



दिल्ली ट्रांस्को लिमिटेड DELHI TRANSCO LIMITED

पंजीकृत कार्यालय : शक्ति सदन, कोटला रोड, न्यू दिल्ली-110002

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

Office of Dy. General Manager (SO)

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

SLDC Building, Minto Road, New Delhi-110002

Ph: 23221175 FAX No.23221012

No. F./DTL/207/15-16/DGM(SO)/388

Dated : 23.03.2016

Subject : Minutes of the 13th meeting of Grid Coordination Committee held on 30.11.2015 at 11.00hrs at Ashoka Hall, Manekshaw Centre, Parade Road, Delhi Cantt, New Delhi-110010

Dear Sir, / महोदय

The Minutes of the 13th meeting of Grid Coordination Committee held on 30.11.2015 at 11.00hrs at Ashoka Hall, Manekshaw Centre, Parade Road, Delhi Cantt, New Delhi-110010 is enclosed for ready reference and further necessary action please.

Thanking you,

Yours faithfully

Encl. as above

(S. K. SINHA)
Dy. General Manager (SO)

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 ((SLDC)**
- 03 **Sh. V. Venugopal, G. M. (Planning)**, Delhi Transco Ltd.
- 04 **Sh. A. C. Agrawal, G.M. (Commercial & Regulatory Affairs)**, Delhi Transco Ltd.
- 05 **Sh. Mukesh Kumar Sharma, G. M. (Corporate Monitoring & SEM)**, DTL
- 06 **Sh. Suresh Nimwal, G. M. (Project)-I & General Manager (Civil)**, DTL
- 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. (C&MM)**, Delhi Transco Ltd.
- 10 **Sh. Ved Mitra Chief Engineer, DMRC**,
- 11 Inderlok Metro Station, Delhi, Ph. 9871165812
Sh. Birender Prasad, G. M. (O&M)-I, Delhi Transco Ltd.
- 12 **General Manager (NRLDC)**,
18-A, SJSS Marg, New Delhi-110016, Office Ph: 011-26537351, Fax:011-26852747
- 12 **Sh. Jagdish Kumar, Director(Tech), IPGCL / PPCL**
Himadri Building, RPH, New Delhi-110002. Phone:011-23273544, Fax: 011-23270590
- 13 **Dy. G.M. (SCADA), SLDC**

- 14 **Sh. A.K. Sharma, Head (O&M), BYPL**
Shakti Kiran Building, Karkardooma, Delhi
- 15 **Sh. Mukesh Dadhichi, G.M. (SO), BYPL, Shankar Road, New Delhi**
- 16 **Sh. Sunil Kakkar, Head (PMG), BYPL, Shakti Kiran Building, Karkardooma, Delhi**
- 17 **Chief Engineer (Transmission System), BBMB**
SLDC Complex, Sector-28, Industrial Area Phase-I, Chandigarh.
- 18 **Superintending Engineer (O&M) Circle, BBMB**
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- 19 **Sh. Sanjay Kumar Banga, Head (PEC, PM&BD), TPDDL**
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- 21 **Sh. D. Sarkar , General Manager,**
NTPC, BTPS, New Delhi-110044 Office Phone: 011- 26949523, Fax: 011- 26949532
- 22 **Sh. A.K. Joshi, Chief Engineer (Elect)-II, NDMC**
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- 23 **Sh. V.K. Pandey, Chief Engineer (Elec)-I, NDMC**
Room No. 1701, 17th Floor, Palika Kendra, Sansad Marg, New Delhi-110001
- 24 **Sh. Mahender Singh, Executive Director (Tariff), DERC**
DERC Viniyamak Bhawan, C-Block, Shivalik, New Delhi-110017
- 25 **Sh. U.K. Tyagi, Executive Director (Engineering), DERC**
DERC Viniyamak Bhawan, C-Block, Shivalik, New Delhi-110017
- 26 **General Manager (Commercial), NTPC**
NCR Headquarters, R&D Building, A8A, Setor-24, Noida-201301. Fax no. 0120-2410192
- 27 **Sh. Neelesh Gupta**
Whole Time Director, Timarpur ó Okhla Waste Management Company Ltd
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- 28 **General Manager, Indira Gandhi Super Thermal Power Station, Jharli, Jhajjar Distt.**
Haryana Pin-124141, Fax no. 01251-266202, Ph. 01251-266265
- 29 **CWE (U), MES, MES Palam Road, Delhi Cantt, New Delhi-110010**
- 30 **GE (U), Electric Supply, Kotwali Road, Delhi Cantt, Delhi-110010**
- 31 **G. M. (Finance), DTL, Shakti Sadan, New Delhi 110002**
- 32 **Dy. G. M. (Fin-II), DTL Rajghat Power House New Delhi -110002**
- 33 **Sh. Darshan Singh, Manager (System Operation), Delhi SLDC**
- 34 **Sh. Susheel Gupta, Manager (Energy Accounting), Delhi SLDC**
- 35 **Manager (SO)-Shift, Delhi SLDC**
- 36 **Ms. Mukesh Dagar, Dy. Manager (Finance), SLDC**
- 37 **Sh. Anuj Gehlot, Manager (HW), SLDC**

Copy for favour of kind information to :-

1. Principal Secretary (Power), Govt. of NCT of Delhi,
2. Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-110017
3. 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 (Finance) DTL
10. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019
11. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-92
12. CEO, TPDDL, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009
13. Chief Engineer, Delhi Zone,(CEDZ), MES Palam Road, Delhi Cantt, New Delhi-10
14. 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 Deputy General Manager (System Operation)]

SLDC Building, Minto Road, New Delhi 6 110 002

Phone No.23221175, Fax 23221012, 23221059

Subject : Summary Record of discussions held in the 13th Meeting of the Grid Coordination Committee (GCC) of Delhi, held on 30.11.2015 at 11.00hrs at Ashoka Hall, Manekshaw Centre, Parade Road, Delhi Cantt, New Delhi-110010

The list of participants is enclosed at **Annexure**.

WELCOME

Brigadier Dinesh Gupta, MES welcomed the delegates for the 13th Grid Coordination committee meeting. He informed that the MES fraternity was highly delighted for getting the chance of hosting the Grid Coordination Committee meeting which is the apex coordination forum of Delhi Power Sector.

Sh. Prem Prakash, Director (Operations), DTL, Chairperson, GCC welcomed all delegates in the 13th Grid Coordination Committee meeting. He also thanked MES authorities to host the meeting. He hoped that the issues would be sorted out amicably.

He stated that the power supply position in the summer has been satisfactory by and large. This summer Delhi has met a peak demand of 5846 MW on 19.06.2015 without any load shedding due to shortage of power. However this summer peak demand was low in comparison to summer 2014, which was 5925MW. Distribution Licensees operating in Delhi had made elaborate arrangements to meet summer peak demand.

He expressed great pleasure that DTL has strengthened its transmission network by augmentation of various transmission lines with HTLS conductors and commissioning of 220kV Gazipur ó Patparganj link cable, LILO of 220kV Najafgarh-Kanjhawala Ckt at Mundka and commissioning of 220kV Peera Garhi Grid which has helped in improvement of reliability of power supply in Delhi.

He further stated that winter season has already approached in Delhi. He categorically stated that Delhi has large amount of surplus power especially during winter night hours which is required to be disposed off properly by bilateral / banking arrangements. It is expected that Discoms are well versed about the situation and are taking appropriate steps for disposal of surplus power.

With these remarks he requested the Convener to take up the Agenda. Accordingly, agenda was taken up. The gist of the discussions and decisions taken are as under:-

1 CONFIRMATION OF THE MINUTES OF 12TH MEETING OF GCC HELD ON 27.04.2015.

The minutes of the 12th meeting of GCC held on 27.04.2015 have been circulated vide letter no. F./DTL/207/15-16/GM(SLDC)/F.35/52 dated 15.07.2015. No comments have been received so far.

GCC confirmed the minutes.

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 issue is as under:-

S. N	Capacity	Present population in nos.	Original planning for hot reserve	Present Status
1	400/220 kV 500MVA ICT	2	One Tx of 315MVA at 400kV Mundka would be hot reserve.	With the commissioning of 2X500MVA Tx's at Bamnauli, 2X315MVA Tx.got spared from Bamnauli. Out of two units 315MVA Tx's, one unit has been shifted to Mundka for utilization as hot reserve.
	400/220 kV 315MVA ICT	14		
2	220/66 kV, 160MVA Tx	21	160MVA Tx ear- marked for 220kV Pappan Kalan-II would be the hot reserve.	One 220/66kV 160MVA Tx commissioned on 23.12.2015, the same shall be used as Hot reserve.
3	220/66kV, 100MVA Tx	42	New Tx. is required to be purchased The scheme for one 220/66/ 33kV 100MVA Tx as hot reserve has been approved and the same would be placed at Patparganj before summer 2014 for hot reserve	The transformer meant as hot reserve available at Patparganj has been diverted to replace the damaged 220/66kV 100MVA Tx-I at Park Street. Procurement of new transformer is in progress
4	220/33kV, 100MVA Tx,	37		
5	66/11kV 20MVA Tx	24	The scheme for a 66/11kV Tx as a hot reserve has been approved and transformer is under process for procurement.	It was advised by GCC that DTL shall maintain the 11kV feeders till the loads are shifted by Discoms to avoid public inconveni- ces. It was also advised to Discoms for shifting of 11kV loads from DTL substations as per directives of DERC as early as possible due to inability expressed by DTL to incur of any expenditure on the account of 11kV level equip- ments as directed by DERC in its letter no. F.DTL /Engg./DERC /2012-13/3496 dt.19.11.2013

GCC noted the position.

2.2 IMPLEMENTATION OF AUTOMATIC STATE-OF-THE-ART-LOAD MANAGEMENT SCHEME BY DISCOMS

The position has been updated as under:-

TPDDL informed that the automatic State-Of-The-Art Load Management Scheme as per the Grid Code provisions applicable from 17.02.2014 is envisaged in the upgradation of the SCADA system which is expected by 31.03.2016. In the present system, the provisions linked with frequency are functioning. However, they are observing the load management as per the Grid Code conditions. They informed that the changes cannot be defined in the existing system. New order has been placed to incorporate changed which is expected by March 2016.

BRPL informed that their system is also being upgraded and ADMS provisions as per the prevailing Grid Code in the provision could be implemented along with the upgradation of SCADA system i.e. 31.03.2016.

BYPL informed that their SCADA system has already having the ADMS provisions except the polarity changes in the 12 fifteen minutes time blocks. Their system is linked with over drawal of Delhi. They are trying to update the software of ADMS linked with overall over drawal of Delhi as a whole to avoid unnecessary load shedding in any part of Delhi when Delhi (as a State) does not over draw from the Grid. They further informed that some issues are left with vendor. It is expected to sort out the issue by April 2016.

NDMC informed that they have awarded work to TCS for software development in SCADA with reference to ADMS.

MES has been exempted from ADMS as per the earlier decisions of GCC considering the strategic importance load to be catered by the utility beside total consumption of utility is less than 1% of the Delhi.

GCC advised all stakeholders to adhere the above time schedule for implementation of automatic State-of-the-Art-Load-Management scheme to ensure secure operation of the Grid.

2.3 OUTSTANDING DUES

In the last GCC meeting, it was requested to all utilities to pay current dues as per Honøble Supreme Court order to at-least maintain the power supply in the Capital particularly during the crucial summer months so that the day-to-day work of transmission & generation utilities do not affect due to payment crises. However, it was informed by IPGCL, DTL and PPCL that payments are not being made by some distribution companies. Details of outstanding dues are as under:-

i) Outstanding dues of DTL

(For bills raised w.e.f. Jan. 2014 to Dec. 2015 as on 31.01.2016)

All figures in Rs. Crores

Discom	Billed Amount	TDS deducted by Discom	Rebate deducted	Nett Receivable	Payment received	Balance
BYPL	396.22	39.62	0	356.60	49.69	306.91
BRPL	624.33	62.43	0	561.90	146.59	415.31
Total	1020.55	102.06	0.00	918.49	196.28	722.21

ii) Outstanding dues of IPGCL / PPCL

a) Current dues payable by BSES utilities to IPGCL / PPCL w.e.f. 01st January 2014 to as on date as per Hon'ble Supreme Court orders dated 26.03.2014, 06.05.14 & 03.07.2014 as well as APTEL order dated 23.05.2014

(Amount Rs. in Crores)

Company	BRPL	BYPL	Total
IPGCL	393.59	289.93	683.52
PPCL	1035.25	728.81	1764.06
Total	1428.84	1018.74	2447.58

b) Total outstanding dues from BSES Discosms to IPGCL /PPCL since October 2010 (as on 17.02.2016)

(Amount Rs. in Crores)

Company	BRPL	BYPL	Total
IPGCL	1248.35	896.87	2145.22
PPCL	1986.98	1540.23	3527.21
Total	3235.33	2437.10	5672.43

Further, it is informed that due to non payment of dues, at present, regulations are imposed on BYPL as under:

Sr. No.	Station	Date	Regulated quantum in MW
1	Baira Suil	28.03.2015	5
2	Salal	28.03.2015	20
3	Tanakpur	28.03.2015	3
4	Chamera-I	28.03.2015	11
5	Uri	28.03.2015	13
6	Chamera-II	28.03.2015	10
7	Dhauliganga	28.03.2015	9
8	Sewa-II	28.03.2015	4
9	Chamera-II	28.03.2015	7
10	SJVNL	25.09.2013	36
11	Dulhasti	01.02.2016	13
12	Uri-II	01.02.2016	8
13	Parbati	01.02.2016	17
	Total		156

BYPL informed that they have already in talk with NHPC. The issue is likely to be resolved shortly.

GCC noted the position and advised BSES utilities to clear the dues. It was also advised to clear atleast current dues in line with Hon'ble Supreme Court and APTEL orders.

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 position was updated as under

Clause	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</th> <th>Description of Issue</th> <th>Sub-Stn</th> <th>Action taken/proposed</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Replacement of Static Distance Relays by Numerical Relays</td> <td rowspan="2">Bamnauli</td> <td>DTL representative informed that all relays of 400kV and 220kV system have been replaced with numerical relay.</td> </tr> <tr> <td>4</td> <td>DR and Event Logger to be provided or to be kept in order</td> <td>The 400 kV EL is in place. EL for 220kV under procurement and 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 action for remedial measures suggested mainly the replacement with numerical relays have already been initiated. Orders have been placed for numerical relays where they are not installed and would be completed by end of December 2016.</p>	S	Description of Issue	Sub-Stn	Action taken/proposed	1	Replacement of Static Distance Relays by Numerical Relays	Bamnauli	DTL representative informed that all relays of 400kV and 220kV system have been replaced with numerical relay.	4	DR and Event Logger to be provided or to be kept in order	The 400 kV EL is in place. EL for 220kV under procurement and 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.
S	Description of Issue	Sub-Stn	Action taken/proposed										
1	Replacement of Static Distance Relays by Numerical Relays	Bamnauli	DTL representative informed that all relays of 400kV and 220kV system have been replaced with numerical relay.										
4	DR and Event Logger to be provided or to be kept in order		The 400 kV EL is in place. EL for 220kV under procurement and 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.										
9.1.2	Philosophy of Zone-3 trippings to be reviewed to avoid indiscriminate and load encroachment and faults – Time Frame - immediate	<p>Powergrid has reviewed the zone-3 settings in coordination with STUs, generators and POSOCO and put them in order in accordance with load ability. The status of implementation of the above by the States was discussed at the meetings of National Power Committee (NPC) held on 15.04.2013 and 16.07.2013 wherein the PGCIL has informed that they have reviewed the zone - 3 settings in coordination with STUs and Gencos in interstate system wherever required in the country.</p> <p>As far Delhi is concerned, the details have been submitted to PGCIL through NRPC as detailed hereunder :-</p>											

Clause	RECOMMENDATIONS	STATUS AS ON DATE								
			Sl No	Name of substation	Voltage level (kV)	Name of transmission line	Voltage (kV) for MVA calculation	Make of relay	CT primary	Zone-3 setting (X) Secondary Ohms
		Main-I	1	Bamnauli	400kV	Ballabhragarh-I	380kV	Micromho	2000/1	13.9
		Main-II					380kV	Micromho	2000/1	3.36
		Main-I	2	Bamnauli	400kV	Ballabhragarh-II	380kV	Micromho	2000/1	13.9
		Main-I					380kV	Micromho	2000/1	3.36
		Main-I	3	Bamnauli	400kV	Mundka-I	380kV	Micromho	2000/1	13.4
		Main-II					380kV	Micromho	2000/1	2
		Main-I	4	Bamnauli	400kV	Mundka-II	380kV	Micromho	2000/1	13.4
		Main-II					380kV	Micromho	2000/1	2
		Main-I	5	Mundka	400kV	Bamnauli-I	380kV	P442	2000/1	10.27
		Main-II					380kV	D60	2000/1	10.27
		Main-I	6	Mundka	400kV	Bamnauli-II	380kV	P442	2000/1	10.27
		Main-II					380kV	D60	2000/1	10.27
		Main-I	7	Mundka	400kV	Bawana-I	380kV	P442	2000/1	28.4
		Main-II					380kV	D60	2000/1	28.4
		Main-I	8	Mundka	400kV	Bawana-II	380kV	P442	2000/1	28.4
		Main-II					380kV	D60	2000/1	28.4
		Main-I	9	Mundka	400kV	Jhajjar-I	380kV	P442	2000/1	20.14
		Main-II					380kV	D60	2000/1	20.14
		Main-I	10	Mundka	400kV	Jhajjar-II	380kV	P442	2000/1	20.14
		Main-II					380kV	D60	2000/1	20.14
		Main-I	9	Bawana	400kV	Mundka-I	380kV	Micromho	2000/1	13.4
		Main-II					380kV	Micromho	2000/1	2
		Main-I	10	Bawana	400kV	Mundka-II	380kV	Micromho	2000/1	13.4
		Main-II					380kV	Micromho	2000/1	2
		Main-I	11	Bawana	400kV	Mandola-I	380kV	Micromho	2000/1	11.7
		Main-II					380kV	Micromho	2000/1	3.12
		Main-I	12	Bawana	400kV	Mandola-II	380kV	Micromho	2000/1	11.7
		Main-II					380kV	Micromho	2000/1	3.12
			13	Bawana	400kV	Abdullapur			Settings done by PGCIL	
			14	Bawana	400kV	Bahdurgarh			Settings done by PGCIL	
			15	Bawana	400kV	Hisar (Now Mahendergarh)			Settings done by PGCIL	
			16	Bawana	400kV	Dipalpur			Settings done by PGCIL	
		<p>Note</p> <p>1) Zone setting for main-I & main-II distance relays to be provided for each line.</p> <p>2) Voltage kV for MVA calculation may be taken as 380 kV for 400kV lines and 727kV for 765kV line.</p> <p>REMARKS</p> <p>1. MAIN-II PROTECTION OF DTL LINES IN THE DELHI RING MAIN LINES IS IN BLOCKING SCHEME</p> <p>2. ZONE 3 IS SET REVERSE LOOKING FOR MICROMHO RELAYS USED AS MAIN-II.</p> <p>3. CALCULATED MAX LOADING LIMIT IS AS PER THE FORMULA GIVEN IN THE MINUTES WHERE X IS THE REACTANCE OF LINE</p> <p>4. THE OTHER END DETAILS IN RESPECT OF JHAJJAR LINE ALSO NEED TO BE CONFIRMED FROM NTPC/PGCIL/APCL</p> <p>The Protection Department of DTL intimated that, the recommendations stand implemented.</p>								
9.1.4	Complete independent audit of time synchronization of DRs, EL and PMs should be carried out - Time frame – within one month	<p>DTL intimated that at all interstate points the time synchronization has been done. Others will follow. DR is available at all 400kV Grids. ELs for all 220kV S/Stns have been planned. DR is not required at 220kV Sub-stations as <i>Numerical Relays</i> have this inbuilt feature for which replacement of all relays with Numerical ones being undertaken.</p> <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> <p>i) 1500MW PPS-III Bawana: All the six generating units have latest DRs installed. The process of time synchronization of DRs is under progress by BHEL. The latest numerical relays are installed on each unit and 400kV SWYD panels. 400kV System has been time synchronized.</p> <p>ii) 330MW PPS-I, IP Estate: DRs are installed at all the three units of PPS-I. The DRs are time synchronized with G{S. Further, GT#1 is also having latest numerical relays and the process of installing of numerical relays on rest of the units is under progress.</p> <p>iii) 270MW GTPS, IP Estate : The process of installing of DRs on the unit 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. Most of 66kV SWYD feeders / bays are having numerical relays installed and rest are being envisaged.</p> <p>iv) 135MW RPH Rajghat : The process of installing of numerical relays on the two units and 33kV SWYD feeders / bays is under progress.</p> <p>IPGCL & PPCL was advised to ensure the time synchronization of DRs.</p>								

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 stick 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>One day special interactive session was also conducted in SLDC on 14.02.14 under the guidance of Engineers of NRLDC. The representatives of Discoms, SLDC, DTL and Gencos attended the interactive section.</p> <p>In consultation with all stakeholders, the Revised Scheduling Procedure in consonance with the amended Grid Code and DSM Regulations has been drawn out and submitted to DERC for its approval. However, the procedures have been adopted in anticipation of the approval of the Commission.</p> <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. The details of the violations for Delhi are as under:-</p> <table border="1"> <tr> <td>Duration</td> <td>17.02.14 to 11.05.14</td> <td>12.05.14 to 22.06.14</td> <td>23.06.14 to 27.07.14</td> <td>28.07.14 to 24.08.14</td> <td>25.08.14 to 28.09.14</td> <td>29.09.14 to 02.11.14</td> <td>01.11.14 to 30.11.14</td> </tr> <tr> <td>Violation of drawal limit 150MW if freq \geq49.7Hz and above</td> <td>OD 6 4 UD-19</td> <td>OD 6 9 UD-24</td> <td>OD 6 7 UD-30</td> <td>OD 6 5 UD-19</td> <td>OD 6 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> </table> <table border="1"> <tr> <td>Duration</td> <td>01.12.14 to 31.12.14</td> <td>01.01.15 to 31.01.15</td> <td>01.02.15 to 28.02.15</td> <td>01.03.15 to 31.03.15</td> <td>01.04.15 to 30.04.15</td> <td>01.05.15 to 31.05.15</td> </tr> <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> </table> <table border="1"> <tr> <td>Duration</td> <td>01.06.2015 to 30.06.15</td> <td>01.07.15 to 31.07.15</td> <td>01.08.15 to 31.08.15</td> <td>01.09.15 to 30.09.15</td> <td>01.10.15 to 31.10.15</td> </tr> <tr> <td>Violation of drawal limit 150MW if freq \geq49.7Hz and above</td> <td>OD-11 UD-14</td> <td>OD-8 UD-13</td> <td>OD-2 UD-44</td> <td>OD-2 UD-17</td> <td>OD-9 UD-10</td> </tr> <tr> <td>Violation of non polarity change of drawal</td> <td></td> <td></td> <td>157</td> <td>94</td> <td>124</td> </tr> </table> <table border="1"> <tr> <td>Duration</td> <td>01.11.15 to 30.11.15</td> <td>01.12.15 to 30.12.15</td> <td>01.01.16 to 31.01.16</td> </tr> <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-7 UD-3</td> </tr> <tr> <td>Violation of non polarity change of drawal</td> <td></td> <td>64</td> <td>104</td> </tr> </table> <p>In the last meeting, GCC advised SLDC to publish the violations details in respect of Discoms in line with above. It was informed by SLDC that due to shortage of staff, the Discomwise violations could not be computed. The same would be done as early as possible.</p> <p>GCC advised all utilities to adhere to the schedules to avoid violations of CERC regulations and for ensuring secure operation of the Grid.</p>	Duration	17.02.14 to 11.05.14	12.05.14 to 22.06.14	23.06.14 to 27.07.14	28.07.14 to 24.08.14	25.08.14 to 28.09.14	29.09.14 to 02.11.14	01.11.14 to 30.11.14	Violation of drawal limit 150MW if freq \geq 49.7Hz and above	OD 6 4 UD-19	OD 6 9 UD-24	OD 6 7 UD-30	OD 6 5 UD-19	OD 6 9 UD-1	OD-4 UD-17	OD-2 UD-21	Violation of non polarity change of drawal	405	198	56	116	34	158	135	Duration	01.12.14 to 31.12.14	01.01.15 to 31.01.15	01.02.15 to 28.02.15	01.03.15 to 31.03.15	01.04.15 to 30.04.15	01.05.15 to 31.05.15	Violation of drawal limit 150MW if freq \geq 49.7Hz and above	OD-8 UD-NA	OD-5 UD-15	OD-3 UD-14	OD-13 UD-6	OD-9 UD-4	OD-7 UD-18	Violation of non polarity change of drawal	--	91	124	127	115	126	Duration	01.06.2015 to 30.06.15	01.07.15 to 31.07.15	01.08.15 to 31.08.15	01.09.15 to 30.09.15	01.10.15 to 31.10.15	Violation of drawal limit 150MW if freq \geq 49.7Hz and above	OD-11 UD-14	OD-8 UD-13	OD-2 UD-44	OD-2 UD-17	OD-9 UD-10	Violation of non polarity change of drawal			157	94	124	Duration	01.11.15 to 30.11.15	01.12.15 to 30.12.15	01.01.16 to 31.01.16	Violation of drawal limit 150MW if freq \geq 49.7Hz and above	OD-11 UD-14	OD-4 UD-4	OD-7 UD-3	Violation of non polarity change of drawal		64	104
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9.2.2	Review of UI mechanism. Frequency control through UI may be faced out in a time bound manner and generation reserves and ancillary services may be used for frequency control Time frame – 3 months	UI Regulation has been replaced with DSM Regulations from 17.02.2014. CERC has notified Ancillary Services Operations) Regulations, 2015 on 13.08.2015. Detailed procedure for operationalization of Ancillary services is under finalization by POSOCO. GCC advised concerned utilities to comply with the regulations.																																																																																																																																																	
9.3	All STUs should immediately enable Under Frequency and df/dt under frequency scheme. Central Commission should explore ways and means for implementation of various regulations issued under the Electricity Act 2003. Any violation of these regulations can prove to be costly - Time frame - immediate	In Delhi, there are 34 panels of Under Frequency Relays and each panel has 4 numbers of UFR/df/dt Relays. Apart from this, 14 panels of Flat Under Frequency Relays have been installed at various Sub-Stations which are the part of Delhi Islanding Scheme and each panel has two relays. The National Power Committee (NPC) in its 2 nd meeting held on 16.07.13 has decided to adopt four stages automatic load shedding scheme for NEW Grid. The scheme was decided to be implemented within 3 months i.e. by the end of October 2013. The details are as under :- Scheme for the NEW Grid <table border="1"> <thead> <tr> <th>Freq (Hz)</th> <th colspan="5">Required Load Relief (MW) (based on max load on feeders)</th> </tr> <tr> <th></th> <th>NR</th> <th>WR</th> <th>ER</th> <th>NER</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>49.2</td> <td>2160</td> <td>2060</td> <td>820</td> <td>100</td> <td>5140</td> </tr> <tr> <td>49.0</td> <td>2170</td> <td>2070</td> <td>830</td> <td>100</td> <td>5170</td> </tr> <tr> <td>48.8</td> <td>2190</td> <td>2080</td> <td>830</td> <td>100</td> <td>5200</td> </tr> <tr> <td>48.6</td> <td>2200</td> <td>2100</td> <td>840</td> <td>100</td> <td>5240</td> </tr> <tr> <td>Total</td> <td>8720</td> <td>8310</td> <td>3320</td> <td>400</td> <td>20750</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th rowspan="2">S. 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The details are as under:- <table border="1"> <thead> <tr> <th>Frequency set at</th> <th>Load relief in MW</th> </tr> </thead> <tbody> <tr> <td>49.2Hz</td> <td>297</td> </tr> <tr> <td>49.0Hz</td> <td>353</td> </tr> <tr> <td>48.8Hz.</td> <td>428</td> </tr> <tr> <td>48.6Hz</td> <td>1048</td> </tr> <tr> <td>Total</td> <td>2126</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>df/dt</th> <th>Load relief in MW</th> </tr> </thead> <tbody> <tr> <td>49.9Hz. with slope 0.1Hz.</td> <td>261</td> </tr> <tr> <td>49.9Hz with slope 0.2Hz</td> <td>282</td> </tr> <tr> <td>49.9Hz with slope 0.3Hz</td> <td>290</td> </tr> <tr> <td>Total df/dt</td> <td>833</td> </tr> </tbody> </table> With regard to the suggestion of providing under frequency relays at Discoms end, it was advised that to ensure proper load relief and to avoid confusion in operation of relays in coordinated ways, the relays be installed in DTL's Grid S/Stns. CERC in its order 23.12.2013 has issued notices to the Head of SLDC & MD/CMD of the STUs to explain why action should not be initiated under section 142 of Indian Electricity Act 2003 (IEC 2003) for non compliance of Grid Code. The relevant portion of the order in petition no. 221/MP/2012 is reproduced hereunder:	Freq (Hz)	Required Load Relief (MW) (based on max load on feeders)						NR	WR	ER	NER	Total	49.2	2160	2060	820	100	5140	49.0	2170	2070	830	100	5170	48.8	2190	2080	830	100	5200	48.6	2200	2100	840	100	5240	Total	8720	8310	3320	400	20750	S. 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		<p>29. We are constrained to remark that we are thoroughly dissatisfied with the defense mechanism in terms of UFR and df/dt. Hard reality which stares us on the face is that these have not been provided and maintained as per Regulation 5.2 (n) and 5.4.2 (e) of the Grid Code by NR constituents. Accordingly, we hereby direct as follows:</p> <p>(a) Issue notices to the heads of SLDCs and MD/ CMD of the STU of Punjab, Haryana, Rajasthan, Delhi, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Jammu and Kashmir and head of Electricity Department, UT of Chandigarh and to explain why action should not be initiated under Section 142 of the Electricity Act, 2003 for non-compliance of the Grid Code.</p> <p>(b) Member Secretary, NRPC to submit the latest status of UFRs and df/dt installations in NR within 1 month from the issue of this order.</p> <p>(c) UFRs and df/dt relays also be mapped on the SCADA system of each state so that they can be monitored from SLDC/NRLDC.</p> <p>(d) All STUs and SLDCs to map/network the UFR and df/dt on their SCADA system.</p> <p>Quote</p> <p>(e) NRLDC to submit the compliance report on the progress of installation of additional UFR and df/dt relays and quantum of load relief expected during contingency by 31.3.2014.</p> <p>(f) The staff shall examine the reports of the Member-Secretary, NRPC and NRLDC and shall submit to the Commission within one month of the receipt of the reports of NRPC and NRLDC.</p> <p>With regard to installation of UFR, DTL has complied the directions. As far as integration of UFR in SCADA system, it would be done by end of January 2015.</p> <p>SLDC informed that they have integrated the UFR with SCADA system.</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 - 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.</p> <p>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>BTPS representative informed that they have 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>
9.5.1	<p>POSOCO should take up with Central Commission the issue of inconsistency between congestion regulation and detailed procedure framed there under so that congestion due to forced outages and Unscheduled Interchange (UI) can be handled effectively.</p> <p>Action : Posoco within one month</p>	<p>CERC vide order dated 22.04.2013 has approved amendment to the detailed procedure for relieving congestion in real time operation under Regulation 4(2) of the Central Electricity Regulatory Commission (Measures to relieve congestion in Real Time Operation) Regulation 2009. The revised procedure is available in NRLDC's website homepage. However, no amendment in the regulation in this respect has been issued so far.</p>
9.6	<p>Coordinated outage planning of transmission elements</p>	<p>NRPC OCC has already decided all Interstate Transmission Elements shut-down should be planned and forwarded to RPC by STUs by 8th of every month for the next month. In addition to above, annual outage plan should also be drawn out. In the 102nd and 103rd NRPC OCC meetings held on 20.08.2014 and 28.09.2014 respectively, it was further decided that after the tentative approval of NRPC OCC, the intending utilities should intimate NRLDC regarding availing of shut-downs before 4th day of actual date of the shut-down.</p> <p>DTL is adhering to the procedure with regard to shutdown of Transmission lines.</p>

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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 Time frame 6 months</p>	<p>The study for requirement of capacitors and reactors at 220kV Level for NCR Delhi was got carried out by CPRI which indicated that the reactive power compensation in Delhi is more than adequate. The report was accepted by all the stake holders of Delhi. However, as far as installation of reactors is concerned, the validation of network has been done by Planning Department of DTL and submitted to power grid which will carry out the requirement of reactors based on the validated network data.</p>																																																																														
9.8	<p>The powers of load dispatch centers, regulatory commissions related to non compliance to statutory / regulatory provision including that for non compliance for direction for non payment of UI charges needs review. Appropriate amendments need to be carried out in Electricity Act 2003 after such review.</p> <p>Action MoP, GoI Time frame: 6 months.</p>	<p>Amended Electricity Bill has been introduced in the Parliament. At present, a Standing Committee on Energy has examined the bill which is yet to be passed by Parliament.</p>																																																																														
9.9.1	<p>Regulatory provisions regarding absorption of Reactive Power by generating units need to be implemented : 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. The relevant portion of the MoM is reproduced hereunder :-</p> <p>Monitoring of reactive support from generating units.</p> <p>Representative of NRLDC stated that critical high voltage is being experienced in the Northern Grid during night off peak hours. Available shunt reactors at the Sub-stations are being taken into service, power order on HVDC bi-pole is being reduced, instructions are being given to generators to absorb reactive power to the extent possible and under exceptional conditions under-loaded/redundant EHV transmission lines are being manually opened for voltage regulation. Para 13.6 of the revised Transmission Planning Criteria envisages that during operation, following the instructions of the System Operator, the generating units shall operate at leading power factor as per their respective capability curves. Further as per regulation 5.2 (k) of the Indian Electricity Grid Code, all generating units shall normally have their automatic voltage regulators (AVR) in operation. It is proposed that the reactive power absorption/injection by the generating units may be monitored in the format given under</p> <table border="1" data-bbox="748 1268 1463 1703"> <thead> <tr> <th colspan="6">GENERATOR REACTIVE POWER MONITORING TEMPLATE</th> </tr> <tr> <td colspan="6">Name of the Power Station</td> </tr> <tr> <td colspan="6">Date</td> </tr> <tr> <th>Generating unit</th> <th>Time</th> <th>MW at Generator terminals</th> <th>MVAr Lead/Lag at Generator terminals</th> <th>Generator transformer Tap Position</th> <th>Voltage at the HV Bus</th> </tr> </thead> <tbody> <tr> <td rowspan="3">#1</td> <td>hh.mm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>hh.mm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>í .</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="3">#2</td> <td>hh.mm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>hh.mm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>í .</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="3">#3</td> <td>hh.mm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>hh.mm</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>í .</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>í .</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>SCADA circle of SLDC has already integrated the reactive power position of RPH, Pragati Stage-I and GT Station. The data integration is in progress in Bawana CCGT Station which has to be done through SAS by PPCL PPCL intimated that the matter is being pursued with Siemens & the OEM of SAS and GCC advised PPCL to expedite.</p> <p>PPCL informed that Siemens could not integrate the same so far. However, it is expected that the issues would be resolved soon</p>	GENERATOR REACTIVE POWER MONITORING TEMPLATE						Name of the Power Station						Date						Generating unit	Time	MW at Generator terminals	MVAr Lead/Lag at Generator terminals	Generator transformer Tap Position	Voltage at the HV Bus	#1	hh.mm					hh.mm					í .					#2	hh.mm					hh.mm					í .					#3	hh.mm					hh.mm					í .					í .					
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Clause	RECOMMENDATIONS	STATUS AS ON DATE									
9.12	<p>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.</p> <p>Action : CEA, RPCs, CTU, STUs, SLDCs and generators Time Frame : six months</p>	<p>It was informed by representative of DTL that the Islanding Scheme has already been commissioned. However, for the healthy operation of the Islanding Scheme, the communication system needs to be strengthened.</p> <p>M/s CPRI was entrusted the job of dynamic simulation study of Delhi Islanding Scheme. The final report has been submitted by CPRI. Officers from DTL had attended the office of M/s CPRI at Bangalore wherein they were apprised and explained about the findings about dynamic simulation study of Islanding Scheme. The gist of study says that chances of stability of Islanding increases in case of single bigger island instead of smaller islands due to better load generation matching. It was also advised that due to large change of network configuration, the Islanding Scheme needs to be revised regularly.</p> <p>GCC advised DTL to conduct a meeting with all stakeholders to discuss and decide the case of single bigger island instead of smaller islands due to better load generation matching in line with CPRI report. In this regard, meetings are being conducted under Chairmanship of G.M. (Planning), DTL for finalizing the revised islanding scheme.</p>									
9.13.1	<p>System Operation needs to be entrusted to independent system operator. In addition, SLDCs should be reinforced for ring fences for ensuring function autonomy.</p> <p>Action : Govt. of India, time frame : one year</p>	<p>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). The same is being taken up with Delhi Govt. for implementation in line with the report submitted by the committee.</p>									
9.13.2	<p>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.</p> <p>Action : Govt. of India State Govt. Time frame : 3 months</p>	<p>Discussed in the 1st meeting of the National Power Committee held on 15.04.2013. Maharashtra has already started an incentive scheme for System Operators in the State. States were requested to expedite training of system operators and it was recommended that only certified operators should man the Load Despatch Centers.</p> <p>PSTI has organized basic system operator certificate examination on 01.11.2015 for which 13 nos. Executives from SLDC have been nominated to appear in the said examination out of them, 8 executives have passed certificate examination.</p> <p>SLDC emphasized the need for certified system operators for better handling of system operation activities. SLDC further informed that incentives are being given to certified system operators in various states including POSOCO.</p> <p>CERC has also 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:-</p> <p>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:</p> <table border="1"> <thead> <tr> <th>Sr. No</th> <th>Certification level</th> <th>Fixed Incentive (Amount in Rs) (Monthly)</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>GCC advised SLDC to put up a note for the approval of Board of DTL for incentive for certified system operators.</p>	Sr. No	Certification level	Fixed Incentive (Amount in Rs) (Monthly)	1	Basic level	5000	2	Specialist level	7500
Sr. No	Certification level	Fixed Incentive (Amount in Rs) (Monthly)									
1	Basic level	5000									
2	Specialist level	7500									
9.14	<p>Intrastate transmission system needs to be planned and strengthened in a better way to avoid problems of frequent congestion.</p> <p>Action : STU Time Frame : 2 Years</p>	<p>The strengthening of intrastate transmission and distribution system has been given highest priority by the Govt. of India and Delhi Govt.. The ambitious plans for system improvement have been drawn out to be implemented by 2016-17 for stable and reliable supply for Delhi. The implementation of scheme is being monitored at the higher levels of State and Central Govt.</p> <p>In this direction, various work have already been started for the capacity augmentation of 220KV Transmission lines by replacing the existing ACSR Zebra conductor with HTLS conductor. The augmentation works for the 220KV Geeta Colony-S.O.W. T/L and the 2x315MVA Trf. with 2x500MVA Trf. at Bamnauli have already been completed. 220kV Peera Garhi has been commissioned with 2X100MVA Tx, the capacity augmentation of 220kV Bamnauli ó Naraina Ckt-I & II and 220kV Sarita Vihar ó Pragati Ckt-I & II is also under progress. Additional 160MVA Tx has been commissioned at Pappankalan-I & II and DSIDC Bawana. Additional 100MVA Tx. commissioned at Sarita Vihar.</p>									

Clause	RECOMMENDATIONS	STATUS AS ON DATE
9.15.1	Appropriate amendments should be carried out in Grid connectivity standards to restrain connectivity of a generating station or a transmission element without required communication and telemetry facilities	GCC advised all utilities that efforts should be made to ensure the data flow to the control centres w.r.t. new installations as per the relevant provisions of connectivity conditions of CEA and relevant provisions of IEGC. Earlier GCC decided not to issue energization certificate without data connectivity to SLDC / RLDC. Distribution licenses were also advised for such actions. SLDC is adhering the same as decided in the GCC.
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.	PGCIL have informed that requirement of Fibre Optic link for effective communication is being worked out by them with STUs through different RPCs and its implementation is being done in a progressive manner. The work of laying Fibre Optic cables in all the regions is being awarded progressively from December 2012 and is likely to be completed by the year end of 2014. DTL has also given the requisition to PGCIL for laying of 286 Kms of OPGW for strengthening of communication system across Delhi under the above contract. It was informed that the material has arrived and work is likely to be completed by June 2016.
9.15.3	RTUs and communication equipment should have uninterrupted power supply with proper battery backup so that in case of total power failure, supervisory control and data acquisition channels do not fail.	SLDC informed that the 28 Battery Banks have been installed at the various locations for maintaining uninterrupted power supply with proper battery backup so that in case of total power failure, supervisory control and data acquisition channels do not get affected.
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	The first meeting of System Study Group has already been conducted on 17.04.2015. Due to shortage of executives, system study group has been started by constituting a part-time team from the executives working in the real time operation which needs to be strengthened by regular system study group for better performance and results. In spite of all best efforts, the proper study of System could not possible due to shortage of executives. GCC advised to put up for manpower for System Study Group.
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. ii) 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. DTL has already upgraded most of their communication network by fibre optic link except for few small lengths which are also under process of execution through Power Grid.

NEW ISSUES

3 OPERATIONAL ISSUES

3.1 POWER SUPPLY POSITION

The anticipated power supply position of winter 2015-16 is as under:-

DELHI AS A WHOLE

MONTH	1st Fortnight					2nd fortnight				
	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
OCTOBER 2015										
DEMAND	4600	4800	4600	4800		3100	3600	3700	3250	
AVAILABILITY	4998	5142	5321	5142		5148	5292	5471	5292	
SURPLUS (+) / SHORTAGE (-)	398	342	721	342		2048	1692	1771	2042	
NOVEMBER 2015										
DEMAND	2250	3300	3100	3600	2650	1950	3350	3200	3300	2450
AVAILABILITY	4383	5081	4741	5064	4383	4073	4831	4491	4814	4073
SURPLUS (+) / SHORTAGE (-)	2133	1781	1641	1464	1733	2123	1481	1291	1514	1623
DECEMBER 2015										
DEMAND	2200	3350	3200	3150	2550	2300	4500	3600	4400	3000
AVAILABILITY	3911	4669	4329	4652	4073	4123	5021	4541	4863	4123
SURPLUS (+) / SHORTAGE (-)	1711	1319	1129	1502	1523	1823	521	941	463	1123
JANUARY 2016										
DEMAND	1850	4600	4400	3800	3200	1950	4400	4050	3700	3100
AVAILABILITY	4338	5276	4796	5118	4368	4438	5376	4896	5218	4468
SURPLUS (+) / SHORTAGE (-)	2488	676	396	1318	1168	2488	976	846	1518	1368
FEBRUARY 2016										
DEMAND	1750	4000	3700	3400	2800	1800	3500	3350	3200	2500
AVAILABILITY	4368	5206	4826	5148	4398	4393	5191	4851	5173	4423
SURPLUS (+) / SHORTAGE (-)	2618	1206	1126	1748	1598	2593	1691	1501	1973	1923
MARCH 2016										
DEMAND	3300	3500	3050	2400		3200	3800	3800	3200	
AVAILABILITY	4793	4919	5098	4936		4743	4869	5048	4886	
SURPLUS (+) / SHORTAGE (-)	1493	1419	2048	2536		1543	1069	1248	1686	

BRPL

ALL FIGURES IN MW

MONTH	1st Fortnight					2nd fortnight				
	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
OCTOBER 2015										
DEMAND	1900	1963	1908	2012		1245	1449	1513	1344	
AVAILABILITY	1744	1807	1886	1807		1794	1857	1936	1857	
SURPLUS (+) / SHORTAGE (-)	-155	-156	-22	-204		549	408	423	513	
NOVEMBER 2015	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
DEMAND	931	1346	1256	1487	1094	799	1373	1304	1355	1006
AVAILABILITY	1585	1821	1662	1804	1585	1473	1709	1550	1692	1473
SURPLUS (+) / SHORTAGE (-)	654	475	406	317	491	674	337	246	337	467
DECEMBER 2015	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
DEMAND	907	1366	1309	1291	1052	946	1858	1467	1836	1245
AVAILABILITY	1369	1606	1447	1588	1448	1501	1737	1578	1720	1501
SURPLUS (+) / SHORTAGE (-)	463	240	138	297	396	554	-121	111	-116	256
JANUARY 2016	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
DEMAND	736	1924	1805	1555	1311	780	1807	1662	1520	1271
AVAILABILITY	1588	1854	1695	1837	1618	1619	1885	1726	1868	1649
SURPLUS (+) / SHORTAGE (-)	852	-70	-110	282	307	839	78	63	348	377
FEBRUARY 2016	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
DEMAND	703	1649	1520	1399	1146	725	1443	1375	1315	1019
AVAILABILITY	1549	1815	1656	1798	1579	1574	1840	1681	1823	1604
SURPLUS (+) / SHORTAGE (-)	846	166	136	399	432	849	397	306	507	585
MARCH 2016	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
DEMAND	1355	1414	1239	966		1302	1537	1566	1309	
AVAILABILITY	1623	1669	1748	1686		1573	1619	1698	1636	
SURPLUS (+) / SHORTAGE (-)	268	255	509	720		271	82	132	327	

BYPL

ALL FIGURES IN MW

MONTH	1st Fortnight					2nd fortnight				
	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
OCTOBER 2015										
DEMAND	1099	1135	1104	1163		720	838	875	777	
AVAILABILITY	1247	1284	1329	1284		1276	1312	1358	1312	
SURPLUS (+) / SHORTAGE (-)	149	148	225	120		555	474	483	535	

MONTH	1st Fortnight					2nd fortnight				
	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
NOVEMBER 2015										
DEMAND	538	779	726	860	632	462	794	754	784	582
AVAILABILITY	1121	1258	1176	1258	1121	1086	1222	1140	1222	1086
SURPLUS (+) / SHORTAGE (-)	582	479	449	398	488	623	429	386	439	504
DECEMBER 2015										
DEMAND	525	790	757	747	608	547	1074	848	1062	720
AVAILABILITY	1067	1203	1121	1203	1082	1083	1360	1138	1220	1083
SURPLUS (+) / SHORTAGE (-)	542	413	364	457	474	536	286	290	158	363
JANUARY 2016										
DEMAND	425	1113	1044	899	758	451	1045	961	879	735
AVAILABILITY	1119	1395	1173	1255	1119	1136	1413	1191	1273	1136
SURPLUS (+) / SHORTAGE (-)	693	283	129	356	361	685	368	230	394	401
FEBRUARY 2016										
DEMAND	406	954	879	809	663	419	834	795	761	589
AVAILABILITY	1136	1313	1191	1273	1136	1136	1273	1191	1273	1136
SURPLUS (+) / SHORTAGE (-)	730	359	312	464	473	717	439	396	512	547
MARCH 2016										
DEMAND	784	818	716	559		753	889	906	757	
AVAILABILITY	1191	1227	1273	1227		1191	1227	1273	1227	
SURPLUS (+) / SHORTAGE (-)	407	409	557	669		438	338	367	470	

TPDDL

ALL FIGURES IN MW

MONTH	1st Fortnight					2nd fortnight				
	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
OCTOBER 2015										
DEMAND	1327	1371	1333	1405		870	1012	1057	939	
AVAILABILITY	1677	1721	1776	1721		1711	1755	1810	1755	
SURPLUS (+) / SHORTAGE (-)	350	349	443	316		841	742	753	816	
NOVEMBER 2015										
DEMAND	650	940	877	1039	764	558	959	911	946	703
AVAILABILITY	1310	1635	1536	1635	1310	1208	1593	1494	1593	1208
SURPLUS (+) / SHORTAGE (-)	660	695	658	596	546	649	634	583	646	505

MONTH	1st Fortnight					2nd fortnight				
	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
DECEMBER 2015										
DEMAND	634	954	914	902	735	661	1298	1025	1282	870
AVAILABILITY	1193	1578	1479	1578	1234	1236	1621	1522	1621	1236
SURPLUS (+) / SHORTAGE (-)	559	624	565	676	499	574	323	497	338	366
JANUARY 2016										
DEMAND	514	1344	1261	1086	916	545	1262	1161	1062	888
AVAILABILITY	1268	1663	1564	1663	1268	1289	1684	1585	1684	1289
SURPLUS (+) / SHORTAGE (-)	754	319	303	577	352	744	421	424	622	401
FEBRUARY 2016										
DEMAND	491	1152	1062	977	801	506	1008	960	919	712
AVAILABILITY	1289	1684	1585	1684	1289	1289	1684	1585	1684	1289
SURPLUS (+) / SHORTAGE (-)	798	532	523	707	488	783	676	625	765	577
MARCH 2016										
DEMAND	946	988	865	675		910	1074	1094	914	
AVAILABILITY	1585	1629	1684	1629		1585	1629	1684	1629	
SURPLUS (+) / SHORTAGE (-)	638	641	819	954		675	555	590	715	

NDMC

ALL FIGURES IN MW

MONTH	1st Fortnight					2nd fortnight				
	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
OCTOBER 2015										
DEMAND	240	290	215	180		230	260	220	150	
AVAILABILITY	289	289	289	289		316	316	316	316	
SURPLUS (+) / SHORTAGE (-)	49	-1	74	109		86	56	96	166	
NOVEMBER 2015										
DEMAND	100	200	200	180	120	100	190	190	180	120
AVAILABILITY	316	316	316	316	316	255	255	255	255	255
SURPLUS (+) / SHORTAGE (-)	216	116	116	136	196	155	65	65	75	135
DECEMBER 2015										
DEMAND	100	200	180	170	120	110	230	220	180	130
AVAILABILITY	237	237	237	237	264	251	251	251	251	251
SURPLUS (+) / SHORTAGE (-)	137	37	57	67	144	141	21	31	71	121

MONTH	1st Fortnight					2nd fortnight				
	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
JANUARY 2016										
DEMAND	140	180	250	220	180	140	240	230	200	170
AVAILABILITY	312	312	312	312	312	342	342	342	342	342
SURPLUS (+) / SHORTAGE (-)	172	132	62	92	132	202	102	112	142	172
FEBRUARY 2016										
DEMAND	120	210	200	180	150	120	180	180	170	140
AVAILABILITY	342	342	342	342	342	342	342	342	342	342
SURPLUS (+) / SHORTAGE (-)	222	132	142	162	192	222	162	162	172	202
MARCH 2016										
DEMAND	180	240	190	160		200	260	200	180	
AVAILABILITY	342	342	342	342		342	342	342	342	
SURPLUS (+) / SHORTAGE (-)	162	102	152	182		142	82	142	162	

MES

ALL FIGURES IN MW

MONTH	1st Fortnight					2nd fortnight				
	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
OCTOBER 2015										
DEMAND	35	40	40	40		35	40	35	40	
AVAILABILITY	41	41	41	41		52	52	52	52	
SURPLUS (+) / SHORTAGE (-)	6	1	1	1		17	12	17	12	
NOVEMBER 2015										
DEMAND	30	35	40	35	40	30	35	40	35	40
AVAILABILITY	52	52	52	52	52	52	52	52	52	52
SURPLUS (+) / SHORTAGE (-)	22	17	12	17	12	22	17	12	17	12
DECEMBER 2015										
DEMAND	35	40	40	40	35	35	40	40	40	35
AVAILABILITY	45	45	45	45	45	52	52	52	52	52
SURPLUS (+) / SHORTAGE (-)	10	5	5	5	10	17	12	12	12	17
JANUARY 2016										
DEMAND	35	40	40	40	35	35	45	35	40	35
AVAILABILITY	52	52	52	52	52	52	52	52	52	52
SURPLUS (+) / SHORTAGE (-)	17	12	12	12	17	17	7	17	12	17

MONTH	1st Fortnight					2nd fortnight				
	00-06	06-12	12-18	18-22	22-24	00-06	06-12	12-18	18-22	22-24
FEBRUARY 2016										
DEMAND	30	35	40	35	40	30	35	40	35	40
AVAILABILITY	52	52	52	52	52	52	52	52	52	52
SURPLUS (+) / SHORTAGE (-)	22	17	12	17	12	22	17	12	17	12
MARCH 2016	00-10	10-18	18-22	22-24		00-10	10-18	18-22	22-24	
DEMAND	35	40	40	40		35	40	35	40	
AVAILABILITY	52	52	52	52		52	52	52	52	
SURPLUS (+) / SHORTAGE (-)	17	12	12	12		17	12	17	12	

From the above, it is seen that Delhi Discoms have surplus power to the tune of 1500-2000MW especially during off peak hours of ensuing winter season.

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

To ensure the reliable supply, various plans have been drawn out by DTL and Discoms in coordination with Ministry of Power, GoI. The details are as under:-

a) Transmission System

Transmission System Improvement projects to be completed to meet the peak demand of Delhi

S. N.	Details of System Improvement projects	Reason for requirement	Timeline fixed by MoP, GoI / DTL	Executing Agency	Current status	Revised Timeline
1	LILO of 220kV Najafgarh & Kanjhawala Ckt at Mundka	To ensure max. evacuation from Mundka 400kV and for ease of loading on 400/220kV TxS at Bamnauli	30.06.13	DTL	Charged on 16.06.2015	--
2	Commissioning of 220kV Peera Garhi & Wazipur D/C cable	--do--	31.05.13	DTL	Ckt-I commissioned on 18.01.2016 and Ckt-II is commissioned on 06.02.2016	--

S. N.	Details of System Improvement projects	Reason for requirement	Timeline fixed by MoP, GoI / DTL	Executing Agency	Current status	Revised Timeline
3	Commissioning of 220kV Bawanaó Rohini-II Double Ckt line (O/H)	To reduce loading of 220kV Rohini-I S/Stn	Before summer 2014.	DTL	Load on the Rohini-II Substation is only 40-50MVA against the installing capacity of 320MVA which is met through the present T-off arrangement. The regular supply through 220kV D/C line through 220kV Bawana-Rohini II D/C line due to one reason or other which were beyond the control of DTL. Out of 38 tower foundations, the foundations of 34 are completed and stringing works are also on full swing. Now the project is likely to be completed by 31 st May, 2016.	31-05-2016
4	Augmentation of 2X 220/66kV 100MVA TxS to 160MVA TxS at Pappankalan-I (The scheme was revised to install additional one 220/66kV 160 MVA Tr.)	To control the loading of existing transformers and to create reliability of supply	Before summer 2014	DTL	One 160MVA Tx has been commissioned on 11.02.2016	--
5	LILO of one circuit of 220kV Bamnauli ó Najafgarh link at Pappankalan-II	To provide alternate source at Pappankalan-II	By end of March 2015	DTL	The scheme was envisaged to provide the duplicate source to Pappankalan II. Now the 400 kV S/Stn. is being established under ISTS at Dwarka from where direct feed is envisaged. ROW problem can also not be ruled out in bringing Overhead circuit. Till 400kV S/Stn. is established, BRPL was advised to regulate the load in their area by properly adjusting the load from existing 220 kV S/Stn. Pappankalan I, Pappankalan II, 400kV Mundka and upcoming Pappankalan III S/Stn. However, as per the decision of the Steering Committee meeting held on 10-3-16, the scheme has been revived. The Steering Committee advised DTL to complete the project before peak summer 2016 to ensure second source to PPK-II.	30-6-2016

S. N.	Details of System Improvement projects	Reason for requirement	Timeline fixed by MoP, GoI / DTL	Executing Agency	Current status	Revised Timeline
6	LILLO of one circuit of 220kV Bamnauli & Naraina Ckt-I at Pappankalan-I	To provide alternate source at Pappankalan-I	By end of March 2015	DTL	The scheme was envisaged to provide the duplicate source to Pappankalan I. Now the 400 kV S/Stn. is being established under ISTS at Dwarka from where direct feed is envisaged. However, till the establishment of 400kV Dwarka S//Stn. one circuit of 220kV Bamnauli-Naraina will be LILLOed at Pappankalan-I through PGCIL.	30.06.16
7	HTLS re-conductoring of D/C 220kV Bamnauli & Naraina Ckts	To provide reliable supply at Naraina and Ridge Valley etc	By end of March 2015	PGCIL	The stringing work of the entire circuits has been completed. However, the total capacity of the HTLS conductors could not be put on use for want of end termination suitable for HTLS conductors for which PGCIL has already arranged the material and would be completed shortly. Finally, the ckt no. 6I energised on 09.03.16 and ckt-II energised on 02.03.16.	--
8	HTLS re-conductoring of D/C 220kV Geeta Colony & Wazirabad D/C	To avoid over-loading of existing circuits and to enhance reliability of supply	31.03.15	PGCIL	220kV Geeta Colony & Wazirabad circuit-I charged on 15.05.15 and circuit-II was charged on 03.06.15 after augmentation by HTLS conductor.	--
9	HTLS re-conductoring of D/C 220kV Pragati & Sarita Vihar Ckts	To avoid over-loading of existing circuits and to enhance reliability of supply	31.03.15	PGCIL	The re-conductoring work of circuit No.2 has been completed and the circuit was energised on HTLS conductors on 17.02.16. However, circuit No.1 work is in progress due to want of 561 Mts. of HTLS conductors which have been arranged and the same would be completed shortly. Finally, the ckt. No. I was energised on 17.03.16.	--
10	LILLO of first circuit of double circuit of 220kV Pragati & Sarita Vihar Ckt. at 400kV Maharani Bagh	To avoid over-loading of existing circuits and to enhance reliability of supply	31.03.15	DTL	One circuit of Sarita Vihar Pragati (IP Extn.) would be LILLOed at Maharani Bagh by 31-5-2016 by using the connection of 220kV Maharani Bagh- Gazipur Double Cricuit line. By the time Maharani Bagh Gazipur circuit would be connected through 1200sq.mm cable as only two spare bays are available at Maharani Bagh. The 2 nd circuit would be LILLOed after the extension of Maharani Bagh GIS for which BOD of DTL has already given the approval of the scheme.	31.05.16

S. N.	Details of System Improvement projects	Reason for requirement	Timeline fixed by MoP, GoI / DTL	Executing Agency	Current status	Revised Timeline
					The completion of this project is expected to be 31-3-2018 by then the 2 nd circuit would also be LILoed. It may also be noted that the transformation capacity of 400/220kV level at 400kV Maharani Bagh is only 1630MVA out of which maximum load of 1300MVA has already been catered. The proposal for augmentation of Maharani Bagh S/Stn. to 2000MVA was put up in the standing committee of CEA meeting held on 20.01.2016 wherein the proposal was turned down and advised to expedite the already approved the scheme of ISTSs in Delhi. However, following the HTLS reconductoring of 220kV Wazirabad & Geeta Colony, 220kV Pragati Sarita Vihar and 220kV Naraina & Bamnauli no transmission constraint is anticipated on normal source. However, the entire system would be strengthened after the completion of 400kV ISTS at RPH(IP) and at Tughlakabad which is expected to take at least 2 years.	
11	Commissioning of 220kV Harsh Vihar & Patparganj D/C	To ensure maximum evacuation from Harsh Vihar and ease loading on Mandola system	31.03.15	PGCIL	Work is being carried out by PGCIL and is likely to be completed by May 2016.	31.05.16
12	Augmentation of 2X315MVA ICTs to 2X500MVA ICTs at Bamnauli.	To ease the loading of existing transformers and to enhance reliability of supply.	31.03.15	PGCIL	500MVA ICT-I charged on 17.07.15 and ICT-II charged on 21.08.15.	-
13	Augmentation of 4X315MVA ICTs to 4X500MVA ICTs at Mandola (PGCIL S/Stn)	To ease the loading of existing transformers and to enhance reliability of supply.	Two ICTs before summer 2014 and two before summer 2015	PGCIL	Three ICTs are expected to be augmented by April 2016 and the last one by 30-6-16 depending upon the availability of the shutdown.	-
14	Augmentation of 4X315MVA ICTs to 4X500 MVA ICTs at Ballabh Garh (PGCIL S/Stn)	To ease the loading of existing transformers and to enhance reliability of supply.	Before summer 2015	PGCIL	One Tr. has already been augmented and commissioned on 29-2-16 and 2 nd Tr. is likely to be augmented by 30-4-16. Though the 3 rd Tr. is not received at site and that also is planned by 30-4-16. The 4 th Tr. is schedule for June, 2016 depending upon shutdown of the existing Tr.	-

S. N.	Details of System Improvement projects	Reason for requirement	Timeline fixed by MoP, GoI / DTL	Executing Agency	Current status	Revised Timeline
15	Additional 220/66kV 100MVA Tx at Sarita Vihar	To enhance reliability of supply	Before summer 2015	DTL	Tx commissioned on 02.01.2016.	-
16	Additional 220/66 kV 160MVA Tx at DSIDC Bawana	To enhance reliability of supply	Before summer 2015	DTL	Tx commissioned on 07.01.2016	-
17	Additional 220/66 kV 160MVA Tx at Pappankalan-II	To enhance reliability of supply	Before summer 2015	DTL	Tx commissioned on 23.12.2015	-
18	Additional 220/66 kV 160MVA Tx at Kanjhawala along with 4 Bays at 66kV level	To enhance reliability of supply	Before summer 2015	DTL	Transformer commissioned on 19.02.2016	-
19	Additional 220/33kV 100MVA Tx at Masjid Moth	To enhance reliability of supply	Before summer 2014	DTL	Due to contractual problem, the contract could not be awarded so far.	Revised date can be brought out after decision in this tender
20	Establishment of 33kV GIS at Lodhi Road with additional 220/33kV 100MVA Tx at Lodhi Road	To reduce the loading on the existing transformers	Aug. 2014	DTL	33kV GIS works completed. 220kV GIS work and additional transformer work to be completed by October 2016	31.10.16
21	Addl. One No. 220/33kV 100MVA Tr. at Peeragarhi	To enhance reliability of supply	Before summer 2016	DTL	Due to contractual problem, the contract could not be awarded so far.	Revised date can be brought out after decision in this tender
22	Addl. One No. 220/33kV 100MVA Tr. at Patparganj	Hot reserve	Before summer 2016	DTL	Due to contractual problem, the contract could not be awarded so far.	Revised date can be brought out after decision in this tender

For ensuring reliability of Delhi system four ISTS with 8000MVA capacity were planned to be commissioned by the year 2017. Due to land related issues the projects were delayed. The present status of four ISTS is as under.

S.N.	Name of the new sub station	Voltage (KV)	Sub station Ownership	Land status				Remarks	
				Land available	Land identified	DDA TC approved	Land in possession		
1	Rajghat	400	PGCIL	Available				The area for the substation has been jointly identified. PGCIL has awarded the contract for the substation. However, the premises being the flood plain of river Yamuna alternate site has been identified at IP Complex before proceeding further other statutory clearances are required to be obtained.	
2	Tughlaka-bad	400				YES	YES	NO	All formalities of Land allotment by DDA to GNCTD have been completed. Working permission is likely to be given shortly.
3	Karam Pura	400				YES	YES	NO	Severe ROW problem for 400kV line as such the project is likely to be stalled for the time being.
4	Dwarka	400			Available	YES	YES	NO	All formalities of Land allotment by DDA to GNCTD have been completed. Working permission is likely to be given shortly.

In view of the delay of ISTS, the associated 220 kV systems also got delayed. On 14.03.16, a Special Steering Committee meeting was held wherein the following schemes were finalised in consultation with DISCOMS for the period 2016-17 to 2021-22 as part of Business Plan for DTL.

Spill Over Projects of 12th Plan

S.N.	Name of Scheme	Completion Period	Remarks
1.	Lodhi Road 220/33 kV GIS. (CENTRAL DELHI)	2016-17	33kV GIS works completed. 220kV GIS work and additional transformer work to be completed by October 2016.
2.	220/33 kV GIS at Preet Vihar (East DELHI)	2016-17	Under execution and likely to be completed by May 2016.
3.	Double ckt from Harsh Vihar to Patparganj & LILO at Preet Vihar	2016-17	Under execution and likely to be completed by May 2016.
4.	220/66 kV GIS at Papankalan-III (Dwarka subcity -West DELHI)	2016-17	Work awarded by PGCIL and likely to be completed by Summer 2017.
5.	LILO of double circuit Bamauli-Naraina at PPK-III	2016-17	Work awarded by PGCIL and likely to be completed by Summer 2017.
6.	Single circuit underground cable (IP -Park street-Electric Lane-IP)	2016-17	Work under execution.
7.	Double circuit underground from Lodhi road to IP Power	2016-17	Contract awarded. Likely to be completed by 2017.
8.	S/C LILO of 220kV Bamnauli-Najafgarh D/C at PPK-II on M/C O/H	2016-17	The scheme was envisaged to provide the duplicate source to Papankalan II. Now the 400 kV S/Stn. is being established under ISTS at Dwarka from where direct feed is envisaged. ROW problem can also not be ruled out in bringing Overhead circuit. Till 400kV S/Stn. is established, BRPL was advised to regulate the load in their area by properly adjusting the load from existing 220 kV S/Stn. Pappankalan I, Papankalan II, 400kV Mundka and upcoming Papankalan III S/Stn. However, as per the decision of the Steering Committee meeting held on 10-3-16, the scheme has been revived. The Steering Committee advised DTL to complete the project before peak summer 2016 to ensure second source to PPK-II.
9.	S/C LILO of 220kV Bamnauli-Naraina at PPK-I	2016-17	The scheme was envisaged to provide the duplicate source to Pappankalan I. Now the 400 kV S/Stn. is being established under ISTS at Dwarka from where direct feed is envisaged. However, till the establishment of 400kV Dwarka S//Stn. one circuit of 220kV Bamnauli-Naraina will be LILOed at Pappankalan-I through PGCIL.
10.	First circuit OH+UG LILO of Pragati-Sarita Vihar at Maharani Bagh	2016-17	One circuit of Sarita Vihar Pragati (IP Extn.) would be LILOed at Maharani Bagh by 31-5-2016 by using the connection of 220kV Maharani Bagh- Gazipur Double Cricuit line. By the time Maharani Bagh Gazipur circuit would be connected through 1200sq.mm cable as only two spare bays are available at Maharani Bagh. The 2 nd circuit would be LILOed after the extension of Maharani Bagh GIS for which BOD of DTL has already given the approval of the scheme. The completion of this project is expected to be 31-3-2018 by then the 2 nd circuit would also be LILOed. It may also be noted that the transformation capacity of 400/220kV level at

S.N.	Name of Scheme	Completion Period	Remarks
			400kV Maharani Bagh is only 1630MVA out of which maximum load of 1300MVA has already been catered. The proposal for augmentation of Maharani Bagh S/Stn. to 2000MVA was put up in the standing committee of CEA meeting held on 20.01.2016 wherein the proposal was turned down and advised to expedite the already approved the scheme of ISTSs in Delhi. However, following the HTLS reconductoring of 220kV Wazirabad ó Geeta Colony, 220kV Pragati Sarita Vihar and 220kV Naraina ó Bamnauli no transmission constraint is anticipated on normal source. However, the entire system would be strengthened after the completion of 400kV ISTS at RPH(IP) and at Tughlakabad which is expected to take at least 2 years.
11.	2x160 MVA and 66 kV GIS at Gopalpur (North Delhi)	2017-18	The tender under evaluation and likely to be completed by 31.03.2018.
12.	220/66kV GIS at Tughlakabad (South EAST Delhi)	2017-18	All formalities completed w.r.t. Land allocation. Working permission is likely to be available soon.(The scheme is in align with Tuglakabad ISTS.)
13.	LILO of Mehrauli-BTPS at Tughlakabad	2017-18	Work awarded. Execution along with establishment of Tuglakabad ISTS.
14.	Multi circuit overhead from Tughlakabad to Masjid Moth	2017-18	Work awarded. Execution along with establishment of Tuglakabad ISTS.
15.	Double circuit Okhla feeder termination at Tughlakabad	2017-18	Work awarded. Execution along with establishment of Tuglakabad ISTS.
16.	220 kV GIS at Rajghat (Central Delhi) (new location may be at IP)	2017-18	Location is likely to be shifted to IP subjected to statutory clearances, as such the scheme may not be required .
17.	Multi circuit from Kashmiri gate to IP Power	2017-18	Work awarded. To be aligned with 400kV ISTS at RPH(IP)
18.	220/66 kV GIS at Tikri Khurd (North DELHI)	2017-18	Under tendering.
19.	LILO of double ckt Narela-Mandola at Tikri khurd on MULTI CKT O/H	2017-18	Under tendering.
20.	220/66 & 220/33 kV GIS at R K Puram (South Delhi)	2017-18	Tender Evaluation under progress.
21.	220/66 kV GIS at Budella (CENTRAL WEST DELHI)	2017-18	DTL Board approved the scheme in its mtg. held on 04.11.2015 . Under Tendering.
22.	S/C LILO of 220kV Bamnauli-Najafgarh at Budella on MULTI CKT O/H line	2017-18	
23.	Double circuit underground cable from Dwarka to Budella	2018-19	DTL Board approved the scheme in its mtg. held on 04.11.2015 . Under Tendering.
24.	220/66kV GIS at SGTN (NORTH DELHI)	2018-19	DTL Board approved the scheme in its mtg. held on 04.11.2015. Under Tendering.

S.N.	Name of Scheme	Completion Period	Remarks
25.	Double circuit overhead from Shalimarbagh to SGTN	2018-19	DTL Board approved the scheme in its mtg. held on 04.11.2015. Under Tendering.
26.	220/33kV GIS at Punjabi bagh (CENTRAL - WEST DELHI) (Vishal)	2018-19	Re modelling of 33kV Vishal S/Stn of BRPL is proposed to be up-graded by 2018-19.
27.	Budella to Punjabi bagh Multi circuit O/H line (6kms O/H & 0.5 Km U/G)	2018-19	
28.	220/33 kV GIS at Karol Bagh (Dev Nagar)(CENTRAL DELHI) in lieu of Karmapura	2018-19	Land has been identified to be co-located with the BYPL 33 kV S/Stn.
29.	Double circuit from IP to Karolbagh(Dev Nagar)	2018-19	To be commissioned along with 400 kV ISTS at IP.
30.	220/66 kV GIS at Chandrawal (CENTRAL DELHI)	2018-19	DTL Board approved the scheme in its mtg. held on 26.12.2015 .
31.	Double circuit underground from Kashmirigate to Chandrawal	2018-19	DTL Board approved the scheme in its mtg. held on 26.12.2015 .
32.	S/C O/H LILO of Gopalpur to Subzi Mandi D/C line at Chandrawal	2018-19	
33.	220/33 kV GIS at Maharaniabagh (SOUTH DELHI)	2018-19	DTL Board has approved the scheme on 26.12.15. Under Tendering.
34.	Second circuit overhead LILO of Pragati-Sarita Vihar at Maharaniabagh	2018-19	
35.	220/33 kV GIS at Jasola (South EAST DELHI)	2019-20	Scheme is proposed but as per the requirement of BRPL , it is proposed to be completed in 2019-20.
36.	Overhead (HTLS) LILO of Maharaniabagh to Sarita Vihar D/C line at Jasola	2019-20	To be aligned along with 220kV GIS Extension at Maharani Bagh.
37.	Double circuit underground cable from Tughlakabad to RK Puram	2019-20	To be aligned along with 400kV GIS at Tuglakabad.
38.	220/66 kV GIS at Mangolpuri (CENTRAL WEST DELHI)	2019-20	Proposed to be Co-allocated at 66kV Mangolpuri-2 S/Stn of TPDDL. S/Stn is proposed to be commissioned by 2019-20.
39.	double ckt O/H+U/G Shalimarbagh-Mangolpuri-Budella	2019-20	
40.	220/66 kV GIS at Janakpuri (CENTRAL-WEST DELHI)	2019-20	land is likely to be available by end of 2016. project has been postponed to 2020
41.	Dwarka to Janakpuri D/C U/G	2019-20	
42.	Punjabi bagh to Janakpuri D/C U/G	2019-20	
43.	220/33kV GIS at Nehru Place (SOUTH DELHI)	2020-21	Land will be available and after vacation of casting yard by DMRC by Dec, 2017 and proposed to be completed by 2020-21.
44.	220kV D/C U/G cable LILO of Maharaniabagh-Masjid Moth at Nehru Pl	2020-21	
45.	220kV GIS at Subzi Mandi (CENTRAL DELHI)	2020-21	To be considered after the commissioning of 220kV GIS at Chandrawal.

S.N.	Name of Scheme	Completion Period	Remarks
46.	220kV D/C underground cable from Karolbagh to Subzi Mandi	2020-21	To be considered after the commissioning of 220kV GIS at Chandrawal.
47.	Ridge Valley to Narina D/C O/H cum U/G	2020-21	
48.	Vasant kunj to DIAL D/C cable	2020-21	
49.	Second circuit LILO of Kanjhawala-Najafgarh at Mundka on Multi ckt tower	2020-21	
50.	LILO of AIIMS-Ridge valley at RK Puram	2018-19	
51.	220/66kV GIS at Mayur Vihar (EAST DELHI)	2021-22	BYPL has agreed to hand over the land and proposed to be completed by 2021-22.
52.	O/H LILO of Maharaniabagh to Gazipur D/C line at Mayur Vihar	2021-22	

New Works (400 kV Sub-station & Line Packages)

S.N.	Name of Scheme	Completion Period	Remarks
1.	400 kV GIS at Shalimarbagh (NORTH - WEST DELHI)	2020-21	
2.	Bawana to Shalimarbagh D/C line	2019-20	
3.	400 kV GIS at Gopalpur (CENTRAL DELHI)	2021-22	
4.	LILO of Bawana to Rajghat 400KV D/C at Gopalpur	2019-20	
5.	400 & 220 kV GIS at Rangpuri (SOUTH DELHI)	2022-23	DMRC is being requested to accommodate DTL's land requirement under their 4th phase expansion.
6.	LILO of 400kV D/C Bamnauli - Tughlakabad at Rangpuri through 400kV M/C O/H line	2021-22	
7.	400kV Gazipur site development	2021-22	
8.	765/400kV Mandi (South Delhi) site development	2021-22	

New Works (220 kV Sub-stations & Line Packages)

S.N.	Name of Scheme	Completion Period	Remarks
1.	220/66kV GIS at Maidan Garhi/IGNOU (South Delhi)	2020-21	
2.	LILO of Tughlakabad to Mehrauli D/C at Maidan Garhi	2020-21	
3.	2 x 160 MVA and 66kV AIS at Bamnauli (SOUTH -West Delhi)	2020-21	
4.	220/66 kV GIS at Budhpur * (NORTH DELHI)	2021-22	
5.	LILO of Mandola-Gopalpur D/C line at Budhpur/Nathupura	2021-22	
6.	220/66kV GIS at Dhansa/Jaffarpur/Jhatikalan (WEST DELHI)	2022-23	
7.	220kV M/C O/H line from Bamnauli to Dhansa	2021-22	

S.N.	Name of Scheme	Completion Period	Remarks
8.	220/66kV GIS at Barwala (ROHINI SUBCITY sector -34)	2022-23	
9.	LILO of 220kV D/C Bawana - Kanjhawala O/H line at Barwala	2022-23	

b) Distribution System

Details of Distribution System Improvement projects to be completed during 2014-15 to 2016-17 are as under:-

2014-15

TPDDL

S N	Particulars / Name of the Project / Element	MVA Addition	Scheme Status	Present Status
1	Additional 16 MVA PTR-3 at 33/11 kV Haiderpur Grid	16	DERC Approval received	Tr. Charged on 01.10.2015. There is some protection issue in 11kV I/C-III. However, 11kV Bus-III charged through 11kV bus section.
2	Additional 25 MVA PTR-3 in 66/11 kV Bhalswa-1 Grid	25	DERC Approval received	Tr. Commissioned on 20.07.2015.
3	Additional 25 MVA PTR-3 at 66/11 kV RG22	25	DERC Approval received in Sep-2014	Tr. Commissioned on 24.11.2015
4	Additional 16 MVA PTR-3 at 33/11 kV GTK Grid	16	DERC Approval received	Tr. Commissioned on 23.10.2015
5	Strengthening of 33kV Line between AIR Khampur and Tigi Pur Grid	0	WIP	Work completed on 31.03.15. Punch point is pending.
6	33kV Twin Cable (2 x 3C*400 sqmm) between 220kV Peera Garhi and Rani Bagh CC Grid	0	Energisation is pending	Circuit commissioned.
7	66/11 kV Dheerpur (2 x 25MVA +1*1000sq.mm. Cable LILO of 66kV line between 220kV Gopal Pur and Jahangir Puri)	50	DERC Approval received in Sep-2014	Under execution. Likely to be completed by August 2016.
8	66/11 kV Prashant Vihar (2x25MVA+1*1000sq.mm. cable LILO of 66kV line between Pitam Pura-1 and Rohini-3)	50	Work in progress	Grid charge with LILO of one circuit. LILO of other circuit will be completed on by 15.12.2015.
9	66 / 11 kV RG-34 (2x25 MVA+D/C1 C *1000 sq.mm. cable from proposed 66kV RG-30+D/C 1C*1000 sq.mm. cable from proposed 220 kV Rohini34)	50	DERC Approval received	Under Execution. Will be completed by March 16
10	66 / 11 kV Bawana-1 Ph-2 Grid (2 x 25 MVA + D/C O/H line LILO between 220kV DSIIDC Bawana and 66kV DSIIDC-2 Narela)	50	DERC Approval received	Under Tendering.

TPDDL

2015-16

S N	Particulars / Name of the Project / Element	MVA Addition	Scheme Status	Present Status
1	Augmentation of PTR-1 (16MVA to 25MVA) at 33/11kV Rampura Grid	9	DERC Approval received	Commissioned on 18.06.2015
2	Augmentation of 16 MVA PTR-1 & 16 MVA PTR-2 to 25 MVA each in 33/11 KV Trinagar	18	DERC Approval received	Deferred by DERC. Will be reviewed later. Presently load is being met through 25MVA Pr. Tr-I augmented at Rampura

S N	Particulars / Name of the Project / Element	MVA Addition	Scheme Status	Present Status
7	Additional 20MVA PTR-3 to be installed at Sudarshan Park Grid along with 33kV twin cable single ckt of 3*400sqmm from 220KV Peeragarhi to Sudarshan Park Grid	20	DERC Approval received	Under Execution. Cable part is under tendering.
8	Conversion of single cable of 220kV SMB to Rani Bagh Ckt- 1 & 2 to twin 3 X 400 XLPE cable	0	DERC Approval received	Under execution.
9	66kV SGTN Grid (3 x 25MVA + D/C 1*1000sqmm from 220kV SGTN Grid + D/C 1*1000sqmm 66kV Jahangir Puri Grid)	23	DERC Approval received	Under Execution. Will be completed by 31.05.2016
11	66kV DSIIDC-3 Grid (2 x 25MVA + 66kV line 1*1000sqmm D/C LILO between 220kV Narela and Badli Grid)	50	DERC Approval received	Under Tendering. Payment awaited.
12	66kV Bhalswa-2 Grid (2 x 25MVA + D/C 66kV 1*1000sqmm from 220 KV SGTN Grid + D/C 66kV 1*1000sqmm from Bhalswa-1 Grid)	50	DERC Approval received	Under Tendering. Payment awaited.
13	66kV Siras Pur Grid (2 x 25MVA + D/C 66kV line 1*1000sqmm from 220kV SGTN + D/C 66kV line 1*1000sqmm from Badli Grid)	50	DERC Approval received in Sep-2014	Under execution. Will be commissioned by June 2016.
14	66 / 11 kV RG-28 No-2 Grid (2 x 25 MVA + D/C 1C*1000 sq.mm. cable from 220kV Rohini-2 Grid + D/C 1C*1000 sq.mm. cable from 66kV RG-29 Grid + D/C 1C*1000 sq.mm. cable from 66kV RG-28 Grid)	50	DERC Approval awaited	Will be reviewed later based on occupancy of areas.
15	66 / 11 kV RG-29 Grid (2 x 25 MVA + D/C 1C*1000 sq.mm. cable from 220kV Rohini-2 Grid + D/C 1C*1000 sq.mm. cable from 66kV RG-30 Grid + D/C 1C*1000 sq.mm. cable from 66kV RG-28 No-2 Grid)	50	DERC Approval awaited	Will be reviewed later based on occupancy of areas.
16	66 / 11 kV RG-30 Grid (2 x 25 MVA + D/C 1C*1000 sq.mm. cable from 220kV Rohini-2 Grid + D/C 1C*1000 sq.mm. cable from 66kV RG-34 Grid + D/C 1C*1000 sq.mm. cable from 66kV RG-29 Grid)	50	DERC Approval awaited	Under Tendering. Landing Handing over is under process.
17	66 / 11 kV NSC G-8 Grid (2 x 25 MVA + D/C twin 3*300 sq.mm. cable from proposed 220kV NSC-1 Grid + D/C twin 3*300 sq.mm. cable from 66kV NSC G2 G6 Grid-2)	50	DERC Approval awaited	DERC Approval awaited. Landing Handing over is under process.
18	66 / 11 kV Pooth Khurd-2 Grid (2 x 25 MVA + D/C twin 3*300 sq.mm. cable from 66kV BCWW Grid + S/C twin 1*1000 sq.mm. cable LILO line between 66kV Bawana-6 and 66kV Pooth Khurd-1 Grid)	50	DERC Approval awaited	Under tendering. Payment awaited.

TPDDL
2016-17

S No	Particulars / Name of the Project	Scheme Status
1	Conversion of Sabzi Mandi to SKN CKT to Twin cable (3 x 400 sqmm)	To be submitted to DERC.
2	Twin 3*300sqmm S/C 66kV from Mundka to Mangol Puri-1	Being the less priority item as Mangolpuri has sufficient infeed capacity, scheme to be reviewed later.

S No	Particulars / Name of the Project	Scheme Status
3	33/11 kV Bhor Garh Grid (2 x 25 MVA + 33kV line LILO between 220kV Subzi Mandi and Shakti Nagar), twin cable 3 x 400 sqmm	Due to change in land location, this will be constructed at Ludlow castle, Civil Line. To be submitted to DERC.
4	33/11 kV WazirPur-4 Grid (2 x 25 MVA + 33kV line LILO between Wazir Pur-1 and Wazir Pur-2 Grid), twin cable 3 x 400 sqmm	Will be reviewed later.
5	33/11 kV LRIA Grid (2 x 25 MVA + 33kV line LILO between Ram Pura and Ashok Vihar Grid), twin cable 3 x 400 sqmm	Will be submitted for 2017-18
6	66/11 kV Rohini-6 No-2 Grid (2 x 25 MVA + 66kV line LILO between 220kV Rohini and Rohini-6 Grid), twin cable 3 x 300 sqmm	Will be submitted for 2017-18
7	66/11 kV Budh Vihar Grid (2 x 25 MVA + 66kV line LILO between Rohini-2 and Rohini-23 Grid), cable 1C*1000 sqmm	Will be submitted for 2017-18
8	33/11 kV NSP Grid (2 x 25 MVA + 33kV line LILO between 220kV SMB and Wazir Pur-1 Circuit-2), twin cable 3 x 400 sqmm	Will be reviewed later.
9	66 / 11 kV NSC G2-G6 Grid-2 (2 x 25 MVA + D/C twin 3*300 sq.mm. cable from proposed 220kV NSC-1 Grid + D/C twin 3*300 sq.mm. cable from 66kV NSC G8 Grid + D/C twin 3*300 sq.mm. cable from 66kV NSC G3-G4 Grid)	Will be reviewed later based on occupancy area.
10	66 / 11 kV NSC G3-G4 Grid (2 x 25 MVA + D/C twin 3*300 sq.mm. cable from proposed 220kV NSC-2 Grid + D/C twin 3*300 sq.mm. cable from 66kV NSC G2-G6 Grid-2)	Will be reviewed later based on occupancy area.
11	Augmentation of 16MVA PTR-1 and 16MVA PTR-2 to 25MVA each in 33/11kV Trinagar Grid	Will be reviewed later. Presently laod is being met through 25MVA PTR-I at Rampura

BYPL

2014-15

S. No.	Voltage Level	Scheme Description	Capacity Addition (MVA)	DERC approval Status	Work Status
1	66/11kV	Addition of 25 MVA Power Transformer at 66/11 kV Bhagirathi Grid Sub-station	25	Approved	Completed
2	33/11kV	Addition of Power Transformer of 25 MVA at 33/11 kV Delhi Gate Grid Sub-station	25	Approved	Completed
3	66/11kV	Addition of 20 MVA Power Transformer at 66/11 KV GH-1 Grid Sub-station	20	Approved	PTR damaged. Sent for repair
3	33/11kV	Augmentation of Power transformer from 16 MVA to 25 MVA at 33/11 KV Kailash Nagar Grid Sub-station	9	Approved	Completed
14	66/11kV	Augmentation of PTR-1 from 20 MVA to 31.5 MVA at 66/11 KV Yamuna Vihar Grid Sub-station	12	Approved	Deferred
15	66/33kV	Augmentation of 66/33kV, 30 MVA PTR with 66/33kV, 50 MVA PTR at Bhagirathi Grid Sub-station.	20	Approved	Completed
		Total	305		

BYPL

Additional feeders

S. No.	Voltage Level	Source Station	Scheme Description	DERC Approval Status	Work Status
1	33kV	66kV Ghonda	Providing additional 33 KV feed to Karawal Nagar Grid substation from Ghonda Grid.	Approved	Completed
2	33kV	220kV Subji Mandi	Providing Additional 33 KV feed 220kV Subji Mandi Grid to 33/11kV B.G Road Grid Sub-Station.	Yet to be Submitted	Scheme not required. Already two feeders from 220kV Subzi Mandi
3	33kV	220kV RPH Grid	Providing Additional 33 KV feed 220kV RPH/IP Grid to 33/11kV Delhi Gate Grid Sub-Station.	Yet to be Submitted	This feeder is possible after energization of 33kV GIS at RPH
4	33kV	220kV RPH Grid	Providing Additional 33 KV feed 220kV RPH/IP Grid to 33/11kV G.B Pant Grid Sub-Station.		
5	33kV	220kV Narayana Grid	Providing Additional 33 KV feed 220kV Narayana Grid to 33/11kV Prasad Grid Sub-Station.	Yet to be Submitted	This feeder is possible after the energization of 33kV Dev Nagar Grid
6	33kV	220KV Geeta Colony Grid	Providing Additional 33 KV feed 220kV Patparganj Grid to 33/11kV Preet Vihar Grid Sub-Station.	Yet to be Submitted	Scheme is under IPDS
7	33kV	220KV Geeta Colony Grid	Providing Additional 33 KV feed 220kV Patparganj Grid to 33/11kV CBD-1 Grid Sub-Station.	Yet to be Submitted	Scheme is under IPDS
8	66kV	220kV Park Street Grid	Providing additional 66 KV feed doble circuit from 220kV Park Street Grid to 66/11kV Shastri Park Grid Sub-Station.	Yet to be Submitted	Scheme not approved

BYPL

Augmentation of existing feeders

S. No.	Category	Scheme Description	DERC Approval Status	Present Status
1	Replacement of Cable Schemes	Conversion of Jama maszid -Kashmiri gate O/H Line into Underground circuit at Ring Road	Approved	RCP waited. Work to be completed by March 2016
2		Shifting/Conversion of 33kV 'Kailash Nagar-Seelampur' O/H cum U/G feeder by laying 2 Nos. 33kV 3CX400sq.mm. XLPE cables.	Approved	
3		Part Replacement of 33 KV Shastri park - Seelampur & Shastri Park - Dwarka puri Circuit with 2 Nos. 3CX400Sqmm cables	Approved	
4		Replacement of 33 KV PILCA Cable from Town Hall Grid to Lahori Gate Grid.	Approved	Completed
5		Conversion of O/H portion into U/G cable from 33 KV Narayana Grid to DMS Grid.	Under Approval	Planned in 2016-17
6		Shifting of part of 66 KV Patparganj-Vivek vihar ckt no. 1 & 2 near Sreshtha vihar at the bank of Nallah near Railway Track Flyover on road no.56.	Under Approval	Completed in deposited work.

Replacement of switchgears / additional bays

S. No.	Category	Scheme Description	DERC Approval Status	Present Status
1	Switchgear Schemes	Replacement of 66kV MOCB & Circuit Breaker at Various Grid in BYPL	Under Approval	Yet to Start
2	Switchgear Schemes	Replacement of 33kV Old Circuit Breaker with SF6 Circuit Breaker at Various Grid in BYPL	Under Approval	Yet to Start
3	Switchgear Schemes	Conversion of Outdoor Yard into Indoor Substation at Karawal Nagar Grid.	Approved	WIP, expected by March 2016
4	Bays Schemes	Addition of 2 nos new Feeder Bays at Common Wealth Games Village Grid Sub-Station (Akshardham Grid).	Approved	
5	Bays Schemes	Addition of 2 nos new Feeder Bays at 66/33kV Shastri Park Grid	Under Approval	

BYPL

2015-16

S.No.	Voltage Level	Scheme Description	Capacity addition (MVA)	DERC Approval Status	Present Status
1	66/11kV	Establishment of New 66/11 kV Grid Sub-Station at Mandoli Jail Complex	50	Approved	Under IPDS
2	33/11kV	Establishment of New 33/11 kV Grid Sub-Station Krishna Nagar	32	Approved	Tender floated
3	33/11kV	Establishment of New 33/11 kV Grid Sub-Station Gangaram Hospital Grid	50	Approved	Yet to Start
4	33/11kV	Establishment of New 33/11 kV Grid Sub-Station at D.B Gupta Road near Naaz Cinema	32	Approved	Under IPDS
5	66/11kV	Addition of Power Transformer of 25 MVA at 66/11 Khichripur Grid Sub-station	25	Approved	WIP
6	33/11kV	Addition of 16 MVA Power Transformer at 33/11 KV Motia Khan Grid Sub-station with GIS	16	Approved	Yet to Start
7	66/11kV	Addition of 31.5 MVA Power Transformer at 66/11 KV Vivek Vihar Grid Sub-station	32	Approved	Yet to Start
8	66/33kV	Addition of one no 66/33kV, 50 MVA Power Transformer with associated equipments at Shastri park (East) Grid Sub-station.	50	Approved	Yet to Start
9	33/11kV	Augmentation of Power Transformer No-1 from 16 MVA to 25 MVA at 33/11 KV Dwarkapuri Grid Substation	9	Approved	Yet to start
10	33/11kV	Augmentation of Power Transformer No.1 from 15 to 25 MVA at 33kV BG Road Grid Sub-station	10	Approved	Yet to start
11	33/11kV	Augmentation of Power Transformer No.-2 from 16 MVA to 25 MVA at 33/11 KV BG Road grid substation	9	Approved	Yet to start
12	33/11kV	Augmentation of Power Transformer No.2 from 16 MVA to 25 MVA at 33/11 KV CBD-1 grid substation	9	Approved	Yet to start

S.No.	Voltage Level	Scheme Description	Capacity addition (MVA)	DERC Approval Status	Present Status
13	33/11kV	Augmentation of Power Transformer from 16 MVA to 25 MVA at 33/11 KV Geeta Colony grid substation	9	Yet to be Submitted	Scheme for Geeta Colony-II is under IPDS
14	66/11kV	Augmentation of Power Transformer No.2 from 20 MVA to 31.5 MVA at 66/11 KV Yamuna Vihar grid substation	11	Yet to be Submitted	Yet to start
15	33/11kV	Augmentation of Power Transformer No-2 from 16 MVA to 25 MVA at 33/11 KV Dwarkapuri Grid Substation	9	Yet to be Submitted	Scheme not approved
16	33/11kV	Augmentation of Power Transformer from 16 MVA to 25 MVA at Karawal Nagar 33/11 KV Grid Sub-station	9	Yet to be Submitted	Scheme under IPDS

BYPL Additional feeders (2015-16)

S. No.	Voltage Level	Scheme Description	DERC Approval Status	Present Status
1	66kV	Providing 66 KV infeed to newly proposed 66/11 KV Indoor Grid Substation at Mandoli Jail Complex by laying 6 nos. 66 KV 1CX1000 sq. mm cable for 400 KV Harsh vihar Grid.	Approved	Scheme is under IPDS
2	33kV	Laying of 33 KV 3Cx400 sq mm XLPE U/G cable from 220KV Geeta Colony Grid to proposed 33kV C Block Krishna Nagar Indoor Grid	Approved	Yet to start
3	33kV	Laying of 33 KV 3Cx400 sq mm XLPE U/G cable from Shastri Park Grid and Shankar Road Grid to proposed 33kV Sir Ganga Ram Hospital Indoor Grid	Yet to be Submitted	Yet to start
4	33kV	LILO of 33 KV cable betwvn Motia Khan to Faiz Road at newly proposed DB Gupta Road Grid near Naaz Cinema	Approved	Yet to start
5	33KV	Laying of one ckt of 33 KV 3Cx400 sq mm XLPE U/G cable from 220KV Park Street to Naaz Cinema	Yet to be Submitted	Yet to start
5	66kV	Laying of New feeder from 220 KV Wazirabad(single circuit) to 66 KV Bhagirathi Grid		
6	33kV	Laying of new feeder from Rajghat Power House grid to 33 KV I G Stadium.		
7	66kV	LILO 66kV Cable of Wazirabad- Ghonda circuit at Sonia Vihar		
8	33kV	Laying of 33kV New feeder From RPH to 33/11kV Delhi Gate Grid Sub-Station		
9	33kV	Providing Additional 33 KV feed 220kV Subji Mandi Grid to 33/11kV B.G Road Grid Sub-Station.		
10	33kV	Laying of additional 33kV Feeder from 220kV Naraina Grid to DMS Grid Substation		
11	33kV	Providing Additional 33 KV feed 220kV Narayana Grid to 33/11kV Prasad Grid Sub-Station.		
12	66kV	Providing additional 66 KV feed doble circuit from 220kV Park Street Grid to 66/11kV Shastri Park Grid Sub-Station.		
13	33kV	Providing Interconnector between Dwarkapuri to Kanti Nagar Grid.		

S. No.	Category	Scheme Description	DERC Approval Status	Present Status
1	Replacement of Cable Schemes	Conversion of Ridge valley -Shanker Road Grid O/H Circuit no -1 Line into Under Ground.	Yet to be Submitted	Yet to start
2	Replacement of Cable Schemes	Conversion of Ridge valley -Shanker Road Grid O/H Circuit no -2 Line into Under Ground.	Yet to Submitted	Yet to start
3	Replacement of Feeder Schemes	Re conducting with AAAC conductor Patparganj Grid Sub-Station to Khichripur Grid Sub-Station	Under Approval	Yet to start

S. No.	Category	Scheme Description	DERC approval Status	Present Status
1	LTAC DB Schemes	Provision of LT AC Distribution board at Minto Road Grid , Delhi Gate Grid, Jama masjid Grid, Prasad Nagar Grid, DMS Grid	Under Approval	Yet to start
2	LTAC DB Schemes	Provision of yard lighting, LT AC distribution board and replacement of outdoor terminal kiosk at Ghonda Grid.		
3	Bays Schemes	Provision of double bus bar system at 33 kV Guru Angad Nagar Grid.		
4	Bays Schemes	Conversion Single Bus Bar to double bus bar system at 66 kV Dilshad Garden Grid Sub-Station.		
5	Bays Schemes	Provision of double bus bar system at 33 kV Seelampur Grid Sub-Station		
6	CTs Schemes	Replacement of 81 nos of 33KV Current Transformers & 36 no of 66 KV Current Transformers at Various Grid in BYPL.		
7	PTs Schemes	Replacement of 36 no of Potential Transformers at various Grid in BYPL		
8	Battery Charger/Battery bank Schemes	Replacement of 50V Battery bank and Battery chargers at various 33 KV & 66KV Grid Sub-Station in central circle (5 nos -50V & 1 no.-220V)		
9	RTCC Schemes	Installation of Digital RTCC Panels in BYPL Grid Sub-Station.		
10	Fire Alarm Schemes	Installation of Fire Alarm System in BYPL Grid Sub-Station.		
11	C&R Panel Schemes	Replacement of Old Control and Relay Panel at various Grids in BYPL		
12	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Town Hall Grid.		
13	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Shankar Road Grid.		
14	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Dwarkapuri Grid.		

S. No.	Category	Scheme Description	DERC approval Status	Present Status
15	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 66KV Mayur Vihar-2 Grid.	Under Approval	Yet to start
16	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33KV Preet Vihar Grid.		
17	Isolator Schemes	Replacement of 57 nos of Isolator's at various 33KV grid in BYPL		
18	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV DMS Grid.		
19	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Anand Parvat Grid.		
20	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Jama Masjid Grid.		
21	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Minto Road Grid.		
22	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV B.G. Road Grid.		
23	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV G.B Pant Grid.		
24	Capacitor bank Schemes	Installation of 11KV, 5.4 MVAR Capacitor Bank at Shastri Park(Central Circle) Grid.		

BRPL
2014-15

S. No.	Type of Scheme	Description	DERC approval Status	Present Status
1	New Grid With Infeed	G-4 Dwarka	Approved	Work in progress. Mar-2016
2	Additional Power Tx	Addition of 66/11 kV, 25 MVA PTR at VSNL	Approved	Electrical work in progress.Exp.Mar16
3	Additional Power Transformer	Addition of 66/11 kV, 25 MVA PTR at G-6 Dwarka	Submitted	Completed
4	New Feeder	LILO of 33 kV Paschimpuri-Madipur circuit at 33 kV bus of 220 kV Peeragarhi	Approved	Completed
5	New Feeder	LILO of 33 kV Udyog Nagar - A-4 Paschim Vihar circuit at 33 kV bus of 220 kV Peeragarhi	Approved	Completed

2015-16

1	New Grid With Infeed	66/11 kV Grid Substation at Mundka	Approved	In feed work completed.
2	New Grid With Infeed	66/11 kV Grid Substation at G-7 Dwarka	Approved	Under re-tendering
3	New Grid With Infeed	66/11 kV Grid Substation at Vasant Kunj Institutional Area	Approved	Equipment installed and yard work in progress Mar-16
4	New Grid With Infeed	66/11 kV Grid Substation at West of JNU	Approved	Awarded bluestar,contractor refuse to work, re tender

S. No.	Type of Scheme	Description	DERC approval Status	Present Status
5	New Grid With Infeed	66/11 kV Grid Substation at Meethapur	Approved	Under award
6	New Grid With Infeed	33/11 kV Grid Substation at A-43 Mayapuri + Infeed from 220 kV Naraina	Approved	Work in progress Target:Feb-16
7	New Grid With Infeed	66/11 kV Grid Substation at Fatehpur Beri	To be Approved	Work in progress Target:March-16
8	New Feeder	Laying of 2 Nos. 33kV 3x400sq.mm. XLPE Cable from proposed 220/33kV AIIMS Trauma Centre to IIT Grid s/stn.	Approved	50% work completed ,Work in progress Target:Feb-16
9	New Feeder	Laying of 33 kV double circuit comprising 2x3Cx400 sq.mm XLPE Cables from Paschim Vihar/Chaukhandi to DC Janakpuri	To be Approved	Work to be take up
10	Additional Transformer	Additional Power Transformer at Kilokari	To be submitted	Scheme under revision
11	New Feeder	Laying of One 33 kV Circuit each to Defence Colony, Lajpat Nagar, NDSE and Hudco from AIIMS Trauma Centre	To be submitted	Bay to be allotted by DTL, In principal Itø agreed
12	Additional Transformer	Additional Power Transformer at A-4 Paschim Vihar	To be submitted	Work to be take up
2016-17				
1	New Grid With Infeed	33/11 kV Grid Substation at Okhla Phase 3	Approved	
2		66/11 kV Grid Substation at Jasola Media Centre	Approved	
3		33/11 kV Grid Substation at Court Complex Saket	Approved	
4	Additional Power	Additional Power Transformer at Malviya Nagar	Approved	
5		Additional Power Transformer at Andheria Bagh	Approved	
6		Additional Power Transformer at C-DOT	Not approved	
7	New Feeder	Laying of 12 Nos. D/C 1x630sq.mm. XLPE U/G Cable from 220kV s/stn. Sarita Vihar to LILO 66kV tower opp. Asia Pacific Inst. Jasola.	Approved	
8	New Feeder	Laying of 2Nos. 33kV XLPE Cable of Size 3X400Sq.mm. Between I.P. Stn. (Bay No.7) to 33kV Exhibition-I Grid S/Stn. and balance from 1No. 33k 3CX400Sq.mm.(Existing) Railway Work shop to Exhibition-I S/Stn	Approved	

3.3 SURRENDER OF POWER FROM VARIOUS SOURCES FOR OPTIMIZATION OF POWER PURCHASE COST.

On the advise of Govt. of NCT of Delhi, on 27.03.2015, a meeting of DPPG members, DTL and SLDC held in the Conference Hall of SLDC to discuss and decide about the issue of surrender of power from various sources beyond 31.03.2015. The gist of broad discussions and decisions are as under:-

a) RPH Station

The State Government was requested to close down RPH Plant forever from 01.10.2015 considering the age of the plant, environmental conditions and cost of the generation which is about Rs. 5.75 per unit.

b) Pragati Stage-I

Full generation of Pragati Stage-1 be maintained during summer months and from October to March, the entire gas allocation of Pragati Station be diverted to Bawana for better utilization. After the commissioning of 400kV RPH System, the entire station may be closed down if the generating company could not assure cheap gas to run the plant.

c) IPGCL's GT Station

The Government may take a call of closure of the station considering black start facility available with the station.

d) BTPS

The State Govt may consider to request the Central govt. to decommission Stage-I units (95MW capacity of each three units) from October 2015. 210MW units be closed down after the commissioning of 400kV ISTS Tuglakabad.

The State Government was also requested to request NTPC not to infuse additional funds for renovation and modernization of Stage-II units whose expenditure was expected to Rs. 741 Crores as approved by CERC in its order dated 12.05.2011 in Petition No. 324/2009 as the overall cost of the power from the station is nearly Rs. 6/unit.

e) Rithala Station

Rithala Station was commissioned in the year 2011. Since last two years, there was not generation due to non availability of gas. The fixed cost of the station is Rs. 90 Crores per annum as per the tariff petition filed before DERC.

TPDDL was requested to decommission the plant immediately to ease the burden of fixed charges on consumers without any generation.

f) Interstate Generation

i) The entire allocation of Delhi from Anta, Auriya and Dadri Gas Stations to be reallocated to needy states forever from October 2015.

ii) 125MW (NDMC share) of Dadri (Thermal)-I be reallocated to needy states from October to March.

iii) 400MW (share of TPDDL and BRPL) from Dadri Thermal Stage-II be reallocated to needy states from October to March.

iv) All the Distribution Companies should make sufficient arrangements of power to meet the demand in the event of reallocation of power as mentioned above to avoid any load shedding in Delhi.

v) SLDC was advised to intimate the above decisions to the State Govt.

GCC was of the view that the agenda is not in the purview of GCC and advise not to include the above issues i.e. surrender of power from various sources in GCC. Accordingly, the agenda item would not be the part of next GCC.

3.4 IMMEDIATE REVIVAL OF 400KV CABLES EMANATING FROM BAMNAULI S/STN.

PPCL in connection with their upcoming Bamnauli CCGT Station has converted the overhead portions of all 400kV transmission lines emanating from 400kV Bamnauli S/Stn to cable and commissioned as under

S. N	Name of the Circuit	Cable portion commissioned on	Present status
1	400kV Bamnauli ó Jhatikara Ckt-I		Ckt-I charged on cable on 04.11.15 at 18.44hrs.
2	400kV Bamnauli ó Jhatikara Ckt-II	19.42hrs. on 21.12.2013	Ckt-II charged on cable on 20.11.15 at 18.48hrs
3	400kV Bamnauli ó Ballabgarh Ckt-II		Ckt. Charged on 22.08.15

3.5 CAPACITOR INSTALLATION PLAN

The present capacitor position in Delhi is as under:-

As on 31.12.2015

Utility	Installed capacity in MVAR (HT)	Installed in capacity in MVAR (LT)	Total
BYPL	885.39	102	987.39
TPDDL	766.18	119	885.18
NDMC	253.78	24.29	278.07
DTL	753.52	0	753.52
BRPL	1221.29	241.8	1463.09
RPH	20.0	0	20.0
MES	20.1	0	20.1
Total	3920.26	487.09	4407.35
Requirement as per NRPC Study	4594		

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

Utility	Planning for installation of additional capacity in MVAR (HT level) 2013-14	Installed so far in MVAR	Position informed in 12 th GCC meeting	Status as on date
TPDDL	72.2	36	<ol style="list-style-type: none"> 4.8MVAR installed at Bawana -7 but not yet energized 9.6MVAR to be installed at Rani Bagh C.C. in FY 13-14 with new grid. 4.8MVAR installed with new transformer at Rohini -23 but not yet energized 4.8MVAR to be installed at Shalimarbagh FC in FY 13-14 with new transformer which is yet to be commission. 10.08MVAR installed at RG-28 S/Stn but not yet energized. 4.8MVAR installed at A-21 but not yet energized 	<ol style="list-style-type: none"> At BWN-7: Charged in May 2015. At Ranibagh CC, RG-23, RG-28 SMB-FC: To be connected later due to less load. At A-21 Naraina: Already connected in Sept-2014. At BWN-1: will be connected in Dec 2015 At MDT: One shunt Cap charged in May 2015 and second charged in June 2015. Bawana Ph-II No.-1: Grid not commissioned yet.

Utility	Planning for installation of additional capacity in MVAR (HT level)	Installed so far in MVAR	Position informed in 12th GCC meeting	Status as on date																											
	2013-14																														
			7. 10.8MVAR to be installed at Bawana 61 in FY 13-14 with new grid. 8. 10.8MVAR installed at Model Town but not yet energized 9. 10.8MVAR to be installed at Bawana Phase -2 No. 1 in FY 13-14 with new grid.																												
BRPL	167.4	10.8	Additional 256.4MVAR capacity is planned to be added at LT level in 2013-14. Further 10.8MVAR added at GGSH S/stn on 13.02.2013	DERC approval for LT Capacitor (256.4 MVAR) is awaited. 21.6 MVAR Capacitor commissioned at Hastsal Grid in June 2013. 21.6 MVAR Capacitor commissioned at DJB Najafgarh. 43.2 MVAR Capacitor is expected to be commissioned at G-4 Dwarka & Mundka by Oct 6 2016.																											
BYPL	108	5.4	Approval for 32.4MVAR has already been accorded by DERC. 5.4MVAR added at Jama Masjid S/stn on 12.06.12.	10.8MVAR capacity has been added up at 66kV New Kondli S/Stn at 11kV side. The following plan has already been drawn out to commission by March 2015																											
				<table border="1"> <thead> <tr> <th>S/N</th> <th>S/Stn</th> <th>Capacity at 11kV in MVAR</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DDU Marg</td> <td>10.8--commissioned</td> </tr> <tr> <td>2</td> <td>Kanti Nagar</td> <td>5.4-Commissioned</td> </tr> <tr> <td>3</td> <td>Khichripur</td> <td>5.4</td> </tr> <tr> <td>4</td> <td>CBD-II</td> <td>5.4-Commissioned</td> </tr> <tr> <td>5</td> <td>Delhi Gate</td> <td>5.4</td> </tr> <tr> <td>6</td> <td>GH-1</td> <td>5.4</td> </tr> <tr> <td>7</td> <td>Bhagirathi</td> <td>5.4</td> </tr> <tr> <td></td> <td>Total</td> <td>43.2</td> </tr> </tbody> </table>	S/N	S/Stn	Capacity at 11kV in MVAR	1	DDU Marg	10.8--commissioned	2	Kanti Nagar	5.4-Commissioned	3	Khichripur	5.4	4	CBD-II	5.4-Commissioned	5	Delhi Gate	5.4	6	GH-1	5.4	7	Bhagirathi	5.4		Total	43.2
S/N	S/Stn	Capacity at 11kV in MVAR																													
1	DDU Marg	10.8--commissioned																													
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4	CBD-II	5.4-Commissioned																													
5	Delhi Gate	5.4																													
6	GH-1	5.4																													
7	Bhagirathi	5.4																													
	Total	43.2																													
MES	--	--	The installed capacity 21.1MVAR is sufficient to meet the load of MES. However for voltage regulation they have planned additional capacity at LT level for 2013-14.																												
Total	473.6	97.56																													

The study for requirement of capacitors and reactors at 220kV Level for NCR Delhi was got carried out by CPRI which indicated that the reactive power compensation in Delhi is more than adequate. The report was accepted by all the stake holders of Delhi. However, as far as installation of reactors is concerned, the validation of network has been done by Planning Department of DTL and submitted to power grid which will carry out the requirement of reactors based on the validated network data.

3.6 REPLACEMENT OF CONDUCTORS OF 220KV NARELA – ROHTAK ROAD DOUBLE CKT LINE.

It has been apprised in 11th GCC meeting that outlet from the 400kV ISTS at Inderlok (earlier Karampura) to 220kV Rohtak Road S/Stn. is proposed to be established by 2015-16. As such, the proposal of LILO of 220kV Wazirpur - Peeragarhi (one circuit) at Rohtak Road is dropped. BBMB was approached for re-

conducting of existing 220kV Narela - Rohtak Road D/C Line with HTLS conductors. However, BBMB representative informed that DTL may carry out re-conducting work of the line but the ownership of the line will remain under BBMB.

GCC advised the Planning Department of DTL to take up the matter with CEA and explore the possibility of re-conducting of 220kV Narela – Rohtak Road Ckt-I & II.

3.7 SHUT-DOWN OF TRANSMISSION / DISTRIBUTION LINES TO BE AVAILED BY DMRC

Summer season has passed and summer peak demand has already been lowered. DMRC may give their plans for shut-downs during the period October to March for any expansion of DMRC network.

As no representative from DMRC attended the meeting, the issue could not be discussed.

3.8 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 are 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	1. Race Course	NDMC	19.11.09	1.80% work has been completed. Work is held up due to non availability of cables which is being arranged on priority basis.
			2 Jor Bagh (Ali Ganj)	NDMC	17.06.11	
		33kV	3.IIT 4. Bhikaji cama Total = 4 Bays	BRPL BRPL		3. 40% Cabling work completed. Work has been re-awarded and Road Cutting Permission is being pursued. 4. 33kV Bhijaki Cama Ckt has been charged on 09.04.2015 on no load and there after load was taken.
2	220kV Electric Lane	33kV	1. Vidyut Bhawan 2. Hanuman Road 3. Janpath Lane	NDMC	19.11.09	1. Cabling work is held work for want of cable which is being arranged on priority basis. 2. The cable laying work almost completed. 3. Land allocation for Janpath Sub-station is still awaited. However, it has been proposed by NDMC to use this Bay for new proposed 33kV Sub-station at Parliament Annexe for which land has been allocated.

S N.	Name of 400/220k V 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
			4 Church Road 5 Delhi High Court Total = 5 Bays			4. Bay allocated to DMRC by NDMC for their upcoming project in Ph-3 5. The land allocation for the S/stn at Delhi High Court premises has not been obtained so far. However, NDMC is planning to terminate the cable at some other S/stn which is under planning stage.
3	220kV DSIDC Bawana	66kV	1 Bawana-7 2 Bawana-7 Total = 4 Bays	TPDDL	19.11.09	DERC has approved the scheme in 2012. It is a deposit work of DSIDC. Further, DSIDC has yet to deposit the amount for which demand note has already been raised. One of the Bays allotted for Bawana-7 S/stn has been allotted to the upcoming MSW plant. This bay would be established by the time of commissioning of Bawana-7 S/stn.
4	220kV Rohini-II	66kV	1 RG-30-I 2 RG-30-II Total = 2 Bays	TPDDL	31.05.12	Scheme has been approved by DERC in November 2014. It is a deposit work of DDA. Demand note has been raised to DDA. DDA has yet to deposit the amount. First TPDDL would connect both bay of Rohini-2 to RG-34 Grid and then TPDDL will LILO at RG-30. 66kV RG-I Ckt-I charged on 25.02.2016 at 20.20hrs. and Ckt-II charged on 25.02.2016 at 12.15hrs.
5	400kV Mundka	66kV	1.66kV Mundka Ckt-I 2.66kV Mundka Ckt-II 3.66kV Bakarwala ckt-I 4.66kV Bakarwala ckt-II 5.66kV Paschim Vihar Total = 5 Bays	BRPL	19.11.09	1&2 66kV Mundka Ckt-I charged on 06.01.2016 and Ckt-II charged on 20.11.2016 3&4. Bakkarwala grid shall be a deposit work of DDA. Construction of Grid has not been taken up as development in the area is slow and hence the load requirement has not come up. 5. Scheme for 66 kV circuit was dropped as the route length of the circuit is approx.. 18 Km, which is considered to be non-maintainable. This bay is being planned to utilise for upcoming Grid at Dichaun Kalan, for which the scheme is under approval by DERC.
			1.66kV Mangolpuri-II 2.66kV Kirari Sultan Puri Ckt.-I 3.66kV Kirari Sultan Puri Ckt.-II Total = 3 Bays	TPDDL	19.11.09	1 Being the less priority item as Mangolpuri S/Stn. has Sufficient in feed capacity the scheme has been shifted for 2016-17 Capex schemes. For 2&3 the Sub-stn is envisaged in 2015-16 and by the time the Ckt would be readied. The matter has been taken up with Delhi Govt for allocation of land for establishment of 66kV Grid S/Stn. As on date, land has not been allocated by Delhi Govt.
6	400kV Harsh Vihar	66kV	2 bays - DMRC	DMRC	12.04.10	DMRC for Phase-III expansion.

S N.	Name of 400/220k V S/Stns.	Details of non utilization of bays				Present status
		Voltage level	Name of bay	Name of the utility whom the bay is allocated	Original allocation date	
7	220kV Peeragarhi	220/33 kV	1 Rani Bagh Ckt 2 Sudarshan Park Total = 2 Bays 1 Paschimpuri Ckt-I 2 Paschimpuri Ckt-II 3 Vishal Ckt 4 Madipur Ckt 5 Udyog Nagar Ckt 6 A-4 Paschim Vihar Ckt 7 Peeragarhi Ckt-I 8 Peeragarhi Ckt-II Total = 8 Bays	TPDDL BRPL	12.04.10	1 The S/Stn and both the cables have been charged. About 12-15 MW load is taken at Ranibagh CC Ckt 2 Under tending process Paschimpuri & Vishal circuits have been commissioned. É Other cable works are completed energisation pending. É Peeragarhi ó I & II shall be taken up with construction of 33kV Peeragarhi grid at the same plot by BRPL

3.9 LONG OUTAGE OF ELEMENTS OF DELHI POWER SYSTEM

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

Sr. No.	Name of feeder	Name of Utility	Date of outage	Time of outage	Reasons
1	400KV BAMNAULI ó BALLABHGARH CKT-I	DTL	10.11.15	16.25	Circuit charged on ERS on 18.11.2015 and charged on normal towers on 18.12.2015
2	220KV MAHARANI BAGH ó ELECTRIC LANE CKT-II	DTL	17.04.15	18.42	CABLE DAMAGED DURING DIGGING BY MTNL.
3	220KV MEHRAULI ó DIAL CKT-I	DTL	05.11.15	03.10	Charged on 02.01.2016
4	220KV AND 66KV BUS COUPLERS AT ROHINI-II	DTL	14.09.13	03.10	CONTRACTUAL ISSUE WITH CONTRACTOR.
5	220KV PRAGATI ó SARITA VIHAR CKT-II	DTL	30.10.15	12.40	Charged on 10.11.2015
6	66KV VASANT KUNJ ó RIDGE VALLEY CKT-II	BRPL	13.01.14	17:20	Contract is to be awarded for laying new cable. Expected by 31.05.2016.
7	33KV BAY-3 (IP - KILOKRI)	BRPL	22.02.11	13:10	Clearance from Railways for laying of Underground cables near Bhairon Road is pending. GCC advised BRPL to inform DTL after awarding of the said work.
8	33KV NIZAMUDDIN ó EXHIBITION GROUND-I CKT.	BRPL	20.01.15	14.00	Put off due to frequent cable faults
9	33KV RIDGE VALLEY ó KHEBAR LINE CKT-I	BRPL	08.02.15	10.30	Breaker faulty. To be revamped by including in GIS. Expected by 31.03.2016.
10	33KV JNU ó ADHCHINI ó III CKT.	BRPL	11.09.15	16.40	T-Off Adchini portion cable faulty-Crossing permission Awaited.
11	10MVA PR. TR AT PALAM	BRPL	15.10.15	13.15	Energised on Oct-15
12	20MVA PR. TR.-III AT C-DOT	BRPL	12.11.15	06.53	Under shut-down. Expected by 30.04.2016.
13	33KV BAY-1 (IP ó KILOKARI)	BRPL	19.11.15	19.20	Jumper snapped, Energised on 20/11/2015 at 12:40

Sr. No.	Name of feeder	Name of Utility	Date of outage	Time of outage	Reasons
14	66KV MUNDKA & NANGLOI CKT.	BRPL	09.05.15	13.17	Fault is in T-Off part. Fault is pending with TPDDL. Expected by 10.03.2016A
15	20MVA PR. TR.-II AT BINDAPUR	BRPL	16.11.15	17.05	Transformer got damaged due to flash over. The same is being checked whether repairing is feasible or not. Expected by 02.03.2016.
16	33KV REWARI LINE & MAYAPURI & METAL FORGING CKT.	BRPL	17.11.15	17.00	Energized on 22/11/15 at 14:10
17	66KV HARSH VIHAR & GONDA CKT-II	BYPL	27.10.15	19.28	CHARGE ON 09.12.2015
18	66KV GAZIPUR & VIVEK VIHAR CKT-II	BYPL	18.11.15	20.49	CHARGE ON 28.11.2015
19	33KV SHAKARPUR & KAILASH NAGAR & (T-OFF) PARSHV NATH METRO MALL CKT	BYPL	19.11.15	04.42	CHARGE ON 25.11.2015

4 COMMERCIAL ISSUES.

4.1 INTRASTATE UI ACCOUNT

The latest position of payment of Intrastate UI/ DSM accounts (upto Week no & 35/15-16) is as under:-

Amount in Rs. Crores

UTILITY	AMOUNT IN RUPEES CRORES RECEIVABLE BY UTILITIES	PAYABLE BY UTILITY (position as on 18.02.2016)
TPDDL	0.6688037	0
BRPL	0	66.4403266
BYPL	0	83.4907670
NDMC	0.4687928	0
MES	0.4355469	0
IPGCL	0	0.0439335
PPCL	0	0
BTPS	0	0
TOTAL	1.5731434	149.9750271

Note: As on date, no payment is due from NRLDC in respect of weekly/ DSM accounts.

Substantial amount of dues are payable by BRPL and BYPL in the tune of Rs. 66.440 Cr and Rs 83.490 Cr respectively. Besides these, IPGCL is also having dues payable by it. All utilities are requested to pay the dues so that lengthy legal proceedings can be obviated.

Further, DERC in its order dated 29.12.2014 had directed SLDC to take appropriate action to recover dues from BRPL for which SLDC is left with no other option than to initiate legal proceedings.

The latest Interest Statement for Intrastate UI / DSM accounts (as on 31.03.2015) is as under:-

UI INTEREST STATEMENT AS ON 31.03.2015			
S.No.	UTILITY	Receivable by the Utility	Payable by the Utility
1	IPGCL	0.4651371	0
2	PPCL	1.3062076	0
3	BTPS	0	1.0411129
4	BYPL	19.9609236	0
5	BRPL	0	35.1101916
6	NDPL	1.1203549	0
7	NDMC	4.9652249	0
8	MES	1.2727743	0
	Total	29.0906224	36.1513045

The issue was discussed and Discoms were asked to give reasons of no payment to generation and STU and stressed the need of immediate payment of atleast current dues. BRPL and BYPL utilities stated their inability to pay dues as they are already facing financial crunch.

5 HOSTING OF NEXT MEETING OF GCC

Convener GCC requested BYPL to host next meeting of GCC which is likely to be held during April 2016. BYPL representative informed that they would take up the matter with concerned authorities in their organization and would be informed accordingly.

6 ANY OTHER ITEM SUBJECT TO APPROVAL OF THE CHAIR

No other item was put up

7 CONCLUSION

Chairperson, GCC thanked all the participants for lively discussions. He expressed sincere thanks to MES authorities for the excellent arrangements made to conduct the meeting. Convener, GCC also expressed sincere thanks on behalf of GCC to MES authorities for making excellent arrangements for the meeting. MES authorities reciprocated the thanks.

The meeting ended with thanks to the Chair.

List of the participants attended 13th Grid Coordination Committee meeting held on 30.11.2015 at Ashoka Hall, Manekshaw Center, Delhi Cantt, New Delhi-110010

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