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|  | **पंजीकृत कार्यालय :शक्ति सदन, कोटला रोड़, न्यू दिल्ली-110002**  (Regd. Office Shakti Sadan, Kotla Road, New Delhi-110002)  **कार्यालय उपमहाप्रबंधक (एस.ओ.)**  **Office of Dy. General Manager (SO)**  **एस एल डी सी बिल्डिंग, मिंटो रोड़, न्यू दिल्ली-110002**  SLDC Building, Minto Road, New Delhi-110002  Ph: 23221149 FAX No.23221012 | |
| **No. F./DTL/207/13-14/DGM(SO)/105** | | **Dated : 20.10.2014** | |

**Subject : Agenda of the 11th meeting of Grid Coordination Committee**

Dear Sir, / महोदय

The 11th meeting of the Grid Coordination Committee (GCC) is proposed to be held on 29.10.2014 at 10.30 hrs. at NRPC Conference Hall, NRPC Building, Katwaria Sarai. The meeting is to be hosted by PPCL.

The agenda of the meeting is enclosed herewith.

You are requested to make it convenient to attend the meeting

Thanking you,

भवदीय / Yours faithfully

Encl : As above

(**वी.वेणुगोपाल)/(V. Venugopal )**

**(उपमहाप्रबंधक (एस.ओ.)/**Dy. G. M. (SO)

Convener (GCC)

To

|  |  |
| --- | --- |
| 01 | **Sh. A. K. Halder, 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. Roop Kumar, G.M. (C&MM)**,  Delhi Transco Ltd., RPH Complex, RPH, Delhi |
| 03 | **Sh. A.C. Aggrawal, G. M. (Planning)**, Delhi Transco Ltd,  Shakti Deep Building, Jhandewalan, Delhi-55 |
| 04 | **Sh. Prem Parkash, G. M. (O&M)-I,** DTL,  220kVParkstreet S/stn Building, Opp. Talkatora Stadium, Near RML Hospital, Park Street, New Delhi-110001, Office Phone - 011-23366462 Fax: 011-23366160 |
| 05 | **Ms Kiran Saini, G.M. (Commercial & Regulatory Affairs),** Delhi Transco Ltd,  IP Estate Bldg, New Delhi-110002 |
| 06 | **Sh. Mukesh Kumar Sharma, G. M. (Project-I),** Delhi Transco Ltd.  Shakti Deep Building, Jhandewalan, Delhi-55 |
| 07 | **Sh. P.K.Gupta, General Manager (SLDC),** SLDC Delhi  SLDC Building, 33kV Grid S/Stn Building, Minto Road, New Delhi-110002, Phone Office:011-23221091, Fax:011-23221069 |
| 08 | **Sh. H. Vyas, G. M. (O&M-II),** Delhi Transco Ltd,  Shakti Deep Building, Jhandewalan, Delhi-110055 |

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| 09 | **Sh. V.K.Gupta, General Manager (Project)-II,** Delhi Transco Ltd.  Shakti Deep Building, Jhandewalan, Delhi-110055 |
| 10 | **Sh. S.K.Mishra, General Manager (Civil)**  Delhi Transco Limited, 220kV Grid S/Stn., Lodhi Road  CGO Complex, New Delhi-110003 |
| 11 | **Sh. Ved Mitra Chief Engineer, DMRC,** |
|  | Inderlok Metro Station, Delhi, Ph. 9871165812 |
| 12 | **Sh. A. Mani, General Manager (NRLDC),**  18-A, SJSS Marg, New Delhi-110016, Office Ph: 011-26537351, Fax:011-26852747 |
| 13 | **Sh. Jagdish, Director(Tech), IPGCL / PPCL**  Himadri Building, Rajghat Power House, New Delhi-110002. Office Phone : 011-23273544, Fax: 011-23270590 |
| 14 | **Sh. H.K. Chawla, Dy. G.M.(Market Operation), NRLDC**  18-A, SJSS Marg, New Delhi-16, Office Phone : 011-26537351, Fax: 011-26852747 |
| 15 | **Sh. A.K. Sharma, Head (O&M), BYPL**  Shakti Kiran Building, Karkardooma, Delhi |
| 16 | **Sh. Mukesh Dadhichi, G.M. (SO),** BYPL,  Shankar Road, New Delhi |
| 17 | **Sh. Sunil Kakkar**  **Asstt. VP,** BYPL, Shakti Kiran Building, Karkardooma, Delhi |
| 18 | **Chief Engineer (Transmission System)**, BBMB  SLDC Complex, Sector-28, Industrial Area Phase-I, Chandigarh. |
| 19 | **Sh. Naresh Goel, Superintending Engineer (O&M) Circle, BBMB**  400kV S/Stn, BBMB Complex, Panipat-132107, Mob. 09416017711, Fax .0180-2662992 |
| 19 | **Sh. Sanjay Kumar Banga, Head (PEC, PM&BD), TPDDL**  SCADA Building, Near Netaji Place Subash Place Metro Station, Pitampura, Delhi 34 Phone Office: 011- 27468027, Fax: 011-27468023 |
| 20 | **Sh. Ajay Kumar, VP (PMG), BRPL,**  Building No 20, Nehru Place**,** New Delhi–110019. Off. 39996052 Fax: 011- 3999605 |
| 21 | **Sh. D. Sarkar , General Manager,**  NTPC, BTPS, New Delhi-110044 Office Phone: 011- 26949523, Fax: 011- 26949532 |
| 22 | CWE (Utilities), MES, Delhi Cantt, New Delhi – 110010. Phone Office: 011- 25692364 Fax: 011- 25687850 |
| 23 | **Sh. A.K. Joshi, Chief Engineer (Elect)-II, NDMC**  Room No. 1706, 17th Floor, Palika Kendra, Sansad Marg, New Delhi-110001 |
| 24 | **Sh. V.K. Pandey, Chief Engineer (Elec)-I, NDMC**  Room No. 1701, 17th Floor, Palika Kendra, Sansad Marg, New Delhi-110001 |
| 25 | **Sh. Mohinder Singh, Executive Director (Engg.), DERC**  DERC Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17 |
| 26 | **General Manager (Commercial), Aravali Power Company Pvt Ltd. (APCPL)**  1st Floor, Pawan Hans Towers C-14, Sec-1, Noida-201301 |
| 27 | **Sh. N.N. Sadasivan**  **A.G.M. (Commercial), Aravali Power Company Pvt Ltd. (APCPL)**  1st Floor, Pawan Hans Towers C-14, Sec-1, Noida-201301 |
| 28 | **Sh. Arvind Jhalani, Add. General Manager (Commercial)**, NTPC  NCR Headquarters, R&D Building, A8A, Setor-24, Noida-201301. Fax no. 0120-2410192 |
| 29 | **Sh. Neelesh Gupta**  Whole Time Director, Timarpur – Okhla Waste Management Company Ltd  Jindal ITF Center, 28 Shivaji Marg New Delhi-110015, Ph. 45021983, Fax 45021982 |

|  |  |
| --- | --- |
| 30 | **General Manager,** Indira Gandhi Super Thermal Power Station, Jharli, Jhajjar Distt. Haryana Pin-124141, Fax no. 01251-266202, Ph. 01251-266265 |
| 31 | DGM(SCADA), Delhi SLDC |
| 32 | **Sh. Surender Babbar,** G. M. (Finance-), DTL, Shakti Sadan, New Delhi 110002 |
| 33 | **Sh. S.C. Chhabra**, Dy. G. M. (Fin-II), DTL Rajghat Power House New Delhi -110002 |
| 34 | **Sh. Darshan Singh,** Manager (System Operation), Delhi SLDC |
| 35 | **Sh. Susheel Gupta,** Manager (Energy Accounting), Delhi SLDC |
| 36 | **Manager (SO)-Shift,** Delhi SLDC |
| 37 | **Ms Mukesh Dagar,** Dy. Manager (Finance), SLDC |

Copy for favour of kind information to :-

1. Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17

2. Managing Director, DTL

3. Chairperson, NDMC, Palika Kendra, Sansad Marg, New Delhi

4. Director (HR), DTL

5. Director (Finance), DTL

6 Member Secretary, NRPC, Katwaria Sarai

7. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019

8. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-92

9. CEO, Tata Power Delhi Distribution Ltd, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009

10. Chief Engineer(Utilities),CWE, MES, Kotwali Road, Near Gopi Nath Bazar, Delhi Cantt New Delhi-110010

11 Managing Director, IPGCL (Genco) / Pragati Power Corporation Ltd (PPCL), Himadri, Rajghat Power House, New Delhi-02

12 CEO, JUIL/TOWMCL, JITF Urban, Infrastructure Ltd. Jindal ITF Centre, 28, Shivaji Marg, new Delhi-110015

13 CEO, Aravali Power Company Pvt. Ltd (APCPL), Pawan Hans Tower, C-14, Sec-1,Noida-201301

14 Member (Power Regulation), BBMB, Sector 19-B, Madhya Marg, Chandigarh

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**DELHI TRANSCO LTD.**

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

**[Office of Dy. General Manager (SO)]**

SLDC Building, Minto Road, New Delhi – 110 002

Phone No.23221149, 23221175, Fax 23221012, 59

**AGENDA FOR 11th MEETING OF GRID CO-ORDINATION COMMITTEE**

**Time & Date of GCC meeting : 10.30 Hrs. on 29.10.2014**

**1 Confirmation of the minutes of 10th meeting of GCC held on 29.01.2014.**

The minutes of the 10th meeting of GCC held on 29.01.2014 have been circulated vide letter no. F.DTL/207/13-14/DGM(SO)/214 dated 12.03.2014. No comments have been received so far.

**GCC may confirm the minutes of the 10th meeting of GCC held on 29.01.14.**

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

**2.1. PROVSIONS OF HOT RESERVE OF TRANSFORMERS.**

The latest position on the issue was informed as under:-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.N | Capacity | Present population in nos. | Status of the hot reserve | Present Status |
| 1 | 440/220kV, 315MVA ICT, | 16 | One Tx at 400kV Mundka would be hot reserve. | At present, there at three 400/220kV 315MVA transformers at Mundka. With the commissioning of 220kV Peera Garhi and Wazirpur double circuit lines and LILO of 220kV Najafgarh – Kanjhawala Ckt at Mundka, the load would be increased and the spare capacity is required as hot reserve. As such, in the 10th GCC meeting, it was decided that Planning Department of DTL would prepare a scheme for the 4th transformers as Hot reserver.  **Planning Department may update** |
| 2 | 220/66 kV, 160MVA Tx | 15 | 160MVA Tx earmerked for 220kV Pappan Kalan-II would be the hot reserve. | Since the load of Pappankalan-II has alrady been attained near to the full capacity, the 220/66kV 160MVA Tx is no more the hot reserver. Further, looking into the increasing populaiton of this category, 10th GCC advised Planning Department of DTL to prepare a scheme for one 220/66kV 160MVA Tx as spare capacity.  **Planning Deprtment may update.** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.N | Capacity | Present population in nos. | Status of the hot reserve | Present Status |
| 3 | 220/66kV, 100MVA Tx | 41 | 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 reserver available at Patparganj has been diverted to replaced the damaged 220/66kV 100MVA Tx-I at Park Street. New transformer is required to be procured.  Further, DERC has advised DTL to explore the possibility of keeping cold reserver as oil filled transformers are not easy to transport.  **Planning Department to update the status.** |
| 4 | 220/33kV, 100MVA Tx, | 35 |
| 5 | 66/11kV 20MVA Tx | 24 | The scheme for a 66/11kV Tx as a hot reserve has been approved and transformer is under procurement. | DERC has already decided that DTL should not invest in building up assets to feed 11kV load from 220kV S/Stns. |

**The Planning Department of DTL may update the status.**

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

CERC vide order dated 28.12.2013 issued notices to all State Utilities except Delhi for non implementation of The State-Of-The-Art Load Management Scheme (as Delhi has implemented the scheme). As directed by CERC, all RLDCs have filed the status report of the implementation of the scheme before CERC. Final order in this regard (non implementation of demand management scheme) is to be issued by CERC.

All utilities of Delhi need to maintain the system and ensure that the scheme is operation at all point of time. It is also brought in the notice that of amendment of Indian Electricity Grid Code has been made applicable from 17.02.2014. The relevant portions of the amended IEGC is appended hereunder :-

5.4.2 Demand Disconnection

(a) SLDC/SEB/distribution licensee and bulk consumer shall initiate action to restrict the drawal of its control area,from the grid, within the net drawal schedule.

(b) The SLDC/SEB/distribution licensee and bulk consumer shall ensure that requisite load shedding is carried out in its control area so that there is no overdrawl.

d) The SLDC through respective State Electricity Boards/ Distribution Licensees shall also formulate and implement state-of-the-art demand management schemes for automatic demand management like rotational load shedding, demand response (which may include lower tariff for interruptible loads) etc. before 01.01.2011, to reduce overdrawl in order to comply para 5.4.2 (a) and (b) . A Report detailing the scheme and periodic reports on progress of implementation of the schemes shall be sent to the Central Commission by the concerned SLDC.

The amended regulation of 6.4.7 of IEGC is also appended hereunder:-

"7. The SLDC, SEB / distribution licensee shall always restrict the net drawal of the state from the grid within the drawal schedules keeping the deviations from the schedule within the limits specified in the Deviation Settlement Mechanism Regulations. The concerned SEB/distribution licensee/User, SLDC shall ensure that their automatic demand management scheme mentioned in clause 5.4.2 acts to ensure that there is no over-drawal. If the automatic demand management scheme has not yet been commissioned, then action shall be taken as per manual demand management scheme to restrict the net drawal from grid to within schedules and all actions for early commissioning of Automatic Demand Management Scheme (ADMS) shall be initiated

All Discoms are to ensure the working of automatic demand – management scheme in line with the above provisions of Grid Code.

**GCC may deliberate.**

**2.3 OUTSTANDING DUES**

It was informed in various meetings that BRPL and BYPL are not making payments to DTL, Gencos of Delhi and other generating and transmission utilities since October 2010. Despite all efforts by transmission and generating utilities, it is reported that arrears area accumulating. APTEL, CERC and DERC have also issue orders to pay atleast current dues from 01.01.2014. The matter has also reached the Apex Court and various orders passed by the Hon’ble Supreme Court in this regard are appended hereunder:-

ORDER Dated 06.05.2014

Heard learned counsel for the parties at length.

On the last date we had requested the parties to sit together and to arrive at some consensus with regard to the amounts which are due and payable from 1st January, 2014. The figures have been made available which are duly signed by the representative of the parties. The aforesaid figures are, therefore, accepted.

The petitioners are directed to make the payments, as indicated in the documents, which have been placed on record today, in accordance with our Order dated 26th March, 2014.

We make it clear that if the aforesaid amounts are not paid by 31st May, 2014, the stay shall stand vacated. Let these documents be made part of the order.

List these matters for further orders on 3rd July, 2014.

**O R D E R dated 03.07.2014**

We have heard Mr. K.V. Vishwanathan, learned senior counsel for the BSES Yamuna Power Limited.

In the course of arguments, Mr. K.V. Vishwanathan, learned senior counsel, placed before us a statement indicating the power

purchase dues and payments in compliance of this Court's order upto 30.06.2014. The statement shown to us reads as Power Purchase due and payment as per SC upto 30.06.2014

Amount in Rs. Crores

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Statement** | **Total current dues from Jan 14 to May 14** | **Dues cleared upto 31.05.14** | **O/S as on 31.05.14** | **Current dues for June 14** |
| NTPC | 672 | 672 | - | 134 |
| NHPC | 11 | 11 | - | 14 |
| Power Grid Corp. of India Ltd | 40 | 40 | - | 22 |
| Damodar Valley Corporation | 40 | 40 | - | 24 |
| Satluj Jal Vidyut Nigam Ltd | 4 | 4 | - | 2 |
| THDC | 6 | 6 | - | 3 |
| Aravali Power Company Ltd | 49 | 39 | 9 | 7 |
| Nuclear Power Corp of India Kota | 11 | 11 | - | 3 |
| Nuclear Power Corp Ltd Narora | 4 | 4 | - | 1 |
| Tata Power through PTC | 0.52 | 0.11 |  | 0 |
| Sasan | 3 | 3 | - | 4 |
| Total | 840 | 830 | 9 | 213 |
| State Generating / Transmission utilities |  |  |  |  |
| Indraprastha Power Co. Ltd | 38 | 4 | 34 | 14 |
| Delhi Transco Ltd | 30 | 6 | 24 | 13 |
| Pragti Power Corp Ltd | 35 | 3 | 32 | 16 |
| Bawana | 46 |  | 46 | 18 |
| Delhi Transco Ltd SLDC Charges | 1 | 1 | - | - |
| Total State Generating / Transmission Utilities | 149 | 14 | 136 | 61 |
| Bilateral | 31 | 31 | -- | 31 |
| Other Bilateral | 31 | 31 | -- | 31 |
| Grand Total | 1020 | 875 | 145 | 306 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Statement | Dues cleared in Jun 2014 | Due in July till 3rd | % payment | Subsidy adjustment not considered in the statement |
| NTPC | 134 | - | 100 | - |
| NHPC | 3 | 12 | 54 | - |
| Power Grid Corp. of India Ltd | 22 | - | 100 | - |
| Damodar Valley Corporation | - | 24 | 63 | - |
| Satluj Jal Vidyut Nigam Ltd | - | 2 | 63 | - |
| THDC | - | 3 | 67 | - |
| Aravali Power Company Ltd | - | 16 | 71 | - |
| Nuclear Power Corp of India Kota | - | 3 | 77 | - |
| Nuclear Power Corp Ltd Narora | - | 1 | 78 | - |
| Tata Power through PTC | - | 0 | 22 | - |
| Sasan | 4 | - | 100 | - |
| Total | 162 | 60 | 94 | - |
| Indraprastha Power Co. Ltd | - | 48 | 8 | 34 |
| Delhi Transco Ltd | 3 | 35 | 20 | 24 |
| Pragati Power Corp Ltd | - | 48 | 6 | 39 |
| Bawana | - | 64 | 0 | - |
| Delhi Transco Ltd SLDC Charges | - | - | 100 | 96 |
| Total State Generating / Transmission Utilities | 3 | 195 | 8 | - |
| Bilateral | 29 | 2 | 97 | - |
| Other Bilateral | 20 | 2 | 82 | - |
| Grand Total | 185 | 257 | 80 | 96 |

The diverse issues raised by Mr. K.V. Vishwanathan, learned senior counsel, shall be considered later on.

However, we are satisfied that BSES Yamuna Power Limited must make payment of due amount as on 30.06.2014 as shown in the above statement to the transmission and generating companies immediately and, in no case, later than July 15, 2014.

BSES Yamuna Power Limited shall continue to pay recurring monthly payments to the generating/transmission companies having the same basis as indicated in the order dated 6th May, 2014.

All the contentions and disputes (including figures)are kept open to be considered at a later stage.

List the matters after two months.

O R D E R dated 08.09.2014

According to Office Report, in C.A. Nos. 1854-1855 of 2014 and C.A. Nos. 9003-9004 of 2011, service is not yet complete. Advocate-on-records for the appellant in the above matters are directed to take fresh steps for service on the unserved respondents, returnable in four weeks. Dasti, in addition to the ordinary process, is permitted.

List this group of matters thereafter.

Appellate Tribunal in its order dated 23.05.2014 has clearly indicated that the subsidy and UI adjustment should be done in the outstanding dues. The excerpts of the order of the Tribunal in this regard is appended hereunder:-

12. In view of above, the amount of Govt. subsidy and UI amounts credited to the Applicants have been correctly adjusted only against the outstanding dues but not against the current dues from January to March 2014 as per the directions of the Govt of NCT.

13. Therefore, we direct the Respondent Discoms to make payment to the Applicants/Appellants for the current payments from the billing period from 1.1.2014 regularly as per the directions of the Hon’ble Supreme Court.

However, BSES utilities challenged the order of the Tribunal in the Supreme Court and notices were issued to DERC, DTL and Delhi Gencos.

In the meanwhile, DVC has also approached the Supreme Court and filed Contempt petition against the non payment of dues to DVC as per the order of Supreme Court in Writ petition (Civil) no. 328/1999 in the Matter of Power Crisis in Delhi. The order in this regard is reiterated hereunder:-

**O R D E R dated 20.10.2011**

I.A. NO.4 OF 2011 IN W.P.(CIVIL) NO. 328 OF 1998

In deference to our order dated 19th October, 2011, Mr. Amal Sinha and Mr. Sushil Aggarwal, the Chief Financial Officers of M/s BSES Rajdhani Power Limited and BSES Yamuna Power Limited respectively are present in Court.

Having heard learned Senior Counsel appearing for the said two distribution Companies as also the learned Additional Solicitor General appearing for the Damodar Valley Corporation, we direct M/s BSES Rajdhani Power Limited and M/s BSES Yamuna Power Limited to pay to Damodar Valley Corporation amounts of Rs.25 crores and Rs.20 crores respectively, on or before 30th November, 2011, towards the arrears of dues for drawing electricity from the Corporation.

We clarify that the aforesaid direction is purely an ad hoc arrangement in order to see that the Corporation receives some amount against outstanding dues, intimated to the said distribution companies vide demand notices. In addition to the above, the said two distribution companies shall continue to pay the current charges, in terms of the contracts, for supply of energy by the Corporation, on the basis of the bills as may be raised by them, by the due date. However, it will be open to the parties to have negotiated settlement if there is any dispute in relation to the rate at which the energy is to be supplied by the Corporation. List the application for further directions on 8th December, 2011 at 2.00 p.m. Personal appearance of the Chief Financial Officers of both the afore-stated companies is dispensed with.

It is reported by DTL and Delhi Gencos that despite orders of Hon’ble Supreme Court, payment of dues from Jan.14 in full is not forthcoming from BSES utilities.

As far as payment dues of TPDDL and NDMC are concerned, it was reported by DTL in the last meeting that these utilities were not paying the full amount as per the claim due to different interpretation of DERC order. GCC had advised DTL to get the necessary clarifications from DERC in this regard.

**DTL may update**

**GCC may further deliberate.**

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.**

**In the updated position is as under :**

|  |  |  |
| --- | --- | --- |
| Clause | RECOMMENDATIONS | STATUS AS ON DATE |
| 9.1.1 | Periodical 3RD Party Protection Audit  **– Time frame – within one year** | 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 :-   |  |  |  |  | | --- | --- | --- | --- | | S  N | Description of Issue | Sub-Stn | Action taken/proposed (As on 29.01.2014) | | 1 | Replacement of Static Distance Relays by Numerical Relays | Bamnauli | Work will be completed by 30.09.2014 | | 2 | Earth fault in DC system to be rectified | Partly the problem has been addressed. Full completion of work would be done shortly. | | 3 | Time Synchronization to be provided or rectified | No issue | | 4 | DR and Event Logger to be provided or to be kept in order | The 400 kV EL is in place. EL for 220 kV and DR (inbuilt function with Numerical Relays) will be completed by Dec. 2014. | | 5 | Bus Bar Protection to be provided/made functional | Bus Bar Protection made functional | |

|  |  |  |
| --- | --- | --- |
| Clause | RECOMMENDATIONS | STATUS AS ON DATE |
|  |  | |  |  |  |  | | --- | --- | --- | --- | | S  N | Description of Issue | Sub-Stn | Action taken/proposed (As on 29.01.2014) | | 6 | LBB Protection to be  provided/made functional |  | No issue | | 7 | PLCC problems | PLCC of all 400 kV lines with new Protection Coupler are installed and functional. PLCC Tele protection coupler for 220kV lines will be installed after stringing of OPGW by POWERGRID by July 2014. | | 8 | DG Set | No issue |   (Basic Protection Audit carried out on 400kV S/Stn Bamnauli before CWG)  It was also advised by NRPC that DTL should go for fresh third party protection audit of entire DTL system. In 90th OCC meeting, it was informed that TPA of DTL system would be got done from the panel of protection experts being drawn up by NRPC secretariat.  It was informed that panel for TPA has already been formed and the audit is expected to be started soon. |
| 9.1.2 | Philosophy of Zone-3 trippings to be reviewed to avoid indiscriminate and load encroachment and faults **– Time Frame - immediate** | 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. |

|  |  |  |
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| Clause | RECOMMENDATIONS | STATUS AS ON DATE |
|  |  | As far Delhi is concerned, the details have been submitted to PGCIL through NRPC as detailed hereunder :-   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | **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 | Ballabhrgarh-I | 380kV | Micromho | 2000/1 | 13.9 | | Main-II |  |  |  |  | 380kV | Micromho | 2000/1 | 3.36 | | Main-I | 2 | Bamnauli | 400kV | Ballabhrgarh-II | 380kV | Micromho | 2000/1 | 13.9 | | Main-II |  |  |  |  | 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 | | | |   Note  1) Zone setting for main-I & main-II distance relays to be provided for each line.  2) Voltage kV for MVA calculation may be taken as 380 kV for 400kV lines and 727kV for 765kV line.  REMARKS  1. MAIN-II PROTECTION OD DTL LINES IN THE DELHI RING MAIN LINES IS IN BLOCKING SCHEME  2. ZONE 3 IS SET REVERSE LOOKING FOR MICROMHO RELAYS USED AS MAIN-II.  3. CALCULATED MAX LOADING LIMIT IS AS PER THE FORMULA GIVEN IN THE MINUTES WHERE X IS THE REACTANCE OF LINE  4. THE OTHER END DETAILS IN RESPECT OF JHAJJAR LINE ALSO NEED TO BE CONFIRMED FROM NTPC/PGCIL/APCL  The Protection Department of DTL intimated that, thus the recommendations stand implemented. |

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| 9.1.4 | Complete independent audit of time synchronization of DRs, EL and PMs should be carried out  **- Time frame – within one month** | 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 *Numerical Relays* have this inbuilt feature.  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.  IPGCL & PPCL was advised to ensure the time synchronization of DRs.  **GCC advised Delhi Protection Sub Committee may regularly monitor the issue.** |
| 9.2.1 | Tightening of Frequency band and be brought very close to 50Hz. | CERC has already issued the amended Grid Code to be implemented from 17.02.2014 in which the allowable frequency band is 49.95Hz 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:-   1. No over drawal by Delhi if frequency is below 49.95Hz. 2. No under drawal by Delhi if the frequency is more than 50.05Hz. 3. Every (12) time blocks the polarity of drawal should change.   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 12time blocks. The details of the violations for Delhi are as under:-   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 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 | | Violation of drawal limit 150MW if freq >49.7Hz and above | OD – 4  UD-19 | OD – 9  UD-24 | OD – 7  UD-30 | OD – 5  UD-19 | OD – 9  UD-1 | | Violation of non polarity change of drawal | 405 | 198 | 56 | 116 | 34 |   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.  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. |

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| 9.2.2 | Review of UI mechanism. Frequency control through UI maybe faced out in a time bound manner and generation reserves and ancillary services may be used for frequency control  **Time frame – 3 months** | As above. |
| 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 all 24 UFRs and 13 df/dt relays are functional. Additional relays have also been procured as per the decision of NRPC meetings. Further all UFRs have also been replaced with *Numerical Relays* along with the implementation of *Islanding Scheme of Delhi*.  The National Power Committee (NPC) in its 2nd meeting held on 16.07.2013 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   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 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.N | State | Peak met during 2012-13 (MW | Load Shedding target for four stages (MW) – Based on maximum load on the feeders | | | | | 49.2 | 49.0 | 48.8 | 48.6 | | 1 | Chandigarh | 340 | 16 | 16 | 16 | 16 | | 2 | Delhi | 5642 | 258 | 259 | 262 | 263 | | 3 | Haryana | 6725 | 308 | 309 | 312 | 314 | | 4 | HP | 1672 | 77 | 77 | 78 | 78 | | 5 | J&K | 1817 | 83 | 84 | 84 | 85 | | 6 | Punjab | 8751 | 400 | 402 | 406 | 408 | | 7 | Rajasthan | 8515 | 390 | 392 | 395 | 397 | | 8 | UP | 12048 | 551 | 554 | 559 | 561 | | 9 | Uttrakhand | 1674 | 77 | 77 | 78 | 78 | |  | Total | 47184 | 2160 | 2170 | 2190 | 2200 | |

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|  |  | O&M Department of DTL has informed the revised settings for Grid Security and Islanding for Delhi have been implemented in Delhi as per the advise of NRPC. The details are as under:-   |  |  | | --- | --- | | Frequency set at | Load relief in MW | | 49.2Hz | 297 | | 49.0Hz | 353 | | 48.8Hz. | 428 | | 48.6Hz | 1048 | | Total | 2126 | | df/dt |  | | 49.9Hz. with slope 0.1Hz. | 261 | | 49.9Hz with slope 0.2Hz | 282 | | 49.9Hz with slope 0.3Hz | 290 | | Total df/dt | 833 |   With regard to the suggestion of providing under frequency relay’s 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 STU 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 :  *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:*   1. *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.*   *(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.*  *(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.*  *(d)All STUs and SLDCs to map/network the UFR and df/dt on their SCADA system.* |
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|  |  | **Quote**  *(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.*  *(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.*  **Unquote**  G.M.(O&M)-I informed in 10th GCC meeting that this order came in a petition filed by NRLDC after the grid incidence occurred on 30/31-07.2012. Now DTL has complied all the directions with regard to installation of Under Frequency relays. With regard to the Scada integration of UFRs, the necessary integrations have been done in the existing Islanding panels available in SLDC. The same is required to be integrated with main SCADA by Siemens – the vendor, who is implementing the ULDC Phase-II scheme which would be done shortly. |
| 9.4 | 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** | CERC in its order dated 31.12.2012 reiterated the need for compliance by generators and directed as to why they may not be held responsible for non-implementation of RGMO / FGMO mode of operation. A task force has been constituted by CEA under Member (Thermal), CEA to develop a procedure for testing of primary response of Generating units. **Activity in progress.**  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 “*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*.”  BTPS representative informed 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.  BTPS representative assured in the previous meetings that they would approach CERC for exemption till R&M activities are carried out in the 210MW machines.  **BTPS may update** |

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| 9.5.1 | 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 outage UI can be handled effectively.  **Action : Posoco within one month** | 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. |
| 9.6 | Outage planning should be in coordinated manner | 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.    DTL is adhering the procedure with regard to shutdown of Transmission lines. |
| 9.7 | 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.  Action : CTU/STUs and CEA  – Time frame 6 months | The order for Dynamic Simulation Study and Reactive Power compensation has been placed to CPRI.  CPRI has already submitted the report with regard to the Reactive Power compensation. The same is being coordinated with Discoms and DTL for implementation. NRLDC is also being consulted for implementation. |
| 9.8 | 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.  **Action MoP, GoI Time frame : 6 months.** | Under the consideration of Ministry of Power, GoI. |

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| Clause | RECOMMENDATIONS | STATUS AS ON DATE |
| 9.9.1 | Regulatory provisions regarding absorption of Reactive Power by generating units needs to be implemented :  **Posoco Time frame : immediate** | 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 :-  **Monitoring of reactive support from generating units.**  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 substations 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   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 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 |  |  |  |  | | …. |  |  |  |  | | #2 | hh.mm |  |  |  |  | | hh.mm |  |  |  |  | | …. |  |  |  |  | | #3 | hh.mm |  |  |  |  | | hh.mm |  |  |  |  | | …. |  |  |  |  | | …. |  |  |  |  |  | |  |  |  |  |  |  |     SCADA circle of SLDC has already integrated the reactive power position of RPH, and Pragati Stations. The data integration is in progress in GT Station. However, no progress could be achieved in case of Bawana CCGT as the same to be provided through SAS by PPCL.  **PPCL may update the status.** |

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| 9.12 | Efforts should be made to design islanding scheme based on frequency sensing relays so that in case of imminent Grid failure, electrical island can be formed. These electrical islands not only help in maintaining essential services but would also help in faster restoration of Grid.  **Action : CEA, RPCs, CTU, STUs, SLDCs and generators Time Frame : six months** | The Islanding Scheme has already been commissioned. The Site Acceptance Test (SAT) of SCADA system of Islanding Scheme has been completed in 28 S/Stns out of 31 load shedding schemes and 13 Islanding panels. However, for the healthy operation of the Islanding Scheme, the communication system needs to be strengthened. |
| 9.13.1 | System Operation needs to be entrusted to independent system operator. In addition, SLDCs should be reinforced for ring fences for ensuring function autonomy.  **Action : Govt. of India, time frame : one year** | Though Delhi SLDC is operated by DTL it has full autonomy with regard to grid operation. Further it has separate ARR approved by DERC for financial autonomy. Further a committee constituted for creation for SLDC as a separate company has already given its report to State Government. Decision is likely in line with the decision of Govt. of India on Independent System Operator (ISO). |
| 9.13.2 | Training and certification of system operators need to be given focused attention. Sufficient financial incentives need to be given to certified system operators so that system operation gets recognized as specialized activity.  **Action : Govt. of India State Govt. Time frame : 3 months** | 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.  As far as Delhi is concerned the officers of SLDC are being sent regularly for training to upgrade the knowledge. So far 19 Engineers have obtained basic certificate and one Engineer got the certification in specialist course in Regulatory affairs.    Incentive schemes are proposed for certified operators which are under the active consideration of the DTL management.  In the last meeting, it was decided that Load Dispatch Engineers of Area Load Despatch Centers (ALDCs) of Discoms should also be given training meant for System Operation. Now, as per the decision of CERC, the System Operation training expenses (except boarding and lodging) of Load Despatchers are to be met from Load Despatch Development Fund available |

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|  |  | with RLDCs. The matter was earlier taken up by SLDC with Forum of Load Despatchers (FOLD) wherein FOLD agreed for the Engineers of Discoms for training, the same would be considered if SLDCs recommends for such nominations.  SLDC has already requested NPTI and PSTI to send the training documents meant for System Operation to Heads of Five Distribution Licensees operating in Delhi. TPDDL has also put up the agenda in this regard. |
| 9.14 | Intrastate transmission system needs to be planned and strengthened in a better way to avoid problems of frequent congestion.  **Action : STU**  **Time Frame : 2 Years** | The strengthening of intrastate transmission and distribution system has been stressed even by the Govt. of India and ambitious plans for system improvement has 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. |
| 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 centers w.r.t. new installations as per the relevant provisions of connectivity conditions of CEA and relevant provisions of IEGC.  **GCC also decided not to issue energization certificate without data connectivity to SLDC / RLDC. Distribution licenses were also advised for such actions.** |
| 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. |
| 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. | As far as Delhi is concerned it has planned to replace all battery banks for auxiliary supply of RTU & Communication equipments at their sub stations and ALDC buildings. These are of 48V DC Battery banks. So far, at five locations namely, Patparganj, Sarita Vihar, Bamnauli ALDC, Geeta Colony and Gopalpur the banks have been replaced. The rest of the 27 locations the battery banks are under procurement for which orders have been placed on 31.07.2014 and the date of completion is end of December 2014. |

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| 9.18 | There is need to reinforce system study groups in power sector organizations to analyze the system behavior under different network status / tripping of lines /outage of generators. Where these do no exist, these should be created.  **Action by : CEA, STU, CTU**  **Time frame : one year** | **G.M. (Planning) may update the status of functioning of System Study Group as it is an important activity for ensuring stable and reliable System Operation.** |
| 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.   1. 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. 2. 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. |

**NEW ISSUES**

**3 OPERATIONAL ISSUES**

**3.1 POWER SUPPLY POSITION**

**A) Anticipated vs Actual**

The anticipated power supply position versus the actual position for summer 2014 has been as under:-

All figures in MW

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MONTH** | **1st Fortnight** | | | | | | **2nd fortnight** | | | | |
| **PERIOD** | **00-03** | **03-09** | | **09-12** | **12-18** | **18-24** | **00-03** | **03-09** | **09-12** | **12-18** | **18-24** |
| **APRIL 2014** | | | | | | | | | | | |
| ANTICIPATED DEMAND | 2900 | | 3000 | 3650 | 3700 | 3650 | 3450 | 3200 | 3950 | 4200 | 4100 |
| ACTUAL DEMAND | 2528 | | 2942 | 3462 | 3450 | 3623 | 3856 | 3378 | 4056 | 4424 | 4336 |
| **MAY 2014** | | | | | | | | | | | |
| ANTICIPATED DEMAND | 4300 | | 3750 | 4350 | 4900 | 4700 | 5000 | 4500 | 5100 | 5700 | 5400 |
| ACTUAL DEMAND | 4222 | | 3783 | 4378 | 4699 | 4491 | 4712 | 4372 | 4728 | 5354 | 4944 |
| **JUNE 2014** | | | | | | | | | | | |
| ANTICIPATED DEMAND | 5300 | | 4800 | 5500 | 6100 | 5500 | 5200 | 4700 | 5200 | 5850 | 5300 |
| ACTUAL DEMAND | 5073 | | 4569 | 5193 | 5643 | 5289 | 5135 | 4557 | 5249 | 5634 | 5399 |
| **JULY 2014** | | | | | | | | | | | |
| ANTICIPATED DEMAND | 5250 | | 4700 | 5300 | 6000 | 5700 | 4800 | 4350 | 5000 | 5500 | 5200 |
| ACTUAL DEMAND | 4412 | | 5205 | 5165 | 5919 | 5730 | 5076 | 4481 | 4985 | 5616 | 5371 |
| **AUG 2014** | | | | | | | | | | | |
| ANTICIPATED DEMAND | 4600 | | 4200 | 4800 | 5100 | 4900 | 4600 | 4000 | 4700 | 5100 | 5100 |
| ACTUAL DEMAND | 4924 | | 4386 | 4840 | 5301 | 5236 | 5126 | 4718 | 4877 | 5511 | 5573 |
| **SEPT 2014** | | | | | | | | | | | |
| ANTICIPATED DEMAND | 4600 | | 4100 | 4800 | 5000 | 5000 | 4350 | 3900 | 4500 | 4600 | 4700 |
| ACTUAL DEMAND | 4217 | | 3816 | 4476 | 4627 | 4790 | 4353 | 3942 | 4386 | 4769 | 4847 |

**b) Comparison of peak demand w.r.t. summer 2013.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Month | 2013 | | | | | 2014 | | | | | |
| Date | Time | Demand met | Load Shedding at the time of peak | Unrestricted Demand | Date | Time | Demand met | Load Shedding | Unrestricted Demand | **% increase in demand in 2014** |
| April | 30 | 15:36:53 | 4190 | 0 | 4190 | 30 | 16:32:00 | 4418 | 0 | 4418 | **5.4** |
| May | 27 | 15:29:47 | 5315 | 0 | 5315 | 30 | 15:41:31 | 5338 | 20 | 5358 | **0.8** |
| June | 6 | 15:38:41 | 5653 | 61 | 5714 | 19 | 14:46:07 | 5533 | 155 | 5688 | **-0.5** |
| July | 4 | 15:13:52 | 5384 | 14 | 5398 | 15 | 15:20:20 | 5925 | 81 | 6006 | **11.3** |
| August | 26 | 15:46:11 | 4988 | 5 | 4993 | 27 | 22:49:14 | 5507 | 82 | 5589 | **11.9** |
| Sept | 11 | 22:59:59 | 4803 | 0 | 4803 | 18 | 22:53:58 | 4882 | 0 | 4882 | **1.6** |

**c) Comparison of Energy Consumption w.r.t. 2013**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Month** | **2013** | | | **2014** | | | **% increase in demand in 2014** |
| **Energy Consumption in Mus** | **Load Shedding** | **Total Requirement** | **Energy Consumption in Mus** | **Load Shedding** | **Total Requirement** |
| April | 2192 | 7.16 | 2199.16 | 2118 | 8.962 | 2126.962 | -3.3 |
| May | 2939 | 8.25 | 2947.25 | 2772 | 22.555 | 2794.555 | -5.2 |
| June | 2951 | 15.297 | 2966.3 | 3192 | 37.995 | 3229.995 | 8.9 |
| July | 3064 | 9.935 | 3073.94 | 3296 | 10.936 | 3306.936 | 7.6 |
| August | 2805 | 4.295 | 2809.3 | 3212 | 11.752 | 3223.752 | 14.8 |
| September | 2802 | 3.982 | 2805.98 | 2819 | 7.504 | 2826.504 | 0.7 |
| **Total** | **16753** | **48.919** | **16801.9** | **17409** | **99.704** | **17508.7** | **4.2** |

**d) Comparison of load shedding w.r.t. 2013 due to DTL constraints.**

All figures in MUs

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Month | 2013 | | | | 2014 | | | |
| Due to DTL's constraints | Due to shortage of power | Due to Distribution constraints | Total shedding | Due to DTL's constraints | Due to shortage of power | Due to Distribution constraints | Total shedding |
| April | 0.451 | 6.133 | 0.576 | 7.16 | 0.563 | 7.079 | 1.256 | 8.962 |
| May | 3.907 | 1.046 | 2.694 | 8.25 | 14.636 | 2.064 | 4.895 | 22.555 |
| June | 4.21 | 1.188 | 6.627 | 15.297 | 18.617 | 4.851 | 5.95 | 37.995 |
| July | 4.404 | 1.67 | 2.586 | 9.935 | 6.122 | 1.196 | 3.536 | 10.936 |
| August | 1.982 | 0.96 | 1.331 | 4.295 | 2.553 | 6.212 | 2.858 | 11.752 |
| September | 1.069 | 1.031 | 1.13 | 3.982 | 0.627 | 5.126 | 1.74 | 7.504 |
| Total | 16.023 | 12.028 | 14.944 | 48.919 | 43.118 | 26.528 | 20.235 | 99.704 |

All figures in %age

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Month** | **Increase in 2014 w.r.t. 2013** | | |  |
| **Due to DTL's constraints** | **Due to shortage of power** | **Due to Distribution constraints** | **Total shedding** |
| April | 25 | 15 | 118 | 25 |
| May | 275 | 97 | 82 | 173 |
| June | 342 | 308 | -10 | 148 |
| July | 39 | -28 | 37 | 10 |
| August | 29 | 547 | 115 | 174 |
| Sept | -41 | 397 | 54 | 88 |
| Total | 169 | 121 | 35 | 104 |

**e) Comparison of Discomwise load shedding w.r.t. 2013 (due to reasons attributable to Discoms)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **BRPL** |  |  |  |  |  |  |  |
|  |  | **2013** |  |  | **2014** |  |  |
| **Month** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **% increase in Load shedding** |
| April | 2.072 | 0.184 | 2.256 | 2.837 | 0.255 | 3.092 | 37 |
| May | 0.901 | 1.673 | 2.574 | 1.271 | 2.392 | 3.663 | 42 |
| June | 1.760 | 5.340 | 7.100 | 3.057 | 3.922 | 6.979 | -2 |
| July | 0.534 | 1.735 | 2.269 | 0.669 | 2.499 | 3.168 | 40 |
| August | 0.687 | 1.114 | 1.801 | 3.315 | 1.267 | 4.582 | 154 |
| September | 0.738 | 0.649 | 1.387 | 3.584 | 0.930 | 4.514 | 225 |
| **Total** | **6.692** | **10.695** | **17.387** | **14.733** | **11.265** | **25.998** | **50** |
|  |  |  |  |  |  |  |  |
| **BYPL** |  |  |  |  |  |  |  |
|  |  | 2013 |  |  | 2014 |  |  |
| **Month** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **% increase in Load shedding** |
| April | 1.845 | 0.326 | 2.171 | 3.021 | 0.376 | 3.397 | 56 |
| May | 0.139 | 0.680 | 0.819 | 0.526 | 0.868 | 1.394 | 70 |
| June | 0.383 | 0.873 | 1.256 | 1.431 | 1.523 | 2.954 | 135 |
| July | 0.461 | 0.376 | 0.837 | 0.064 | 0.787 | 0.851 | 2 |
| August | 0.213 | 0.115 | 0.328 | 1.801 | 0.707 | 2.508 | 664.634 |
| September | 0.303 | 0.317 | 0.620 | 1.214 | 0.222 | 1.436 | 132 |
| Total | 3.344 | 2.687 | 6.031 | 8.057 | 4.483 | 12.540 | 108 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |
| **TPDDL** |  |  |  |  |  |  |  |
|  |  | 2013 |  |  | 2014 |  |  |
| **Month** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **% increase in Load shedding** |
| April | 2.112 | 0.066 | 2.178 | 1.219 | 0.625 | 1.844 | -15 |
| May | 0.206 | 0.341 | 0.547 | 0.267 | 0.079 | 0.346 | -37 |
| June | 0.959 | 0.667 | 1.626 | 0.348 | 0.505 | 0.853 | -48 |
| July | 0.974 | 0.492 | 1.466 | 0.463 | 0.250 | 0.713 | -51 |
| August | 0.068 | 0.102 | 0.170 | 1.018 | 0.868 | 1.886 | 1009 |
| September | 0.682 | 0.169 | 0.851 | 0.328 | 0.588 | 0.916 | 8 |
| Total | 5.001 | 1.837 | 6.838 | 3.643 | 2.915 | 6.558 | -4 |
|  |  |  |  |  |  |  |  |
| **NDMC** |  |  |  |  |  |  |  |
|  |  | 2013 |  |  | 2014 |  |  |
| **Month** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **Load Shedding Due to Shortage of Power** | **Load shedding due to Discoms Constraints** | **Total** | **% increase in Load shedding** |
| April | 0.104 | 0.000 | 0.104 | 0.002 | 0.000 | 0.002 | -98 |
| May | 0.007 | 0.000 | 0.007 | 0.000 | 0.000 | 0.000 | -100 |
| June | 0.011 | 0.008 | 0.019 | 0.009 | 0.000 | 0.009 | -53 |
| July | 0.004 | 0.017 | 0.021 | 0.000 | 0.000 | 0.000 | -100 |
| August | 0.000 | 0.006 | 0.006 | 0.075 | 0.016 | 0.091 | 1417 |
| September | 0.000 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | -100 |
| Total | 0.126 | 0.036 | 0.162 | 0.086 | 0.016 | 0.102 | -37 |

**f) Major system constraints encountered during the summer 2014.**

i) The power supply position has by and large been satisfactory upto 30.05.2014. However, due to devastating storm occurred in the afternoon hours of 30.05.2014, the power supply got disturbed due to trippings of large number of transmission lines in Delhi along with other states including PGCIL’s system. The towers of three double circuit lines also damaged in the storm. Further, 10 nos. of 400kV and 36nos of 220kV Lines tripped during the storm. The above storm resulted in major breakdown in Delhi System alongwith there restoration date and time are as under :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of transmission line** | **Date & time of outage** | **Date & time of restoration on ERS** | **Date and time of restoration on normal tower** | **Remarks** |
| 220kV Bawana – Rohini Ckt. –I | 30.05.2014 at 16.55hrs. | 10.06.2014 at 15.19hrs. | 20.06.2014 at 12:38hrs. | Tower nos. 30, 31, 32, 37 & 38 collapsed during storm |
| 220kV Bawana – Rohini Ckt. –II | 30.05.2014 at 16.54hrs. | Ckt. Charged upto tower no. 22 to feed 220kV Rohini –II sub station at 06.30 on 31.05.14. | 20.06.2014 at 17:02hrs. | Ckt. Charge upto Tower no. 22 to feed 220kV Rohini –II |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name of transmission line** | **Date & time of outage** | **Date & time of restoration on ERS** | **Date and time of restoration on normal tower** | **Remarks** |
| 220kV Mandola – Gopalpur Ckt. –I | 30.05.2014 at 16:51hrs. | Supply has been restored through ERS on 01.06.14 at 21.53 | 16.06.2014 at 23.05HRS. | Tower no 25 collapsed during storm  However, supply given to Gopalpur at 19.57hrs. through 220kV Wazirabad – Gopalpur – Ckt. –I at 19.59hrs. |
| 220kV Mandola – Gopalpur Ckt. –II | 30.05.2014 at 16:48hrs. | Ckt was charged through 220KV Mandola - Narela Ckt. -II on 02.06.2014 AT 17.13 hrs | 17.06.2014 at 17.19HRS. |
|  |  |  |  |  |
| 220kV Bamnauli – Papankalan-I Ckt. –I | 30.05.2014 at 16:50hrs. | Ckt charged through ERS from Ckt. -II on 04.06.2014 AT 15.48hrs. | 16.06.2014 AT 14.14HRS. | Tower no. 9, 10, 11 & 12 collapsed during storm |
| 220kV Bamnauli – Papankalan-I Ckt. –II | 30.05.2014 at 16:50hrs. | Ckt. has been charged temporarily through Papankaln –II Ckt. –I at Tower no. 23 to feed 220kV Papankaln –I on 01.06.14 at 00.15hrs. | 23.06.2014 at 12:50hrs. |

It may also be noted that 48 lines of PGCIL also tripped during the storm on 30.05.2014. It is also reported that the towers of one 400kV Double Ckt. & tower of three 400kV single circuit and towers of two 765kV circuits collapsed. The Central Commission vide its order dt 20.06.2014 has directed CTU to investigate the reason for tower collapsed and other related issues

CEA has also conducted enquiry of the tower collapses and submitted its report. As far as Delhi system is concerned, CEA has concluded that the tower collapse is not due to maintenance issues but because of turbulent weather conditions. The following recommendations have also been made by the Expert Committee to avoid the recurrence the such failures.

**Recommendations/ Remedial measures to be taken by Delhi Transco Ltd. as indicated by the Expert Committee.**

1. Towers of the line were designed as per old code IS:802 (1977) and the wind zone for Delhi area has been changed as per revised code IS: 802 (1995). In view of the above, DTL may review design of towers in line with latest IS codes and strengthening of members of tower, if required, may be carried out accordingly to avoid reoccurrence of such failures in future and thereby increase the availability of the line. PGCIL/CPRI/SERC / any other organization may be consulted for review of the design.

(ii) In future, the use of tower designed as per old IS:802(1977), should be avoided as a replacement to failed towers in any existing lines or in new lines until the design review is complete.

(iii) The regular patrolling of lines should be carried out by DTL to

check for missing of tower members. Regular maintenance activities such as chopping of nearby trees to maintain adequate

safety clearances, considering MOE & F guidelines, removing the bushes near the foundation area, and coping of chimneys etc. should be carried out by DTL from time to time, as and when required.

(iv) For old lines, rusting in members of all the towers (due to exposure to atmosphere over a long period of time) may be checked and painting of the rusted members with Zinc rich paints may be done as remedial measures.

(v) The holes in the tower members including leg members are to be filled with bolts & nuts to increase the strength of members.

(vi) Chimneys of all the towers should be provided with coping to avoid accumulation of rain water near stub. If required, the height of the chimneys may be raised where the tower is located in agricultural field to avoid deposit of soil on the chimneys due to agricultural activities.

(vii) Quality of steel material may be ensured while replacing these

missing members.

(viii)Material test of the failed tower members should be carried out

from recognized NABL approved laboratories / Govt. approved

laboratories to assess the quality of steel material used in the

tower.

DERC has also initiated suo-moto proceedings to look into the issues of load shedding on 30.05.2014 and 06.06.2014.

**g) Shut-down of Pragati Stage-1 units.**

Even though substantial backing down occurred during the period October 2013 to March 2014, no shut-down of units taken due to one reason or other. The shut-downs were finally taken from April 2014 but went beyond mid June 2014 causing reduction in crucial generation of about 150-200 MW at load centre resulting into load shedding in east, central and south Delhi areas. The details of shut-downs planned and availed by Pragati Stage-I units are as under:-

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Unit** | **Original Shutdown as per LGBR** | **Revised schedule** | **Actual shutdown availed** | **Reason of shut-down** | **Reduction in Generation (MW)** |
| 1 | 01.04.14-30.04.14 | 16.04.14-15.05.14 | 27.04.14-18.06.14 | Major inspection / overhauling | 150 |
| 2 | Feb 14 - Mar 14 (10days) | 08.04.14-16.04.14 | 08.04.14-27.04.14 | Combustion inspection | 150 |
| STG | 01.04.14-15.04.14 | 14.04.14-30.04.14 | 16.04.14-19.05.14 | Bearing inspection / exciter overhauling | 110  (200MW from 27.04.14 to 19.05.14) |

**h) Unstable operation of RPH Station**

The RPH units could not deliver stable generation during the summer. It also resulted into over-loading of transmission lines between 220kV Wazirabad – Geeta Colony section causing load shedding in East Delhi and Walled city areas.

The details of availability of RPH for summer season have been as under:-

|  |  |  |
| --- | --- | --- |
| **Month** | **Plant availability in %age** | **Scheduled PLF in %age** |
| April 2014 | 82.09 | 37.04 |
| May 2014 | 72.13 | 62.98 |
| June 2014 | 76.39 | 74.70 |
| July 2014 | 57.79 | 57.79 |
| August 2004 | 55.00 | 46.47 |
| Sept 2014 | 51.94 | 51.94 |
| **April to Sep 2014** | **65.82** | **55.13** |

**i) Less generation at Badarpur Thermal Power Station**

Even though, the Badarpur generation is one of the costliest sources of thermal generation in the country, the scheduling is done to meet the transmission system constraints in and around the areas. The details of the plant availability during the summer months has been as under:-

|  |  |  |
| --- | --- | --- |
| **Month** | **Plant availability in %age** | **Scheduled PLF in %age** |
| April 2014 | 78.72 | 51.70 |
| May 2014 | 89.12 | 68.67 |
| June 2014 | 89.12 | 83.57 |
| July 2014 | 87.49 | 76.65 |
| August 2004 | 69.87 | 54.87 |
| Sept 2014 | 52.96 | 46.82 |
| **Apr to Sep.2014** | **77.96** | **63.66** |

**j) Outage of 220kV BTPS – Noida – Gazipur Ckt. (UPPTCL Ckt)**

During the crucial crisis period, the 220kV BTPS – Noida – Gazipur ckt which was giving support of about 160MW remained out during the period 01.05.2014 to 20.05.2014, 07.06.2014 to 20.06.2014 causing huge load shedding in East Delhi areas.

The ckt is still out due to cable fault from 17.09.2014.

k) Behaviour of transmission system at the time of occurrence of peak demand i.e. 5925MW at 15.20.20hrs. on 15.07.2014.

**No. of Sub-Stations where reliability N-1 criteria does not exit**

|  |  |  |
| --- | --- | --- |
| **Voltage level** | **Total number of stations** | **Number of sub-stations N-1 criteria does not meet** |
| 765kV | 1 | - |
| 400kV | 5 | 2 |
| 220kV | 34 | 20 |
| 400kV lines | 13 pairs (26 nos) | -- |
| 220kV lines | 41 pairs (82 nos.) | 17 pair |

**Details of the Sub-Stations where reliability N-1 criteria do not exit and remedial measures thereof**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of S/Stn.** | **Installed Transformation Capacity (400/220kV), 220/ 66kV and 220/33kVin MVA** | **Total load of station in MW at the time of peak demand met on 15.07.14 at 15:20:20hrs** | **Remedial measures** |
| PGCIL – Mandola | 1575 | 1027 | 2 Nos. of 315MVA ICTs to be augmented with 500MVA before summer 2015 and other two by summer 2016 |
| DTL – Bamnaul | 1260 | 973 | 2 Nos. of 315MVA ICTs to be augmented before summer 2015 with 500MVA before summer 2016 |
| Rohini-I | 400 | 250 | With commissioning of 220kV Rohini-II, loading of likely to be eased |
| Narela | 300 | 206 | With the commissioning of 220/66kV Sanjay Gandhi Tr. Nagar Grid, the loading of Gopalpur and Narela shall ease. |
| Gopalpur | 300 | 218 |
| Bawana (220/66kV) | 100 | 73 |
| Kanjhawala | 200 | 130 | Additional 220/66kV 160MVA is planned and likely to be commissioned before Summer 2015 |
| Najafgarh | 400 | 338 | With the commissioning of 220kV Peera Garhi S/Stn before summer 2015, the loading of Najafgarh, Pappankalan-I and Pappankalan-II is likely to be eased. Further, 2 nos. 100MVA Tx at Pappankalan-I shall be augmented with 160MVA before summer 2015 and new 160MVA Tx. is planned at Pappankalan-II. 220kV Papankalan-III S/Stn is also likely to be commissioned by March 2016. This would also ease loading on Najafgarh – Papankalan ckt. I & II. |
| Pappankalan-I | 400 | 291 |
| Pappankalan-II | 360 | 261 |
|  |  |  |
| Okhla | 500 | 364 | 400kV Tuglakabad Grid S/Stn is planned and likely to be commissioned by 2017. This would ease loading at Okhla. |
| Sarita Vihar | 200 | 144 | 3rd 100MVA Tx is likely to be commissioned before summer 2015 |
| Gazipur | 200 | 159 | Additional 160MVA Tx is likely to be commissioned before summer 2015 |
| Lodhi road | 200 | 176 | The work is underway to convert the Grid from AIS to GIS along with additional 100MVA Tx by summer 2015 |
| Wazirabad | 300 | 247 | Additional 160MVA Tx is likely to be commissioned before summer 2015 |
| Patparganj | 500 | 267 | With the commissioning of 160MVA Tx at Gazipur and Wazirbad, the loading is likely to be eased |
| Geeta Colony | 200 | 126 | along with 400/220kV Harsh Vihar Grid which has been commissioned recently. |
| Park Street | 400 | 282 | NDMC has to shift the load to Electric Land sub station. The relief will also come when NDMC will load all its bays. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of S/Stn.** | **Installed Transformation Capacity (400/220kV), 220/ 66kV and 220/33kVin MVA** | **Total load of station in MW at the time of peak demand met on 15.07.14 at 15:20:20hrs** | **Remedial measures** |
| Subzi Mandi | 200 | 131 | Scheme is planned to convert the Grid from AIS to GIS along with additional 100MVA Tx. by 2017. |
| Kashmiri Gate | 200 | 93 | With the commissioning of 220kV Chandrawal Grid, the loading of Gopalpur and Kashmiri Gate shall ease. |
| Masjid Moth | 200 | 166 | Additional 220/33kV 100MVA is planned and likely to be commissioned before Summer 2015 |

**Details of transmission lines do not meet (N-1) criteria**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.** | **Name of the Line** | **MW** | **MVAR** | **Remedial measures** |
| 1 | 220kV BAMNAULI - DIAL CKT-I | 137 | -20 | (N-1) criteria does not meet. With the commissioning of 400/220kV Grid S/Sth at Tuglakabad, the line loading would ease. This is likely to be completed by 2016-17 |
| 220kV BAMNAULI - DIAL CKT-II | 135 | -17 |
| 2 | 220kV DIAL- MEHRAULI CKT-I | 116 | 7 |
|  | 220kV DIAL- MEHRAULI CKT-II | 119 | 14 |
| 3 | 220kV BAMNAULI-PAPPANKALAN-I CKT-I | 145 | 31 | (N-1) criteria does not meet. 400kV GIS Grid S/Stn is planned at Pappankalan. After the commissioning, relief is expected. Also LILO of 220kV Bamnauli – Naraina ckt. at Papankalan-I scheme has been prepared and is under tendering process and upon commissioning would ease loading on 220kV Bamnauli – Papankalan-I Ckts |
| 220kV BAMNAULI-PAPPANKALAN-I CKT-II | 148 | 28 |
| 4 | 220kV BAMNAULI-PAPPANKALAN-II CKT-I | 124 | 18 |
| 220kV BAMNAULI-PAPPANKALAN-II CKT-II | 128 | 18 |
| 5 | 220kV BAWANA - KANJHAWALA CKT | 182 | 12 | In case of outage of this ckt. load would be taken on 220kV Bawana - Najafgarh Ckt. With LILO of 220kV Bawana- Najafgarh ckt. at Khanjawala (N-1) criteria would be met. |
| 220kV KANJHAWALA-NAJAFGARH CKT | 50 | 0 | With LILO of ckt. at Mundka (N-1) criteria would meet. |
| 220KV BAWANA -NAJAFGARH CKT | 131 | 8 |  |
| 6 | 220KVBAWANA- ROHINI CKT-I | 127 | 6 | (N-1) criteria does not meet. TPDDL is required to divert the load from Rohini S/Stn. to 220kV Rohini -II S/Stn. Independent 220kV feed to Rohini-II is under execution. |
| 220KVBAWANA- ROHINI CKT-II | 173 | -11 |
| 7 | 220KV BAWANA-SHALIMARBAGH CKT-I | 126 | 5 | (N-1) criteria does not meet. With commissioning of 220kV Wazirpur S/Stn. and in feed from 400kV Mundka S/Stn., (220kV Mundka – Peera Garhi - Wazirpur ckt) would reduce the loading from the ckt. |
| 220KV BAWANA-SHALIMARBAGH CKT-II | 126 | 5 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.** | **Name of the Line** | **MW** | **MVAR** | **Remedial measures** |
| 8 | 220kV BAWANA-DSIIDC BAWANA CKT-I | 159 | -6 | At present load from 400kV Mandola S/Stn. is diverted to 400kV Bawana S/Stn. through these circuits due to over loading of 400/220kV 315MVA ICTs. PGCIL is augmenting all the four 400/220kV 315MVA ICTs with 500MVA ICTs. With commissioning of these 500MVA ICTs at Mandola load would be again diverted to Mandola through 220kV Mandola - Narela D/C which would reduce the overloading on these ckts. |
| 220kV BAWANA-DSIIDC BAWANA CKT-II | 160 | -8 |
| 9 | 220kV DSIIDC BAWANA-NARELA CKT-I | 104 | -8 |
| 220kV DSIIDC BAWANA-NARELA CKT-II | 107 | -11 |
| 10 | 220kV GOPALPUR- MANDOLACKT-I | -175 | -33 | (N-1) criteria does not meet. Establishment of 220kV Sanjay Gandhi Tr. Nagar with 220kV Narela - Rohtak Road Ckt-I & II, the loading likely to be eased. |
| 220kV GOPALPUR- MANDOLACKT-II | -178 | -37 |
| 11 | 220KV MANDOLA - WAZIRABAD CKT-I | 167 | 32 | Commissioning of 400kV Harsh Vihar S/Stn. with 220kV & 66kV feeders would ease the loading on 220kV Mandola - Wazirabad ckts. Link between 220kV Kashmiri Gate to RPH could be established so that parallel link between 220kV Harsh Vihar – Wazirabad – Kashmiri Gate – RPH link for ensuring reliable power supply to Central and East Delhi areas and also ease the loading on 220kV Wazirabad-Geeta Colony D/C. Commissioning of 160MVA Tr. at Gazipur & Wazirabad S/Stn. would create flexibility for interchanging the load thereby reducing the loading on these lines. Interconnection between 220kV Gazipur - Patparganj is underway. After commissioning of this link the loading would further be reduced. The re-conductoring work of Geeta Colony - Wazirabad Ckt-I & II by HTLS is likely to be completed by 2015. |
| 220KV MANDOLA - WAZIRABAD CKT-II | 148 | 0 |
| 12 | 220KV MANDOLA - WAZIRABAD CKT-III | 164 | 37 |
| 220KV MANDOLA - WAZIRABAD CKT-IV | 164 | 35 |
| 13 | 220kV WAZIRABAD-GEETA COLONY CKT-I | -155 | -25 |
| 220kV WAZIRABAD-GEETA COLONY CKT-II | -163 | -32 |
| 14 | 220kV GEETA COLONY- PATPARGANJ CKT-I | 122 | 0 |
|  | 220kV GEETA COLONY- PATPARGANJ CKT -II | 97 | 6 |
| 15 | 220kV PRAGATI - I.P.CKT - I | 112 | 18 | (N-1) criteria does not meet. LILO of both ckts between Sarita Vihar and Pragati at Maharani Bagh would ease the loading. LILO of one ckt is likely to be commissioned by 31.03.2015 and other by 31.03.2016. |
| 220kV PRAGATI - I.P.CKT - II | 112 | 17 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl.** | **Name of the Line** | **MW** | **MVAR** | **Remedial measures** |
| 16 | 220kV PRAGATI - PARK STREET CKT-I | 141 | 0 | (N-1) criteria does not meet. The 220kV link between Park Street - Electrical Lane - Rajghat - Park Street has been planned and likely to be commissioned by 2017. |
| 220kV PRAGATI - PARK STREET CKT-II | 147 | 0 |
| 17 | 220kV SARITA VIHAR - BTPS CKT.-I | -166 | -6 | (N-1) criteria does not meets. LILO of 220kV Sarita Vihar - Pragati Ckts. at Maharani Bagh 400kV S/Stn would ease the loading. |
| 220kV SARITA VIHAR - BTPS CKT.-II | -175 | 0 |
| 18 | 220kV BTPS - OKHLA CKT.- I | 181 | 39 | (N-1) criteria does not meet. Interconnection between Masjid Moth and Okhla is likely to be done by 2016. Also with the commissioning of 400kV Tuglakabad S/Stn by 2017 would ease loading on these ckts. |
| 220kV BTPS - OKHLA CKT.- II | 182 | 39 |
| 19 | 220kV PRAGATI - SARITA VIHAR CKT-I | -94 | 0 | The re-conductoring of the Ckts by HTLS conductor is likely to be carried out by 2015. Further, LILO of Ckt-I at Maharani Bagh would be completed by summer 2015 and LILO of Ckt-II at Maharani Bagh shall be completed by 2016. |
| 220kV PRAGATI - SARITA VIHAR CKT-II | -97 | 6 |
| 20 | 220kV NARAINA-RIDGE VALLEY CKT | -154 | -2 | (N-1) criteria does not meet. However, load is interchangeable with Bamnauli Ckts. HTLS of 220kV Bamnauli - Naraina is also planned which is likely to be commissioned by 2015 |
| 21 | 220kV MAHARANIBAGH-TRAUMA CENTER CKT-I | 161 | 11 | (N-1) criteria does not meets. However, if Naraina load is shifted to Bamnauli ckts. (N-1) criteria would be met. HTLS of 220kV Bamnauli - Naraina is also planned which is likely to be commissioned by 2015 |
| 220kV MAHARANIBAGH -TRAUMA CENTER CKT-II | 161 | 8 |

**Distribution Constraints at the time of Peak Demand**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No** | **Discom** | **Name of S/Stn** | **MW** | **Reason** | **Remarks** |
| 1 | NDPL | S.G.T.Nagar | 2 | High winding temp alarm on Tr. -III | 20MVA Tr had developed winding temp. alarm as the fan’s were not working. There is no constraint at SGT Nagar. There are 2x16MVA and 1x20MVA Trs feeding the load which is sufficient. |
| 2 | BRPL | Nizamudin | 2 | Overloading of 33kV Lodhi Road - Nizamudin ckt. | Due to constraints at IP Stn. load is diverted to Lodhi Road. IP Station needs to be stabilized. |
| 3 | BRPL | Lajpat Nagar | 3 | Overloading of Pr. Tr.-I | 33kV ½ Bus at Lajpat Nagar S/Stn is lying damaged since long. BHEL is being pursued for early replacement / repair. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No** | **Discom** | **Name of S/Stn** | **MW** | **Reason** | **Remarks** |
| 4 | BRPL | Okhla Ph-II | 3 | High winding temp alarm on Tr. -II | Transformer capacity has been augmented and at present there are 2x20MVA and 1x25MVA Tx at Okhla Ph-II S/Stn |
| 5 | BRPL | Bijwasan | 4 | Overloading of Pr. Tr. Additional transformer has been added. | Additional transformer has been commissioned. |
| 6 | BYPL | Guru Angad Nagar | 7 | Overloading of 33kV Patparganj - Guru Angad Nagar ckt.-II, 33kV Patparganj - Guru Angad Nagar ckt.-I was under Shutdown | (N-1) conditions could be met only after commissioning of additional 220kV S/Stn in East Delhi with full evacuation system. |

**l) System improvement works undertaken during summer 2014.**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of the element** | **Date & time of commissioning** | **Remarks** |
| 400kVSystem | | | |
| 1 | 400/220kV 315MVA ICT-5 at Mandola | The Tx put on load at 10.35hrs. on 13.06.14 | The Tx is being controlled through breaker of ICT-1 |
| 2 | 400/220 kV 315 ICT No-3 at Mundka | Charged on no load on 12.07.14 at 19:47 hrs. Load was taken on 29.07.14 at 13:38 hrs. |  |
| 3 | 400/220 kV 315 ICT No-1 at Harsh Vihar | Charged on 01.08.14 at 19:15 hrs. |  |
| 4 | 400/220 kV 315 ICT No-2 at Harsh Vihar | Charged on no load on 19.08.14 at 18:02 hrs. Load was taken on 21.08.14 at 19:48 hrs |  |
| 5 | 400/220 kV 315 ICT No-3 at Harsh Vihar | Charged on 01.08.14 at 21:12 hrs |  |
| 6 | 400kV Dadri-Harsh Vihar Ckt-1 | Charged on 31.07.14 at 17:35 hrs. | Evacuation system of Dadri Stage-2 and line belongs to NTPC. |
| 7 | 400kV Dadri-Harsh Vihar Ckt-2 | Charged on 26.09.14 at 17:40 hrs. |
| 220kVSystem | | | |
| 1 | 220/66 kV160 MVA Transformer-1 at Harsh Vihar | Charged on 04.08.14 at 16:24 hrs. |  |
| 2 | 220/33kV100MVA Transformer-1 at Shalimarbagh | Charged on no load on 22.06.14 at 17:02 hrs. Load was taken on 24.06.14 at 20:14 hrs. |  |
| 3 | 220/33kV100MVA Transformer-2 at Shalimarbagh | Charged on no load on 22.06.14 at 17:03 hrs. Load was taken on 24.06.14 at 20:14 hrs. |  |
| 4 | 220kV Shalimarbagh-Wazirpur Ckt-1 | Charged on no load on 22.06.14 at 20:10 hrs. Load was taken on 24.06.14 at 20:14 hrs. |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Name of the element** | **Date & time of commissioning** | **Remarks** |
| 5 | 220kV Shalimarbagh-Wazirpur Ckt-2 | Charged on no load on 19.06.14 at 20:14 hrs. Load was taken on 24.06.14 at 20:14 hrs. |  |
| 6 | 220kV Gazipur- Maharanibagh Ckt-1 | Charged on no load on 09.07.14 at 18:56 hrs. Load was taken on 10.07.14 at 12:45 hrs. |  |
| 7 | 220kV Gazipur- Maharanibagh Ckt-2 | Charged on no load on 25.06.14 at 18:50 hrs. . Load was taken on 26.06.14 at 09:45 hrs. |  |
| 8 | 220kV Bawana- Kanjhawala Ckt-2 | Charged on no load on 29.08.14 at 18:18 hrs. Load was taken on 29.08.14 at 18:26 hrs. | LILO of 220kV Bawana-Najafgarh  ckt-2 at Kanjhawala |
| 9 | 220kV Kanjhawala-Najafgarh Ckt-2 | Charged on no load on 29.08.14 at 18:20 hrs. Load was taken on 29.08.14 at 18:26 hrs. |
| 10 | 220kV Pragti-Sarita Vihar Ckt-2 | Charged on 24.06.14 at 18:25 hrs. after removal of LILO at Maharanibagh. |  |
| 11 | 220/66 kV160 MVA Transformer-III at Harsh Vihar | Charged on no load on 15.09.2014 at 16:10 hrs. Load was taken on 16.09.2014 at 16:10 hrs. |  |

**B) Winter Position – 2014-15**

The anticipated power supply position (as on 20.10.2014) for winter 2014-15 is as under:-

**All figures in MW**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MONTH** | **1st Fortnight** | | | | | **2nd fortnight** | | | | |
| **OCT 2014** | 00-10 | 10-18 | 18-22 | 22-24 | | 00-10 | 10-18 | 18-22 | 22-24 | |
| DEMAND | 4300 | 4500 | 4550 | 4400 | | 3700 | 4250 | 4200 | 3600 | |
| AVAILABILITY | 4285 | 4435 | 4615 | 4433 | | 4254 | 4420 | 4606 | 4424 | |
| SURPLUS (+) / SHORTAGE (-) | **-15** | **-65** | **65** | **33** | | **554** | **170** | **406** | **824** | |
| **NOV 2014** | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 |
| DEMAND | 2250 | 3400 | 3750 | 3800 | 3100 | 1700 | 3550 | 3350 | 3300 | 2400 |
| AVAILABILITY | 3974 | 4456 | 4043 | 4376 | 3948 | 3964 | 4466 | 4053 | 4366 | 3938 |
| SURPLUS (+) / SHORTAGE (-) | **1724** | **1056** | **293** | **576** | **848** | **2264** | **916** | **703** | **1066** | **1538** |
| **DEC 2014** | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 |
| DEMAND | 1600 | 3350 | 3400 | 3300 | 2500 | 1700 | 4000 | 3400 | 3450 | 2650 |
| AVAILABILITY | 3918 | 4395 | 4132 | 4491 | 4043 | 3918 | 4465 | 4132 | 4491 | 4043 |
| SURPLUS (+) / SHORTAGE (-) | **2318** | **1045** | **732** | **1191** | **1543** | **2218** | **465** | **732** | **1041** | **1393** |
| **JAN 2015** | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 |
| DEMAND | 1800 | 4100 | 4100 | 3600 | 3000 | 2000 | 4200 | 4000 | 3800 | 3000 |
| AVAILABILITY | 4043 | 4646 | 4288 | 4589 | 4140 | 4065 | 4668 | 4280 | 4614 | 4165 |
| SURPLUS (+) / SHORTAGE (-) | **2243** | **546** | **188** | **989** | **1140** | **2065** | **468** | **280** | **814** | **1165** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **MONTH** | **1st Fortnight** | | | | | **2nd fortnight** | | | | |
| **FEB 2015** | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 | 00-06 | 06-12 | 12-18 | 18-22 | 22-24 |
| DEMAND | 1800 | 3800 | 3400 | 3500 | 2700 | 1700 | 3900 | 3700 | 3400 | 2800 |
| AVAILABILITY | 3763 | 4346 | 3933 | 4267 | 3838 | 3763 | 4246 | 3933 | 4267 | 3838 |
| SURPLUS (+) / SHORTAGE (-) | **1963** | **546** | **533** | **767** | **1138** | **2063** | **346** | **233** | **867** | **1038** |
| **MAR 2015** | 00-10 | 10-18 | 18-22 | 22-24 | | 00-10 | 10-18 | 18-22 | 22-24 | |
| DEMAND | 3700 | 3500 | 3250 | 2500 | | 3300 | 3300 | 3200 | 2600 | |
| AVAILABILITY | 3854 | 3970 | 4156 | 4025 | | 4253 | 4369 | 4555 | 4423 | |
| SURPLUS (+) / SHORTAGE (-) | **154** | **470** | **906** | **1525** | | **953** | **1069** | **1355** | **1823** | |

Note :-

1 Availability from Un-allocated quota of Central Sector has been considered as NIL

2 Availability from DVC has been considered as 250MW as per current trend.

3 Availability from Hydro stations has been considered as 0% during Night hours (00.00hrs. to 06.00hrs), 75% during Morning and Evening Peak Hours and 30% during rest of the period for November to February.

4 Availability from Hydro stations has been considered as 30% during Morning Hours (00.00hrs. to 10.00hrs), 50% during Day time (10.00hrs. -18.00hrs), 75% during Evening Peak Hours (18.00-22.00hrs) and 50% during rest of the period (22.00hrs.-24.00hrs) for Oct. & March.

5 Dadri (Th)-II Unit No. 2 (490MW capacity) is planned for maintenance during 01.02.2015 to 15.03.2015.

6 Dadri (Th)-I Unit No. 2 (210MW capacity) is planned for maintenance during 05.11.2014 to 19.12.2014.

7 Both units of RPH would be under outage due to Environmental stipulations.

8 285MW capacity of BTPS has been reallocated to Madhya Pradesh from 18.00hrs. of 01.10.2014 to 31.03.2015.

9 Unit-5 (210MW) of BTPS will remain under shut-down during March 2015.

The above position indicates the substantial quantum of surplus power available which is normal phenomenon every winter i.e. November to March. To combat the issue, DPPG has taken various measures to dispose off the surplus power.

i) On the recommendations of DPPG, Delhi Govt requested Central Govt. to reallocate 285MW capacity (3X95MW) of BTPS to needy states from October 2014 to March 2015. The capacity has been diverted to Madhya Pradesh from 18.00hrs. on 01.10.2014.

ii) The Central Govt has already reallocated the entire allocation of Aravali Jhajjar (693MW share of Delhi) to Kerala, Andhra Pradesh and Telangana upto 31.03.2015.

iii) On the recommendations of DPPG, 180MW capacity of Delhi (TPDDL’s share in Dadri Thermal Stage-1) has been reallocated to Bihar from 10.09.2014 utpo 31.08.2014 from Dadri Thermal Stage-1.

iv) DPPG has also recommended the temporarily reallocation of surplus power to needy states as detailed hereunder:-

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of the Stn** | **Installed capacity in MW** | **Allocation to Delhi in MW** | **Capacity proposed to surrender in MW** | **Duration of surrender** | **Remarks** |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Dadri (Th)-I | 840 | 576 | 256 | 00-06hrs. from 01.11.14 to 31.03.15 | 180MW capacity of TPDDL has already been reallocated to Bihar from 10.09.2014 to 31.08.2015.  50% share of BRPL (184MW) and 100 % share of BYPL (72MW) is proposed to be surrendered during the period 00.00hrs. to 06.00hrs from 01.11.2014 to 31.03.2015. |
| Dadri (Th)-II | 980 | 735 | 261 | 354MW during 00.00hrs. to 06.00hrs. and 261MW during 06.00hrs. to 24.00hrs. from November 2014 to March 2015 | TPDDL requested for reallocation of 100MW from its share and BRPL requested for 50% (161MW) of BRPL share on RTC basis from Nov’14 to March’15.  BYPL requested for reallocation of 50% of its share between 00.00hrs. to 06.00hrs during November 2014 to March 2015. |
| Farakka | 1600 | 22 | 22 | 00.00-24hrs from November 2014 to March 2015 | All the Discoms requested to reallocation of 100% power from these stations on RTC basis from Nov’14 to March’15, being the Eastern Region sources. **Later, in the meeting on 16.10.2014 in the office of Addl. Secretary (Power), GNCTD, the proposal is dropped due to ongoing reduction in availability due to coal shortages.** |
| Kahalgaon-I | 840 | 51 | 51 |
| Kahalgaon-II | 1500 | 157 | 157 |

**m) Closure of RPH units on account of Environmental Stipulations**

To bring down the emission level below normal limits and as decided in the meeting chaired by Chief Secretary, Govt of Delhi held on 18.03.2014, the units have been closed down on 01.10.2014. The decision of the meeting is appended hereunder:-

1 To meet the pollution norms of 150mg/Nm3 Rajghat Power Station has to carry out major overhauling of both of the units one by one as the plant is running at deteriorated operational parameters. There is not shortcut method to bring down the SPM level upto desired value as the performance of EPIC Controller can only be achieved with the healthy condition of the ESP, Boiler and milling system. Overhauling along with installation of EPIC Controller will be carried out by RPH in September – October 2014 & March – April 2015 for Unit-2 & 1 respectively.

2 Till the remedial measures are taken the plant should run only during Peak load Hours to meet the demand of walled city area

3 Separate transmission line should be laid down within two years to overcome transmission constraints because presently there is only single transmission line for the walled city areas.

4 To expedite the proposal to convert the coal based power plant of (135MW) to Gas based plant (350MW).

DPPG in its meeting held on 28.09.2014 has decided to close unit-2 at RPH to reduce emission level from 01.10.2014 (the other unit was out since 26.09.2014).

At the time of closing of the plant only one unit of RPH i.e. unit-2 was running on partial load i.e. about 40MW against the capacity of 67.5MW. The other unit is out since 10.17hrs. of 26.09.2014 due to flame failure. Since the closure, the plant is claiming 100% availability.

**GCC may decide for certification of availability.**

**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**

System Improvement projects to be completed by 31.03.2015

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. N. | Details of System Improvement project | Reason for requirement | Timeline fixed | Current status |
| 1 | Commissioning of 220/66kV 160MVA Txs at Wazirabad | To provide (N-1) criteria and to reduce loading on existing transformers | 31.05.13 | The commissioning was delayed due to contract issues in respect of ETC of 220kV and 66kV bays. The contract has been awarded to M/s Safety Control and Device on 19.06.2014.  It is expected to be commissioned by the end of Dec. 2014. |
| 2 | Commissioning of 220/66kV 160MVA Txs at Gazipur | To provide (N-1) criteria and to reduce loading on existing transformers | 30.06.13 | The commissioning was delayed due to contract issues in respect of ETC of 220kV and 66kV bays. The contract has been awarded to M/s Safety Control and Device on 19.06.2014.  It is expected to be commissioned by the end of March 2015. |
| 3 | LILO of 220kV Najafgarh – Kanjhawala Ckt at Mundka | To ensure maximum evacuation from Mundka 400kV S/Stn and easing of loading on 400/220kV 4X315MVA ICTs at Bamnauli | 30.06.13 | The length of Najafgarh – Mundka Section is 5.5Kms. Total nos. of towers required to be erected in this section are 35. Out of 35, 30No. Foundations have been cast and 19 towers have been erected. There is resistance from Farmers /Locals regarding laying of this tower line and at present 4No. Court Cases are pending. Part of the Tower material is under procurement. Insulators are also under procurement. OPGW is to be arranged by SLDC through PGCIL. 220kV Mundka – Najafgarh section is expected to be commissioned by end of January 2015. |
| S. N. | Details of System Improvement project | Reason for requirement | Timeline fixed | Current status |
|  |  |  |  | However, for the commissioning of 220kV Mundka – Kanjhawala section, since there is no ROW, matter is under consideration with Planning Department for laying a multi circuit line on the same corridor.  **Planning Department may update the status.** |
| 4 | Commissioning of 220kV Peera Garhi S/Stn | To ensure maximum evacuation from Mundka 400kV S/Stn and easing of loading on 400/220kV 4X315MVA ICTs at Bamnauli and reducing the loading of 220/66kV Txs at Najafgarh, Pappankalan-I & II | 30.06.13 | Project Department may update the S/Stn and infeed provisions. |
| 5 | Commissioning of 220kV Peera Garhi – Wazipur D/C cable | --do-- | 31.05.13 | The contract issues with the vendor namely M/s Tibbia. Expected by Feb.2015 |
| 6 | Commissioning of 220kV Bawana – Rohini-II Double Ckt line (O/H) | To reduce loading of 220kV Rohini-I S/Stn | Before summer 2014. | In the last meeting held on 29.01.2014, it was intimated that the lines would be commissioned by end of September 2014.  Project Department may update the status. |
| 7 | Commissioning of 220kV Gazipur – Patparganj link | To reduce the loading of 220kV Wazirabad – Geeta Colony Ckts and to increase the supply of Patparganj | 31.08.14 | It is cost sharing work undertaken by DMRC. Delayed due to non permission of digging in monsoon. Expected by end of December 2014. |
| 8 | Augmentation of 2X 220/66kV 100MVA Txs to 160MVA Txs at Pappankalan-I | To control the loading of existing transformers and to create reliability of supply | Before summer 2014 | Now put it in the fast track projects and expected by 25.03.2015. |
| 9 | LILO of one circuit of 220kV Bamnauli – Najafgarh link at Pappankalan-II | To provide alternate source at Pappankalan-II | By end of March 2015 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 10 | LILO of one circuit of 220kV Bamnauli – Naraina Ckt-I at Pappankalan-I | To provide alternate source at Pappankalan-I | By end of March 2015 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 11 | 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 | It is the fast track projects and expected by 31.03.2015. To be executed by PGCIL |
| 12 | 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 | It is the fast track projects and expected by 31.03.2015. To be executed by PGCIL |
| 13 | HTLS re-conductoring of D/C 220kV IP Power – Sarita Vihar Ckts | To avoid over-loading of existing circuits and to enhance reliability of supply | 31.03.15 | It is the fast track projects and expected by 31.03.2015. To be executed by PGCIL |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S. N. | Details of System Improvement project | Reason for requirement | Timeline fixed | Current status |
| 14 | LILO of first circuit of double circuit of 220kV Pragati – Sarita Vihar Ckt. at 400kV Mahrani Bagh | To avoid over-loading of existing circuits and to enhance reliability of supply | 31.03.15 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 15 | Commissioning of 220kV Harsh Vihar – Patparganj D/C | To ensure maximum evacuation from Harsh Vihar and ease loading on Mandola system | 31.03.15 | It is the fast track projects and expected by 31.03.2015. To be executed by PGCIL |
| 16 | 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 | It is the fast track projects and expected by 31.03.2015. To be executed by PGCIL |
| 17 | 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 | Two ICTs are expected by June 2015 and other two by end of 2015. To be executed by PGCIL. |
| 18 | Augmentation of 4X315MVA ICTs to 4X500MVA ICTs at Ballabhgarh (PGCIL S/Stn) | To ease the loading of existing transformers and to enhance reliability of supply. | Before summer 2015 | Two ICTs are expected by June 2015 and other two by end of 2015. To be executed by PGCIL. |
| 19 | Additional 220/66kV 100MVA Tx at Sarita Vihar | To enhance reliability of supply | Before summer 2015 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 20 | Additional 220/66kV 160MVA Tx at DSIDC Bawana | To enhance reliability of supply | Before summer 2015 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 21 | Additional 220/66kV 160MVA Tx at Pappankalan-II | To enhance reliability of supply | Before summer 2015 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 22 | Additional 220/66kV 160MVA Tx at Kanjhawala along with 4 Bays at 66kV level | To enhance reliability of supply | Before summer 2015 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 23 | Additional 220/33kV 1000MVA Tx at Masjid Moth | To enhance reliability of supply | Before summer 2014 | It is the fast track projects and expected by 31.03.2015. To be executed by DTL. |
| 24 | 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 | It is at early stage of commissioning.  Project Department may update the status. |

System Improvement projects to be completed by 31.03.2016

|  |  |  |
| --- | --- | --- |
| S. N. | Details of System Improvement project | Current status |
| 1 | S/C LILO of Mandaula – Bawana at Rajghat | To be executed as ISTS |
| 2 | Establishment of 220/33kV GIS at Rajghat | To be executed by PGCIL |
| 3 | 220/66KV S/Stn at Papankalan-III | To be executed by PGCIL |
| 4 | 220/66KV GIS at Tughlakabad | To be executed by PGCIL |
| 5 | 220/66KV GIS at (SGTN) | To be executed by TBCB |
| 6 | 220/33KV GIS at Preet Vihar | To be executed by PGCIL |
| 7 | 220/33KV GIS at Karmapura | To be executed by PGCIL |
| 8 | 220/66kV 1x160 MVA Trf at Gopalpur | To be executed by DTL |
| 9 | 220/33KV GIS at Maharani Bagh | To be executed by DTL |
| 10 | 220/66KV GIS at Budella | To be executed as TBCB |
| 11 | 220/66KV GIS at Hamidpur | To be executed by DTL |
| 12 | 220/33KV GIS at Jasola | To be executed as TBCB |
| 13 | 220/66KV and 220/33KV GIS at R K Puram | To be executed by TBCB |
| 14 | 220/33KV GIS at Chandrawal | To be executed as TBCB |
| 15 | S/C Park St–Electric Ln- Rajghat-Park St U/G line | To be executed by PGCIL |
| 16 | 220/kV D/C Lodhi Road – Rajghat U/G line | To be executed by PGCIL |
| 17 | LILO of D/C Bamnauli –Naraina line at PPK-III | To be executed by PGCIL |
| 18 | LILO of D/C BTPS- Mahrauli line at Tuglakabad | To be executed by PGCIL |
| 19 | 220kV D/C Tuglakabad – Okhla O/H line | To be executed by PGCIL |
| 20 | 220kV D/C Kashmiri Gate – Raj Ghat O/H line | To be executed by PGCIL |
| 21 | LILO of Geeta Clny – Patparganj O/H line at Rajghat | To be executed by PGCIL |
| 22 | LILO 220kV D/C Narela – Rohtak Road at SGTN | To be executed as TBCB |
| 23 | 220kV D/C Masjid Moth – Okhla U/G line | To be executed by PGCIL |
| 24 | HTLS conductoring D/C Bamnauli-Mehrauli-BTPS | To be executed by DTL |
| 25 | LILO of D/C U/G Ridge Valley-AIIMS at RKPuram | To be executed by DTL |
| 26 | LILO of Najafgarh-Bamnauli D/C O/H at Budella | To be executed as TBCB |
| 27 | D/C LILO Maharani Bagh – Sarita Vihar at Jasola | To be executed as TBCB |
| 28 | LILO of 220kV D/C Narela–Mandola at Hamidpur | To be executed by DTL |
| 29 | 2nd ckt LILO of Pragati –Sarita at Maharanibagh | To be executed by DTL |
| 30 | 220kV D/C Vasant Kunj – R K Puram U/G line | To be executed by DTL |
| 31 | LILO of D/C Gopalpur–SabjiMandi at Chandrawal | To be executed as TBCB |
| 32 | IP Power to Rajghat Tower route modification | To be executed by DTL |
| 33 | 3 nos 220KV GIS bay addition at Kashmiri gate | To be executed by DTL |

**System Improvement projects to be completed by 31.03.2017**

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| --- | --- | --- |
| S. N. | Details of System Improvement project | Current status |
| 1 | 400/220KV GIS at Rajghat | To be executed as ISTS |
| 2 | 400/220KV GIS at Tuglakabad | To be executed as ISTS |
| 3 | 400/220KV GIS at Karmpura | To be executed as ISTS |
| 4 | 400/220KV GIS at Papankalan-I | To be executed as ISTS |
| 5 | LILO of 400kV D/C Bamnauli – Samaypur O/H line at Tughlakabad | To be executed as ISTS |
| 6 | 400kV Jatikalan More -Karmpura O/H M/C line | To be executed as ISTS |
| 7 | 400kV Bawana – Karmpura O/H M/C line | To be executed as ISTS |
| 8 | 400KV S/C LILO Bamanauli-Jhatikalan at Papankalan-I | To be executed as ISTS |
| 9 | 220/33KV GIS at Punjabi Bagh | To be executed as TBCB |
| 10 | 220/33KV GIS at Janakpuri | To be executed as TBCB |
| 11 | 220/66KV GIS at Gazipur Freight Complex | To be executed as TBCB |
| 12 | 220/33KV GIS at Nehru Place | To be executed as TBCB |
| 13 | 220/66KV GIS at Rang Puri | To be executed as TBCB |
| 14 | 220/66KV GIS at Rohini Sector –I | To be executed as TBCB |
| 15 | Conversion of 220kV AIS into GIS at Sabji Mandi. | To be executed by DTL |
| 16 | 3rd 100MVA 220/33kV Tx. At Subji Mandi | To be executed by DTL |
| 17 | 220kV D/C Tuglakabad – Masjid Moth U/H line | To be executed as TBCB |
| 18 | D/C LILO Peeragarhi- Wazirpur at Punjabi Bagh U/G | To be executed as TBCB |
| 19 | LILO D/C Wazirpur-Peera garhi at Karampura U/G | To be executed by PGCIL |
| 20 | Karmapura to Rohtak road D/C U/G cable | To be executed by PGCIL |
| 21 | 220kV D/C Karampura – Budella O/H line | To be executed by PGCIL |
| 22 | 220kV D/C Karampura – Subzi Mandi line | To be executed by PGCIL |
| 23 | 220kV D/C Peeragadi – Rohini-II O/H line | To be executed by DTL |
| 24 | LILO of 220kV D/C Masjid Moth – Maharani Bagh at Nehru Place | To be executed as TBCB |
| 25 | 220kV D/C Papankalan-I to Janak Puri | To be executed as TBCB |
| 26 | LILO of D/C Mehrauli-DIAL O/H line at Rang Puri | To be executed as TBCB |
| 27 | LILO of D/C Rohini to Budella at Rohini Sector-1 | To be executed as TBCB |

**b) Distribution System**

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

**TPDDL**

2014-15

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| **S No** | **Particulars / Name of the Project / Element** | **MVA Addition** | **Scheme Status** |
| 1 | Augmentation of PTR-1 (16MVA to 25MVA) at 33 / 11 kV Gulabi Bagh Grid | 9 | Completed |
| 2 | Augmentation of PTR-3 (16MVA to 25MVA) at 33 / 11 kV Ashok Vihar Grid | 9 | Completed |
| 3\* | Augmentation of 16 MVA PTR-1 & 16 MVA PTR-2 to 25 MVA each in 33/11 KV Trinagar Grid | 18 | DERC Approval awaited |
| 4 | Augmentation of 16 MVA PTR-1 & 16 MVA PTR-2 to 25 MVA each in 33/11 KV AIR Khampur Grid. | 18 | Completed |
| 5\* | Additional 16 MVA PTR-3 at 33/11 kV Haiderpur Grid | 16 | DERC Approval awaited |
| 6\* | Additional 25 MVA PTR-3 in 66/11 kV Bhalswa-1 Grid | 25 | DERC Approval awaited |

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| **S No** | **Particulars / Name of the Project / Element** | **MVA Addition** | **Scheme Status** |
| 7\* | Additional 25 MVA PTR-3 at 66/11 kV RG 22 Grid | 25 | DERC Approval received in Sep-2014 |
| 8\* | Additional 16 MVA PTR-3 at 33/11 kV GTK Grid | 16 | DERC Approval awaited |
| 9 | Additional 25 MVA PTR-3 at 66/11 kV Bawana-7 Grid | 25 | Completed |
| 10 | Additional 20 MVA PTR-3 at 66/11 kV RG-6 Grid | 20 | Completed |
| 11 | Additional 25 MVA PTR-3 at 66/11 kV RG-23 Grid | 25 | Completed |
| 12 | 33kV Twin Cable (2 x 3C\*400 sqmm) between 220kV Naraina and Pandav Nagar Grid | 0 | WIP |
| 13 | 33kV Twin Cable (2 x 3C\*400 sqmm) between 220kV Subzi Mandi and Shahzada Bagh Grid | 0 | WIP |
| 14 | Strengthening of 33kV Line between AIR Khampur and Tigi Pur Grid | 0 | WIP |
| 15 | 33kV Twin Cable (2 x 3C\*400 sqmm) between 220kV Peera Garhi and Rani Bagh CC Grid | 0 | Energisation is pending |
| 16 | 33 /11 kV Rani Bagh CC Grid (2 x 20MVA + 2 x 3C\*400sq.mm. XLPE from 220kV Peera Garhi Grid) | 40 | Completed |
| 1 | 66/11 kV Dheerpur Grid ( 2 x 25MVA + 1\*1000sq.mm. Cable LILO of 66kV line between 220kV Gopal Pur and Jahangir Puri Grid) | 50 | DERC Approval received in Sep-2014 |
| 18 | 66 / 11 kV Prashant Vihar Grid (2 x 25 MVA + 1\*1000sq.mm. cable LILO of 66kV line between Pitam Pura-1 and Rohini-3 Grid) | 50 | WIP |
| 19 | 66/11 kV Bawana-1 Grid (2 x 25 MVA + 66kV line from 220kV DSIIDC Bawana Grid + 66kV line LILO between 220kV Kanjhawla and BCWW Grid + 66kV LILO between BCWW and Bawana-7 Grid) line twin cable 1C\*1000 sqmm | 50 | Completed |
| 20 | 33 /11 kV A-21 Naraina Grid (2 x 18 MVA + 33kV line LILO between Inder Puri and Rewari Line Grid), line twin cable 3\*400 sqmm | 36 | Completed |
| 21 | 66 / 11 kV RG-34 Grid (2 x 25 MVA + D/C 1C\*1000 sq.mm. cable from proposed 66kV RG-30 Grid + D/C 1C\*1000 sq.mm. cable from proposed 220 kV Rohini-34 Grid ) | 50 | DERC Approval received |
| 22 | 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 Grid.) | 50 | DERC Approval received |

2015-16

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| **S No** | **Particulars / Name of the Project / Element** | **MVA Addition** | **Scheme Status** |
| 1 | Augmentation of PTR-1 (16MVA to 25MVA) at 33/11kV Rampura Grid | 9 | DERC Approval awaited |
| 2 | Augmentation of 16 MVA PTR-1 & 16 MVA PTR-2 to 25 MVA each in 33/11 KV Trinagar Grid | 18 | DERC Approval awaited |
| 3 | Additional 16 MVA PTR-3 at 33/11 kV Haiderpur Grid | 16 | DERC Approval awaited |
| 4 | Additional 25 MVA PTR-3 in 66/11 kV Bhalswa-1 Grid | 25 | DERC Approval awaited |
| 5 | Additional 25 MVA PTR-3 at 66/11 kV RG 22 Grid | 25 | DERC Approval received in Sep-2014 |
| 6 | Additional 16 MVA PTR-3 at 33/11 kV GTK Grid | 16 | DERC Approval awaited |
| 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 awaited |
| 8 | Conversion of single cable of 220kV SMB to Rani Bagh Ckt- 1 & 2 to twin 3 X 400 XLPE cable | 0 | DERC Approval awaited |
| 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 awaited |

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| **S No** | **Particulars / Name of the Project / Element** | **MVA Addition** | **Scheme Status** |
| 10 | 66/11kV Dheerpur Grid ( 2 x 25MVA + 1\*1000sqmm LILO of 66kV line between 220kV Gopal Pur and Jahangir Puri Grid) | 50 | DERC Approval received in Sep-2014 |
| 11 | 66kV DSIIDC-3 Grid (2 x 25MVA + 66kV line 1\*1000sqmm D/C LILO between 220kV Narela and Badli Grid) | 50 | DERC Approval 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 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

2016-17

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| **S No** | **Particulars / Name of the Project** | **MVA Addition** |
| 1 | Conversion of Sabzi Mandi to SKN CKT to Twin cable (3 x 400 sqmm) | Cable augmentation |
| 2 | Twin 3\*300sqmm S/C 66kV from Mundka to Mangol Puri-1 | Cable augmentation |
| 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 | 50 |
| 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 | 50 |
| 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 | 50 |
| 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 | 50 |
| 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 | 50 |
| 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 | 50 |
| 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) | 50 |
| 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) | 50 |

BYPL

2014-15

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| **S. No.** | **Voltage Level** | **Scheme Description** | **Capacity Addition (MVA)** | **DERC approval Status** | **Work Status** |
| 1 | 66/11kV | Establishment of New 66/11 kV Grid Sub-Station at Kondli Gharoli | 50 | Approved | WIP, Expected Completion by Sep-2014 |
| 2 | 33/11kV | Establishment of New 33/11 kV Grid Sub-Station at DDU Marg | 50 | Approved | WIP, Expected Completion by Sep-2014 |
| 3 | 66/11kV | Addition of 25 MVA Power Transformer at 66/11 KV East of Loni Road Grid Sub-station | 25 | Approved | Completed |
| 4 | 66/11kV | Addition of 25 MVA Power Transformer at 66/11 kV Bhagirathi Grid Sub-station | 25 | Approved | YTS, Mar-2015 |
| 5 | 33/11kV | Addition of 16 MVA Power Transformer at 33/11 kV Kanti Nagar Grid Sub-station | 16 | Approved | Completed |
| 6 | 33/11kV | Addition of 16 MVA Power Transformer at 33/11 kV CBD-2 Grid Sub-station | 16 | Approved | WIP, Expected to Complete by DEC-2014 |
| 7 | 33/11kV | Addition of Power Transformer of 25 MVA at 33/11 kV Delhi Gate Grid Sub-station | 25 | Approved | WIP, Expected to Complete by DEC-2014 |
| 8 | 66/11kV | Addition of 20 MVA Power Transformer at 66/11 KV GH-1 Grid Sub-station | 20 | Approved | YTS, May-2015 |
| 9 | 33/11kV | Augmentation of Power Transformer from 16 MVA to 25 MVA at 33/11kV CBD-1 Grid Sub-station | 9 | Approved | Completed |
| 10 | 33/11kV | Augmentation of Power Transformer No.2 from 15 to 25 MVA at 33/11kV Shankar Road Grid Sub-station | 10 | Approved | Completed |
| 11 | 33/11kV | Augmentation of 16 MVA Power Transformer no-3 to 25 MVA at 33/11 KV Shankar Road Grid Sub-station | 9 | Approved | YTS, Dec-2014 |
| 12 | 33/11kV | Augmentation of Power Transformer No.-2 from 16 MVA to 25 MVA at 33/11 KV Preet Vihar Grid Sub-station | 9 | Approved | YTS, Mar-2015 |
| 13 | 33/11kV | Augmentation of Power transformer from 16 MVA to 25 MVA at 33/11 KV Kailash Nagar Grid Sub-station | 9 | Approved | YTS, Mar-2015 |
| 14 | 66/11kV | Augmentation of Power Transformer No-1 from 20 MVA to 31.5 MVA at 66/11 KV Yamuna Vihar Grid Sub-station | 12 | Approved | YTS, May-2015 |
| 15 | 66/33kV | Augmentation of 66/33kV, 30 MVA Power Transformer with 66/33kV, 50 MVA Power Transformer at Bhagirthi Grid Sub-station. | 20 | Approved | YTS, Mar-2015 |
|  |  | **Total** | **305** |  |  |

**Additional feeders**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S. No.** | **Voltage Level** | **Source Station** | **Scheme Description** | **DERC approval Status** | **Work Status** |
| 1 | 66kV | 66kV Kondli Grid | Providing 66 KV infeed for 66/11KV O/D grid S/STN at Kondli Resettlement colony in Div Mayur Vihar III | Approved | Completed, Not Enerzied |
| 2 | 33kV | 220kV IP Station & RPH | Providing 33KV Infeed to DDU Marg Grid Sub-Station by laying of 2 nos 33KV 3CX400MM2 Cable. | Approved | Completed, Not Enerzied |
| 3 | 33kV | 33kV Shakarpur Grid | Providing 33 kV feed from Shakarpur Grid to Guru Angad Nagar Grid by laying of 2 nos 33kV, 3CX400MM2 XLPE cables. | Under Approval | YTS |
| 4 | 66kV | Pragati Power | Laying of 66 KV 1CX1000MM2 XLPE cables from Mayur Vihar - I Grid to 66 KV Common Wealth Games Village Grid (Akshardham) | Under Approval | To be completed by Mar-15 |
| 5 | 33kV | 66kV Ghonda | Providing additional 33 KV feed to Karawal Nagar Grid substation from Ghonda Grid. | Under Approval | YTS |
| 6 | 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 | YTS |
| 7 | 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 | YTS |
| 8 | 33kV | 220kV RPH Grid | Providing Additional 33 KV feed 220kV RPH/IP Grid to 33/11kV G.B Pant Grid Sub-Station. | Yet to be Submitted | YTS |
| 9 | 33kV | 220kV Narayana Grid | Providing Additional 33 KV feed 220kV Narayana Grid to 33/11kV Prasad Grid Sub-Station. | Yet to be Submitted | YTS |
| 10 | 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 | YTS |
| 11 | 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 | YTS |
| 12 | 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 | YTS |

**Augmentation of existing feeders**

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| **S. No.** | **Category** | **Scheme Description** | **DERC Approval Status** |
| 1 | Replacement of Cable Schemes | Conversion of Jama maszid -Kashmiri gate O/H Line into Under ground circuit at Ring Road | Under Approval |
| 2 | Replacement of Cable Schemes | Shifting/Conversion of 33kV 'Kailash Nagar-Seelampur' O/H cum U/G feeder by laying 2 Nos. 33kV 3CX400sq.mm. XLPE cables. | Under Approval |
| 3 | Replacement of Cable Schemes | Part Replacement of 33 KV Shastri park - Seelampur & Shastri Park - Dwarka puri Circuit with 2 Nos. 3CX400Sqmm cables | Under Approval |
| 4 | Replacement of Cable Schemes | Replacement of 33 KV PILCA Cable from Town Hall Grid to Lahori Gate Grid. | Under Approval |
| 5 | Replacement of Cable Schemes | Conversion of O/H portion into U/G cable from 33 KV Narayana Grid to DMS Grid. | Under Approval |
| 6 | Replacement of Cable Schemes | 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 |

**Replacement of switchgears / additional bays**

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

2015-16

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| --- | --- | --- | --- | --- | --- |
| **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 | Yet to Start |
| 2 | 33/11kV | Establishment of New 33/11 kV Grid Sub-Station Krishna Nagar | 32 | Approved | Yet to Start |
| 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 | Yet to Start |
| 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 | YTS |
| 7 | 66/11kV | Addition of 31.5 MVA Power Transformer at 66/11 KV Vivek Vihar Grid Sub-station | 32 | Yet to be Submitted | YTS |
| 8 | 66/33kV | Addition of one no 66/33kV, 50 MVA Power Transformer with associated equimpents at Shastri park (East) Grid Sub-station. | 50 | Approved | YTS |
| 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 | Yet to be Submitted |  |
| 12 | 33/11kV | Augmentation of Power Transformer No.2 from 16 MVA to 25 MVA at 33/11 KV CBD-1 grid substation | 9 | Yet to be Submitted |  |
| 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 |  |
| 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 |  |
| 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 |  |
| 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 |  |

**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 | WIP |
| 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 | Yet to be Submitted |  |
| 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 |  |
| 4 | 33kV | LILO of 33 KV cable betwwn Motia Khan to Faiz Road at newly proposed DB Gupta Road Grid near Naaz Cinema | Approved |  |
| 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 |  |
| 5 | 66kV | Laying of New feeder from 220 KV Wazirabad(single circuit) to 66 KV Bhagirathi Grid | Yet to be Submitted |  |
| 6 | 33kV | Laying of new feeder from Rajghat Power House grid to 33 KV I G Stadium. | Yet to be Submitted |  |
| 7 | 66kV | LILO 66kV Cable of Wazirabad- Ghonda circuit at Sonia Vihar | Yet to be Submitted |  |
| 8 | 33kV | Laying of 33kV New feeder From RPH to 33/11kV Delhi Gate Grid Sub-Station | Yet to be Submitted |  |
| 9 | 33kV | Providing Additional 33 KV feed 220kV Subji Mandi Grid to 33/11kV B.G Road Grid Sub-Station. | Yet to be Submitted |  |
| 10 | 33kV | Laying of additional 33kV Feeder from 220kV Naraina Grid to DMS Grid Substation | Yet to be Submitted |  |
| 11 | 33kV | Providing Additional 33 KV feed 220kV Narayana Grid to 33/11kV Prasad Grid Sub-Station. | Yet to be Submitted |  |
| 12 | 66kV | Providing additional 66 KV feed doble circuit from 220kV Park Street Grid to 66/11kV Shastri Park Grid Sub-Station. | Yet to be Submitted |  |
| 13 | 33kV | Providing Interconnector between Dwarkapuri to Kanti Nagar Grid. | Yet to be Submitted |  |

**Augmentation of feeders (2015-16)**

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| --- | --- | --- | --- | --- |
| **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 Submitted |  |
| 2 | Replacement of Cable Schemes | Conversion of Ridge valley -Shanker Road Grid O/H Circuit no -2 Line into Under Ground. | Yet to Submitted |  |
| 3 | Replacement of Feeder Schemes | Re conductring with AAAC conductor Patparganj Grid Sub-Station to Khichripur Grid Sub-Station | Under Approval |  |

**Augmentation of switch gears / capacitors (2015-16)**

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| --- | --- | --- | --- | --- |
| **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 maszid Grid, Prasad Nagar Grid, DMS Grid | Under Approval |  |
| 2 | LTAC DB Schemes | Provision of yard lighting, LT AC distribution board and replacement of outdoor terminal kiosk at Ghonda Grid. | Under Approval |  |

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| **S. No.** | **Category** | **Scheme Description** | **DERC approval Status** | **Present Status** |
| 3 | Bays Schemes | Provision of double bus bar system at 33 kV Guru Angad Nagar Grid. | Under Approval |  |
| 4 | Bays Schemes | Conversion Single Bus Bar to double bus bar system at 66 kV Dilshad Garden Grid Sub-Station. | Under Approval |  |
| 5 | Bays Schemes | Provision of double bus bar system at 33 kV Seelampur Grid Sub-Station | Under Approval |  |
| 6 | CTs Schemes | Replacement of 81 nos of 33KV Current Transformers & 36 no of 66 KV Current Transformers at Various Grid in BYPL. | Under Approval |  |
| 7 | PTs Schemes | Replacement of 36 no of Potential Transformers at various Grid in BYPL | Under Approval |  |
| 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) | Under Approval |  |
| 9 | RTCC Schemes | Installation of Digital RTCC Panels in BYPL Grid Sub-Station. | Under Approval |  |
| 10 | Fire Alarm Schemes | Installation of Fire Alarm System in BYPL Grid Sub-Station. | Under Approval |  |
| 11 | C&R Panel Schemes | Replacement of Old Control and Relay Panel at various Grids in BYPL | Under Approval |  |
| 12 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Town Hall Grid. | Under Approval |  |
| 13 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Shankar Road Grid. | Under Approval |  |
| 14 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Dwarkapuri Grid. | Under Approval |  |
| 15 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 66KV Mayur Vihar-2 Grid. | Under Approval |  |
| 16 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33KV Preet Vihar Grid. | Under Approval |  |
| 17 | Isolator Schemes | Replacement of 57 nos of Isolator's at various 33KV grid in BYPL | Under Approval |  |
| 18 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV DMS Grid. | Under Approval |  |
| 19 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Anand Parvat Grid. | Under Approval |  |
| 20 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Jama Masjid Grid. | Under Approval |  |
| 21 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV Minto Road Grid. | Under Approval |  |
| 22 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV B.G. Road Grid. | Under Approval |  |
| 23 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at 33 KV G.B Pant Grid. | Under Approval |  |
| 24 | Capacitor bank Schemes | Installation of 11KV, 5.4 MVAR Capacitor Bank at Shastri Park(Central Circle) Grid. | Under Approval |  |

2016-17

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| **S. No.** | **Voltage Level** | **Description** | **Capacity Addition (MVA)** | **DERC approval Status** | **Present Status** |
| 1 | 33/11kV | Establishment of 33/11 KV Indoor Grid Substation with 33/11KV, 3X25MVA, Power Transformer at Deepak Memorial Hospital. | 50 | Approved | Yet to Start |
| 2 | 33/11kV | Establishment of 33/11 KV Indoor Grid Sub-Station with 2X25MVA,33/11KV Power Transformer at Tibia College. | 50 | Approved | Yet to Start |
| 3 | 66/11kV | Addition of 31.5 MVA Power Transformer at 66/11 KV Sonia Vihar Grid Substation | 32 | Yet to be Submitted |  |
| 4 | 33/11kV | Addition of 25 MVA Power Transformer at 33/11 KV DSIDC Jhilmil Grid Substation | 25 | Yet to be Submitted |  |
| 5 | 33/11kV | Addition of 25 MVA Power Transformer at 33/11 KV Lahori Gate Grid Substation | 25 | Yet to be Submitted |  |
| 6 | 33/11kV | Addition of 16 MVA Power Transformer at 33/11 KV Fountain Grid Substation alonwith conversion of 33 KV yard into GIS | 16 | Yet to be Submitted |  |
| 7 | 33/11kV | Augmentation of power transformer from 16 MVA to 25 MVA at 33/11 KV Jama Masjid Grid Substation | 9 | Yet to be Submitted |  |
| 8 | 33/11kV | Augmentation of power transformer from 16 MVA to 25 MVA at 33/11 KV Kailash Nagar Grid Substation | 9 | Yet to be Submitted |  |

**Augmentation / Additional feeders (2016-17)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Voltage Level** | **Scheme Description** | **DERC approval Status** | **Work Status** |
| 1 | 33kV | Laying of two new feeders from 220 KV Preet Vihar Grid to 33 KV Deepak Memorial Grid. | Yet to be Submitted |  |
| 2 | 33kV | Laying of two new 33 KV feeders from 220 KV Park Street to new proposed Grid at Tibea college al Grid. | Approved |  |
| 3 | 33kV | Conversion of O/H portion into U/G 33 KV RPH Bay to G.B.Pant bay no 13. | Under Approval |  |
| 4 | 66kV | Converssion of 66 KV 1CX500 Sq mm XLPE Cable into 1CX1000Sq mm cable of PPG Industrial Area - Khichripur Grid Circuit No.1 & 2 near Petrol pump gantry structure at NH-24 to Khichripur Grid. | Under Approval |  |
| 5 | 33kV | Laying of new feeder from Shastri Park East Grid/Seelampur 220 KV Grid to 33 KV Dwarkapuri Grid. | Yet to be Submitted |  |
| 6 | 33kV | Providing Additional 33 KV feed 220kV RPH Grid to 33/11kV G.B Pant Grid Sub-Station. | Yet to be Submitted |  |
| 7 | 33kV | Laying of 33kV New Feeder from Shastri Park Central Grid to 33/11kV Prasad Nagar Grid Substation | Yet to be Submitted |  |
| 8 | 33kV | Laying of new feeder from 220 KV Preet Vihar Grid to 33 KV Preet Vihar Grid. | Yet to be Submitted |  |
| 9 | 33kV | Laying of new feeder from 220 KV Preet Vihar Grid to 33 KV CBD-II Grid. | Yet to be Submitted |  |
| 10 | 33kV | Laying of new feeder from 220 KV Preet Vihar Grid to 33 KV CBD-I Grid. | Yet to be Submitted |  |
| 11 | 33kV | Laying of new feeder from 220 KV Preet Vihar Grid to 33 KV Guru Angad Nagar Grid. | Yet to be Submitted |  |
| 12 | 33kV | Laying of new feeder from 220 KV Preet Vihar Grid to 33 KV Shakarpur Grid. | Yet to be Submitted |  |
| 13 | 66kV | Laying of new feeder from 220 KV Ghajipur Grid to 66 KV New Kondli Grid. | Yet to be Submitted |  |
| 14 | 66kV | Laying of new feeder from 220 KV Ghajipur Grid to 66 KV Dallupura Grid. | Yet to be Submitted |  |

BRPL

2014-15

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| --- | --- | --- | --- | --- |
| **S. No.** | **Type of Scheme** | **Description** | **DERC approval Status** | **Present Status** |
| 1 | New Grid With Infeed | DJB Najafgarh | Approved |  |
| 2 | New Grid With Infeed | G-4 Dwarka | Approved |  |
| 3 | Additional Power Transformer | Addition of 66/11 kV, 25 MVA PTR at Okhla Ph- 1 | Approved |  |
| 4 | Additional Power Transformer | Addition of 66/11 kV , 16 MVA PTR at Shivalik | Approved |  |
| 5 | Additional Power Transformer | Addition of 66/11 kV, 25 MVA PTR at Sarita Vihar | Approved |  |
| 6 | Additional Power Transformer | Addition of 66/11 kV, 25 MVA PTR at Bijwasan | Approved |  |
| 7 | Additional Power Transformer | Addition of 66/11 kV, 20 MVA PTR at at G-2 Pappankalan | Approved |  |
| 8 | Additional Power Transformer | Addition of 66/11 kV, 25 MVA PTR at VSNL | Approved |  |
| 9 | Additional Power Transformer | Addition of 66/11 kV, 25 MVA PTR at Bodella – 1 | Approved |  |
| 10 | Additional Power Transformer | Addition of 66/33 kV, 24/30 MVA PTR at Nangloi | Not Approved |  |
| 11 | Additional Power Transformer | Addition of 66/11 kV, 25 MVA PTR at G-6 Dwarka | To be Submitted |  |
| 12 | Augmentation of Power Transformer | Augmentation of 66/11 kV, 2 X 16 MVA PTRs to 2x25 MVA PTRs at Tughlakabad | Approved |  |
| 13 | Augmentation of Power Transformer | Augmentation of 66/11 kV, 1 X 16 MVA PTR to 1x25 MVA PTR at Okhla Ph- II | Approved |  |
| 14 | Augmentation of Power Transformer | Augmentation of 66/11 kV, 1 X 16 MVA PTR to 1x25 MVA PTR at Lajpat Nagar | Approved |  |
| 15 | Augmentation of Power Transformer | Augmentation of 66/11 kV, 1 X 16 MVA PTR to 1x25 MVA PTR at Defence Colony | Approved |  |
| 16 | Augmentation of Power Transformer | Augmentation of 66/11 kV, 1 X 16 MVA PTR to 1x25 MVA PTR at Nizamuddin | Approved |  |
| 17 | New Feeder | 33 kV line from JNU to Vasant Vihar | Approved |  |
| 18 | New Feeder | 33 kV line from AIIMS Trauma Center to Bhikaji Cama Place | Approved |  |
| 19 | New Feeder | LILO of 33 kV **Paschimpuri- Vishal** circuit at 33 kV bus of 220 kV Peeragarhi | Approved |  |
| 20 | New Feeder | LILO of 33 kV **Paschimpuri- Madipur** circuit at 33 kV bus of 220 kV Peeragarhi | Approved |  |
| 21 | New Feeder | LILO of 33 kV **Udyog Nagar - A-4 Paschim Vihar** circuit at 33 kV bus of 220 kV Peeragarhi | Approved |  |

2015-16

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Type of Scheme** | **Description** | **DERC Approval Status** |
| 1 | New Grid With Infeed | 66/11 kV Grid Substation at **Mundka** | Approved |
| 2 | New Grid With Infeed | 66/11 kV Grid Substation at **G-7 Dwarka** | Approved |
| 3 | New Grid With Infeed | 66/11 kV Grid Substation at **Vasant Kunj Institutional Area** | Approved |
| 4 | New Grid With Infeed | 66/11 kV Grid Substation at **West of JNU** | Approved |
| 5 | New Grid With Infeed | 66/11 kV Grid Substation at **Meethapur** | Approved |
| 6 | New Grid With Infeed | 33/11 kV Grid Substation at **A-43 Mayapuri** + Infeed from 220 kV Naraina | Approved |
| 7 | New Grid With Infeed | 66/11 kV Grid Substation at **Fatehpur Beri** | To be Approved |
| 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 |
| 9 | New Feeder | Laying of 33 kV double circuit comprising 2x3Cx400 sq.mm XLPE Cables from **Paschim Vihar/Chaukhandi to DC Janakpur**i | To be Approved |
| 10 | Additional Transformer | Additional Power Transformer at **Kilokari** | To be submitted |
| 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 |
| 12 | Additional Transformer | Additional Power Transformer at **A-4 Paschim Vihar** | To be submitted |

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|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Type of Scheme** | **Description** | **DERC approval Status** |
| 1 | New Grid With Infeed | 33/11 kV Grid Substation at **Okhla Phase 3** | Approved |
| 2 | New Grid With Infeed | 66/11 kV Grid Substation at **Jasola Media Centre** | Approved |
| 3 | New Grid With Infeed | 33/11 kV Grid Substation at **Court Complex Saket** | Approved |
| 4 | Additional Power Transformer | Additional Power Transformer at **Malviya Nagar** | Approved |
| 5 | Additional Power Transformer | Additional Power Transformer at **Andheria Bagh** | Approved |
| 6 | Additional Power Transformer | Additional Power Transformer at **C-DOT** | Yet to Submit |
| 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. 33Kv 3X400Sq.mm.(Existing) Railway Work shop to Exhibition-I S/Stn | Approved |

**3.3** **CAPACITOR INSTALLATION PLAN**

The present capacitor position in Delhi is as under :-

|  |  |  |  |
| --- | --- | --- | --- |
| **Utility** | **Installed capacity in MVAR (HT)** | **Installed in capacity in MVAR (LT)** | **Total** |
| BYPL | 863.8 | 102 | 966 |
| TPDDL | 657.4 | 119 | 776 |
| NDMC | 209.8 | 24 | 234 |
| DTL | 753.5 | 0 | 754 |
| BRPL | 1220.6 | 242 | 1462 |
| RPH | 20 | 0 | 20 |
| MES | 20.1 | 0 | 20.1 |
| Total | 3745.2 | 487 | 4232. |
| Requirement as per NRPC Study | 4594 as on 31.03.2013 |  |  |

In the last meeting, the utilities informed that they have planned the installation of additional capacitors as under:-

|  |  |  |  |
| --- | --- | --- | --- |
| Utility | Planning for installation of additional capacity in MVAR (HT level) | Installed so far in MVAR | Remarks |
| 2013-14 |
| TPDDL | 72.2 | 36 | 1. 4.8MVAR installed at Bawana -7 but not yet energized  2. 9.6MVAR to be installed at Rani Bagh C.C. in FY 13-14 with new grid.  3. 4.8MVAR installed with new transformer at Rohini -23 but not yet energized  4. .4.8MVAR to be installed at Shalimarbagh FC in FY 13-14 with new transformer which is yet to be commission. |

|  |  |  |  |
| --- | --- | --- | --- |
| Utility | Planning for installation of additional capacity in MVAR (HT level) | Installed so far in MVAR | Remarks |
| 2013-14 |
|  |  |  | 5. 10.08MVAR installed at RG-28 S/Stn but not yet energized.  6. 4.8MVAR installed at A-21 but not yet energized  7. 10.8MVAR to be installed at Bawana –I 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 |
| 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 |
| NDMC | 126 | 45.36 | 15.12MVAR capacitor energized at Netaji Nagar S/Stn during July 2013.  10.08 MVAR each installed at Trauma Centre and Raja Bazar sub- station will be energized shortly. Further progress is as under:   |  |  |  |  | | --- | --- | --- | --- | | **Name of Stn.** | **Capacity in MVAR** | **Present status** | **Remarks** | | B.D.Marg | 5.40 | Work awarded and in progress | Work likely to be completed by May 2014 | | Bapu Dham | 5.40 | | Sajahan Road | 10.8 | | Mandi House | 10.8 | | State Guest House | 5.40 | | Hnauman Road | 5.40 | | National Archives | 5.40 | | Race Course | 5.40 | | School Lane | 5.40 | | Schindia House | 5.40 | | **Total** | **64MVAR** | |  |   5.04MVAr capacitor is also planned for Ali Ganj, Jorbagh for which building is yet to be constructed. Further 30.24MVAR capacity added at Keventry Diary, Sanjay Camp and Raisina Rd S/stn. 10.08MVAR each during May 2013. |
| 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** |  |

**Utilities may update the position.**

Further, CPRI has already submitted the recommendations wherein requirement of additional capacitors is NIL. However, CPRI has recommended the reorientation and proper maintenance.

It was also decided that NRLDC, NRPC and DTL would go through the report and final action plan would be chalk out after the same.

**GCC may deliberate.**

**3.4 NON AVAILABILITY OF 66KV BAYS AT 220KV KANJHAWALA S/STN**

(Agenda by TPDDL)

A bay was allotted for 66kV Ghevra circuit-2 . Circuit is completed at TPDDL end and circuit is back charged to DTL end but the bay work is not completed a DTL end.

**DTL may update the status.**

**3.5 NO ALTERNATE SOURCE AT 220KV SUBZI MANDI**

(Agenda by TPDDL)

In the present situation, 220kV Subzi Mandi is fed through two radial feeders namely 220kV Gopalpur - Subzi Mandi double ckt line. There is not alternate source for 220kV Subzi Mandi. Total 31 instances of supply fail reported at 220kV Subzi Mandi due to various reasons and on an average 15 minutes time has been taken to restore load. Sometime, it goes beyond 30 minutes also.

It may be noted from the System Improvement Plan of DTL for 2016-17, the second feed of Subzi Mandi is envisaged from the upcoming 400kV Karampura S/Stn being executed as ISTS. The outgoing feeder from Karampura is also to be established by PGCIL.

**GCC may further deliberate.**

**3.6 OVER-LOADING OF 220KV MANDOLA – GOPALPUR CIRCUITS.**

(Agenda by TPDDL)

There was continuous over-loading at 220kV Gopalpur – Mandola circuits during peak summer time. Due to which TPDDL had to carry out unnecessary load shedding to avoid situation of load shedding. It may also address by providing alternate source at Subzi Mandi and take load of Subzi Mandi on it.

As mentioned in sr. No. 3.4 above. Further, the establishment of 220kV Sanjay Gandhi Tr. Nagar S/Stn is also envisaged in the fast track project to be established as TBCB in the year 2015-16.

**GCC may further deliberate.**

**3.7 DISPENSING OF BTPS AND GT GENERATION**

(Agenda by TPDDL)

On account of transmission constraints, BTPS and GT both come under must run plant status. DTL should provide the target date for overcoming transmission constraints because of which both the plants come under must run status. The present cost of BTPS is Rs.5.20/Unit whereas that of Gas Turbine units is Rs. 5.60/Unit.

After going through the implementation of the proposed System Improvement Plans, it may be seen that the 400kV Tuglakabad S/Stn is envisaged under ISTS

and expected to be commissioned by 2016-17, the S/Stn and the evacuation system from the 400kV Tuglakabad S/Stn would definitely ease the transmission constraints around BTPS area for which the generation of BTPS is required to be maintained during peak summer season.

As far as GT Station is concerned, this generation could be dispensed after commissioning of 400kV Rajghat S/Stn which is also being established as ISTS. After the evacuation project of Rajghat and Harsh Vihar, the generation from GT can be dispensed with.

However, the dispensing of all such generation at load centre needs to be looked into in respect of reliability of supply.

**GCC may further deliberate.**

**3.8 ASSESSMENT OF ACTUAL ENERGY AND DEMAND SHORTAGE BY SLDCs**

A meeting was held on NRPC on 16/18.09.2014 at NRPC on the issue of demand and shortage assessment by SLDCs. IEGC section 5.3, 5.4 and 6.4.5 mandates the states for estimating their demand in 15 minutes time block for balancing load and generation during real time Grid conditions. It was also decided to forward the Formats-1 to NRLDC by 19.00hrs. for the next day and Format-2 on next day by 04.00AM for the previous day. The details of Format-1 are as under:-

Format-1 – To be submitted to NRLDC by 19.00hrs. to NRLDC

Day Ahead forecast by state in respect of Demand/ Availability and Shortages

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Details for State | | DELHI | | | | | | |
| For Date | | (+) sign indicates Import / Procurement / Shortage  (-)Sign indicates exports / Sale / Surplus | | | | | | |
| Time | | Forecasted unrestricted demand (A) |  | | | | | Gap between Demand and Availability  (G)=(A)-(F) |
| From its own sources (excluding renewable )  (B) | From Renewable sources (C) | From ISGS & other LTA & MTOA (D) | From Bilateral transactions (advanced + FCFS) (E) | Total availability (F)=(B+C+D+E) |
| Block | Period | (MW) | (MW) | (MW) | (MW) | (MW) | (MW) | (MW) |
| 1 | 0000-0015 |  |  |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | | Gap between Demand and Availability  (G)=(A)-(F) |  | | Shortages  (J)=(G)-(H+I) | Planned restrictions / Rostering / Power Cuts (K) | Additional load shedding proposed (L)=(J)K) |
| Bilateral Transaction (Day Ahead + Contingency )  (H) | Through Power Exchange  (I) |
| Block | Period | (MW) | (MW) | (MW) | (MW) | (MW) | (MW) |
| 1 | 00.00-00.15 |  |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |  |

Note :

1) In case the procurement under day ahead, bilateral / PX is lesser than proposed then the quantum under restriction / load shedding shall accordingly be revised.

2) All values are instantaneous.

3) Banking of power shall be included in the Bilateral column (E)

**Format-2**

**To be submitted by 04.00AM for previous day**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Details for State** | | **Delhi** | | | | | |
| **For Date** | |  | | | | | |
| **Time** | | **From its own sources (excluding renewable) (A)** | | **From renewable sources (B)** | | **From ISGS & other LTA & MTOA (C)** | |
| **Block** | **Period** | **(MW)** | | **(MW)** | | **(MW)** | |
| **Forecast** | **Actual** | **Forecast** | **Actual** | **Forecast** | **Actual** |
| 1 | 00.00-00.15 |  |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Details for State** | | **Delhi** | | | | | |
| **For Date** | |  | | | | | |
| **Time** | | **From its own sources (excluding renewable) (A)** | | **From renewable sources (B)** | | **From ISGS & other LTA & MTOA (C)** | |
| **Block** | **Period** | **(MW)** | | **(MW)** | | **(MW)** | |
| **Forecast** | **Actual** | **Forecast** | **Actual** | **Forecast** | **Actual** |
| 1 | 00.00-00.15 |  |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |  |

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| **Details for State** | | **Delhi** | | | | | |
| **For Date** | |  | | | | | |
| **Time** | | **From bilateral transaction (Advanced + FCFS)**  **(D)** | | **Total Availability**  **(E)=(A+B9C+D)** | | **Bilateral transaction (Day ahead + contingency)**  **F** | |
| **Block** | **Period** | **(MW)** | | **(MW)** | | **(MW)** | |
| **Forecast** | **Actual** | **Forecast** | **Actual** | **Forecast** | **Actual** |
| 1 | 00.00-00.15 |  |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |  |

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| **Details for State** | | **Delhi** | | | | |
| **For Date** | |  | | | |  |
| **Time** | | **Through Power Exchange (G)** | | **Demand met**  **(H)=(E)+(F)+(G)** | **Load relief through planned restrictions / rostering / Power Cuts imposed (I)** | **Load shedding due to transmission constraints (J)** |
| **Block** | **Period** | **(MW)** | | **(MW)** | **(MW)** | **(MW)** |
| **Forecast** | **Actual** | **Actual** | **Actual** | **Actual** |
| 1 | 00.00-0015 |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- |
| **Details for State** | | **Delhi** | | | | |
| **For Date** | |  | | | | |
| **Time** | | **Additional load shedding**  **(K)** | | **Total shortage**  **((L)=(I)+(J)+(K)** | **Unrestricted demand (M\_ + (H)+(L)** | |
| **Block** | **Period** | **(MW)** | | **(MW)** | **(MW)** | |
| **Forecast** | **Actual** | **Actual** | **Forecast** | **Actual** |
| 1 | 00.00-00.15 |  |  |  |  |  |
| 2 | 0015-0030 |  |  |  |  |  |
| 3 | 0030-0045 |  |  |  |  |  |
| 4 | 0045-0100 |  |  |  |  |  |
| 5 | 0100-0115 |  |  |  |  |  |
| 6 | 0115-0130 |  |  |  |  |  |
| 7 | 0130-0145 |  |  |  |  |  |
| 94 | 2315-2330 |  |  |  |  |  |
| 95 | 2330-2345 |  |  |  |  |  |
| 96 | 2345-2400 |  |  |  |  |  |
| Maximum (MW) | |  |  |  |  |  |
| Minimum (MW) | |  |  |  |  |  |
| Average (MW) | |  |  |  |  |  |
| Total energy in MUs | |  |  |  |  |  |

**Note : All values are instantaneous**

Though the responsibility of giving the above data is SLDC, the Distribution Companies need to give the above information of their area so that SLDC can aggregate the same and forward to NRLDC.

SLDC vide its letter dated 24.09.2014 requested all discoms to provide the information but sofar the data is not forthcoming.

**GCC may impress upon utilities to provide the information to SLDC to adhere to the decisions taken in NRPC meeting.**

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

The reinforcement of Rohtak Road S/Stn issue was discussed in the office of Member (GO&D), CEA on 21.02.2014. The decisions were as under:-

DTL should carry out the re-conductoring work of existing 220kV Narela –Rohtak Road D/ C line to enhance the capacity as these lines are of goat conductors and load is restricted to 400Amps (220kV sides) against the normal capacity of 220kV lines zebra conductors (600Amps) as a deposit work. It was also decided to i) independent joint inspection by DTL and BBMB to identify and if needed, test apparently weak towers could be done at the earliest and if required, those could be changed ii) The work of re-conductoring of line will be taken up by DLT as deposit work of BBMB iii) all the expenses in connection with re-conductoring of line including replacement of worn tower members will be borne by BBMB who will also arrange all kinds of clearances including those from Railways.

However, during the shut-down of both 220kV Narela – Rohtak Road Ckt, the supply may be affected. To avoid the loss of supply, the various suggestions have been putforth in the meeting as under:-

i)LILO of one circuit of 220kV Peera Garhi – Wazipur line at Rohtak Road (ii) LILO of both the circuits of 220kV Peera Garhi – Wazirpur circuits at Rohtak Road (iii) Establishment of a 400kV GIS S/Stn at Rohtak Road and to provide 400kV in-feed by using the existing corridor and upgradation of existing 220kV Narela – Rohtak Road transmission line (vi) conversion of existing 33kV AIS to 33kV GIS at Rohtak Road S/Stn of TPDDL and subsequently establishment of 220kV GIS S/Stn on the space vacated by means of LILO of 220kV Peera Garhi – Wazipur cables.

In the meeting, NRPC opined that the re-conductoring of line and construction of GIS S/Stn are separate issues. The issue of construction of GIS S/Stn can be taken as system strengthening work after the approval of Standing Committee on Power System Planning of CEA.

In line with the decision of CEA, physical inspection of all towers of 220kV Narela – Rohtak Road D/C line has been carried out by team of BBMB & DTL Engineers. The inspecting team has observed that the towers of line are fit for carrying out re-conductoring work for got conductors insulators and fittings.

On 27.08.2014, an another meeting was held on CEA, it was decided that LILO of single circuit of Wazipur – Peera Garhi Ckt would be Loop in Loop out at Rohtak Road to avoid loss of supply during the augmentation of 220kV Narela – Rohtak Road D/C line. It was also decided that the existing got conductors of 220kV Narela – Rohtak Road D/C line to HTLS conductors.

**Planning Department of DTL and BBMB may update the status.**

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

It is understood that DMRC requires lot of shut-downs due to infringing of electrical lines in their routes. IEGC Clause stipulates planning of shut-downs should be done on yearly basis.

**5.7 Outage Planning**

**5.7.1 Introduction**

c) Annual outage plan shall be prepared in advance for the financial year by the RPC Secretariat in consultation with NLDC and RLDC and reviewed during the year on quarterly and Monthly basis. All, Users, CTU, STU etc shall follow these annual outage plans. If any deviation is required the same shall be with prior permission of concerned RPC and RLDC. The outage planning of run-of-the-river hydro plant, wind and solar power plant and its associated evacuation network shall be planned to extract maximum power from these renewable sources of energy. Outage of wind generator should be planned during lean wind season, outage of solar, if required during the rainy season and outage of run-of-the river hydro power plant in the lean water season.

NRPC has further decided that all shut-downs involving inter states system should be forward to them to consider in NRPC OCC meeting by 5th of every month for the shut-downs to be matured for subsequent months. Further, it should be confirmed before 7 days to NRLDC to get the final clearance from NRLDC.

DMRC is requested to provide the detailed plans of outage from 400kV level to 11kV level so that the same can be taken up with all the concerned agencies for getting approval.

While formulating the shut-down plans, it may be noted that no major shut-down can be possible during the period 1st May to 30th September (summer season) and 15th December 31st January (winter peak demand)

**DMRC to respond.**

**3.11 STABILITY OF IP STATION.**

Due to security reasons, the supply of IP Stations gets affected offently due to act of miscreants such as theft of control cables, capacitor banks cells etc. The details of supply interruptions for the period April 2014 to October 2014 (upto 05.10.2014) are as under:-

**DETAILS OF OUTAGES OF 220kV SYSTEM DUE TO CONTROL CABLE PROBLEMS AT I.P.STN. DURING THE PERIOD 01.04.2014 TO 05.10.2014**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 1 | 220kV PRAGATI - I.P.CKT - I | 15-04-14 | 18:41 | 16-04-14 | 01:00 | AT I.P. CKT. TRIPPED ON DIST. PROT. , 86, ABC AT PRAGATI NO TRIPPING |
| 2 | 220kV PRAGATI - I.P.CKT - II | 07-05-14 | 06:48 | 07-05-14 | 14:50 | SHUTDOWN OF CKT. AS HEAVY NOISE IS COMING FROM ALL PHASE CT |
| 3 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 21-05-14 | 18:01 | 21-05-14 | 18:45 | SHUTDOWN OF 33KV I/C-II FOR CONTROL CABLE WORK BY PROT. DEPTT. |
| 4 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 21-05-14 | 18:06 | 21-05-14 | 18:48 | SHUTDOWN OF 33KV I/C -I FOR CONTROL CABLE WORK BY PROT. DEPTT. |
| 5 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 22-05-14 | 15:05 | 22-05-14 | 17:50 | SHUTDOWN OF TR. TO CHECK CT CABLE |
| 6 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 26-05-14 | 19:40 | 30-05-14 | 21:45 | DC SUPPLY PROBLEM, PROTECTION PROBLEM |
| 7 | 220 KV PATPARGANJ - I.P. CKT-I | 27-05-14 | 15:17 | 27-05-14 | 17:11 | AT I.P. : CKT .TRIPPED ON 86, 186, DIST PROT, ZONE-I, ABC AT PATPARGANJ : NO TRIPPING |
| 8 | 220 KV PATPARGANJ - I.P. CKT-I | 02-06-14 | 09:10 | 02-06-14 | 09:19 | AT PPG CKT TRIPPED ON E/F. NO TRIPPING AT IP. |
| 9 | 220 KV I.P.- RPH CKT-I | 04-06-14 | 12:55 | 04-06-14 | 19:00 | S/D AT RPH TO ATTEND CONTROL CABLE. |
| 10 | 220kV PRAGATI - I.P.CKT - II | 14-06-14 | 11:40 | 14-06-14 | 18:10 | SHUTDOWN OF CKT TO ATTEND HOT POINT ON R&Y PHASE, CT CLAMP, & TO CONTROL CABLE IN CONTROL PANEL |
| 11 | 220 KV PATPARGANJ - I.P. CKT-I | 17-06-14 | 01:35 | 17-06-14 | 14:00 | AT PATPARGANJ CKT. TRIPPED ON DIST PROT. AT I.P. CKT. TRIPPED ON 186, 186X, DIST PROT, ZONE-1, RYB PHASE |
| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 12 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 07-07-14 | 07:55 | 07-07-14 | 09:15 | TRIPPED ON O/C, E/F, THEFT OF CONTROL CABLE |
| 13 | 220kV PRAGATI - I.P.CKT - II | 11-07-14 | 06:45 | 11-07-14 | 12:15 | AT I.P. CKT TRIPPED WITHOUT INDICATION AT PRAGATI NO TRIPPING |
| 14 | 220 KV I.P.- RPH CKT-II | 25-07-14 | 14:05 | 25-07-14 | 21:08 | SHUTDOWN OF CKT. FOR CONNECTING CONTROL CABLE |
| 15 | 220 KV I.P.- RPH CKT-II | 26-07-14 | 13:00 | 26-07-14 | 15:35 | SHUTDOWN OF CKT TO CHECK CONTROL CABLE |
| 16 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 02-08-14 | 07:40 | 04-08-14 | 17:40 | MADE OFF TO CHECK CONTROL CABLE |
| 17 | 220kV PRAGATI - I.P.CKT - I | 04-08-14 | 18:20 | 05-08-14 | 11:50 | SHUTDOWN DUE TO NOISE REPORTED OF CKT. CONTROL CABLE FAULTY |
| 18 | 220kV PRAGATI - I.P.CKT - I | 04-08-14 | 18:23 | 04-08-14 | 19:35 | SHUTDOWN OF CKT TO ATTEND CT NOISE AT I.P.STN. |
| 19 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 12-08-14 | 04:05 | 12-08-14 | 04:10 | TR. TRIPPED WITHOUT INDICATION |
| 20 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 17-08-14 | 05:30 | 17-08-14 | 11:45 | TR. TRIPPED WITHOUT INDICATION |
| 21 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 19-08-14 | 16:40 | 19-08-14 | 17:15 | TR. TRIPPED ON INSTANTANEOUS E/F, 86, 33KV I/C TRIPPED WITHOUT INDICATION |
| 22 | 220 KV PATPARGANJ - I.P. CKT-I | 21-08-14 | 06:10 | 21-08-14 | 07:50 | EMERGENCY SHUTDOWN OF CKT. FOR ATTENDING HOT POINT ON TOP JUMPER OF Y PHASE DROPPER |
| 23 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 23-08-14 | 10:15 | 23-08-14 | 12:52 | SHUTDOWN OF TR. TO CONNECT CONTROL CABLE |
| 24 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 27-08-14 | 03:50 | 27-08-14 | 07:50 | TR. TRIPPED ON REF, LV, HV SIDE REF |
| 25 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 27-08-14 | 03:50 | 27-08-14 | 04:10 | 33KV I/C-II TRIPPED WITHOUT INDICATION (LOAD OF BAY NO. 2, 4, 6, 10, 12, 24, 30, 34, 36, 38 &42 ) WAS AFFECTED. |

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| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 26 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 29-08-14 | 19:20 | 29-08-14 | 19:37 | 33KV I/C-II TRIPPED WITHOUT INDICATION |
| 27 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 29-08-14 | 19:20 | 29-08-14 | 19:47 | TR. TRIPPED ON HV, LV, REF , 86 |
| 28 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 30-08-14 | 12:00 | 05-09-14 | 18:05 | SHUTDOWN OF TR. WITH I/C-I FOR ATTENDING ITS CONTROL CABLE PANEL |
| 29 | 220 KV PATPARGANJ - I.P. CKT-I | 30-08-14 | 12:10 | 30-08-14 | 18:15 | EMERGENCY SHUTDOWN OF CKT. FOR ATTENDING ITS CONTROL CABLE PROBLEM |
| 30 | 220 KV PATPARGANJ - I.P. CKT-II | 30-08-14 | 19:10 | 01-09-14 | 19:15 | SHUTDOWN OF CKT. FOR LAYING PROTECTION CABLE |
| 31 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 01-09-14 | 12:42 | 01-09-14 | 12:50 | 33KV I/C-II TRIPPED ON R PHASE, O/C |
| 32 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 06-09-14 | 12:30 | 06-09-14 | 15:40 | TR. TRIPPED ON 86 REF ON HV SIDE |
| 33 | 220 KV I.P.- RPH CKT-I | 14-09-14 | 06:05 | 27-09-14 | 19:15 | AT I.P. CKT. TRIPPED ON VT SUPPLY FAIL AT RPH NO TRIPPING |
| 34 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 15-09-14 | 09:45 | 16-09-14 | 12:25 | TR. TRIPPED ON 51B, O/C |
| 35 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 15-09-14 | 11:10 | 15-09-14 | 11:38 | TR. TRIPPED ON E/F, LOAD OF BAY NO. 13, 29, 19 & 17 AFFECTED |
| 36 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 17-09-14 | 07:50 | 17-09-14 | 08:10 | TR. TRIPPED WITHOUT INDICATION |
| 37 | 220 KV PATPARGANJ - I.P. CKT-II | 17-09-14 | 08:23 | 17-09-14 | 18:02 | CKT. MADE OFF DUE TO HUMMING NOISE IN ALL PHASE CTs. |
| 38 | 220 KV PATPARGANJ - I.P. CKT-I | 19-09-14 | 06:50 | 19-09-14 | 10:18 | AT I.P. CKT. TRIPPED WITHOUT INDICATION AT PATPARGANJ NO TRIPPING |
| 39 | 220 KV PATPARGANJ - I.P. CKT-I | 22-09-14 | 07:24 | 23-09-14 | 18:07 | AT CKT. TRIPPED AS ROBBERY OF CONTROL CABLE CARRIED OUT AS UNKNOWN PERSONS AS INFORMED BY GRID STAFF. |

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| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 40 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 22-09-14 | 07:24 | 22-09-14 | 15:10 | TR. TRIPPED, ROBBERY BEING CARRIED OUT OF CONTROL CABLES |
| 41 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 22-09-14 | 07:24 | 22-09-14 | 11:35 | TR. TRIPPED, ROBBERY BEING CARRIED OUT OF CONTROL CABLES |
| 42 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 24-09-14 | 06:45 | 24-09-14 | 06:58 | TR. TRIPPED WITHOUT INDICATION |
| 43 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 24-09-14 | 09:08 | 24-09-14 | 12:20 | TR. TRIPPED ON REF |
| 44 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 25-09-14 | 20:35 | 25-09-14 | 20:48 | TR. TRIPPED WITHOUT INDICATION |
| 45 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 25-09-14 | 20:35 | 25-09-14 | 21:15 | TR. TRIPPED ON 86 REF FROM HV SIDE AND I/C ALSO TRIPPED WITHOUT INDICATION |
| 46 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-II | 26-09-14 | 13:55 | 27-09-14 | 11:10 | 33KV I/C-II TRIPPED WITHOUT INDICATION |
| 47 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 26-09-14 | 14:05 | 28-09-14 | 15:05 | TR. TRIPPED ON O/C RELAY |
| 48 | 220 KV PATPARGANJ - I.P. CKT-I | 27-09-14 | 13:15 | 27-09-14 | 18:32 | SHUTDOWN OF CKT. FOR ATTENDING CONTROL CABLE |
| 49 | INDRAPRASTHA POWER 220/33kV 100MVA Tx-I | 28-09-14 | 19:32 | 28-09-14 | 22:22 | TR. TRIPPED ON REF HV SIDE 33KV I/C-I TRIPPED ALONG WITH BAY NO. 13 (NIZAMUDDIN) ON E/F & BAY NO. 19 (G.B.PANT) ON E/F |

DETAILS OF OUTAGES OF 33kV SYSTEM DUE TO CONTROL CABLE PROBLEMS AT I.P.STN. DURING THE PERIOD 01.04.2014 TO 05.10.2014

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| --- | --- | --- | --- | --- | --- | --- |
| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 1 | INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-25) | 19-05-14 | 13:45 | 20-05-14 | 17:38 | SHUTDOWN OF CKT. TO CHECK PROT. CABLE |
| 2 | INDRAPRASTHA POWER 33kV IG STADIUM CKT-I (BAY-29) | 19-05-14 | 14:00 | 23-05-14 | 14:20 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |

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| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 3 | INDRAPRASTHA POWER 33kV DELHI GATE CKT (BAY-17) | 19-05-14 | 18:00 | 21-05-14 | 17:55 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 4 | INDRAPRASTHA POWER 33kV GB PANT CKT (BAY-19) | 19-05-14 | 18:05 | 22-05-14 | 15:30 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 5 | INDRAPRASTHA POWER 33kV EXHIBITION GR-I CKT (BAY-7) | 19-05-14 | 18:55 | 26-05-14 | 14:33 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 6 | INDRAPRASTHA POWER 33kV EXHIBITION GR-2 CKT (BAY-9) | 19-05-14 | 19:00 | 21-05-14 | 14:00 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 7 | INDRAPRASTHA POWER 33kV ELECTRIC LANE CKT (BAY-4) | 19-05-14 | 20:20 | 23-05-14 | 18:35 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 8 | INDRAPRASTHA POWER 33kV TILAK MARG CKT (BAY-6) | 19-05-14 | 20:20 | 26-05-14 | 14:36 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 9 | INDRAPRASTHA POWER 33kV NIRMAN BHAWAN CKT (BAY-16) | 20-05-14 | 13:50 | 23-05-14 | 17:30 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 10 | INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-25) | 20-05-14 | 16:35 | 20-05-14 | 17:38 | SHUTDOWN FOR RECTIFICATON OF CONTROL CABLE |
| 11 | INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-37) | 28-05-14 | 12:10 | 29-05-14 | 07:44 | SHUTDOWN OF CKT. TO CHECK CONTROL CABLE |
| 12 | INDRAPRASTHA POWER 33kV KAMLA MARKET CKT (BAY-30) | 02-06-14 | 17:00 | 02-06-14 | 22:05 | CKT TRIPPED ON O/C, R AND Y-PH. FIRE REPORTED IN CONTROL CABLE TRENCH. |
| 13 | INDRAPRASTHA POWER 33kV NIZAMUDDIN CKT (BAY-13) | 17-07-14 | 17:30 | 18-07-14 | 17:45 | TRIPPED ON E/F (CABLE HEALTHY), CONTROL CABLE PROBLEM DUE TO THEFT AT I.P. |
| 14 | INDRAPRASTHA POWER 33kV TILAK MARG CKT (BAY-6) | 17-07-14 | 22:30 | 19-07-14 | 20:25 | TRIPPED MANUALLY DUE TO THEFT OF CONTROL CABLE |
| 15 | INDRAPRASTHA POWER 33kV EXHIBITION GR-2 CKT (BAY-9) | 18-07-14 | 04:10 | 18-07-14 | 20:05 | MADE OFF AS THE CONTROL CABLE STOLEN BY THIEVES |
| 16 | INDRAPRASTHA POWER 33kV TILAK MARG CKT (BAY-6) | 18-07-14 | 23:15 | 19-07-14 | 20:25 | SHUTDOWN OF BAY FOR CONNECTING CONTROL CABLE |
| 17 | INDRAPRASTHA POWER 33kV IG STADIUM CKT-I (BAY-29) | 22-07-14 | 06:05 | 23-07-14 | 18:00 | SHUTDOWN OF CKT. FOR CONNECTING CONTROL CABLE |

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| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 18 | INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-25) | 22-07-14 | 13:55 | 22-07-14 | 18:40 | SHUTDOWN OF CKT. FOR CONNECTING CONTROL CABLE |
| 19 | INDRAPRASTHA POWER 33kV CONNAUGHT PLACE CKT (BAY-28) | 06-08-14 | 00:55 | 28-08-14 | 11:18 | THE FEEDER TRIPPED ON E/F (CABLE FAULTY) NDMC RECTIFIED THE CABLE AND GAVE CLEARANCE ON 21.08.2014 AT 02.15HRS. BUT COULD NOT BE NORMALIZED DUE TO CONTROL CABLE PROBLEM WHICH WAS RECTIFIED BY I.P.STAFF LATER ON. |
| 20 | INDRAPRASTHA POWER 33kV NIRMAN BHAWAN CKT (BAY-16) | 13-08-14 | 05:30 | 13-08-14 | 07:38 | SHUTDOWN OF BAY TO ATTEND CONTROL CABLE |
| 21 | INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-37) | 23-08-14 | 08:15 | 23-08-14 | 15:50 | SHUTDOWN OF BAY FOR CHECKING CONTROL CABLE |
| 22 | INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-37) | 23-08-14 | 16:50 | 27-08-14 | 12:50 | SHUTDOWN FOR ATTENDING CONTROL CABLE PROBLEM. |
| 23 | INDRAPRASTHA POWER 33kV ELECTRIC LANE CKT (BAY-10) | 22-09-14 | 15:20 | 23-09-14 | 17:15 | SHUTDOWN OF CKT. FOR REPLACING CONTROL CABLE |
| 24 | INDRAPRASTHA POWER 33kV MINTO ROAD CKT (BAY-34) | 04-09-14 | 03:20 | 05-09-14 | 02:15 | TRIPPED OFF MANUALLY AS TR. TRIPPED. |
| 25 | INDRAPRASTHA POWER 33kV NIRMAN BHAWAN CKT (BAY-2) | 04-09-14 | 03:20 | 04-09-14 | 03:58 | BAY TRIPPED ALONGWITH 220/33KV 100MVA PR. TR. -II AND ENERGIZED AFTER REPLACEMENT OF CB MECHANISM MOTOR. |
| 26 | INDRAPRASTHA POWER 33kV MINTO ROAD CKT (BAY-34) | 09-09-14 | 21:20 | 11-09-14 | 17:25 | BAY TRIPPED WITHOUT INDICATION, SHUTDOWN FOR CHECKING CONTROL CABLE |
| 27 | INDRAPRASTHA POWER 33kV ELECTRIC LANE CKT (BAY-10) | 09-09-14 | 21:20 | 20-09-14 | 18:00 | CKT. TRIPPED WITHOUT INDICATION |
| 28 | INDRAPRASTHA POWER 33kV CONNAUGHT PLACE CKT (BAY-28) | 11-09-14 | 16:40 | 18-09-14 | 15:40 | SHUTDOWN TAKEN TO CHANGE CONTROL CABLE |
| 29 | INDRAPRASTHA POWER 33kV ELECTRIC LANE CKT (BAY-10) | 25-09-14 | 07:15 | 25-09-14 | 14:10 | BAY NO 10 TRIPPED WITHOUT INDICATION |

**DETAILS OF OUTAGES OF CAPACITOR BANKS AT I.P.STN. DURING THE PERIOD 01.04.2014 TO 05.10.2014**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sl No** | **NAME OF THE ELEMENT** | **Outage Date** | **Outage Time** | **Revival Date** | **Revival Time** | **Reason/Remarks** |
| 1 | INDRAPRASTHA POWER 33kV 10MVAR CAP. BANK-II | 02-04-14 | 06:00 | Still Out | | CAPACITOR BANK NO. 2 IS IN OUTAGE DUE TO DAMAGE TO BUSHING OF REACTORS / NCT / CELLS BY THE MISCREANTS. |
| 2 | INDRAPRASTHA POWER 33kV 10MVAR CAP. BANK-I | 02-04-14 | 06:00 | Still Out | | CAPACITOR BANK -1 IS IN OUTAGE DUE TO DAMAGE TO BUSHING OF REACTORS / NCT/ CELLS BY MISCREANTS ON 02.04.2014 |
| 3 | INDRAPRASTHA POWER 33kV 10MVAR CAP. BANK-III | 26-04-14 | 06:00 | Still Out | | CAPACITOR BANK NO. 3 IS IN OUTAGE DUE TO NON AVAILABILITY OF NCT, DATE & TIME GIVEN BY I.P.STN. IS 26.04.2014 AT 06.00HRS. |

Due to the unstable operation at IP, the stability of the generation complex namely RPH, GT and Pragati Station also gets affected creating emergency like situation in Delhi Power System.

**DTL may spell out the remedial measures to enhance the stability of IP Stn.**

**3.12 NON USAGE OF BAYS ALLOTTD TO VARIOUS UTILITIES FROM DTL SUB-STATIONS.**

The details of plans to utilize the unutilized bays of recently commissioned sub-stations given by the utilities 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  2 Jor Bagh  (Ali Ganj)  3.IIT  4. Bhikaji cama  **Total = 4 Bays** | NDMC  NDMC  BRPL  BRPL | 19.11.09  17.06.11 | 1. Work is held up due to monsoon. However 50% work has been completed and expected by Dec 14.  2.Cable laying is expected to be completed by June 14. However, S/Stn would be readied by CPWD by Dec. 14.  3 40% Cabling work completed. Expected by Dec. 2014. Due to contract ual issues retendering occurred.  4. 99% Cabling work completed. Expected by Sept 2014 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
| 2 | 220kV Electric Lane | 33kV | 1. Vidyut  Bhawan  2 . Hanuman  Road  3. Janpath Lane  4 Church Road  5 Delhi High Court  **Total = 5 Bays** | | NDMC | 19.11.09 | 1. Expected to be completed by Dec 2014.  2. The work for laying of cable has been awarded. The cable laying work completed. Expected by December 2014.  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 Annexure for which land has been allocated.  4. Bay allocated to DMRC by NDMC for their upcoming project in Ph-3  5. The land allocation fro 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-I  2 Bawana-I  3 Bawana-7  4 Bawana-7  **Total = 4 Bays** | | TPDDL | 19.11.09 | For 1&2 the cable work is under progress. For 3&4 it is a deposit work of DSIIDC. 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 submitted to DERC for approval. Both the circuits would be energized after the establishment of Rohini-30 Grid S/Stn. |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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** |
| 5 | 400kV Mundka | 66kV | 1. 66kV Mundka  Ckt-I  2. 66kV Mundka  Ckt-II  3.66kV Bakar  wala ckt-I  4.66kV Bakar  wala ckt-II  5. 66kV Paschim  Vihar  **Total = 5 Bays** | BRPL | 19.11.09 | 1&2. Work for construction of 66kV Mundka S/Stn. Has been awarded in June 2013 and S/Stn. Is expected by Mar.15. The total length of Cable is 400 mtrs.  3&4. The scheme for the establishment of the Bakkar wala S/Stn. was approved by DERC in 2007. However, the scheme was not implemented due to inadequate load require-ment. Now, DERC has again been approached for approval as price has been increased significantly.  5. The cable length is more than 18 Kms. To avoid the sheath voltage inducement problem as encountered on 66kV Nangloi, Nangloi Water Works and Mangolpuri Feeders, it was decided to take out the Paschim Vihar feeder from the upcoming 220kV Bodella S/Stn. The planning steering Committee is being approached for re-allocation of Paschim Vihar Bay allotted to BRPL from Mundka to upcoming Dichau Kalan S/Stn. |
| **TPDDL**  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 2015-16 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. |
| 6 | 400kV Harsh Vihar | 66kV | **2 bays - DMRC** | DMRC |  | DMRC for Phase-III expansion |

**Utilities may update the status.**

**3.13 LONG OUTAGE OF ELEMENTS OF DELHI POWER SYSTEM**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sr. No. | Name of feeder | Name of Utility | Date of outage | Time of outage | Reasons |
| 1 | 400kV Bamnauli – Jhatikara Ckt-II | DTL | 11.06.14 | 19.42 | THE OVER HEAD PORTION OF THE CKT WAS CONVERTED INTO CABLES AT BAMNAULI GRID IN CONNECTION WITH UPCOMING PPCL’S GAS STATION AT BAMNAULI. THE CABLE GOT ENERGIZED AT 19.42.HRS. ON 21.12.2013. HOWEVER DAMAGED WHILE NORMALIZING THE SHUT-DOWN TAKEN ON 11.06.14 AT 17.42HRS. DUE TO THE IMPORTANCE OF THE CIRCUIT, THE CKT GOT CHARGED THROUGH ERS ON 12.08.14 AT 19.16 HRS  **DTL AND PPCL TO UPDATE THE STATUS OF ENERTIZATION ON THE NORMAL CABLES.** |
| 2 | 220/66KV 100MVA PR. TR.-I AT PARK STREET | DTL | 07.09.2014 | 16. 34 | THE CORE OF THE TRANSFORMER GOT DISLOCATED. BEING REPLACED WITH NEW ONE. |
| 3 | 220KV MAHARANI BAGH – MASJID MOTH CKT-I | DTL | 14.06.2014 | 04.18 | CABLE FAULTY. CABLE DAMAGED DURING DIGGING BY PGCIL CONTRACTER. |
| 4 | 66/33KV 50MVA PR. TR.-I AT GONDA | BYPL | 15.06.14 |  | TEST RESULTS AR ENOT NORMAL. BEING REPLACED WITH NEW ONE. EXPECTED BY END OF DEC. 2014 |
| 5 | 33KV TRAUMA CENTER – SAFDARJUNG AIRPORT CKT. | DTL | 10.07.14 |  | THOUGH THE FEEDER IS SHIFTED TO BAY-10 AT TRAUMA CENTER, THE ORIGINAL BAY NEEDS TO BE NORMALIZED BY DTL AT TRAIMA CENTER. OEM SNIDDER IS BEING CONSULTED IN THIS REGARD. |
| 6 | 33KV ELECTRIC LANE – MANDI HOUSE CKT. | NDMC | 31.08.2014 |  | CABLE FAULT |
| 2 | 66kV VASANT KUNJ - RIDGE VALLEY CKT.-II | BRPL | 13.01.2014 | 17:20 | Y PH. CABLE FAULTY. CABLE IS AT 15 METER DEEP HENCE COULD NOT BE DECIDED WHETHER TO REVIVE OR NOT DUE TO HIGH COST INVOLVED. |
| 3 | 33kV BAY -3 (IP - KILOKRI) | 22.02.2011 | 13:10 | PERMISSION FOR DIGGING IS AWAITED FROM RAILWAY. STILL OUOT |
| 4 | 33kV OKHLA(220kV) - ALAKHNANDA CKT.-I | 17.09.2013 | 15:55 | PROBLEM IN GIS PANEL. STILL OUT |
| 5 | 33kV BAY-5 (IP - LAJPAT NAGAR) ALONG WITH 33KV ½ BUS AT LAJPAT NAGAR | 01.03.2014 | 14:50 | CB DAMAGED AT LAJPAT NAGAR, STILL OUT |
| 6 | 33kV KILOKRI - JAMIA CKT | 15.03.2014 | 11:00 | R & B PH. CABLE FAULTY. STILL OUT AS ROAD CUTTING PERMISSION HAS NOT BEEN GIVEN BY AGENCY. |
| 7 | 66KkV PAPPANKALAN-I – REWARI LINE CKT. | TPDDL | 18.11.2010 | 15:58 | OUT OF SIX CABLES, TWO CABLES ARE FAULTY AND LYING UNDER FLY OVER. |

**4 COMMERCIAL ISSUES.**

**4.1 INTRASTATE UI ACCOUNT**

The latest position of payment of Intrastate UI / DSM accounts is as under:-

Amount in Rs. Crores

|  |  |  |
| --- | --- | --- |
| **UTILITY** | **AMOUNT IN RUPEES CRORES**  **RECEIVABLE BY UTILITIES** | **PAYABLE BY UTILITY  (position as on 31.08.2014)** |
| TPDDL | -- | - |
| BRPL | -- | 69.6296145 |
| BYPL | -- | 0.2470252 |
| NDMC | -- | 0 |
| MES | -- | 0.0411587 |
| IPGCL | -- | 0 |
| PPCL | -- | 0 |
| BTPS | -- | 0.8091895 |
| **TOTAL** | -- | **70.7269879** |

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

The interest payment of UI amount upto 2012-13 has already been settled. Details of interest for 2013-14 are as under:-

In Rs. Crores

|  |  |  |  |
| --- | --- | --- | --- |
| **Utility** | **Interest receivable by Entity** | **Interest receivable by SLDC** | Net amount payable by the utilities |
| BRPL | 7.7613524 | 17.9004634 | 10.1391110 |
| NDMC | 3.6641658 | 0.0068888 | -3.6572770 |
| BYPL | 19.0757927 | 0.2263612 | -18.8494315 |
| NTPC | 0.3954470 | 0.0001493 | -0.3952977 |
| TPDDL | 9.1149619 | 0.0000519 | -9.1149100 |
| MES | 1.5518165 | 0.0821490 | -1.4696675 |
| IPGCL | 0.2291012 | 0.0040607 | -0.2250405 |
| PPCL | 1.1151457 | 0.0000069 | -1.1151388 |
| **Total** | **42.9077832** | **18.2201312** | **-24.6876520** |

(-) indicates receivable

Some utilities are not claiming clearing the outstanding dues. Further, the non payment is violation of DERC order dated 10.10.2007 and 22.08.2008 in this regard. The relevant DERC orders in the matter of non payment of dues by BRPL are appended hereunder:-

**Relevant portion of DERC order dated 10.10.2007**

13 The Commission is not convinced with the arguments of the BRPL that they have financial distress which is keeping them back from paying to UI pool, because electricity over drawn under UI is being billed and collected from the consumers. However, in order to make the present ABT mechanism work, the utilities should pay the amount as per SLDC statement for the UI charges. The Commission, therefore, directs the BRPL to pay the amount to the UI pool as follows:-

a) The amount due shall be paid on weekly basis as and when raised by SLDC to avoid accumulation of the outstanding dues and;

b) The outstanding / accumulated dues shall be liquidate immediately with interest payable thereon.

**Relevant portion of DERC order dated 22.08.2008**

4. In view of the submissions of both the parties, the BSES Rajdhani Power Ltd. is directed to make regular payment of current UI charges and liquidate all outstanding dues towards UI charges within three months from the date of this Order. BRPL is also directed to pay interest on delayed payment as per the prevalent norms. It is further observed by the Commission that timely payment of UI charges is essential to keep the entire UI mechanism intact and fully operational. In future, due care must be taken to avoid accumulation of dues towards UI charges.

**GCC may deliberate.**

**4.2 COMPENSATION FOR TRANSFORMATION LOSSES BETWEEN DISCOMS IN INTER DISCOM TRANSFER**

**(agenda by BYPL)**

BYPL vide their letter dated 17.02.2014 has requested the Commercial Sub-Committee to consider the transformation losses for inter discom transfer of power from July 2002 onwards. It was further clarified that at 11kV level, 1178MUs energy exported to TPDDL from July 2002 to September 2013. The transformation losses come to 23.56MUs. It has further clarified that the energy transfer from 66kV to 33kV and export to TPDDL through 2 nos. 33kV and 66kV Shastri Park Grid losses comes about 12.792MUs. At 33kV level, 640MUs exported to TPDDL through two 33kV circuits from 66kV Shastri Park Grid and the loss comes to 12.792MUs.

Apart from above, at 220kV Park Street, two 30MVA 66/33kV transformers are on standby mode for which no load losses / transformation losses are borne by BYPL. The same should be shared by all beneficiaries according to their energy drawal. They have proposed that credit of 36.52MUs be given for the past period and the transformation losses be applied in future bills. They have given the illustration also for arriving the figure:-

|  |  |  |
| --- | --- | --- |
| S. N | Scenario / case | BYPL’s proposal |
| 1 | Energy import at 66kV at 66/33kV at one Discoms and export at 66/33kV to another Discom without any transformation | No change in metered data |
| 2 | Energy import at 66kV at one Discom and export at 33/11kV to another Discom after transformation | Transformation loss of 2% to be added to the metering data |
| 3 | Energy import at 33kV at one Discom and export at 11kV after transformation | Transformation loss of 2% to be added to the metered data. |

The issue was discussed in the 14th Commercial Sub-Committee meeting held on 27.03.2014 in which the issue could not be resolved.

DERC vide their letter dated 19.11.2013 has mentioned that in the meeting held on 29.08.2003 with CEOs of Discoms, it was decided that Discoms shall meet their load from their own system / their own grid stations and would prepare an action plan to shift the load to the respective Grid station within three months. Further, in the coordination forum meeting held on 29.08.2005, it was directed that the shifting should be accomplished before the end of Mach 2007.

It is also intimated that on the basis of the decision, the Commission has not even approved the enhancement of the transformation capacity at 11kV level to meet the load requirement of the areas fed from DTL’s sub-stations.

**In view of above, GCC may take a decision on the issue.**

**4.3 O&M CHARGES REGARDING INSTALLATION & MAINTENANCE OF NUMERICAL RELAYS**

(agenda by DTL)

In the 15th Commercial Sub-Committee meeting held on 11.09.2014, it was informed that TPDDL had approached DTL for installation of numerical relays at DTL’s Sub-station. TPDDL has purchased these relays for installation in DTL’s sub-stations.

After installation, DTL has to maintain these relays and claim the O&M Charges through ARR. It was also deliberated in the OCC and Commercial Sub-Committee meetings and recommended the installations of these relays by TPDDL though later on these relays have to be maintained by DTL.

**GCC may deliberate and decide the modality of installation and O&M of the numerical relays.**

**4.4 ADJUSTMENT OF SHORT TERM OPEN CHARGES IN MONTHLY WHEELING CHARGES BILLS OF DTL**

(agenda by Discoms)

In the 15th Commercial Sub-Committee meeting held on 11.09.2014, Distribution Companies have informed that the proper credit is not being given in the monthly bills of wheeling charges of DTL as per the Multi Year Transmission Regulations notified by DERC from January 2013. Clause 6.13 of MYT Regulation is reproduced hereunder:-

6.13 25% of the charges collected from short term open access customer shall be retained by the transmission licensee and balance 75% shall be considered as non tariff income and adjusted towards reduction in the transmission service charges payable by the long term and medium term users.

In the meeting, it was informed that the Finance Department of DTL informed that the STOA charges have been adjusted in the respective past dues to which representatives of Discoms informed that the same credit / adjustment is not reflecting in outstanding dues statement.

**GCC may deliberate.**

**4.5 PAYMENT OF NRLDC CHARGES**

**(agenda by NRLDC)**

**A) NON PAYMENT OF CHARGES BY PPCL FOR BAWANA POWER BEING SCHEDULED TO PUNJAB AND HARYANA**

NRLDC is raising the RLDC Fee & Charges bills to Generating stations & Sellers as well as Distribution Licences & Buyers in line with CERC (Fee & Charges of Regional Load Dispatch Centre Regulations, 2009. The bills being raised to Delhi Control Area (through SLDC) since April 2014 onwards has the following three components:-

  1 System Operation (SO) Charges for Distribution Licences

2 Market Operation (MO) Charges for Delhi Control area as a Single User.

3 System Operation Charges for Delhi as Seller (PPCL).

SO Charges from Delhi Control Area as Distribution Licences are being billed in proportion to the sum of allocations & contracted capacities. MO charges are being raised to Delhi Control Area as a single User . Delhi Control Area  (PPCL) as a seller has LTA quantum of 137.12 MW with Haryana & Punjab each, as such SO charges for 274.24 MW in seller category are being billed to Delhi Control Area(PPCL) in line with Regulations 22(3) i.e.

Quote

“The system operation charges from the generating companies and sellers shall be collected in proportion to their installed capacity or **contracted capacity**, as the case may be, as on the last day of the month prior to billing of the month.”

System Operation Charges for Delhi as Seller (PPCL) are due since April 14 bill. The total outstanding amount up to July 14 bills is Rs 9,81,735/. Delhi as Seller (PPCL) is requested to release the outstanding amount at the earliest.

As far as SLDC is concerned, it is the only collecting and disbursing agency of NRLDC Charges.  SLDC has already requested PPCL to release the payment to avoid payment of penalty and raise the issue in regional forum. However, payments have not been releases sofar. Hence, SLDC could not pay the full as claimed by NRLDC from Delhi control areas.

**GCC may deliberate.**

**B TDS OF NRLDC CHARGES BY DISCOMS AND DELHI SLDC (DTL)**

(agenda by NRLDC)

SLDC is releasing the payment to NRLDC after deductions of TDS by Distribution Licensees & SLDC Delhi since Oct 2010 bills. Deduction of TDS by Distribution Licensees is not under the PAN of POSOCO as such the same is to be refunded back to POSOCO. SLDC Delhi is requested to refund such deductions to POSOCO.

SLDC is only the collecting and disbursing agency of NRLDC Charges on behalf of users of Delhi.

The TDS issue has already been referred to the Tax Consultant in 2011 when the issue was raised. The Tax Consultants advised in this regard appended hereunder:-

M VERMA & ASSOCIATES 1209, Hemkunt Chambers

CHARGED ACCONTANTS 89, Nehru Place, New Delhi-110019

Ph.26475905, Telefax 26211211

Email:mvermaassociates@indaitimes.com

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The Deputy General Manager

Delhi Transco Limited

Shakti Sadan, Kotla Road, ITO

New Delhi-110002

**Sub : Deduction of TDS on payment of (i) Interstate Transmission Charges (ii) System Operation Charges & Market Operation Charges. Your Letter Dated 01.06.2011.**

Sir,

This is with reference to your letter dated 01.06.2011 and subsequent discussion held with undersigned in our office at Nehru Place with regard to seeking our opinion for the recovery of TDS while releasing payment of charges to PGCIL / POSOCO after collecting / recovering the amount from DISCOMs as beneficiary. As per section 194J of Income Tax Act 1961 “Fee for Professional or Technical Services”

1. Any person, not being an individual or Hindu undivided family, who is responsible for paying to a resident any sum by way of
2. Fee for professional services, or
3. Fee for technical services or
4. Royalty, or
5. Any sum refer to in clause (va) of section 28

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

Further, as per clause (3)(b) “Fee for technical service” shall have the same meaning as in explanation 2 to clause (vii) of sub

section (1) of section 9 i.e. “fee for technical service” means by any consideration (including any lump sum consideration) for the rendering of any managerial, technical or consultancy service (including the provision of services or technical or other personal).

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

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

Should you need more clarification, you are most welcome.

Thanking you

Yours faithfully

M. VERMA & Associates

Chartered Accountants

Madan Verma

Partner

The above opinion has already been communicated to NRLDC vide letter no F/DTL/207/201-12/DGM(SO)/376 dated 24.06.2011 wherein two options have been put forth to avoid the double TDS.

a) Seek TDS exemption of double TDS from appropriate authority.

b) Bill directly to Discoms based on the data to be provided by SLDC

regarding apportionment of NRLDC Charges by Discoms, as is being contemplated in case of ISTS Charges scheduled to be started on the basis of PoC Charges methodology from 01.07.2011 (has already been from 01.07.2011).

However, so far, no reply / action has been taken by NRLDC on the above advise of Delhi SLDC.

**GCC may deliberate.**

**4.6 REVISION OF WHEELNG CHARGES INVOICES FOR THE PERIOD APRIL 2014 TO JULY 2014.**

(agenda by TPDDL)

DTL should revise the monthly invoices for April 2014 to July 2014 as per the Wheeling Charges of Rs. 207.39 Crores converted to monthly installments after adjusting the SLDC Charges.

DTL is raising the bills from Distribution Companies based on the Multi Year Transmission Tariff dated 13.07.2012 wherein the Transmission Tariff of DTL for 2014-15 has been fixed as under:-

**Table-42 (ARR approved by the Commission in Rs. Crores)**

|  |  |
| --- | --- |
| **Particulars** | **FY 2014-15** |
| Operation and Maintenance Cost | 211.17 |
| Depreciation | 183.32 |
| Rebate on Sale / Wheeling of Power | 0.00 |
| Income Tax | 27.23 |
| Total Expenditure | 421.72 |
| Return on Capital Employed | 325.92 |
| Less : Expenses capitalized | 10.38 |
| Less : No Tariff Income | 2.50 |
| Aggregate Revenue Requirement (for current year) | 734.75 |
| Additional Power Purchase Liability for prior period (2002-07) |  |
| Payment to Pension Trust |  |
| Aggregate Revenue Requirement (including prior period liabilities) | 734.75 |

DTL is raising the bill based on the above tariff. SLDC is separately raising the bill for SLDC Charges @ Rs. 9.03 Crores per annum based on the DERC order.

However, as per the order dated 23.07.2014 of DERC in respect of retails tariff for 2014-15 for Discom, the following has been fixed as Wheeling charges of Transco :-

Table : Total power purchase cost approved by Commission for FY2014-15

In Rs. Crores

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No | Particulars | BRPL  Table-4.30 | BYPL Table-4.29 | TPDDL Table-4.26 | NDMC Table-4.26 | Total |
| 1 | Power Purchase from CSGS | 4225.19 | 2347.78 | 391.19 | 375.37 | 7339.53 |
| 2 | Inter-State Losses | 318.77 | 251.60 | 378.93 | 19.26 | 968.56 |
| 3 | Power Purchase from Delhi Stations | 1583.73 | 902.68 | 1083.80 | 725.49 | 4295.7 |
| 4 | Cost Towards RPO | 126.35 | 64.31 | 83.58 | 15.04 | 289.28 |
| 5 | Power availability at Delhi periphery | 6254.05 | 3566.36 | 5459.50 | 1135.15 | 16415.06 |
| 6 | Intra-state Loss and Charges including SLDC Charges | 486.80 | 281.53 | 340.05 | 60.24 | 1168.62 |
| 7 | Less : Power Purchase Rebate | 116.18 | 65.01 | 99.94 | 22.02 | 303.15 |
| 8 | Less : Rebate on Transmission Charges | 12.31 | 8.47 | 11.73 | 1.12 | 33.63 |
| 9 | Power Available to Discom | 6612.35 | 3774.41 | 5687.88 | 1172.26 | 17246.9 |
| 10 | Sale |  |  |  |  | 0 |
| 11 | Distribution Loss |  |  |  |  | 0 |
| 12 | Net Power Purchase Expense including Transmission Charges and RPO | 5943.97 | 3069.73 | 4337.68 | 786.60 | 14137.98 |
| 13 | Surplus Power Available at Discom boundary | 454.92 | 578.72 | 1185.55 | 352.50 | 2571.69 |
| 14 | Sale of surplus power on account of procurement of actual Renewable Energy | 213.46 | 125.96 | 164.65 | 33.16 | 537.23 |
| 15 | Net surplus | 668.38 | 704.68 | 1350.20 | 385.66 | 3108.92 |

Note : No orders for MES tariff has been issued.

The transmission losses and tariff has further been elaborated in different tariff orders of Discoms as under:-

**Table : Transmission Losses, Charges approved by the Commission for 2014-15**

In Rs. Crores

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Sr. No. | Particulars | BRPL Table-4.23 | BYPL  Table 4.22 | TPDDL Table-4.20 | NDMC Table-4.21 | Total |
| A | Transmission Losses (MUs) |  |  |  |  |  |
| 1 | Inter-State Transmission | 385.30 | 244.84 | 361.89 | 28.61 | 1020.64 |
| 2 | Intra-State Transmission | 115.94 | 63.96 | 80.99 | 14.22 | 275.11 |
|  | Total Transmission Losses (MUs) | 501.24 | 308.81 | 442.88 | 43.83 | 1296.76 |
| B | Transmission Charges (Rs. Crores) |  |  |  |  |  |
| 1 | Inter-State Transmission Charges | 318.77 | 251.60 | 378.93 | 19.26 | 968.56 |
| 2 | Intra-State Transmission Charges (including SLDC) | 296.89 | 171.70 | 207.39 | 36.74 | 712.72 |
| 3 | Contribution towards Pension Fund | 189.91 | 109.83 | 132.66 | 23.50 | 455.9 |
| C | Total Transmission Charges (Rs. Crores | 805.57 | 533.13 | 718.98 | 79.50 | 2137.18 |

Note : No orders for MES tariff has been issued.

It is to be noted that DTL and SLDC has to raise bill based on the respective tariff orders. However, Discoms ARR has been finalized on the basis of the assumptions of the Transmission Charges and Commission has already referred the Multi Year Tariff while assessing the ARR of power purchase cost.

**In view of above, GCC may deliberate and resolve.**

**4.7 WAIVER OF DSM PENALTY ON ACCOUNT OF TRANSMISSION LINE TRIPPING (Agenda by TPDDL).**

As per the minutes of the DPPG meeting held on 29.09.2014, SLDC may like to take up the issue regarding imposing of penalty on TPDDL on account of transmission line tripping.

**The extracts of DPPG meeting in this regard is appended hereunder:-**

**4 Waiver of DSM Penalty on Discoms on account of Transmission lines tripings.**

On account of Transmission elements trippings, TPDDL mentioned that in number of occasions due to tripping of transmission elements such as 400kV and 220kV Transmission lines, 220/66kV, 220/33kV transformers resulting into loss of supply to large number of consumers causing huge under drawal of discoms. In DSM Regulations, penalty is envisaged for such under drawal if frequency is above 50.1Hz. The relevant portion of the DSM Regulations in this regards is as under:-

***Cl.7. Limits on Deviation volume and consequences of crossing limits****(4) In addition to Charges for Deviation as stipulated under Regulation 5 of these regulations, Additional Charge for Deviation shall be applicable for over-injection/under drawal of*

*electricity for each time block by a seller/buyer as the case may be when grid frequency is ‟50.10 Hz and above” at the rates equivalent to charges of deviation corresponding to the grid frequency of “below 50.01 Hz but not below 50.0 Hz”.*

It was also mentioned that if generation is affected due to transmission system outages, the DSM rates are not applicable for them. To have natural justice, the same provisions should be adopted for Discoms. TPDDL further informed that the matter was discussed in the meeting held on 19.09.2014 at DERC and also discussed during the hearing held on 26.08.2014 in Petition no.10/2014 at DERC in the matter of seeking appropriate directions under section 33(4) of Electricity Act 2003 to SLDC.

**DPPG considered the suggestions and expressed its views in line with TPDDL but DPPG not being the competent forum, it was decided that SLDC will take up the matter in the Grid Coordination Committee meeting wherein the representation of DERC, NRLDC, Gencos etc is available for decision.**

GCC may consider following proposals in this regarding :-

i) Discom should indicate the supply loss due to transmission element outages with details of areas affected, duration and quantum as and when occurred on daily basis.

ii) SLDC would check up the details with the daily reconciled load shedding report prepared by SLDC and uploaded in its website.

iii) If such disruption of transmission system result the payment of penalty under DSM, the same would be waived off.

iv) If disruption of transmission system also resulting the capping in case of under drawal, the capping amount would also be removed to the extent of load loss due to outage of the transmission system element.

v) The above would the implemented from the date of implementation of DSM Regulations i.e. 17.02.2014.

**GCC may deliberate and decide.**

**4.8 MINIMUM TECHNICAL LIMIT OF COAL BASED GENERATION**

**(agenda by TPDDL)**

The agenda was put up by TPDDL on the basis of directions of DERC on petition no. 10/2014 dated 03.09.2014 that TPDDL and SLDC should convene a meeting at a appropriate level and make efforts to resolve issues amicably. The petition was with regard to scheduling issues. Since the scheduling issues could not be resolved without the involvement of other Stakeholders, it is proposed to discuss in this forum for solution. The agenda is asunder:-

“We have requested SLDC to intimate us about the minimum technical limit of coal based generating stations which is not received in your response to the petition. There are certain days or slots during the day when we don’t need

complete power allocated to us from these generating stations but are unable to ascertain as to how much power can be backed down. This issue is especially critical during winters, which is arriving soon. Currently, we are treating 70% of the allocated capacity as minimum technical but we need more accurate information to schedule power optimally as it affects the end consumers directly. In this regard, we once again request you to kindly update us the minimum technical limit of coal based generating stations and also the requirement provided by the other Discoms of Delhi for the next day so that the minimum scheduling can be understood”

The other agenda (namely waiver of DSM penalty and Must ‘Run Status of plants within Delhi) has already been covered in other items.

**GCC may deliberate and decide.**

**5 HOSTING OF NEXT MEETING OF GCC**

As decided in the 10th meeting of GCC held on 29.01.2014, BTPS may host the 12th meeting of GCC which will be held on last week of January 2015.

|  |  |  |  |
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