2017.
4	ETC of 3 rd additional 66/11 kV 25MVA Power Transformer at DJB Najafgarh Grid S/Stn.	Feb,17	-
5	ETC of 4th additional 66/11 kV 25MVA Power Transformer at G-3 Bindapur Grid S/Stn.	Apr,17	-
6	Augmentation of PTR-1 & 3 at 33/11 kV Mukherjee park Grid Substation from 2x16 MVA to 2x25MVA	Mar,17	Commissioning of 220 kV Budella. The DTL Board has already approved the scheme in its meeting held on 04.11.2015. Presently, the scheme is under tendering stage. However, the in-feed is earmarked from the upcoming 400kV ISTS Dwarka to be established by PGCIL. The land has been handed over to PGCIL. As such the S/Stn. is expected by 2018-19. By the time, the 220/66kV S/Stn. Budella would also be commissioned. However, all possible efforts are taken to commissioning of S/Stn. by 2018-19 as minimum time line for completion of such type of GIS is 2 years. Further, BRPL should ensured full utilisation of available sources at PPK-III, Mundka etc. to reduce burden on the already available sources.
7	Additional Power Transformer at Chaukhandi	May,17	Commissioning of 220 kV Budella. Already explained at S No. 6 above.
8	Augmentation of PTR-1 & 3 at 66/11 kV Batra Grid S/Stn. from 2x20MVA to 2x31.5MVA	Apr,17	Commissioning of 220/66kV Tuglakabad S/Stn. The establishment of 220/66kV substation at Tuglakabad is required to be carried out by PGCIL as per the provisions of MoU executed with DTL and PGCIL on 28.11.2014 as deposit work. After completion of all formalities, the land of Tuglakabad was handed over to PGCIL last week of July, 2016. As per PGCIL report, all works under MoUs have already been awarded. The establishment of 400kV substations and associated wok may at least take two years. As such, completion of 400kV substation Tuglakabad and associated evacuation system may be completed by December 2018. As such, 220/66kV, 160MVA Transformers with 66kV GIS would be established along with 400kV GIS at Tuglakabad.
9	Augmentation of PTR-2 & 3 at 66/11 kV G-5 Matiyala Grid S/Stn. from 2x20 MVA to 2x31.5 MVA	May-17	Commissioning of 220 kV Pappankalan-III. The work of establishment of Pappankalan-III S/Stn. is entrusted to PGCIL as deposit mode. Due to contractual issues the award was delayed.. Normally, the completion period of the S/Stn. being AIS is one year and is expected by August 2017.

S. No.	Details of augmentation proposed	Scheduled completion date	DTL's integration requirement and updated status
10	ETC of 4th additional 66/11 kV 25 MVA Power Tx at G-2 PPK Grid S/Stn.	May-17	-
11	ETC of 4th additional 66/11 kV 25 MVA Power Tx at Paschim Vihar Grid S/Stn.	May-17	Commissioning of 220 kV Budella. Already explained at S No. 9 above.
12	New Grid at Fatehpur Beri	Jan 18	-
13	New Grid at G-7 Dwarka	May,17	Commissioning of 220 kV Pappankalan-III. Already explained at S No.9 above.
14	New Grid at Mithapur	May,17	Commissioning of 220 kV Tughlakabad Already explained at S No.8above

TPDDL (2016-17)

S. No.	Details of priority work	DERC Approval	Expected completion date	DTL's integration requirement	Remarks of TPDDL and updated status of DTL's integration
1	Installation of 66/33 kV 50 MVA PTR at A-7 Narela Grid	Yes	30 th Apr,2017	33kV Supply from 220 kV Narela to AIR Khampur Grid through 66/33kV 30 MVA PTR.	To ensure reliable supply to AIR Khampur Grid, 33kV Supply from 220kV Narela Grid (66/33 kV 30 MVA PTR) to AIR Khampur Grid shall remain continue till the commissioning of 66/33kV 50 MVA PTR at A-7 Narela Grid.
2	Installation of additional 33/11kV, 25 MVA 3 rd Power Transformer at Gulabi Bagh Grid along with conversion of 33kV Shahzada Bagh-Gulabi Bagh circuit from single cable to twin cable circuit	Yes	30 th Apr,2017	1) Commissioning of 220kV Chandrawal S/Stn. 2) Commissioning of 220 kV Dev Nagar S/Stn.	To achieve N-1 of 33kV infeed circuits at Gulabi Bagh Grid, one additional 33kV direct circuit from 220kV Karol Bagh (or Dev Nagar) is required. Besides that 161 MW is already captured at the time of Delhi Peak(01.07.2016) against the 200 MVA transformation capacity at 220kV Subzi Mandi Grid. Both 100 MVA PTR-1&2 have already loose N-1 and may also got overloaded during Summer'17. Therefore to achieve N-1 of 100 MVA PTRs at 220kV Subzi Mandi Grid, early commissioning of 220/33kV Chandrawal Grid is required. The installation 220/33kV Chandrawal S/Stn. was approved by Board of Directors of DTL in its meeting held on 26.12.2015. The scheme is presently under tendering stage. The main in feed of the S/Stn. is envisaged from 400kV Rajghat. The same was delayed due to shifting of location from Rajghat due to NGT stipulations. Due to this, the commissioning of Chandrawal S/Stn. is also delayed. However, all possible efforts are taken to commissioning of S/Stn. by 2018-19 as minimum time line for completion of such type of GIS is 2 years. It may be noted that the scheme is mainly meant for enhancement of reliability of area. The area proposed to be fed from this S/Stn. is at present being met through 220kV Subzi Mandi and Kashmiri Gate S/Stns. of DTL. At normal course of operation there are no constraints to meet the entire load demand of the area. As far commissioning of 220/33kV Dev Nagar is concerned, L&DO, Ministry of Urban Development, Govt. of India has allocated land for establishment of 220kV S/Stn. by DTL and 33kV S/Stn. by BYPL to Govt. of Delhi. Further the main source to feed the S/Stn. was from the proposed 400kV S/Stn. at Rajghat. Due to NGT stipulations, the site has been shifted to 400kV Maharani Bagh and feed to Dev Nagar is proposed from this sub station. As such, in feed may not be available before 2018-19. As soon as land for Dev Nagar is allocated to DTL, the scheme for establishment of 220kV S/Stn. at Dev Nagar would be prepared. Till the time BYPL and TPDDL are required to manage with the available sources.

S. No	Details of priority work	DERC Approval	Expected completion date	DTL's integration requirement	Remarks of TPDDL and updated status of DTL's integration
3	Establishment of 33kV ESI Hospital Grid feeding from 220kV Peeragrahi Grid & interconnection with 33kV Sudershan park grid	Yes	a)Grid part: 30-Sept-17 b)Line part: 30-Apr-17	Commissioning of 220/33 kV 100 MVA 3 rd PTR at Peeragarhi Grid.	This circuit shall help to evacuate power from 220 Peeragarhi to Sudarshan Park Grid and dependency on Vishal Grid(BRPL) shall be reduced during N-1. To achieve N-1 of 100 MVA PTRs at 220kV Peeragarhi Grid, additional 220/33kV 100MVA is required at 220kV Peeragarhi Grid. The bay for Sudershan Park feeder is ready at Peeragarhi since 20.04.2015 but due to non commissioning of S/Stn. by TPDDL, the bay could not be utilised. As far as reliability of the S/Stn. is concerned the 3 rd 100MVA Tx. is likely to be commissioned by 30.06.2017.
4	Erection of 66/11KV Dheerpur Grid	Yes	30 th Nov,2016	<ul style="list-style-type: none"> Commissioning of additional 220/66 kV 160 MVA PTR along with 66kV GIS Bays at Gopalpur Grid. Commissioning of 220kV SGTN Grid 	<p>Dheerpur Grid is planned to shift the partial 11kV load of 220kV Gopalpur & Indra Vihar Grid. This Grid shall be energised through LILO of existing 66kV Gopalpur-Jahangirpuri Ckt-1&2. There is a capacity constraints due to single 220/66kV, 100MVA PTR at Gopalpur Grid. Besides that due to delay in commissioning of 220 kV SGTN Grid, there would be no adequate margin left at Jahangirpuri Grid and there would be a N-1 constraints on 66kV infeed circuits at Jahangirpuri Grid. Therefore early commissioning of additional 220/66 kV 160 MVA at 220 kV Gopalpur Grid and 220kV SGTN Grid are required.</p> <p>At present the system consists of one 220/66kV, 100MVA Power Tx. feeding 66kV Jahangir Puri D/C line & DMRC Ckt from Gopalpur. Jahangir puri load can be fed from 220kV Narela and Rohini S/Stns. of DTL. DMRC has established 66 kV supply from their 220kV Jahangir puri S/Stn. recently to feed Mukundpur RSS. Considering the requirement and to ensure reliability of the areas, a scheme was prepared by DTL for establishment of 02 nos. 220/66kV 160MVA transformer and 66kV GIS Grid S/Stn. at Gopal Pur S/Stn. of DTL. To avoid disruption of supply the scheme is drawn out as under:-</p> <ol style="list-style-type: none"> Establishment of one 220/66kV 160MVA transformer and 66kV GIS with 04 nos. of additional bays. Shift the entire 66kV feeder (Jahangir puri Ckt.1&2 & DMRC) to 66kV GIS. Dismantle the 220/66kV 100MVA Tx Erect 2nd 220/66kV 160MVA Transformer to ensure N-1 reliability. <p>To accomplish the entire work the completion period of project is fixed as 24 months.</p> <p>The Board of Directors of DTL approved the scheme in its meeting held on 23.03.2015. Three bidders participated in the tender process. However, only one bid (M/s. SIEMENS) was technically qualified and financial bid got opened considering the urgent requirement. The bidder has quoted the exorbitantly high cost. As such it was decided to drop the tender. Therefore this is required to be refloated again. As an interim arrangement 66kV level is being established at 220kV Shalimar Grid S/Stn. till the commissioning of 66kV GIS and 220/66kV 160MVA Trs. at Gopalpur. The scheme is proposed to implemented by Summer 2017 to take care of reliability issue of Gopalpur.</p> <p>The establishment of SGTN S/Stn. along with in-feeds was envisaged under Tariff Based</p>

S. No .	Details of priority work	DERC Approval	Expected completion date	DTL's integration requirement	Remarks of TPDDL and updated status of DTL's integration
					Competitive Bidding (TBCB) route. The schemes under TBCB route could not proceed due to lack of experience, as such Govt. of NCTD reviewed the matter and decided to execute these schemes by DTL vide MOM dt. 26.06.2015. As such DTL prepared the scheme and got approval from Board of Directors in its meeting held on 04.11.2015. At present, it is under tendering stage. However, all possible efforts are taken to commissioning of S/Stn. by 2018-19 as minimum time line for completion of such type of GIS is 2 years. It may be noted that the scheme is mainly meant for enhancement of reliability of area. The areas proposed to be fed from this S/Stn. are at present being met through 220kV Narela and Gopalpur S/Stns. of DTL.
5	Erection of 66/11kV DJB Burari Grid	Yes	31 st Mar, 2017	1) Commissioning of additional 220/66 kV 160 MVA PTR along with 66kV GIS Bays at Gopalpur Grid. 2) Commissioning of 220kV SGTN Grid	DJB Burari Grid is planned to feed the load requirement of DJB as well as to shift the partial load from Bhalswa & 220 Gopalpur Grid. This Grid shall be energised through 66kV Double circuit connectivity from 220kV Gopalpur and 66kV D/C connectivity with Bhalswa Grid. There is no 66kV spare Bay available at Gopalpur Grid along with there is a capacity constraints due to single 220/66 kV 100 MVA PTR at Gopalpur Grid. Besides that there is no adequate margin left at Bhalswa Grid due to delay in commissioning of 220kV SGTN Grid. Therefore, availability of at least one 66 kV Spare Bay alongwith additional 220/66 kV 160 MVA is critically required at 220 kV Gopalpur Grid. Besides that early commissioning of 220kV SGTN Grid is also critically required. With regard to Gopalpur and SGTN, the details have already been explained above.
6	3 rd circuit of 33kV from Wazirpur GIS grid to Ashok Vihar Grid	Yes	30 th Sep, 2016	--	--
7	33kV RWL-Payal single cable to twin cable circuit between Payal & Rewari Line Grid.	Yes	31-Jan-17	--	--

TPDDL (2017-18)

S. No	Details of priority work	DERC Approval	Expected completion date	DTL's integration requirement	Remarks of TPDDL and updated status of DTL's integration
1	CAPEX 13-14, Convert 33KV single cable of 220kV Shalimar bagh to Rani Bagh Ckt- 1 & 2 to twin 3X400mm ² XLPE cable	Yes	15 th May, 2017	Clubbing of both single cable circuit of Rani Bagh Ckt-1&2 to make one twin cable circuit at 220 kV Shalimar Bagh Grid.	Existing single cable of both 33kV Shalimar Bagh-Rani Bagh Ckt-1&2 shall be clubbed to make one twin cable circuit at both ends i.e. 220kV Shalimar Bagh & Rani Bagh Grid. New twin cable circuit shall be laid between 220 Shalimar Bagh & Rani Bagh Grid. The suggestion of TPDDL can be implemented without any issues.
2	Erection of 33/11 kV Swiss Apartment Grid (Ludlow Castle, Civil Lines)	Yes	30 th Nov, 2017	Commissioning of 220 kV Chandrawal Grid	This Grid is planned to shift the complete 11kV load from 220kV Subzi Mandi Grid. There is no 33kV spare Bays available at nearby 220 KV DTL Grids. Therefore this Grid shall be energised through LILO of 33kV Subzi Mandi-Shakti Nagar circuit. There would be N-1 constraints on 33kV interconnected circuits. Therefore to achieve N-1 of 33kV interconnected network, LILO of 33kV interconnected network at 220kV Chandrawal Grid are planned and shared with DTL & Steering committee. Besides that 161 MW is already captured at the time of Delhi Peak(01.07.2016) against the 200 MVA transformation capacity at 220kV Subzi Mandi Grid. Both 100 MVA PTR-1&2 have already loose N-1 and may also got overloaded during Summer'17. Therefore to achieve N-1 of 100 MVA PTRs at 220kV Subzi Mandi Grid as well as to achieve N-1 of 33kV interconnected network, early commissioning of 220/33kV Chandrawal Grid is critically required. With regard to Chandrawal, the details have already been explained above.
3	33 kV twin cable circuit between Saraswati Garden & Sudarshan Park Grid along with clubbing of both single 33kV Rewari Line-Saraswati Garden Ckt-1&2	Yes	15-May-17	1) Commissioning of 220/33 kV 100 MVA 3rd PTR at Peeragarhi Grid. 2) Spare 33kV Bays at 220kV Peeragarhi Grid	During N-1, this circuit shall help to move power flow from 220kV Naraina to 220kV Peeragarhi Grid through 33kV Peeragarhi-ESI-Sudarshan park-Saraswati garden Ckt. However there would be very less margin available on this circuit, therefore LILO of existing Saraswati Garden-Kirti Nagar ckt at 220kV Peeragarhi Grid has already proposed in the Steering committee held on 10.07.2015. Therefore additional 33kV Spare Bays alongwith additional 220/33 kV 100 MVA 3rd PTR(for N-1 mitigation) are required at 220kV Peeragarhi Grid. For reliability of the S/Stn. is concerned the 3rd 100MVA Tx. is likely to be commissioned by 30.06.2017. The request for spare bay was raised by TPDDL in the Steering Committee meeting held on 12.08.2016. BRPL has also requested additional bays. As such, the possibility of extension of 33kV GIS with four additional bays is being explored.
4	Erection of 66/11kV Karala GIS Grid	Yes	31-Oct-17	--	This Grid is planned to shift the complete 11kV load from 220kV Kanjhawala Grid
5	Additional 3rd Zero Value Power Transformer (20 MVA) at Sudershan Park Grid	Yes	30-Apr-17	Commissioning of 220/33 kV 100 MVA 3rd PTR at Peeragarhi Grid.	This Transformer shall be fed through 33kV Peeragarhi-ESI-Sudarshan Park circuit. To achieve N-1 of 100 MVA PTRs at 220kV Peeragarhi Grid, additional 220/33 kV 100 MVA 3rd PTR is required at 220kV Peeragarhi Grid. For reliability of the S/Stn. is concerned the 3rd 100MVA Tx. is likely to be commissioned by 30.06.2017.

S. No .	Details of priority work	DERC Approval	Expected completion date	DTL's integration requirement	Remarks of TPDDL and updated status of DTL's integration
6	Replacement of sick 20 MVA 33/11 kV PTR 1 at WZP 1 Grid by new 25MVA PTR.	Yes	30-Apr-17	--	--
7	66 KV D/C connectivity between 220 kV Kanjhawala&Karala.	Pending	31-Dec-17	--	These circuit shall help to evacuate more power from 220kV Kanjhawala Grid and shift load from 220kV Rohini to Kanjhawala Grid
8	Construction of a 66/11 KV, 2 x 31.5 MVA at RG-20 Grid alongwith in-feed arrangement RG-20 Grid 66 kV D/C connectivity from Karala Grid & 66 kV D/C connectivity from RG-22 Grid .	Pending	31-Mar-18	--	This Grid shall help to shift approx 50 MW load from 220kV Rohini to 220kV Kanjhawala Grid.
9	Erection of a 66/11 KV, 2x 25 MVA at RG Sec-16(or RG-11)	Pending	31-Mar-18	--	This Grid is planned to shift the complete 11kV load from 220kV Rohini Grid.
10	Addition of 3rd 66/11 KV, 20 MVA PTR at A-7 Narela Grid.	Pending	31-Dec-17	Commissioning of 220 kV Tikrikhurd Grid	This 3rd PTR shall put additional load on 220kV Narela Grid. Due to unequal load sharing, 100 MVA PTR-1&2 at 220kV Narela Grid may get overloaded in next summer'17. To achieve N-1 of 100 MVA PTRs at 220 kV Narela Grid, timely commissioning of 220kV Tikrikhurd is required. The 220kV S/Stn. Tikrikhurd is mainly meant for reliability of power supply of the areas fed from Narela and DSIDC Bawana S/Stn. of DTL. At present, there are no transmission constraints in any way at these existing S/Stns. The Board of Director of DTL in its meeting held on 23.03.2015 approved the scheme. The scheme is under tendering and expected to be floated soon. However, all possible efforts are taken to commissioning of S/Stn. by 2018-19 as minimum time line for completion of such type of GIS is 2 years.
11	33 kV U/G Twin Cable circuit between Tripolia & Shakti Nagar Grid .	Pending	31 st Dec,2017	Commissioning of 220 kV Chandrawal Grid	33/11kV Swiss Apartment is planned to shift the complete 11kV load from 220kV Subzi Mandi Grid. Due to unavailability of spare 33kV Bays at nearby 220KV DTL Grids, this Grid shall be energised through LILO of 33kV Subzi Mandi-Shakti Nagar circuit. There would be N-1 constraints on 33kV interconnected circuits. 33kV Tripolia-Shakti Nagar circuit is proposed to mitigate the N-1 partially, however to achieve N-1 fully, LILO of 33kV Tripolia-Shakti Nagar ckt at 220kV Chandrawal Grid is already proposed and shared with DTL & Steering committee. Therefore to achieve N-1 of 33kV interconnected network, early commissioning of 220/33kV Chandrawal Grid is critically required. With regard to Chandrawal, the details have already been explained above.

S. No .	Details of priority work	DERC Approval	Expected completion date	DTL's integration requirement	Remarks of TPDDL and updated status of DTL's integration
12	Strengthening of 33kV Gopalpur – Civil Lines Ckt, 33kV Gopalpur – DIFR Ckt, 33kV DIFR – CVL Ckt, 33kV Indira Vihar – DIFR Ckt.	Pending	31 st Dec,2017	--	--
13	Additional 66/11kV 31.5 MVA 3rd PTR at Bawana-1	Pending	31 st Mar, 2018	--	This shall help to reduce the loading on 20 MVA PTR-1&2 at 220kV DSIIDC Bawana Grid.
14	66kV Double circuit connectivity between SGTN-2 & Siraspur Grid	Pending	31 st Dec,2017	Commissioning of 220 kV SGTN Grid	66/11kV SGTN-2 Grid was planned with feed through 220kV SGTN Grid. However due to delay in commissioning of 220kV SGTN Grid, this Grid has been energised through LILO of Jahangirpuri-PP1 Circuit-1&2. Jahangirpuri Grid is fed through 66kV Bhalswa circuit-1&2 and 66kV Gopalpur Circuit-1&2. Due to upcoming DJB Burari & Dherpur Grid, there would be N-1 constraints on 66kV Narela-Bhalswa Ckt-1&2 as well as 66kV Gopalpur-Jahngirpuri Circuit-1&2. 66 kV SGTN-Siraspur ckt is proposed to mitigate the N-1 partially, however to achieve N-1 fully, LILO of 66kV interconnected network at 220kV SGTN Grid are planned and approved by the Steering committee. Therefore early commissioning of 220 kV SGTN Grid is critically required. With regard to SGTN, the details have already been explained above.
15	Installation of 66/11kV 20 MVA 4th PTR at both DSIIDC-1 & DSIIDC-2 Grid	Pending	31 st Dec,2017	Commissioning of 220 kV Tikrikhurd Grid	This shall put additional load on 220kV Narela Grid. Due to unequal load sharing, 100 MVA PTR-1&2 at 220kV Narela Grid may get overloaded in next summer'17. To achieve N-1 of 100MVA PTRs at 220 kV Narela Grid, timely commissioning of 220kV Tikrikhurd is required. With regard to Tikrikhurd, the details have already been explained above.

GCC may deliberate.

3.3 IMMEDIATE REVIVAL OF 400kV BAMNAULI – JHATIKARA CKT-I.

It was opined that for smooth operation of Delhi system, all elements in DTL transmission system should be in healthy position to cater any exigency and to facilitate shut-down of other circuits. At present, 400kV Bamnauli – Jhatikara Ckt-I is out since 22.05.2016 and 400kV Bamnauli – Jhatikara Ckt-II is charged on ERS (both the ckts went under breakdown due to a tower collapse in local storm).

In the last meeting, it was informed that the circuit would be revived by 30.04.2017. With the increase in load demand, the load on the existing circuits often crosses 850MW. The bus splitting was suggested but considering the stability of the system, NRLDC has not consented as the existing circuit with the twin conductors can carry 800Amps each (appx. more than 1200MW).

DTL is requested to expedite the commissioning of the line on normal towers as load restriction is not possible without affecting the stability of the system.

3.4 BAY EXTENSIONS OF GIS

It has been observed from the proceedings of Steering Committee that bays are required to be extended at certain sub stations for more evacuation of power as under:-

a) 33kV bays extension at 220kV GIS Trauma Centre

Sr. No	Name of the feeder	Name of the utility	Likely commissioning of the ckt.
1	33kV AIIMS-II Ckt-I	BRPL	2018-19
2	33kV AIIMS-II Ckt-II	BRPL	2018-19
3	33kV Hudco Ckt	BRPL	2017-18
4	33kV NDSE-II Ckt.	BRPL	2017-18
5	33kV Kidwai Nagar East-I Ckt	NDMC	2017-18
5	33kV I/C of 220/33kV 100MVA Tx-II	DTL	2019-20

b) 33kV 4 Nos. Bays at Peera Garhi

Sr. No	Name of the feeder	Name of the utility	Likely commissioning of the ckt.
1	33kV Peera Garhi Ckt-I	BRPL	2018-19
2	33kV Peera Garhi Ckt-II	BRPL	2018-19
3	33kV bay for TPDDL	TPDDL	2018-19
4	33kV bay for TPDDL	TPDDL	2018-19

c) 66kV 10 Nos. Bays at Harsh Vihar

Sr. No	Name of the feeder	Name of the utility	Likely commissioning of the ckt.
1	66kV Mandoli Jail Complex Ckt-I	BYPL	2018-19
2	66kV Mandoli Jail Complex Ckt-II	BYPL	2018-19
3	66kV Harsh Vihar Ckt-I	BYPL	2019-20
4	66kV Harsh Vihar Ckt-II	BYPL	2019-20
5	2 Bays for 66kV LILO of 66kV Dilshad Garden – Vivek Vihar Ckt (one circuit)	BYPL	2018-19
6	Four spare bays		

Planning Department of DTL may indicate the progress.

3.5 CAPACITOR INSTALLATION PLAN

In the last GCC meeting, the position of capacitor banks updated as under:-

As on 28.02.2017

Utility	Installed capacity in MVAR (HT)	Installed in capacity in MVAR (LT)	Total
BYPL	923.19	102	1025.19
TPDDL	847.78	119	966.78
NDMC	239.04	24.29	263.33
DTL	753.52	0.00	753.52
BRPL	1295.10	190.00	1485.10
RPH	20.00	0.00	20.00
MES	20.10	0.00	20.10
Total	4098.73	435.29	4534.02

Note:NDMC has dismantled 13.26MVAR(33kV level) Capacitor banks at 33kV AIIMS S/Stn.

The capacitor addition plan provided by the utilities is as under:-

TPDDL

Sr. No	NAME OF THE STATION	VOLTAGE LEVEL AT WHICH CAPACITOR IS PLAN	CAPACITY IN MVAR	TARGET DATE OF COMMISSIONING
1	66 kv SGTN	11 KV	7.2 MVAR	31-Mar
2	66 KV DHEERPUR	11 KV	7.2 MVAR	31-Mar
3	66 KV SIRASPUR	11 KV	7.2 MVAR	31-Mar
4	66 KV RG-30	11 KV	7.2 MVAR	30-May
5	66 KV NSC-2	11 KV	7.2 MVAR	30-May

BYPL

S.No	NAME OF THE STATION	VOLTAGE LEVEL AT WHICH CAPACITOR IS PLAN	CAPACITY IN MVAR	TARGET DATE OF COMMISSIONING
1	Lahori Gate	11 KV	1x7.2	31-03-17
2	Krishna Nagar	11 KV	2x7.2	31-05-17
3	Dwarkapuri	11 KV	1x7.2	31-05-17
4	Vivek Vihar	11 KV	1x7.2	31-05-17
5	Dallupura	11 KV	1x7.2	30-06-17
6	GH-II	11 KV	1x7.2	30-06-17
7	MVR-I	11 KV	1x7.2	31-07-17
8	Tibeia College	11 KV	2x7.2	31-03-18
9	Ghonda	11 KV	1x7.2	31-03-18

BRPL

S. No	NAME OF THE STATION	VOLTAGE LEVEL AT WHICH CAPACITOR IS PLAN	CAPACITY IN MVAR	TARGET DATE OF COMMISSIONING
1	Mithapur	11kV	14.4	Jun-17
2	G-7 Dwarka	11kV	21.6	Apr-17
3	Fathepur Beri	11kV	21.6	Oct-17
4	IGNOU	11kV	7.2	Apr-17
5	MCIE	11kV	7.2	Jun-17
6	G-4	11kV	21.6	Ready to energize
7	VKJ Inst.Area	11kV	21.6	Ready to energize
8	G-6	11kV	7.2	Mar-17

NDMC and MES have no plan to install additional capacitors in near future.

It was informed that as per CPRI Study (Year 2013), Delhi need not to have install additional capacitors. NRPC is conducting capacitor study for 2017-18 and 2018-19.

Utilities may update the position.

3.6 NON USAGE OF BAYS ALLOTTED TO VARIOUS UTILITIES FROM DTL SUB-STATIONS.

The position of unutilized bays at various newly commissioned DTL sub-stations was updated by the utilities in the last meeting was as under:

S N.	Name of 400/220kV S/Stns.	Details of non utilization of bays					
		Voltage level	Name of bay	Name of the utility to whom the bay is allocated	Original allocation date	Present status	
1	220kV Trauma Centre	33kV	Sarojini Nagar	NDMC	19.11.09	Sarojini Nagar S/stn. is under construction and expected by 2018-19. In the meantime, to utilize the bay, the bay is temporarily allocated to BRPL to accommodate NDSE-II as decided in the Steering Committee meeting held on 06.10.2016.	
			Jor Bagh		19.11.09		90% work has been completed. Work is held up due to non availability of cables which is being arranged on priority basis. Expected by March 2017.
			Safdarjung Hospital		19.11.09		In the OCC meeting held on 28.03.2017, it was informed by NDMC that the feeder is being temporarily charged shortly to provide supply to newly built Safdarjung Hospital Complex.
			Race Course		17.06.11		Sub-station is already in existence and is now been fed from Ridge Valley and Park Street. Due to load constraints at Park Street another feed from AIIMS 220kV S/Stn. is planned. The same can be made after cable link is established and load would be met from AIIMS. The cable link is expected by March 2017.
2	220kV Electric Lane	33kV	1. Vidyut Bhawan 2. Hanuman Road 3. Janpath Lane. 4 Church Road 5 Delhi High Court 6 IGNSA Total = 6 Bays	NDMC	19.11.09	All the ccts envisaged except Delhi High Court would be commissioned by March 2018. For Delhi High Court to provide space for establishment of the sub station in the court premises is being persuade with the High Court Authorities.	
3	220kV DSIDC Bawana	66kV	1. Bay 629 BWN-7 Ckt-I 2. Bay 630 BWN-7 Ckt-II Total = 2 Bays	TPDDL	11.06.14 11.06.14	3. By Dec, 2017 4. By Dec, 2017 All the bays earmarked for TPDDL were requisition based on the requirement of DSIIIDC. DSIIIDC has not yet remit the amount to TPDDL as all the schemes are envisaged as deposit work.	
5	400kV Mundkara	66kV	1. Bay 604 2. Bay 606 3. Bay 610 4. Bay 613 5. Bay 614 6. Bay 617 Total = 6 Bays	BRPL/TPDDL	31.05.2012	Two bays for TPDDL Kirari would be utilized by 2018-19. Four bays for BRPL i.e. Bakkarwala(2 Nos.) & Nilothi(2 Nos.) would be utilized by 18-19	
6	400kV Harsh Vihar	66kV	2 bays - DMRC	DMRC	12.04.10	DMRC for Phase-III expansion.	

Utilities may update the position.

3.7 LONG OUTAGE OF ELEMENTS OF DELHI POWER SYSTEM

The status of long outage of elements was perused as under:-

Sr. No	NAME OF THE ELEMENT	OUTAGE		UTILITY	REMARKS
		DATE	TIME		
1	400kV BAMNAULI - JHAKTIKARA CKT.-I	22.05.2016	20:30	DTL	DEAD END TOWER No. 169 ALONG WITH GANTRY COLLAPSED AT BAMNAULI. CKT-II CHARGED ON ERS. ORDER PLACED. EXPECTED BY 30.04.2017.
2	220/33kV 100MVA PR.TR.-I AT 220kV WAZIRPUR	19.10.2016	16:48	DTL	PROBLEM IN TX WINDING. COULD NOT BE REPAIRED AT SITE, NOW BEING TRASFERRED TO OEM WORKSHOP FOR REPAIR. TX DIVERTED FROM PREET VIHAR. EXPECTED BY 30.04.17.
3	220/33kV 100MVA PR.TR.-II AT GEETA COLONY	01.12.2016	08:38	DTL	D.G.A. RESULTS OF TR. OIL ARE NOT WITH IN THE PERMISSIBLE LIMIT. TR. BEING REPLACED. EXPECTED BY 25.04.2017.
4	220KV MEHRAULI - DIAL CKT-I AT DIAL END	27.02.2017	05:22	DTL	CABLE PORTION DAMAGED. 220kV BAMNAULI - MEHRAULI CKT.-I MADE THROUGH WITH T-OFF AT 220kV DIAL CKT.-I
5	220/33kV 100MVA PR.TR.-II AT 220kV LODHI ROAD	22.03.2017	22:30	DTL	TRIPPED ON DIFFERENTIAL, PROT. AND BUCHLOZ RELAY. TX. FAULTY; TO BE REPLACED.
6	220kV MAHARANI BAGH - LODHI ROAD CKT.-I	05.04.2017	08:44	DTL	Y'PH. BUSHING OF CABLE END BOX DAMAGED AT MAHARANI BAGH END. EXPECTED BY 30.04.2017.
7	220/33kV 100MVA PR.TR.-IV AT 220kV OKHLA	07.04.2017	11:15	DTL	TRIPPED ON DIFFERENTIAL, HV & LV WINDINGS DAMAGED.
8	400kV BALLABHGARH-BAMNAULI CKT.-I	06.04.2017	14:48	DTL	SHUT DOWN FOR OPGW STRINGING WORK. EXPECTED BY 21.04.2017.
9	20MVA PR.TR.-II WITH 11kV I/C-II AT 220kV NARELA	17.03.2017	14:32	DTL	SHUT DOWN FOR OVERHAULING OF TRANSFORMER. EXPECTED BY 25.04.2017.
10	220/66kV 100MVA PR.TR.-II AT 220kV GAZIPUR	20.04.2017	09:45	DTL	SHUT DOWN FOR OVERHAULING OF TRANSFORMER. EXPECTED BY 19.05.2017
11	33kV BAY -3 (IP - KILOKRI)	22.02.2011	13:10	BRPL	CLEARNACE FROM RAILWAYS FOR LAYING UNDER GROUND CABLE NEAR BHAIRO ROAD IS PENDING.
12	33kV RIDGE VALLEY - KHEBAR LINE CKT.-II	31.01.2016	00:47	BRPL	R'PH. SINGLE CABLE FAULTY
13	33kV IIT - JNU CKT.	27.11.2016	17:32	BRPL	CT PROBLEM.
14	66kV V.KUNJ INSTL.AREA-RIDGE VALLEY CKT.-I	26.03.2017	10:45	BRPL	UNDER SHUT DOWN
15	33kV OKHLA(220kV) - ALAKHNANDA CKT.-I	07.04.2017	00:35	BRPL	SINGLE CABLE FAULTY
16	220kV TRAUMA CENTRE - 33kV IIT CKT.	17.04.2017	16:00	BRPL	UNDER BREAK DOWN
17	66kV V.KUNJ 'B'BLOCK - LIVER INSTITUTE CKT.-I	19.04.2017	11:54	BRPL	R'PH. SINGLE CABLE FAULTY
18	33kV JASOLA - SARAI JULIENA CKT.	20.04.2017	20:35	BRPL	R'PH. SINGLE CABLE FAULTY
19	66kV SAGARPUR - REWARI LINE CKT.	30.07.2016	23:07	BRPL	B'PH. CABLE FAULTY. RE-ROUTING BEING DONE.
20	66kV BUS COUPLER AT G-15 DWARKA	22.11.2016	03:50	BRPL	CT BLAST.

Sr. No	NAME OF THE ELEMENT	OUTAGE		UTILIT Y	REMARKS
		DATE	TIME		
21	30MVA PR.TR. AT NANGLOI	18.03.2017	14:25	BRPL	PROTECTION PROBLEM
22	33kV CHAUKHANDI - PACIFIC MALL CKT.	29.03.2017	22:55	BRPL	SINGLE CABLE FAULTY
23	20MVA PR.TR.-III AT G-5 MATIALA	11.04.2017	15:55	BRPL	UNDER SHUT DOWN
24	33kV GONDA(66kV) - G.T. ROAD CKT.-II	19.04.2017	19:58	BYPL	Y'PH. SINGLE CABLE FAULTY
25	33kV PANDAV NAGAR - DMS CKT.	03.04.2016		BYPL	PROBLEM IN RMUs. EXPECTED BY 31.03.2017.
26	33kV JAHANGIRPURI-SANJAY GANDHI TR. NGR CKT-I			TPDDL	`R' PHASE CABLE FAULTY.
27	66kV S.G.T.N (GIS)-PP1 CKT.-I			TPDDL	Y'PH. CABLE FAULTY
28	33kV JAHANGIRPURI-AZADPUR CKT.-I	05.04.2017		TPDDL	B'PH. SINGLE CABLE FAULTY
29	33kV NARAINA(220kV)-PADAV NAGAR CKT	11.04.2017		TPDDL	SINGLE CABLE FAULTY

4 COMMERCIAL ISSUES.

4.1 INTRASTATE UI ACCOUNT

The position of payment of Intrastate UI/ DSM accounts (upto Week-35/16-17) is as under:-

Amount in Rupees Crores

UTILITY	AMOUNT IN RUPEES CRORES RECEIVABLE BY UTILITIES	PAYABLE BY UTILITY
TPDDL	--	
BRPL	--	93.766
BYPL	--	98.464
NDMC	--	--
MES	--	--
IPGCL	--	--
PPCL	--	--
BTPS	--	--
TOTAL	--	192.230

DERC in its order dated 29.12.2014, in the petition no. 48/2014 filed by TPDDL for their dues from UI Pool, the following

ORDER

(Date of Hearing: 09.12.2014)

(Date of Order: 29.12.2014)

1. Mr. Alok Shankar, the Ld. Counsel for petitioner, submitted that the Central Electricity Regulatory Commission in its order dated 02.07.2014 in Petition no.143/282-MP-2013 directed that "The dispute regarding non-payment of UI dues by some of the intra-state entities to DTL and consequently, non-settlement of the dues of other distribution licensees of Delhi does not fall within the jurisdiction of this Commission. The petitioners are at liberty to approach DERC for appropriate relief in accordance with law if so advised."
2. Mr. Shankar further submitted that approximately Rs.1.26 crores is receivable by the petitioner from the intra-state entities.
3. Mr. Susheel Gupta for SLDC submitted that the principal amount has been paid to the petitioner and only the interest is pending due to the non-payment of Unscheduled Interchange Charges (UI charges) by BRPL.
4. The Commission is not convinced with the contention of SLDC. The Commission is of the considered view that since SLDC has separate agreements with all the intra-state entities drawing power from the grid therefore it is their obligation to pay the outstanding interest to the petitioner without mixing it up with the non-payment of UI charges by BRPL. The Commission directs SLDC to pay outstanding interest to the petitioner within a month and also take appropriate action to recover the outstanding dues towards UI charges from BRPL.
5. With the above directions, the petition is disposed off.
6. Ordered accordingly.

Considering the above directions, SLDC discharges the payment liabilities to the utilities including that of NRPC (which is the priority payment as per the provisions of DMS Regulations) from the Pool.

GCC may deliberate.

4.2 NRLDC CHARGES BILLING DIRECTLY TO DISCOMS.

NRLDC has been raising bills for NRLDC Charges since October, 2010 (since the inception of Power System Operation Corporation Ltd.). As per the regulations 22 and 23 of RLDC fees and charges regulations of CERC, Delhi SLDC is acting as a Nodal Agency for collection and disbursing of NRLDC charges. The relevant Regulations are reproduced hereunder:-

22. Collection of SOC.-

- (1) *The System operation charges shall be collected from the users as per the norms given below:-*
 - (i) *Inter state transmission licensees: 10% of system operation charges;*

- (ii) *Generating stations and sellers: 45% of system operation charges;*
- (iii) *Distribution licensees and buyers: 45% of system operation charges.*
- (2) *The system operation charges shall be levied on the inter state transmission licensees on the basis of the ckt.-km of the lines owned by them as on the last day of the month prior to billing of the month.*
- (3) *The system operation charges from the generating companies and sellers shall be collected in proportion to their installed capacity or contracted capacity, as the case may be, as on the last day of the month prior to billing of the month.*
- (4) *The system operation charges from distribution licensees and buyers shall be collected in proportion to the sum of their allocations and contracted capacities, as the case may be, as on the last day of the month prior to billing of the month.*

Provided that the respective State Load Despatch Centre shall be the nodal agency for this purpose in the State if the concerned Regional Load Despatch Centre, State Load Despatch Centre and the distribution licensees arrives at a mutual consensus to do so. The respective State Load Despatch Centre shall collect the system operation charges from the distribution licensees within a state on behalf of the concerned Regional Load dispatch Centre and the same shall be deposited to the concerned Regional Load Despatch Centre.

(emphasis supplied)

23. *Collection of Market Operation Charges*

The market operation charges shall be collected equally from all the users except interstate transmission licensees:

Provided that the respective State Load Despatch Centre shall be the nodal agency for this purpose in the State if the concerned Regional Load Despatch Centre, State Load Despatch Centre and the distribution licensees arrives at a mutual consensus to do so. The respective State Load Despatch Centre shall collect the market operation charges from the distribution licensees within a state on behalf of the concerned Regional Load dispatch Centre and the same shall be deposited to the concerned Regional Load Despatch Centre.

(emphasis supplied)

At present, Delhi SLDC is billed by NRLDC for NRLDC fees and charges as per the Tariff approved by CERC. Delhi SLDC allocates the amount among the DISCOMs and PPCL (for Bawana Power allocated to Punjab & Haryana) and collects the amount from DISCOMs and remits the same to NRLDC generally within 60th day of the issue of bill by the NRLDC.

While, remitting the amount from DISCOMs in SLDC, TDS is done at their end. While remitting the amount by SLDC in NRLDC, TDS is done

by SLDC also ending to less collection of charges by NRLDC. This being done by Delhi SLDC based on the Tax Consultant's advise (M/s M Verma and Associates Delhi). The consultant's advise is reproduced here under:-

"This is with reference to your letter dated 01.06.2011 and subsequent discussion held with undersigned, in our office at Nehru Place with regard to seeking our opinion for the recovery of TDS while releasing payment of charges to PGCIL/POSOCO after collecting/recovering the amount from DISCOMs as beneficiary. As per section 1940 of Income Tax Act 1961 "Fee for Professional or Technical Services"

- (i) *Any person, not being an individual or Hindu undivided family who is responsible for paying to a resident any sum by way of*
 - a. *Fee for professional services, or*
 - b. *Fee for technical services or*
 - c. *Royalty, or*
 - d. *Any sum refer to in clause (va) of section 28.*

Shall at the time of credit of such sum to the amount of the payee or at the time of payment thereof in cash or by issue of a cheque or draft or by any other mode, whichever is earlier deduct any amount equal to 10% of such sum as Income Tax on Income comprised therein.

Further as per clause (3) (b) "Fees for technical service" shall have the same meaning as in explanation 2 to clause (vii) of sub section (1) of section 9 i.e. "Fee for technical services" means any consideration (including any lump sum consideration) for the rendering of any managerial, technical or consultancy services (including the provision of services or technical or other personal).

We have perused the existing provisions relating to deduction of tax at source on technical services and we are of the opinion that the tax will have to be paid on each payment when it is subsequently made to the beneficiaries. This is no doubt a double taxation at this juncture; however this amount is refundable at the time of final assessment. For taking refund it is necessary to comply with all the provisions and file all TDS returns in time.

Please note as per the Law statue the only way to avoid double taxation is to seek exemption from the Appropriate Tax Authority.

Should you need any more clarification, you are most welcome."

This was brought to the notice of NRLDC vide SLDC letter dated 24.06.2011 and requested NRLDC the following :-

- (a) Seek TDS exemption on double TDS from Appropriate Tax Authority.
- (b) Bill directly to DISCOM based on data provided by SLDC regarding apportioned NRLDC Charges.

Despite passing more than 05 years, no action on direct billing on Discoms by NRLDC has been taken. It was also brought out that on the contrary of assurances of

NRLDC representative in the 6th GCC Meeting (copy of the extracts of the MOM of 6th GCC meeting. Truing up the expenses NRLDC charges for the period October, 2010 to March 2014 have already been done by CERC. While refunding the amount of excess charges, NRLDC has deducted Rs.178 Lacs towards double TDS and Rs.58 Lacs as late payment surcharge. This is contrary to the assurances given earlier.

Delhi Discoms have requested for full reimbursement for the charges and threatened that further payments would be stopped if full refund is not done.

It may also be noted that as per the regulations of NRLDC fees and charges, there is no binding on Delhi SLDC (emphasize supplied in the above quotations) to act as a collecting and disbursing agency for NRLDC Charges.

It is also brought to the notice that the issue of direct collection of NRLDC charges from DISCOMs based on the information provided by Delhi SLDC, was discussed in the 31st Commercial Sub-Committee Meeting of NRPC held on 04.07.2016. The extracts of the Minutes of Meeting in this regard is reproduced hereunder:-

ITEM-24 Truing up of NRLDC Fee & Charges Payments for 2009-14

Representative of NRLDC stated that truing up details of NRLDC Fees & Charges Payments for 2009-14 were available on NRLDC website. (<http://nrldc.org/truingup.aspx>)

Representative of SLDC, Delhi raised the issue of double TDS and requested NRLDC to raise bill directly to the Discoms. Representative of NRLDC stated that they could not raise bill to Discoms directly, as they were not registered entity with NRLDC. SE, NRPC suggested that Delhi, SLDC may apportion charges among Discoms. Discoms may make payment directly to the NRLDC and NRLDC would consider it as a payment from Delhi. NRLDC agreed to look into possible options within the ambit of law.

This matter was again taken up in the 32nd meeting Commercial Sub-committee of NRPC held on 07.04.2017 wherein it was suggested that a preliminary meeting with all stakeholders who are to pay the charges be convened to resolve the issue. Accordingly a meeting is fixed under the Chairmanship of Director (Operations), DTL on 28.04.2017 in SLDC.

GCC may note.

4.3 Issuance of various accounts by SLDC

The Stake Holders were critical of the delay of issuance of energy accounts as per the provisions of various standards and Grid Codes.

This meeting was called to find a solution to speed up the preparation and issuance of the Energy accounts.

The Gist of discussions and decisions taken in the meeting are as under:-

1 SLDC presented the details of the status of accounts being issued by SLDC as under:-

S. N.	Details of accounts	Current status	Input required data for preparation of Accounts	Remarks
1	Provisional monthly State Energy Accounts	Being issued by 6 th of every month for the preceding month	Daily generation schedules of Intrastate generators and NRPC Provisional REAs	Being issued on time
2	Monthly Transmission Capacity Allocation	For recovery of monthly Transmission Charges of DTL on monthly basis being done by 10 th of every month for preceding month	Allocation of power to various distribution licensees	Being issued on time
3	SLDC Charges bill	For recovery of Delhi SLDC Charges on monthly basis being done by 10 th of every month for preceding month	Allocation of power to various distribution licensees	Being issued on time
4	Allocation of NRLDC Charges	The allocation of NRLDC charges to be paid by the users as per the NRLDC fees and charges of Regulations of CERC is being issued before the due date i.e. 55 th day of issuance of bills by NRLDC	Allocation of power to various distribution licensees	Being issued on time

S. N.	Details of accounts	Current status	Input data required for preparation of Accounts	Remarks
6	Inter Discom Transfer (IDT) on day ahead basis	Cumulatively on monthly basis is being issued by 15 th of every month for the preceding month	Quantum of daily transfer as per the SLDC records	Being done on time
7	Deviation Settlement Mechanism (DSM) Weekly Accounts	41 st Week of 2016-17 issued on 03.04.2017.	SEM data from Metering Department, implemented from schedules from NRLDC Website, Master Frequency Data from NRPC Accounts	<p>DSM Regulations stipulates the following:-</p> <p>9. Accounting of Charges for Deviation (1) <u>A statement of Charges for Deviations including Additional Charges for Deviation levied under these regulations shall be prepared by the Secretariat of the respective Regional Power Committee on weekly basis based on the data provided by the concerned RLDC(s) by the Thursday of the week and shall be issued to all constituents by next Tuesday, for seven day period ending on the penultimate Sunday mid-night.</u></p> <p>Even NRPC could reduce the gap only recently, though ABT was implemented in Northern Region on 01.12.2002. It could make possible after the implementation of AMR which was undertaken in the year 2009. So far, full AMR could not be implemented in NR.</p> <p>As far as Delhi is concerned, the Metering Division of DTL downloads the metering data from some location on biweekly basis and in some locations, it is being done through the S/Stn PC through internet to Metering Division. At present, 313 nos of meters are involved at 63 locations. The issue of AMR was discussed in 16th GCC meeting held on 18.01.2017 wherein BRPL has raised the issue of AMR and transfer of data on real time basis for management of power purchases. The extracts of the MoM are appended hereunder:-</p> <p>9.3(i) Additional facility of ABT meters.</p> <p>a) Provision to capture reactive power drawl/supply every month.</p> <p>b) Automation of all ABT meters installed in DTL grids so that all discoms get the data of daily Million Units consumption.</p> <p><i>It was clarified by DTL that AMR provision is under consideration of DTL for a long time. However, due to fund crisis owing to non payment of dues by utilities especially BRPL and BYPL, the scheme has not been taken on priority. If funds availability improves, the scheme would be implemented after due processing.</i></p>

S. N.	Details of accounts	Current status	Input data required for preparation of Accounts	Remarks
				<p><i>GCC noted the position and advised DTL to speed up the implementation of AMR in view of its importance in managing the power purchases and scheduling of power arising optimization of power purchase cost. Utilities were also advised to ensure timely payment to DTL to ensure implementation of such schemes.</i></p>
8	<p>Inter Discom Transfer (IDT)-II based on actual meter readings on monthly basis.</p>	<p>Issued upto October 2016.</p>	<p>SEM data, implemented schedules, frequency etc.</p>	<p>Delayed by 5 months.</p> <p>It was intimated that in the Delhi Power Procurement Group (DPPG) held on 06.03.2013 meeting, the following was decided :-</p> <p>Inter Discom Transfer of surplus Power</p> <p>In the meeting held on 01.03.2013 at Delhi Secretariat chaired by Principal Secretary (Power), GNCTD regarding summer preparedness while discussing the areas of mutual cooperation and coordination, the issue of transfer of surplus power on real time basis to needy discoms of Delhi was discussed. All CEOs of Distribution Companies agreed in principle the proposal. Accordingly, the item is included in the agenda for discussions. DPPG decided the following as under:-</p> <p><i>“Indian Electricity Grid Code (IEGC) stipulates the State as a whole to maintain scheduled drawal in respect of various frequency regime as under:-</i></p> <p>5.4.2 Demand Disconnection</p> <p>(a) SLDC/ SEB/distribution licensee and bulk consumer shall initiate action to restrict the drawal of its control area ,from the grid, within the net drawal schedule whenever the system frequency falls to 49.8 Hz</p> <p>(b) The SLDC/SEB/distribution licensee and bulk consumer shall ensure that requisite load shedding is carried out in its control area so that there is no over drawl when frequency is 49.7 Hz. or below.</p> <p>c) Each User/STU/SLDC shall formulate contingency procedures and make arrangements that will enable demand disconnection to take place, as instructed by the RLDC /SLDC, under normal and/ or contingent conditions. These contingency procedures and arrangements shall regularly be / updated by User/STU and monitored by RLDC/SLDC. RLDC/ SLDC may direct any User/STU to modify the above procedures/ arrangement, if required, in the interest of grid security and the concerned User/STU shall abide by these directions.</p>

S. N.	Details of accounts	Current status	Input data required for preparation of Accounts	Remarks
				<p>d) The SLDC through respective State Electricity Boards/ Distribution Licensees shall also formulate and implement state-of-the-art demand management schemes for automatic demand management like rotational load shedding, demand response (which may include lower tariff for interruptible loads) etc before 01.01.2011, to reduce overdrawl in order to comply para 5.4.2 (a) and (b). A Report detailing the scheme and periodic reports on progress of implementation of the schemes shall be sent to the Central Commission by the concerned SLDC.</p> <p>e) In order to maintain the frequency within the stipulated band and maintaining the network security, the interruptible loads shall be arranged in four groups of loads, for scheduled power cuts/load shedding, loads for unscheduled load shedding, loads to be shed through under frequency relays / df/dt relays and loads to be shed under any System Protection Scheme identified at the RPC level. These loads shall be grouped in such a manner, that there is no overlapping between different Groups of loads. In case of certain contingencies and/or threat to system security, the RLDC may direct any SLDC/ SEB/distribution licensee or bulk consumer connected to the ISTS to decrease drawal of its control area by a certain quantum. Such directions shall immediately be acted upon. SLDC shall send compliance report immediately after compliance of these directions to RLDC.</p> <p>2 In hierarchy, the IEGC should first be adhered and then the State Grid Code provisions.</p> <p>3. While obviating the violation of IEGC provisions and to avoid load shedding in Delhi in case the State as a whole does not violate the drawal positions as stipulates in the above Grid Code provision, DPPG proposed the following methodology to use one Distribution Licensee's surplus by the other Distribution Licensee(s) who is facing shortages on real time basis.</p> <p>a)No Distribution Licensee should be compelled to carry out load shedding in their areas under over drawal conditions if Delhi as a whole is not over drawing from the Grid in the respective frequency band fixed in IEGC.</p>

S. N.	Details of accounts	Current status	Input data required for preparation of Accounts	Remarks
				<p><i>b) While drawing out drawal schedules of Distribution Licensees on the real time basis of Special Energy Meter (SEM) readings, Delhi SLDC would transfer the surplus power available with any Discom to Distribution Licensees who is in shortage in proportion to their shortage when shortage is more than surplus, otherwise in proportion to surplus available. This transaction only occurs in 15 minutes time block when the frequency is below the band wherein the penalty is applicable to any Discom. All these transaction would be on post facto basis.</i></p> <p><i>c) Delhi SLDC shall issue Monthly Energy Accounts of such transfer after the receipt of the entire month's SEM data.</i></p> <p><i>d) The rate would be the frequency linked UI rate prevailing at the time and applicable only when the frequency band is below the penalty level which is at present 49.7Hz. Hence, the rate of these inter discom transfer of power would be at UI Rate when penalty is applicable which is at present 49.7Hz and rate at this frequency is presently Rs. 9.00/kWh.</i></p> <p><i>e) The availing utility has to pay the supplying utilities within 10 days of the issue of the Accounts by SLDC (to be posed in SLDC website) failing which the delayed payment surcharge of 0.04% per day from the date of issue of the Accounts would be applicable</i></p> <p><i>f) The above approved inter discom transfer arrangements will be applicable from 1st April 2013”.</i></p> <p>After implementation of DSM regulations w.e.f. 17.02.2014 the penalty based on frequency band was replaced with volume based (if any utility overdraws more than 12% of its scheduled drawal the penalty is imposed @ 20% - 100% of the DSM rate corresponding to the block frequency depending upon the variation of drawal while the under drawing utility who is under drawing more than 12% of the schedule drawal will not be paid for the Underdrawal beyond 12% of the schedule drawal). Accordingly, IDT-2 methodology was also modified in the Scheduling Procedure (Aug. 2014) drawn out in consultation with the stake holders and submitted to DERC. The extract of the Scheduling Procedure in this regard are appended hereunder:</p> <p>12 COMPLEMENTARY COMMERICAL MECHANISM FOR INTER DISCOM TRANSFER OF SURPLUS POWER TO BE WITHIN THE STIPULATIONS CONTAINED IN DEVIATION SETTLEMENT MECHANISM.</p> <p>To avoid the penalties for overdrawal and underdrawal as stipulated in the Deviation Settlement Mechanism Regulation notified by CERC, it is proposed to draw out inter Discom Transfer of surplus energy as under:</p> <p>a) SLDC shall draw out the surplus / shortages of individual Discoms from their Final implemented schedule and actual based on SEM reading. Based on this shortage/surplus SLDC shall distribute the individual surplus to the needy discoms <i>when both surplus and needy discoms violate the limits specified in Deviation Settlement Mechanism Regulations</i>. The rates would be as per the rates mentioned in Deviation Settlement mechanism at each frequency regime.</p> <p>b) SLDC shall issue monthly accounts indicating such interdiscom transfers after getting the SEM data for the entire month.</p> <p>c) All utilities shall settle the accounts within 8 days of issue of such accounts, failing which a late payment surcharge of 0.04% per day applicable on the outstanding dues.</p>

S. N.	Details of accounts	Current status	Input data required for preparation of Accounts	Remarks
				<p>d) Delhi Power Procurement Group in its meeting held on 17.06.2014 has decided the methodology of Payment Security Mechanism (PSM) for the Inter Discom Transfer as under:</p> <p>All Discoms which had at any time during the previous financial year failed to make payment of Charges for the power transferred through the IDT mechanism within the time specified shall be required to open a Letter of Credit (LC) equal to 110% of its average payable monthly liability for the IDT in the previous financial year, in favour of the concerned Discom within a fortnight from the date of approval of DERC for implementation of the scheduling procedure.</p> <p>Provided that –</p> <p>(i) if any Discom fails to make payment of Charges for the power transferred through the IDT mechanism by the time specified during the current financial year, it shall be required to open a Letter of Credit equal to 110% of monthly outstanding liability in favour of respective Discom within a fortnight from the due date of payment.</p> <p>(ii) LC amount shall be increased to 110% of the payable monthly liability for IDT in any month during the year, if it exceeds the previous LC amount by more than 50%.</p> <p>Illustration: If the average payable monthly liability for the IDT of a Discom during 2013-14 is Rupees 20 crore, the Discom shall open LC for Rupees 22 crore in 2014-15. If the monthly payable liability during any month in 2014-15 is Rupees 35 crore which is more than 50% of the previous financial year's average payable monthly liability of Rupees 30 Crore, the concerned Discom shall increase the LC amount to Rupees 38.5 Crore (1.1* Rupees 35.0) by adding Rupees 16.5 Crore.”</p>
09	Reserve Regulation Ancillary Services (RRA) Accounts	32 nd Week of 2016-17	Details of 15minutes slot wise surrendered power from different sources to be given by NRPC	NRPC has issued the Accounts upto Week-52 nd Week of 2016-17. The data of Delhi surrender from each generator which is used in RRAS up in 15 minutes time blocks has not been provided by NRPC. This data is required to identify the particular Discom who has surrendered the quantum of power so that they should get the compensation. The matter was raised in 32 nd Commercial Sub-Committee meeting held on 07.04.2017 wherein NRPC has agreed to provide the data. The generators who are holding the amount in respect of Delhi utilities could not be distributed due to the absence of preparation of accounts by SLDC due to non availability of requisite data from NRLDC/ NRPC.

S. N.	Details of accounts	Current status	Input data required for preparation of Accounts	Remarks
10	Congestion Charges	Only one day in 2016-17 i.e. on 16.09.2016 from 00.15hrs. to 01.30hrs. as per NRPC Accounts	Over drawal / Underdrawal by individual discoms and under generation / over generation by Intrastate Generators.	No account is pending.

From the above, it has been observed that only DSM is lagging behind by 7-8 weeks & IDT-2 is lagging by 5 months basically because of non-availability of meter reading and proper software.

- 2 It was pointed out by SLDC that as per the discussions held in the meeting held on 04.04.2007 immediately after the implementation of Intra State ABT in Delhi w.e.f. 01.04.2007, it was proposed that the accounts were prepared by Intra State Utilities as the Scheduled and Actual energy data was made available to them and reconcile the same at SLDC. The extracts of the MoM held on 04.04.2007 in this regard are appended hereunder:-

The meeting was necessitated to thrash out issues in the light of DERC order dated 31.03.2007 para no. 18(3) which states "**SLDC shall act as the nodal agency for collection and distribution of UI charges as far as intra-state ABT is concerned. As regards regional ABT, a settlement mechanism shall immediately be worked out together by the STU, SLDC and the Discoms (who are represented in the RPC) in consultation with the NRLDC. This settlement shall be worked out by 04.04.2007.**

To trash out issues regarding ABT and its settlement mechanism for UI pool account the consultations were carried out with the senior officials in NRLDC on 03.04.2007 and on 04.04.2007. The NRLDC was of the view that UI Accounts and Monthly Energy Accounts may be prepared by the Distribution Licensees and generating utilities within Delhi since the daily implemented schedules which is the base for energy accounts which are known to the utilities. The accounts prepared at state level (SLDC) and at Regional level (RLDC and RPC) could be used for reconciliation. In the ABT regime the main essence of the structure is decentralization of all the activities right from scheduling of power from the available sources, the load control including the commercial activities i.e. preparation of monthly Energy Accounts and weekly UI accounts.

Accordingly, the above advice of NRLDC was put before the state utilities in the meeting for consideration.

The utilities univocally requested SLDC to carryout the accounting activities at SLDC level as the implementation of Intra State ABT in Delhi was a surprise decision and they are new to the concept and not geared up for preparation of energy accounts analogous with SLDC. They were also of the view that the preparation of accounts by them has no sanctity as per the law as the section 32 (2) (c) of EA 2003 mandate only SLDC to **keep accounts of the quantity of electricity transmitted through the state grid** . However, the advice of NRLDC could be carried forward at a later stage when the procedures are stream lined and the utilities are fully conversant with the operation of Intra State ABT in Delhi.

(Emphasize supplied)

It will not only reduce the time lag but also reduce the discrepancies and revisions of the accounts which is one of the main reasons of preparation and delay in issuance of the accounts. Now, by passage of time, all Intrastate Utilities are well conversant with the preparation of DSM Account, there won't be any issue of preparation of accounts.

3. Utilities were of the view that the preparation of individual accounts would further delay the process, as different users would prefer to adopt their own methodology to draw the accounts. It was countered by SLDC that the set of rules for preparation of accounts are same and information would be provided by SLDC to prepare the accounts. However, all utilities agreed to extent full cooperation to speed up the Accounts preparations.
4. **It was concluded that SLDC may make the accounts and provide the same to all Stake Holders and give 5 days time before issuing the same, if no comments are received within the stipulated time, it may be assumed that there is no discrepancy and no further revision may be undertaken.**
5. It was further noticed that IDT-2 was one of the main reasons of delay of the accounts. It was also noted that the decision was taken in the DPPG meeting held on 06.03.2013. By passage of time and implementation of DSM Regulations on 17.02.2014, it has been observed that very few quantum of transaction is undertaken under this category and if IDT-1 is operationalized systematically i.e. the surplus and shortages of each utility be properly assessed on day ahead basis and the same be offered to the needy Discoms the need for IDT-2 will never arise.
6. It was also pointed out that as per Indian Electricity Grid Code (IEGC) provisions, the post facto revisions of the schedule should be minimum (IDT-2 is the post facto revision of schedule) as such revisions dilutes the essence of implementation of grid discipline.
- 7 **DGM(SO) was accordingly advised to take up the matter in DPPG to cease the IDT-2 transactions.**

Finalization of Accounts for 2015-16

- 8 SLDC informed that the State Electricity Regulatory Commission has undertaken the process of finalization of ARR of all Utilities. As such, the settlement of the accounts of 2015-16 is required to be closed at the earliest.
- 9 Since the State Monthly Energy Accounts issued so far are provisional, all accounts are required to be finalized after taking care of all discrepancies. So far, SLDC could issue the Final Monthly Energy Accounts only upto June 2015. Balance Accounts are required to be issued in a time bound manner.
- 10 **It was decided that all Utilities will intimate the discrepancy, if any in the provisional accounts for FY 2015-16 upto 15th April 2017 so that SLDC can revise all the accounts by 31st May 2017.**
- 11 **It was also suggested that the same analogy be adopted for the accounts to be revised for FY 2016-17.**
- 12 **GM(SLDC) was also requested to take up the matter with the State Commission in respect of issues referred for finalization of DSM Accounts.**

Preparation of DSM Accounts of Open Access Customers

- 13 It was informed by SLDC that the DSM Accounts of Open Access Customers are pending since August 2016. It was indicated that at present about 28 transactions are taking place under Intra State Open Access. The preparation of the bills of these small customers also delaying the issuance of other accounts, though the transactions are less than 1% of the total volume of the transactions in terms of energy.
- 14 It was also pointed out that the actual energy meter data are provided by the Distribution Companies as the Open Access Customers are embedded in their respective systems. To cover up the delay, it would be appropriate to draw out DSM Accounts by the Distribution Companies for Open Access Customers which can be checked up and issued by SLDC in a time bound manner. All the Stake Holders agreed for the same. A blank working sheet for preparation of DSM Accounts of OA Customers would be provided by SLDC to the concerned DISCOMs for preparation of the same for maintaining uniformity.

GCC may note.

TPDDL Agenda

5 Position of Reliable Power Supply in Delhi through DTL Grid Substations:

TPDDL intimated that maintaining supply of electricity is joint responsibility of DISCOMs and TRANSCO. Considering the importance of an efficiently built and operated transmission network, Hon'ble Commission has enacted the Delhi Electricity Regulatory Commission (State Grid Code) Regulations, 2008, referred to as the "**DGC Regulations, 2008**", which provides the standard procedures as well as the benchmarks which need to be met by the State Transmission Utility, which is DTL, while constructing and operating the transmission network.

As per Regulation 9.2 of the Delhi Grid Code Regulations, 2008, Transmission planning criteria of State Transmission system is reproduced below:

"The State Transmission System, as a general rule, shall be capable of withstanding and be secured against the following contingency outages without necessitating load shedding or rescheduling of generation during Steady State Operation:

- (a) Outage of a D/C line of voltage above 66 kV and below 400 kV or,*
- (b) Outage of a S/C line of voltage of 400kV and above or,*
- (c) Outage of a single Interconnecting Transformer.*

Provided that the above contingencies shall be considered assuming a pre-contingency system depletion (planned outage) of another 220kV D/C line or 400kV S/C line in another corridor and not emanating from the same substation."

Furthermore, the Regulation 9.6 of the "**DGC Regulations, 2008**", Transmission planning criteria of State Transmission system states:

"In all extra high voltage substations, suitable number and capacity of transformers shall be provided to have adequate redundancy required to maintain firm capacity at the substation".

Explanation - for the purpose of Regulation 9.6, the term firm capacity shall mean the minimum transformation capacity available at the substation in case of outage of any one transformer.

These specific regulations lay down the criterion which needs to be met by DTL while operating the transmission network. However, the existing transmission network does not meet these criterion, it is the responsibility of DTL to augment the network and increase its capacity, to be able to meet these benchmarks. The Substations not confirming the said criteria for both lines and transformers are given vide annexure 1 and Annexure 2.

Annexure-1

S. No.	SUB-STATION NAME	Power Transformer	Total Installed Capacity MVA/MW (at 0.85 pf)	Peak load (MW) at the time of Delhi peak (01.07.16 at 15:10 Hrs) Source - MoM of DTL Steering Committee- 12.08.2016	Constraints & Status of Reliability (n-1 criteria)	Impact
1	220 kV GOPAL PUR	220/66KV 100MVA (Quantity - 01 No)	100 MVA / 85 MW	72 MW	There is a single 220/66KV 100 MVA Power Transformer at 220kV Gopalpur Grid. If this single 220/66kV Power Transformer gets failed, total 72MW load will get affected. 9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.	Around 3.20 Lacs Consumers may experience the power interruption. It is around 21.33% of total TPDDL consumer base. It will create power supply reliability issue in Summer'17 & Summer'18. Area that will get adversely impacted are Burari, Jagatpur, Dheerpur, Dhakka, Mukherjee Nagar, Bhalswa, Sant Nagar, Swaroop Nagar, Libaspur, Jahangirpuri, Azadpur, Adarsh Nagar, Siraspur, Pitampura etc.
2	220 kV NARELA	220/66KV 100MVA (Quantity - 03 Nos)	300 MVA/ 255 MW	211 MW	If one 220/66kV Power Transformer gets failed, total 211 MW load cannot be met through rest 02 Nos of 220/66kV Power Transformers (Capacity of one Power Transformer is 85 MW). 41MW load will get affected, during N-1 of any one 220/66kV Power Transformer . 9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.	Around 3.08 Lacs Consumers may experience the power interruption on rotational basis. It is around 19.39% of total TPDDL consumer base. It will create power supply reliability issue in Summer'17 & Summer'18. Area that will get adversely impacted are Narela, Swaroop Nagar, Snajay Gandhi Transport Nagar, Siraspur, Bhalswa, Mukundpur, Burari, Sant Nagar, WaziraBad etc.

S. No.	SUB-STATION NAME	Power Transformer	Total Installed Capacity MVA/MW (at 0.85 pf)	Peak load (MW) at the time of Delhi peak (01.07.16 at 15:10 Hrs) Source - MoM of DTL Steering Committee-12.08.2016	Constraints & Status of Reliability (n-1 criteria)	Impact
3	220 kV GOPALPUR	200/33KV 100MVA (Quantity - 02 Nos)	200 MVA/ 170 MW	111 MW	<p>If one 220/33kV Power Transformer gets failed, total 111 MW load cannot be met through rest 01 No of 220/33kV Power Transformer (Capacity of one Power Transformer is 85 MW).</p> <p>26MW load will get affected, during N-1 of any one 220/33kV Power Transformer .</p> <p>9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.</p>	<p>Around 1.25 Lacs Consumers may experience the power interruption on rotational basis. It is around 8.33% of total TPDDL consumer base.</p> <p>It will create power supply reliability issue in Summer'17 & Summer'18.</p> <p>Area that will get adversely impacted are ModelTown, Hudson Lane, Mukherjee Nagar, Delhi Jal Board installations line Wazirabad & Chandrawal, Installation of GoNCTD including the residence of higher officials of GoNCTD, Civil Line etc.</p>
4	220kV SABZI MADI	200/33KV 100MVA (Quantity - 02 Nos)	200 MVA/ 170 MW	161 MW	<p>If one 220/33kV Power Transformer gets failed, total 161 MW load cannot be met through rest 01 No of 220/33kV Power Transformer (Capacity of one Power Transformer is 85 MW).</p> <p>76MW load will get affected, during N-1 of any 220/33kV PTR.</p> <p>9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.</p>	<p>Around 2.65 Lacs Consumers may experience the power interruption on rotational basis. It is around 16.63% of total TPDDL consumer base.</p> <p>It will create power supply reliability issue in Summer'17 & Summer'18.</p> <p>Area that will get adversely impacted are Kamla Nagar, Civil line, Vijay Nagar, Delhi University, BD Estate, Malka Ganj, Kingsway Camp, Gulabi Bagh, Shahzada Bagh, Shakti Nagar, Tripolia, Inderlok, Sarai Rohilla, Kishan Ganj, Shastri Nagar, Bara hindu Roa etc.</p>

S. No.	SUB-STATION NAME	Power Transformer	Total Installed Capacity MVA/MW (at 0.85 pf)	Peak load (MW) at the time of Delhi peak (01.07.16 at 15:10 Hrs) Source - MoM of DTL Steering Committee- 12.08.2016	Constraints & Status of Reliability (n-1 criteria)	Impact
5	220kV PEERA GARHI	200/33KV 100MVA (Quantity - 02 Nos)	200 MVA/ 170 MW	112 MW	<p>If one 220/33kV Power Transformer gets failed, total 112 MW load cannot be met through rest 01 No of 220/33kV Power Transformer (Capacity of one Power Transformer is 85 MW).</p> <p>33kV Peeragarhi-Sudarshan Park ckt and 33kV Sudarshan Park-Saraswati Garden ckt have been energized in Mar'17 and 25 MW additional load to be added at 220kV Peeragarhi in Summer'17 loading.</p> <p>27 MW load will get affected, during N-1 of any 220/33kV PTR.</p> <p>9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.</p>	<p>It will create power supply reliability issue in Summer'17</p> <p>Area that will get adversely impacted are RaniBagh, Sudarshan Park, Bali Nagar, Basai Darapur, ESI Hospital, Saraswati Garden, Ramesh Nagar, Mansarover Garden etc.</p>
6	400kV BAWANA	220/66KV 100MVA (Quantity - 01 No)	100 MVA / 85 MW	57 MW	<p>There is a single 220/66KV 100 MVA Power Transformer at 400/220/66kV Bawana Grid. If this single 220/66kV Power Transformer gets failed, total 57MW load will get affected.</p> <p>9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.</p>	<p>It will create power supply reliability issue in Summer'17 & Summer'18.</p> <p>Area that will get adversely impacted are DSII DC Bawana, Pooth Village etc.</p>

S. No.	SUB-STATION NAME	Power Transformer	Total Installed Capacity MVA/MW (at 0.85 pf)	Peak load (MW) at the time of Delhi peak (01.07.16 at 15:10 Hrs) Source - MoM of DTL Steering Committee- 12.08.2016	Constraints & Status of Reliability (n-1 criteria)	Impact
7	220 kV Wazirpur	200/33KV 100MVA (Quantity - 02 Nos)	200 MVA/ 170 MW	143 MW	<p>If one 220/33kV Power Transformer gets failed, total 143 MW load cannot be met through rest 01 No of 220/33kV Power Transformer (Capacity of one Power Transformer is 85 MW).</p> <p>58 MW load may get affected, during N-1 of any 220/33kV PTR.</p> <p>9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.</p>	<p>Total 33kV load of 220 Wazirpur and 220 SMB would be approx. 280 MVA. After converting 01 no of 100 MVA Trf from 33kV to 66kV level, only 200 MVA capacity would be available at 33kV level at 220 kV Shalimar Bagh Grid. At the other end, 01 no of 100 MVA Trf at 220kV Wazirpur Grid is faulty since 19.10.2016 thereby reducing the available installed capacity to 100MVA only at 220kV Wazirpur Grid.</p> <p>It will create power supply reliability issue in Summer'17.</p> <p>Area that will get adversely impacted are Wazirpur Industrial Area, Azadpur, Kewal Park, Ashok Vihar, Shalimar Bagh etc.</p>
8	220 kV Kanjhawala	220/66KV 100MVA (Quantity - 02 Nos)	200 MVA/ 170 MW	121 MW	<p>DTL has moved 220/66kV 160 MVA PTR from 220kV Kanjhawala to Pappankalan-1, thereby reducing the available installed capacity to 200MVA only at 220kV Wazirpur Grid.</p> <p>If one 220/66kV Power Transformer gets fail, total 121 MW load cannot be met through rest 01 No of 220/66kV Power Transformer (Capacity of one Power Transformer is 85 MW).</p> <p>Further 2 more bays stand allocated by DTL at this substation for TPDDL's upcoming Grid at Karala.</p> <p>36 MW load may get affected, during N-1 of any 220/66kV PTR.</p> <p>9.2c & 9.6 criteria not met as per Delhi Grid code regulations 2008.</p>	<p>To provide the load relief on 100 MVA PTRs at 220kV Rohini Grid, TPDDI has planned to shift approx 50 MVA load from 220kV Rohini to 220kV Kanjhawala Grid by considering its installed capacity as 360 MVA. But now this load cannot be shifted to 220kV Kanjhawala until DTL restore back to the installed capacity as 360 MVA at 220 kV Kanjhawala Grid.</p> <p>It will create power supply reliability issue in Summer'17 & Summer'18.</p> <p>Area that will get adversely impacted are Kanjhawala, Bawana, PoothVillage, Ghoga Dairy, Delhi Jal Board installation like Bawana clear water works, etc.</p>

S. No	220 kV Transmission Line	Peak load (MW) at the time of Delhi peak (01.07.2016 at 15:10 Hrs) - Source - MoM of DTL Steering Committee- 12.08.2016	Constraints & Status of Reliability (n-2 criteria)	Impact
1	220 KV NARELA-ROHTAK ROAD CKT.-I & 2	165 MW	<p>These are very old transmission lines and maximum load on each line is restricted to 100 MW.</p> <p>220 kV Rohtak Road (BBMB) is only connected with 220kV Narela through 220kV Double circuit lines. Both Lines are running through same towers. If any tower gets collapsed, there would be total supply failure to 220kV Rohtak Road Grid.</p> <p>Total 161 MW load will get affected during outage of both 220kV Double circuit line.</p> <p>9.2 a criteria not met as per Delhi Grid code regulations 2008</p>	<p>It will create power supply reliability issue in Summer'17 & Summer'18.</p> <p>Around 1.18 Lacs Consumers may experience the power interruption on rotational basis. It is around 7.43% of total TPDDL consumer base.. However Impact is more since BRPL load is also being fed from this network.</p>
2	220 KV MANDAULA-GOPALPUR CKT.-I & 2	355 MW	<p>Both 220 kV double circuit lines from Mandola to Gopalpur are running through same towers. If any tower gets collapsed, total 355 MW load of 220KV Gopalpur & 220KV Subzimandi cannot be restored fully during outage of both 220kV Double circuit line.</p> <p>Peak Loading on 220kV Mandola-GPL Ckts are 355 MW while loading on backup 220kV Mandola-SOW Ckts are 732 MW. Therefore no adequate margin is left on backup source during N-1.</p> <p>At the other end, there are a loading constraints on 220kV Mandola-Gopalpur Ckts due to sagging of conductor during high ambient temperature.</p> <p>9.2 a criteria not met as per Delhi Grid code regulations 2008</p>	<p>It may create power supply reliability issue in Summer'17 & Summer'18.</p>
3	220 KV GOPALPUR-SUBZIMANDI CKT.-I&2	171	<p>220 kV Subzimandi Grid is only connected with 220kV Gopalpur through 220kV Double circuit lines. Both Lines are running through same towers. If any tower gets collapse, there would be total supply failure to 220kV Subzimandi Grid.</p> <p>Total 171 MW load will get affected during outage of both 220kV Double circuit line.</p> <p>9.2 a criteria not met as per Delhi Grid code regulations 2008</p>	<p>It may create power supply reliability issue in Summer'17 & Summer'18.</p> <p>Around 2.65 Lacs Consumers may experience the power interruption on rotational basis. It is around 16.63% of total TPDDL consumer base.</p>
4	220 KV WAZIRABAD-KASHMIRIGATE CKT.-I & 2	136	<p>220 kV Kashmere Gate Grid is only connected with 220kV South of Wazirabad through 220kV Double circuit lines. Both Lines are running through same towers. If any tower gets collapse, there would be total supply failure to 220kV Kashmere Gate Grid.</p> <p>Total 136 MW load will get affected during outage of both 220kV Double circuit line.</p> <p>9.2 a criteria not met as per Delhi Grid code regulations 2008</p>	<p>It may create power supply reliability issue in Summer'17 & Summer'18.</p>

S. No	220 kV Transmission Line	Peak load (MW) at the time of Delhi peak (01.07.2016 at 15:10 Hrs) - Source - MoM of DTL Steering Committee- 12.08.2016	Constraints & Status of Reliability (n-2 criteria)	Impact
5	220 KV MUNDKA-PEERAGARHI CKT.-I & 2	257	If both 220kV circuits from Mundka to Peeragarhi gets failed due to damage of 220kV underground cables, then identification of fault and restoration time will get increased. Total 257 MW load cannot be restored fully during outage of both 220kV Double circuit line. Clause 9.2 a criteria not met.	It may create power supply reliability issue in Summer'17 & Summer'18. Around 1.0 Lacs Consumers may experience the power interruption on rotational basis. It is around 6.66% of total TPDDL consumer base.
6	220 KV BAWANA-SHALIMARBA GH CKT.-I&2	157	Both 220 kV double circuit lines from Bawana to ShalimarBagh are running through same towers. If any tower gets collapsed, total 157 MW load of 220KV Shalimar Bagh cannot be restored fully during outage of both 220kV Double circuit line. Clause 9.2 a criteria not met	It may create power supply reliability issue in Summer'17 & Summer'18. Around 1.3 Lacs Consumers may experience the power interruption on rotational basis. It is around 8.67% of total TPDDL consumer base.
7	220 KV BAWANA-ROHINI CKT.- I&2	297	Both 220 kV double circuit lines from Bawana to Rohini are running through same towers. If any tower gets collapsed, total 297 MW load of 220KV Rohini cannot be restored fully during outage of both 220kV Double circuit line. Clause 9.2 a criteria not met	It may create power supply reliability issue in Summer'17 & Summer'18. Around 2.5 Lacs Consumers may experience the power interruption on rotational basis. It is around 16.66% of total TPDDL consumer base.

GCC may discuss.

5 HOSTING OF NEXT MEETING OF GCC

Next meeting of GCC is scheduled to be held during July 2017. GCC may decide the host.