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| --- | --- |
|  |   **पंजीकृत कार्यालय :शक्ति सदन, कोटला रोड़, न्यू दिल्ली-110002**(Regd. Office Shakti Sadan, Kotla Road, New Delhi-110002) **कार्यालय महाप्रबंधक (एस एल डी सी )** **(Office of General Manager (SLDC)****एस एल डी सी बिल्डिंग, मिंटो रोड़, न्यू दिल्ली-110002** SLDC Building, Minto Road, New Delhi-110002Ph: 23221091 FAX No.23221012 |
| **No. F./DTL/207 )/13-14/GM(SLDC)/F-35/16** |  **Dated : 17.04.2013** |

**Subject : Minutes of the 8th Meeting of the Grid Coordination Committee held on 08.03.2013 at Hotel PARKLAND, CC-30 & 31, Nehru Enclave, Opp. Nehru Place, Delhi-110019.**

Dear Sir, / महोदय

The Minutes of the 8th Meeting of the Grid Coordination Committee held on 08.03.2013 at Hotel PARKLAND, CC-30 & 31, Nehru Enclave, Opp. Nehru Place, Delhi-110019 is enclosed for ready reference and further necessary action please.

Thanking you,

  Yours faithfully

Encl. as above

 (P.K. GUPTA)

 General Manager (SLDC)

List of addresses

1. General Manager, NRLDC, 18A- SJSM, Katwaria Sarai, New Delhi-110016
2. Executive Director (Engg. and Tariff), DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-110017
3. General Manager (Planning), DTL, Shakti Deep Building, Jhandewalan, New Delhi
4. Executive Director (Engineering), NTPC, Corporate Centre, EOC Noida, Sector-24, UP-201301-Fax No.0120-2410200
5. Chief Executive Officer, Aravali Power Company Pvt. Ltd. 5th Floor, Engineering Office Complex, A-8A, Sec. 24, Noida, 201301 (U.P.)-fax no. 0120-2410361
6. Chief Engineer (SO), Punjab SLDC, PSTCL, SLDC Complex, Near 220kV Grid S/Stn Ablowal, Patiala, Punjab-147001, Fax No. 0175-2365340, 0175-2367490
7. Chief Engineer (System Operation), Haryana SLDC, HVPNL, Shakti Bhawan, Sector-6, Panchkula-134109, Fax No. 0172-2560622
8. General Manager, Bawana CCGT Plant, Sector 5, DSIIDC Indl. Area, Bawana, New Delhi-110039
9. General Manager,Indira Gandhi Super Thermal Power Station Jhajjar, Jhajjar Distt. Haryana Pin-124141, Fax no. 01251-266202, Ph. 01251-266265
10. C.E., Haryana Power Procurement Centre, Panchkula, Haryana, Fax No.0172-3019169
11. G.M. (O&M)-I, DTL, Park Street 220kV Grid S/Stn. New Delhi-110001
12. G.M. (C&RA), DTL, IP Estate, New Delhi-110002
13. G.M. (Civil), DTL, Lodhi Road 220kV S/Stn, CGO Complex, New Delhi-110003
14. G.M. (O&M)-II, DTL Shakti Deep Building, Jhandewalan, Delhi
15. G. M., Badarpur Thermal Power Stn., Badarpur, New Delhi-44
16. General Manager, RPH
17. CWE (Utilities), MES, Delhi Cantt, New Delhi-110010
18. Garrison Engineer (Utilities), MES, Delhi Cantt., New Delhi-110010
19. Sh. Chandramohan, Senior Consultant, BRPL, BSES Bhawan, Nehru Place, New Delhi
20. Sh. Mukesh Dadhich, Dy.G.M.(SO), BYPL, Balaji Estate, Kalkaji, New Delhi-110019
21. Sh. Ajay Kumar, Vice President (PMG), BRPL, BSES Bhawan, Nehru Place**,** New Delhi–110019. Off. 39996052 Fax: 011- 3999605
22. Sh. A.K. Sharma, Head (O&M), BYPL, Shakti Kiran Building, Karkardooma, Delhi
23. Chief Engineer (Electrical), NDMC, Palika Kendra, New Delhi-110001
24. Chief Engineer (Transmission System),BBMB, SLDC Complex, Sector-28, Industrial Area Phase-I, Chandigarh.
25. Director (Comml.), NDMC, Palika Kendra, New Delhi-110001
26. General Manager, GT Station
27. General Manager, Pragati Power Corporation Ltd, Pragati Power Station New Delhi
28. Sr. G. M. (PM & CC), Grid S/stn Bldg., Hudson Lane, Kingsway Camp, Delhi-9
29. Dy.G.M.(Metering & Prot), Delhi Transco Ltd., Parkstreet,220kV S/Stn, New Delhi-1
30. Dy.G.M (Fin)-I, DTL, Shakti Sadan, New Delhi-110002
31. Dy. G. M. (Fin-II), DTL, Shakti Sadan, New Delhi-110002
32. HOG (Power System and Trading), TPDDL, Cennet Building, Adjacent to 66/11kV Pitampura-3 Grid Building, Near PP Jewellers, Pitampura, Delhi-34.
33. Sh. Sanjay Banga, Sr. General Manager (PSC & A), TPDDL, Scada Building, Near Netati Subhash Place Metro Station, Pitampura, Delhi-110034
34. CEO, Timarpur – Okhla Waste Management Company Ltd Jindal ITF Center, 28 Shivaji Marg New Delhi-110015
35. General Manager (Project), Timarpur – Okhla Waste Management Company Ltd Jindal ITF Center, 28 Shivaji Marg New Delhi-110015, Ph. 45021983, Fax 45021982
36. G.M. (Project)-I, DTL, Shakti Deep Building, Jhandewalan, Delhi-110055
37. G.M. (Project)-I, DTL, Shakti Deep Building, Jhandewalan, Delhi-110055
38. Dy.G.M.(O&M)-III, DTL, 220kV Sub-Station Lodhi Road, CGO Complex, New Delhi-110003
39. Dy. G.M.(O&M)-I, DTL, 220kV Park Street Grid S/Stn, near RML Hospital, Park Street, New Delhi-110001
40. Dy. G.M. (O&M)-II, DTL, Shakti Deep Building, Jhandewalan, Delhi
41. Dy. G.M.(OS), DTL, 220kV Naraina Grid S/Stn, New Delhi-110010
42. Dy.G.M. (400kV O&M S/Stn), DTL, 220kV Naraina Grid Sub-Station, New Delhi-10
43. Dy. G.M. (System Operation), Delhi SLDC
44. Sh. Sunil Kakkar, Head (PMG), BSES Yamuna Power Ltd., 2nd Floor, Shakti Kiran Building, Karkardooma, Delhi-110092
45. Sh. Sanjay Srivastava, Asstt. Vice President (PMG), BSES Rajdhani Power Ltd, Bldg. No. 20, Nehru Place, New Delhi - 110019
46. General Manager (Commercial), National Thermal Power Corporation, NTPC NCR Headquarter, Sector-24, Noida, UP-201301
47. General Manager (Commercial), Aravali Power Company Pvt Ltd, 1st Floor, Pawan Hans Towers, C-14, Sector-1, Noida-201301
48. DGM(SCADA), Delhi SLDC
49. Manager (SO)-Shift, Delhi SLDC
50. Executive Engineer (SO), NDMC

Copy for favour of kind information to :-

* 1. Secretary, CERC, 3rd & 4th Floor, Chanderlok Building, 36, Janpath, New Delhi- 110001, Ph: 011-23353503 Fax: 011-23753923
	2. Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-110017
	3. Chairman and Managing Director, DTL
	4. Chairperson, New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi
	5. Member Secretary, NRPC, Katwaria Sarai, New Delhi-110016
	6. Member (Power Regulations), BBMB, Sector-19B, Madhya Marg, Chandigarh
	7. Director (Operations), NTPC, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003
	8. Director (Commercial), NTPC, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003
	9. Director (Projects), NTPC, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003
	10. Managing Director, Indraprastha Power Generation Company Ltd (IPGCL) / Pragati Power Corporation Ltd (PPCL), Himadri, Rajghat Power House, New Delhi-110002
	11. Director (Operations), DTL
	12. Director (Finance) DTL
	13. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019
	14. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-92
	15. CEO, Power System Operation Corporation (POSOCO), B-9, Qutub Institutional Area, Katwaria Sarai, New Delhi-110016
	16. CEO, TPDDL, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009
	17. Chief Engineer(Utilities),CWE, MES, Kotwali Road, Near Gopi Nath Bazar, Delhi Cantt New Delhi-110010
	18. Addl. Secretary (Power), Govt. of NCT of Delhi, Delhi Secretariat, New Delhi

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**DELHI TRANSCO LTD.**

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

**[Office of General Manager (SLDC)]**

SLDC Building, Minto Road, New Delhi – 110 002

Phone No.23221091, Fax 23221012, 59

**Subject : Summary Record of discussions held in the 8th Meeting of the Grid Coordination Committee (GCC) of Delhi, held on 08.03.2013 at Hotel PARKLAND, CC-30 & 31, Nehru Enclave, Opp. Nehru Place, Delhi-110019**

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

**WELCOME**

8th Grid Coordination Committee meeting hosted by Timarpur – Okhla Waster Management Company Pvt. Ltd (TOWMCL). Sh. A.K. Haldar, Director (Operations), DTL and Chairperson of Delhi Grid Coordination Committee (GCC) welcomed the delegates in the meeting. In his opening remarks, he emphasized the need of coordinated efforts to meet the challenges of Power Sector in Delhi to meet the ambitions of Delhi consumers who requires uninterrupted round the clock quality supply. He further mentioned that the meeting the expected summer demand of 6000MW in coming month is really a challenge. Transmission and Distribution companies are required to augment the system to have stable supply in the coming months. He requested the cooperation of all to ensure secure and economic operation of power system to avert such massive Grid disturbances occurred on 30/31st July 2012. Govt. of India had constituted a Enquiry Committee to look into the reasons of the Grid incidents which has suggested remedial measures to avert the recurrences of such incidents. It is the responsibility of all Stakeholders to implement the recommendations in letter and spirit. The formation of Delhi Islanding scheme is also an outcome of one of the recommendations and DTL has been entrusted with the responsibility of implementation and operation. It is expected that the Islanding Scheme would be implemented by end of this month. Much vigorous coordinated operation is required if islanding takes place and to survive the island with identified load and generation. Finally, he thanked TOWMCL to host the meeting and mentioned that the company has proved that it is also to be reckoned equally important Stakeholder of the Power System in Delhi.

He requested all participants to take part actively in discussions and in a cordial atmosphere to resolve the issues figured in the agenda.

With above remarks, he advised the Convener to take up the agenda of the meeting. Subsequently the agenda was taken up and gist of the discussions and decision are as under:-

**1 Confirmation of the minutes of 7th meeting of GCC held on 31.10.2012.**

The minutes of the 7TH meeting of GCC held on 31.10.2012 have been circulated vide letter no. F.DTL/207/12-13/DGM(SO)/312 dated 07.12.2012 No comments have been received. As such, the minutes were confirmed by GCC.

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

**2.1 Phasing out of Stage-I units of BTPS (95MW X 3).**

In the last meeting, BTPS authorities were requested to confirm the route of power purchase by Delhi Discoms from the upcoming Gas units at BTPS as a phase out plant of existing stage-I (95MW X 3) units in view of the Tariff Policy which stipulates from 05.01.2011 all power purchase by Discoms should be on the basis competitive bidding route.

BTPS representative informed that as per the Tariff Policy, the competitive bidding route is applicable only for the new projects and the power procurement by the beneficiaries from the project (1050MW combined cycle Gas Turbine in place of Stage-I units) would be through MoU route being the expansion of the existing plants as phasing out of existing stage-I units to avoid air pollution. He quoted the relevant provision of Tariff Policy issued by Govt. of India on 06.01.2006. The relevant portions are as under:-

# 5.0 GENERAL APPROACH TO TARIFF

5.1 Introducing competition in different segments of the electricity industry is one of the key features of the Electricity Act, 2003. Competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively. The Central Government has already issued detailed guidelines for tariff based bidding process for procurement of electricity by distribution licensees for medium or long-term period vide gazette notification dated 19th January, 2005.

**All future requirement of power should be procured competitively by distribution licensees except in cases of expansion of existing projects or where there is a State controlled/owned company as an identified developer and where regulators will need to resort to tariff determination based on norms provided that expansion of generating capacity by private developers for this purpose would be restricted to one time addition of not more than 50% of the existing capacity.**

Even for the Public Sector projects, tariff of all new generation and transmission projects should be decided on the basis of competitive bidding after a period of five years or when the Regulatory Commission is satisfied that the situation is ripe to introduce such competition.

5.2 The real benefits of competition would be available only with the emergence of appropriate market conditions. Shortages of power supply will need to be overcome. Multiple players will enhance the quality of service through competition. All efforts will need to be made to bring power industry to this situation as early as possible in the overall interests of consumers. Transmission and distribution, i.e. the wires business is internationally recognized as having the characteristics of a natural monopoly where there are inherent difficulties in going beyond regulated returns on the basis of scrutiny of costs.

5.3Tariff policy lays down following framework for performance based cost of service regulation in respect of aspects common to generation, transmission as well as distribution. These shall not apply to competitively bid projects as referred to in para 6.1 and para 7.1 (6). Sector specific aspects are dealt with in subsequent sections.

 Emphasize supplied

It was also indicated by the BTPS representative that in the meeting chaired by the Chief Secretary, Govt. of Delhi on 15.06.2010 to discuss the proposal of NTPC to expand BTPS and seeking commitment of Delhi Discoms for off take of power from the proposed 1050MW units. These gas turbine units would phased out existing stage-I units of BTPS and all Distribution Licensees have given their consent for taking power from the project. It was further informed that NTPC would go ahead with the project once the gas allocation is made available for the establishment of the Gas units at BTPS.

**ENHANCEMENT OF GRID SECURITY AT BTPS**

The issue was discussed in the 31st meeting of the Standing Committee meeting of CEA held on 02.01.2013. Powergrid proposed to take care of the over-loading of 220kV BTPS – Ballabhgarh D/C line in forward direction during summer and reverse direction during winter off peak, a source voltage converter (SVC) of 500MW connector through HVDC cable from 765kV / 400kV Jhatikara Station as DTL’s proposal for establishment for 400kV S/Stn at Mehrauli at South Delhi areas could not be matured due to RoW constraints. The SVC Station was not found economically viable as the cost is about Rs 1200 Crores. It was decided that CEA, CTU and DTL would carry out further studies and identify the space availability for creation of new s/station at south Delhi areas and submit the detailed report in the next meeting.

It was informed by Planning Department of DTL that they have already carried out the preliminary studies with regard to the proposal of two 400kV sub-stations – one at Rangpuri to be established in 12th Plant and other at Tuglakabad in 13th Plan. The Rangpuri S/Stn is planned as a LILO of 400kV Ballabhgarh – Bamnauli D/C Line, the 400kV Tuglakabad S/Stn is planned as LILO of 400kV Rangpuri – Bamnauli D/C Line. In the System studies carried out for Rangpuri, the fault level is found as 29kA and for Tuglakabad, it is 32kA which are well within the stipulated range. The locations were also identified for establishment of said substations. The proposal would be placed before the next Standing Committee meeting of Transmission System Planning of CEA.

It was also informed that the transformation capacity of 765/400kV Jhatikara Sub-Station would also be enhanced from present 3000MVA to 6000MVA before the establishment of the said sub-stations. The 220kV Mehrauli – Vasant Kunj Ckts. and 220kV Mehrauli – DIAL Ckts. are also planned to be LILO at Rangpuri. 220kV BTPS – Mehrauli Ckts also planned to be LILO at Tuglakabad. Thus, with the commissioning of two new 400kV sub-stations, the reliability of BTPS Station would be enhanced by proper load configuration.

**GCC noted that position and advised Planning Department of DTL to apprise the committee about the decision of Standing Committee of CEA.**

**2.2. PROVSIONS OF SPARE HOT TRANSFORMER CAPACITY.**

The updated status of hot reserve was informed as under :-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.N | Capacity  | Present population in nos. | Status of the hot reserve  | Acton plan and responsibility  |
| 1 | 440/220kV, 315MVA ICT, | 12 | One Tx at 400kV Mundka would be hot reserve. | The original planning was 2X315MVA Txs at Mundka. The 3rd tramsformer is available at present which has been brought after repairs. The same is planned as hot reserve at present. In near future, the load of the sub-station is likely to be increased with the commissioning of 220kV Wazirpur and 220kV Peeragarhi and LILO of 220kV Najafgarh – Kanjhawala Ckt at Mundka. The provision of 220kV feed to Rohtak Road is also being explored. After the load of the sub-station is attained, the scheme would be prepared for provison of 4th transformer as hot reserve and implemented after obtaining the regulatory approval from DERC.  |
| 2 | 220/66kV, 160MVA Tx | 9 | 160MVA Tx earmerked for 220kV Pappan Kalan-II would be the hot reserve. | At Papankalan-II the third transformer is envisaged as hot reserve would be put in use to meet the load demand. In the last GCC meeting, it was informed that for hot reserve a scheme would be devised by Planning Department for providing hot resverve at appropriate place within 1 month. Director (Operations) advised the Planning Department to prepare and get the scheme approved before next GCC meeting as the earlier comittement has not been fulfilled.  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.N | Capacity  | Present population in nos. | Status of the hot reserve  | Acton plan and responsibility  |
| 3 | 220/66kV, 100MVA Tx | 42 | New Tx. is required to be purchased for hot reserve  | The scheme for one 220/66/33kV 100MVA Tx as hot reserve has been approved and the same would be placed at Shalimarbagh before summer 2014. |
| 4 | 220/33kV, 100MVA Tx, | 33 |
| 5 | 66/33kV 30MVA Tx, | 3 | The 33kV level at Narela is being dedicated for AIR Khampur feeder. Howerver, as per the decision of the Standing Committee, the load is propsed to be transferred to 66kV IFC S/Stn of TPDDL. Thus, the existing Tx. would be hot reserve after the transfer of AIR Khampur load from Narela.  | TPDDL informed that after the commissioning of 66kV IFC Grid, the 33kV Narela – Khampur feeder become redundant and then the transformer could be spared for hot reserve purpose. However, TPDDL informed that the 66kV bay being utilized for 66/33kV Tx at Narela would be used for IFC Grid. As such, the transformer would have to be shifted to some other place for hot reserve. Planning Department would intimate the scheme in next GCC meeting. |
| 6 | 66/11kV 20MVA Tx | 23 | One 66/11kV 25MVA got repaired at Mehrauli would be hot reserve. | The transformer reparired at Mehrauli has been utilized for 2nd transformer at Gazipur sub station. The scheme for hot reserve has been prepared and transformer would be placed at 220kV Kanjhawala before summer 2014.  |
| 7 | 33/11kV 20/16MVA Tx | 16 | At present, there is no hot reserve. DTL was advised to provide at least one Tx as hot reserve at the earliest. Due to non availability of Hot Reserve, 220kV Shalimar S/Stn is left with only 33/11kV Tx.during the period | Scheme has been approved. Transfomer would be placed at Shalimar Bagh before summer 2014. |

Distribution Licensees were of the view that the existing 66/11kV or 33/11kV 16/20MVA transformers at 220kV sub-stations should be augmented to meet the increasing load demand of the areas fed from these transformers as there is a legal hurdle to transfer these assets to Distribution Licensees as these assets were inherited by DTL at the time of unbundling of erstwhile DVB. Due to severe space constraints, the chances for the establishment of new substations in nearby areas are remote. As such, to shift the 11kV load from 220kV sub-stations also is remote. Since 220kV sub-stations have enough space to accommodate new transformers / enhanced capacity transformer, DTL should moot the proposal to enhance the transformation capacities of 66/11kV and 33/11kV transformers which would be economically viable than establishment of new sub-stations in nearby areas for catering the 11kV loads. It was also emphasized that by doing so, reliability of supply would also be enhanced. These augmentations should immediately be carried out at critically loaded substations such as 220kV Najafgarh, 220kV Pappakalan-I, 220kV Shalimar Bagh, 220kV Wazirabad substations etc. Distribution Licensees requested DTL to carryout these augmentation before summer 2014. Planning Department of DTL intimated that DERC has not

agreed to augment the transformation capacities of 66/11kV and 33/11kV at 220kV sub-stations on the plea that DTL can only maintain but not to enhance the transformation capacities as these are Distribution elements.

**After deliberation, GCC advised Planning Department of DTL to moot the proposal again in the light of discussions in this meeting and draw out plans for augmentation of the 66/11kV and 33/11kV transformers in the above mentioned critically loaded sub-stations before summer 2014 after obtaining the approval from DERC.**

**2.3 Special Protection Scheme to take care of tripping of one ICT at 400kV Sub-Stations.**

The updated status is as under :-

**i) SPS for 400/220kV 315MVA ICT at Bawana**

At present, there are six nos (4 at Bawana CCGT yard and 2 at Bawana S/Stn yard) of 400/220kV ICTs at Bawana. The 220kV Najafgarh & Kanjhawala Ckts. would be tripped affecting the load of 250MW to take care of tripping of one ICT. The intelligent system would automatically trip 220kV DSIDC Ckts in case total load relief is less than 250MW.

**ii) SPS for 400/220kV 315MVA ICT at Bamnauli**

At present, there are six nos of 400/220kV ICTs at Bamnauli. The 220kV Najafgarh Ckt. I & II & Papankalan-I Ckt-I& II are covered under SPS to give the load relief of about 250MW to take care of tripping of one ICT. At first 220kV Najafgarh Ckt. I & II would trip and in case total load relief is less than 250MW then 220kV Papankalan-I Ckt. I & II would trip.

The scheme has already been implemented at Bawana and Bamnauli 400kV Sub-Stations.

The SPS at Mandaula has been envisaged to trip 220kV Narela & Gopalpur Ckts. and at Maharanibagh the load relief would be obtained through 220kV Lodhi Road Ckts. It was also informed that PGCIL has already implemented the scheme at Mandaula & Maharanibagh S/stns.

In the last meeting, BYPL representative had opined that such scheme should be implemented to take care of the tripping of any one of the Ckts. in the 220kV Wazirabad - Geeta Colony - Patparganj - IP section to avoid the collapse of the generating stations of Delhi and load shedding in East and Central part of Delhi. In the meeting, G.M.(O&M)-I, DTL had intimated that they were working on the

scheme. He further elaborated that the SPS of 220kV Wzirabad – Geeta Colony ckts. to take care the tripings of any one of the circuits or over-loading of the circuits, the load shedding would be carried out at Wazirabad, Geeta Colony, Patparganj sub-stations has been developed and put under testing. The shedding would be carried out through fibre optics communication link. The scheme is proposed to be made operative by 30.04.2013.

**GCC noted the status**

**2.4 IMPLEMENTATION OF STATE-OF-THE–ART–LOAD MANAGEMENT SCHEME & UNDER FREQUENCY RELAYS BY DISCOMS**

The State-Of-The-Art Load Management System is in place at TPDDL, BRPL & BYPL. NDMC had earlier undertaken that the scheme is envisaged in the SCADA system being implemented by PGCIL. It is mentioned that the SCADA system has been formally inaugurated.

NDMC representative informed that the scheme is inbuilt in SCADA system. However, due to cabling hurdle, the scheme could not be gone live which is likely to be rectified by end of May 2013.

**GCC advised NDMC to go live the scheme as quick as possible even though no shortage is anticipated in NDMC but as back up mechanism, the scheme should be online as undertaken before CERC like other utilities in Delhi.**

**2.5 EXECUTION OF CONNECTION AGREEMENT BY PPCL FOR PRAGATI (1371MW CCGT)**

In the last GCC meeting held on 31.10.2012, Chairperson, GCC advised PPCL and DTL to sort out the issue and execute the connection agreement which is a statutory requirement without further delay.

It was informed by PPCL and DTL that the same could not be executed sofar.

Chairperson, GCC took a strong exception of the casual approaches of both the utilities as the system is in service without the Connection Agreement. Commercial Department of DTL intimated that the supporting documents are still awaited from PPCL, however agreed to sort out the issue at the earliest.

**Chairperson advised both the utilities to execute the agreement (which should have been done before energization) immediately. He further pointed out that if intervention from his side is required for execution of the agreement, the same should be brought to his notice.**

**2.6 OUTSTANDING DUES**

Intrastate generation and transmission utilities updated the status of outstanding dues as under :

|  |  |  |  |
| --- | --- | --- | --- |
| **Utility**  | **Paying utilities**  | **(Rs. in Crore)** | **Remarks**  |
| BRPL | BYPL | Total |
| IPGCL | **660.45** | **509.96** | **1170.41** | **Position as on 08.03.2013 including the surcharge upto 31.01.2013** |
| PPCL | **668.98** | **496.48** | **1165.46** |
| Total | **1329.43** | **1006.44** | **2335.87** |
| DTL | **657.55** | **440.58** | **1098.13** | **Position as on 28.02.2013 including surcharge of Rs. 72.39 Crores to for BRPL & Rs. 46.78 Crores for BYPL.** |
| APCPL | **108** | **99** | **207** | **Position as on 08.03.2013 - Surcharge upto 30.09.2012 for BYPL is Rs. 2.5 Crores and BRPL is Rs.3 Crores.** |

It was intimated by SLDC that due to non payment of dues, the power regulations have also been imposed on BRPL and BYPL by certain utilities as detailed hereunder :-

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Regulating utility** | **Name of the regulated utility**  | **Quantum of regulation**  | **Duration of Regulation** |
| NHPC | BRPL | 161MW | 22.02.2012 to 26.04.12 |
| From 22.06.2012 continuing  |
| BYPL | 96MW | 22.02.2012 to 26.04.12 |
| 22.06.2012 to 27.06.12 |
|  | 100 | 01.11.12 to 14.01.2013 |
| Satluj Jal Vidyut Nigam Ltd. | BRPL | 62MW | 27.11.2011 to 26.04.2012 |
| BYPL | 39MW | 25.12.2011 to 26.04.2012 |
| PGCIL | BRPL | 308MW | From 26.02.2013 continuing  |
| BYPL | 313MW | From 26.02.2013 continuing  |

 IPGCL / PPCL representatives informed that due to non payment of dues by BRPL & BYPL, they have already defaulted the payment to gas supply authorities and coal supply authorities. All the fuel supply utilities insists pay and carry due to which if the payment problem persists, the fuel supply agencies may stop fuel supply which could result the closing down of generating units of IPGCL / PPCL. This would create supply problems to regularly payment utilities also namely TPDDL, NDMC and MES also.

 They further informed that outstanding payment has already been brought in the notice of DERC through petition no. 51-52/2011. The prayer of the petition are as under :-

i) Direct BRPL & BYPL to strictly follow the PPA and fulfil their obligation under PPA.

ii) Direct the Distribution Licensees BRPL & BYPL to make the payments to the petitioner of the outstanding amounts along with applicable surcharges.

iii) Direct BRPL & BYPL to establish LC in favour of IPGCL / PPLC to the extent of 105% of average monthly billing.

 iv) Direct that in future BRPL & BYPL continue to pay the bill on time.

v) Direct that BRPL & BYPL will deposit all their receivable in escrow account from which the payment is released to IPGCL and PPCL.

 The Commission vide its order dated 24.11.2011 directed BRPL & BYPL to clear the current payments (from September 2011 onwards) and a mortalization plan for liquidation of arrears from October 2010 to August 2011 be drawn out.

 It was also informed that in petition no. 67 & 68 of 2011 in the matter of regulation / diversion of power supply to BRPL and BYPL for non payment and non maintenance of letter of credit and show cause notice under section 24 of Electricity Act 2003, DERC vide its order dated 25.01.2012 directed the Distribution Utilities (BRPL & BYPL) to liquidate the accumulated dues of power generation and transmission utilities once IDBI loan is sanctioned.

 The liquidation plan finalized with utilities was directed to be submitted within four weeks. BRPL & BYPL challenged the order before APTEL on certain findings of the Commission. APTEL vide its order dated 04.09.2012 in appeal no. 23 & 24 of 2012 remanded back the issue to the State Commission directing the following :-

***“20. In view of the above stand taken by the Appellants that without hearing the***

***Appellants and considering their Affidavits, the adverse observations have been made by the Delhi Commission, it would be appropriate to direct the Delhi Commission to consider those affidavits and other materials; to give opportunity of hearing to both the Appellants as well as the Respondents and come to the conclusion in accordance with the law uninfluenced by the observations made by the Delhi Commission in the impugned order dated 25.1.2012.***

***21. Accordingly, the impugned order is set-aside.***

***22. As indicated above, the State Commission will give opportunity to the Appellants and Respondents and allow them to make submissions and to furnish the materials, if any and also consider the affidavits filed by the Appellants before the Delhi Commission on various dates referred to above and pass an order according to law.***

***23. With these observations, both the Appeals are disposed of.”***

In the last meeting GCC meeting also, the issue was discussed and Chairperson GCC had requested DERC representative to apprise the commission regarding the issue and requested the intervention of State Commission to safeguard the overall interest of power sector of capital as the matter has been remanded by the Appellate Tribunal for Electricity to the Commission.

It was further informed by IPGCL /PPCL that they have also been requesting State Commission for their intervention in the matter but sofar, no further hearing has occurred in the matter. They also lamented that in previous years, the assurances were given by the utilities that the payment position would be improved once the tariff is revised by the Commission. Since then, two substantial hikes were effected in consumer tariff one in year 2011 another in 2012, but the payment position has not been improved. They feared that if the position continuous like this, the collapse of operation of generating units is imminent

APCPL representatives has even gone to the extent of saying that there is no use to put the item in the agenda as no fruitful results are forthcoming and due to the continuous defaulting of payments, the survival of generating company in danger.

Sh. Ajay Kumar, Vice President, BRPL narrated the situation led to the severe financial crunch being faced by the distribution company. He also pointed out the main reason is the non viable retail tariff commensurate to the input cost. He further intimated that they have approached to the Appellate Tribunal for Electricity for implementation of orders of the Tribunal for revision of tariff. This would have enhanced their financial position. On going through the daily orders of the Tribunal dated 30.05.2012 in petition no. 1/2012 and 2/2012, the entire issue becomes clear. The main thrust of the issue is the non implementation of Tribunal’s order in Appeal No.36/2008, 56/2008, 153/2009, 142/2009 and 147/2009 wherein the Tribunal has directed to revise the retail tariff. The argument of the State Commission was that it had intended to file the appeal in Supreme Court against those directions given by the Tribunal. The Tribunal has also placed on record the strong objection towards the non implementation of the directions. It has even directed the Chairman of the State Commission to file an affidavit sworn to by him on his behalf and on behalf of other Members of the Commission explaining the circumstances of non implementation of Tribunal’s orders in order to enable the Tribunal to take further course of action.

The order has been challenged in the Supreme Court by the State Commission and the Supreme Court ordered on 25.07.2012 that the proceedings in this matter may go on and final orders to be passed subject to the orders of the Court.

On 28.02.2013, the Supreme Court has further ordered that a Tribunal can pronounce the order but the same may not be given to effect until further orders of Supreme Court. As such, judgement of OP-1/2012 and OP-2/2012 is reserved by the Tribunal. Sh. Kumar referred the decision of APTEL on 27.02.2013 in Appeal No. 184 of 2011 wherein DTL had filed a appeal before the Tribunal for non implementation of APTEL’s order while fixing the Transmission Tariff. In this case, also APTEL took strong objections for non implementation of the orders. He further referred to the statutory advice rendered by DERC to the State Government indicating the financial health of Discoms. The salient features of the advise were as under :-

1 Before privatization, Govt. was providing support to the Delhi Power Sector as under :-

 In Rs. Crores

|  |  |  |  |
| --- | --- | --- | --- |
| Year  | 1998-99 | 1999-2000 | 2000-01 |
| Plan | 406 | 478 | 543 |
| Non-Plan | 454 | 658 | 794 |
| Total | 860 | 1136 | 1337 |

At present, no such support is provided by the Government.

2 In the process of truing up of expenses, the revenue gap since 2009-10 has gone to the extent of Rs. 19505 Crores as detailed hereunder :-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Revenue Gap (\*) | BRPL | BYPL | TPDDL | Total  |
| Upto FY 2008-09 | (611.50) | 25.93 | (351.10) | (936.67) |
| FY 2009-10 | (1068.07) | (532.58) | (751.46) | (2352.11) |
| FY 2010-11 (as approve by the Commission) | (1545.72) | (1120.93) | (963.61) | (3630.26) |
| FY 2011-12 (Projected by Discoms) | (4233) | (2216) | (1783) | (8232) |
| FY 2012-13 (projected by Discoms) | (1779) | (1690) | (885) | (4354) |
| Total revenue gap (\*\*) | (9237.29) | (5533.58) | (4734.17) | (19505.04) |

(\*) amount of the revenue gap upto FY 2010-11 includes carrying cost as approved by the Commission and from FY 2011-12 onwards, the revenue gap includes carrying cost as per the tariff petitions filed by the licensees for FY 2013-14.

(\*\*) This gap does not include the revenue gap arising on account of the impact of all the appeals filed before the ATE / SC etc. Which shall be additional.

Since, there is no budgetary support from GoNCTD (which is still a 49% share holder) to the Distribution Companies after a year 2007, the entire burden of bearing impact of the requirements of CAPEX as well as escalating rates of power purchase falls on the electricity consumers of Delhi.

3 There has been a huge public outcry in the two years against the tariff increase approved by the Commission in order to bridge increasing gap between Annual Revenue Requirement and Revenue available from sale of electricity. Not only have tariff increase significant in last two years, but the residual revenue gap build up to alarming level. A fuel surcharge was levied in addition to the said tariff increase but the surcharge has not made any significant dent in reduction of accumulated shortfall as it has mainly contributed towards meeting the carrying cost the accumulates shortfall.

4 SBI Capital Market Ltd has assessed that liquidation of pending gap in the case of BRPL will require surcharge of 20% every year on the applicable tariff from 2013-14 to 2018-19 while the case of BYPL, the same is 25% surcharge every year to recovery of the revenue gap in 6-7 years.

5 As compared to the situation of the NCT of Delhi, other state’s where the electricity is managed by the Govt. owned entities, have either not increased tariff at all or increases have at best been moderate. This is on the benefits of various centrally sponsored schemes and the state governments bearing a significant part of the residual burden which in case of NCT of Delhi passed on entirely to electricity consumers through their tariff or reflected as accumulated revenue gap.

6 The Commission requested the State Government may take urgent steps so that the benefits of various central government sponsored schemes are extended to Delhi Distribution utilities and, in turn, to the electricity consumers in Delhi. Unless, this is done, tariff in Delhi could become unsustainable specially when compared to other states into the country where state owned utilities not only avail the benefits of the centrally owned scheme but also avail direct subsidies from State govt as well as additional budgetary support for lower tariff level.

7 In case of APDRP, R-APDRP and JNNURM schemes of Central Government, the view of Government being that privately managed distribution entities should not be allowed to avail the benefits of this programme. The Commission requests the State Government may take up the with the Ministry of Power that the schemes are availed by the Distribution Utilities for the benefit of consumers of Delhi.

8 The financial bail out package introduced by the Central Government for financial restructuring of state distribution entities which certain conditions including the support from the state government. This is also being denied to distribution entities in Delhi. This should also be made applicable to discoms of Delhi. This would be the single most important measures for differing the incidents of high levels past revenue gap on the tariff determination process.

9 The Commission is of view that the State Government should approach Govt. of India to arrange to special financial package for modernization and development of distribution system through IDA credit / IDBI loan / funding from multilateral financing agencies at rates which are more favourable than financing through the domestic commercial financial institution presently being availed by the Distribution Companies.

10 Concluding the advise, the State Commission states that the recommendations are designed essentially to ensure that the electricity consumers in NCT of Delhi are not placed in disadvantage vis a vis consumers in other parts of country nearly on the account of the fact that the management of the electricity utilities has been handed over to private operators through a 51% disinvestment as a part of power sector reforms

Sh. Ajay Kumar further added that without addressing the above problems, the existing payment crisis can not be resolved. If the revenue gaps are considered with the carrying cost, it would be more than Rupees 23000 Crores which is equivalent to about 1.5 years times of ARR of Distribution Companies. The Appellate Tribunal of Electricity in its order dated 11.11.2011 has also issued directions to State commissions with a view to improve the financial health of SEBs / Discoms and ultimately help to deal with the mounting arrears of pending dues of distribution utilities which interalia includes automatic fuel and power purchase adjustment cost, suo-moto determination of tariff, if the petition is not filed by the utilities, annual truing up of accounts and no resource gap to be left uncovered by SERCs. These instructions have also not implemented in Delhi sofar. As such, it is evident that without any other support, the Distribution Companies can not wipe out the outstanding dues. Due to uncertainty of recovery of huge revenue gap, the financial institutions are also not extending any loan facilities. At present, BRPL could make 100% payment only to NTPC which is being regulated through one PPA and one LC. After making the payment to NTPC and meeting expenses to meet the statutory obligations and urgent O&M expenses, balance left out revenue is disbursed to the power supply / transmission utilities. As such, default is occurred in case of all utilities except NTPC. He also hinted that even for small outstanding dues, PGCIL has imposed power regulation from 26.02.2013 and in case if other utilities follow the suit, the power supply of Delhi would definitely go out of control.

He informed that about 30% of power requirement of BRPL is met through Delhi Genco like other Discoms and admitted that due to above mentioned financial difficulties, they could not make full payments to these generating companies and State Transmission Utility.

Hearing the views, GCC decided to highlight the issue of payment in every meeting so that the concerned authorities could visualize the problems being faced by various utilities including power supply agencies and the transmission company.

2.7 **STATUS OF IMPLEMENTATION OF RECOMMENDATIONS OF EXPERT COMMITTEE ON GRID DISTURBANCES OCCURRED ON 30.07.2012 AND 31.07.2012 IN THE GRID – TO THE EXTENT OF DELI’S PRESPECTIVE.**

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 9.1.1  | Periodical 3RD Party Protection Audit **– Time frame – within one year**  | In the last GCC meeting G.M.(O&M)-I, DTL had informed that in Delhi, the Protection Audit has was completed before CWG-2010. It was informed that the main deficiencies pointed out in the Prot. Audit have been removed such as replacement of Static relay with numerical relays, provision of bus bar prot. etc. Further, mock exercise for healthiness of the scheme being carried out regularly. The other deficiencies would be cleared by Nov. 2013 |
| 9.1.2  | Philosophy of Zone-3 trippings to be reviewed to avoid indiscriminate and load encroachment and faults **– Time Frame - immediate**  | As per the CEA status report of the recommendations on the issues as on 14.02.2013 the position is as under: Earlier, Zone-3 settings were not considered as part of the line load ability criterion. However, after the grid disturbances, the Zone-3 settings have been collected and analysed to arrive at the safe line loading limits. In a meeting taken by Member (PS), CEA with CTU and POSOCO on 26th September 2012 regarding transmission line load ability, loading limits of transmission lines on all India basis were finalised and circulated vide letter dated 3rd October 2012. The report contains Zone-3 settings as well, wherever available. All concerned have been advised to check the settings where indicated / intimate the settings where not available. It was also decided at the meeting that Zone-3 settings need to be reviewed by POWERGRID in coordination with STUs, Generators and POSOCO so as to avoid load encroachment. POWERGRID has reviewed and verified all the implemented Zone-3 settings.G.M. (O&M)-I informed that the issue is still under discussion.  |
| 9.1.4  | Complete independent audit of time synchronization of DRs, EL and PMs should be carried out **- Time frame – within one month**  | At all inter state point the time synchronization have been done. Others will follow. DR is available at all 400kV Grids. ELs for all 220kV S/Stns has been planned. DR is not required at 220kV Sub-stations as *Numerical Relays* has this inbuilt feature.Representative of IPGCL / PPCL informed that DR is available at CCGT Bawana and Pragati. EL is not required at generating stations as generators have inbuilt features of EL. |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 9.2.1  | Tightening of Frequency band and be brought very close to 50Hz.  | CERC has directed the Commission Staff vide its order dated 29.11.12 to consider the POSOCO petition for further tightening of frequency band to 49.9 - 50.1. Hz. and prepare a proposal for further action on the same. Under active consideration of the Commission and involves examination by a committee comprising CEA, CTU and CERC. Commission to take a view based on recommendations of committee. Committee expected to take about 4 weeks time and about another 8 weeks required to amend the Regulations. (in about 3 months time) by June 2013 |
| 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**  | Regarding the Generation Reserves / Ancillary services, the petition for introducing these services in the country was filed by NLDC with CERC on 29.11.2010. Against this, CERC in its order issued on dated 20.07.2012 has directed its staff for formulation of draft Regulations for Ancillary Services and CERC staff is working on this proposal alongwith the proposal for amendment to the IEGC.  |
| 9.3  | All STUs should immediately enable Under Frequency and df/dt under frequency scheme. Central Commission should explore wage 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**  | NRLDC has filed a petition in this regard on the checks carried out by PGCIL in DTL Grid S/Stns. Only 29% of relays were found functional. GM(O&M)-I informed that all relays are being changed in association with implementation of Delhi Islanding scheme. Further the healthiness of the existing relays is being ensured. DTL has already informed PGCIL that the field survey report of UFRs is not acceptable to DTL as the survey was conduced on the relays available through rotational load shedding and the scheme is being abandoned and the entire feeders would be put on flat mode UFR. Further all UFR are being replaced with new *Numerical Relay* along with the implementation of *Islanding Scheme of Delhi* expected to the completed by end of this month.  |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 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. CERC directed the task force constituted under Member (Thermal), CEA to complete the testing / tuning of identified units and finalize the protocols / modalities of testing in a time bound manner.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 electrio 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 started from 2014-15 onwards. **GCC advised BTPS authorities to get the exemption from CERC in this regard.** |
| 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**  | A petition in this regard has been filed. CERC vide its order dated 13.12.2012 directed its staff to consider the petition as a proposal by NLDC and initiate amendment process. |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 9.6  | Outage planning should be in coordinated manner  | NRPC OCC has already decided all Interstate Transmission Element shut-down should be planned and forwarded to RPC by STUs by 5th of every month for the next month. In addition to above annual outage plan should also be drawn out.DTL has intimated that they have already drawn out annual outage plan for 400kV system and submitted to NRPC for approval. As far as 220kV system is concerned, it was informed that for feeders emanating from 400kV PGCIL sub-stations and other inter state transmission lines, the shut-down would be planned in consultation with SLDC and get them approved from NRPC OCC. For other lines / stations, the same would be done in consultation with SLDC. |
| 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 the study is being placed on CPRI. The study would be completed after two month of order is placed. BYPL was of the view that the DERC should be requested to revise the existing Grid Code with the specified at 5.2(s) of IEGC where the maximum and minimum voltages specified for 66kV and 33kV are fixed as under :-

|  |
| --- |
| **Voltage in kVrms** |
| Nominal | Maximum | minimum |
| 765 | 800 | 728 |
| 400 | 420 | 380 |
| 220 | 245 | 198 |
| 66 | 72 | 60 |
| 33 | 36 | 30 |
| 11 | 11.4 | 10.6 |

He also was of the view that DTL’s transformers of capacity 220/66kV and 220/33kV, OLTC should be adjusted for proper voltage regulation as OLTCs (with additional cost) have been installed for catering this purpose.TPDDL representative also echoed the same view on the plea that the consumers are complaining of high voltages during winter seasons due to non operation of transformers taps at 220kV sub-stations of DTL |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
|  |  | SLDC was of the view that if any user has any difficulty in any provision of IEGC, they have to approach the Central Commission. As per section 86 (h) of the Electricity Act, the State Commission has to specify the State Grid Code consistent with the Grid Code specified by the Central Commission. It was also reminded that the Planning Criteria notified by CEA applicable from 01.02.2013, the reactive power requirement would be met by the load so that no reactive power flows from higher voltage to lower voltage. All Stakeholder were of the view that to contain high voltage operation, DTL has to install either reactors or the provision of Static Var Compensations need to be explored for regulation of reactive power under low / high voltage conditions. This provision should also be brought out in the proposed study to be conducted by CPRI for reactive power planning in Delhi. |
| 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.*** | A committee under CEA has been set up in this regard which is expected to give the recommendations shortly.  |

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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**  | The issue was discussed in the 84th Operation Coordination Committee meeting of NRPC held on 19.02.2013. 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

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| --- |
| 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 |  |  |  |  |
| …. |  |  |  |  |
| …. |  |  |  |  |  |
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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
|  |  | BYPL representative was of the view that the generator data for reactive power generation and absorption in the specified bands be monitors through SEMs so that the actual position can be known looking into the opinion of SLDC that reactive power absorption is not being carried out by the generators on the advice of SLDC control room. TPDDL representative was of the view that instead of fixing the generator terminal voltage, the AVR should be tuned to maintain Grid voltage. GCC advised SLDC to immediately make the necessary provision of monitoring of reactive power absorption / generation by Delhi generators on real time basis at SLDC control room.**SLDC was also advised to give directions to generators to regulate reactive power generation as per the capabilities as per voltage conditions on real time basis.**  |
| 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**  | Scheme has been finalized. PGCIL is the implementing agency. Expected to be in place by 31.03.2013.  |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 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**  | 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**  | SLDC engineers are being sent regularly for training to upgrade their knowledge. 19 Engineers have also acquired Basic Level certification for System Operation. 8 Engineers have been nominated for the Specialist Certification examination scheduled for 17.03.2013 and result would be out on 28.03.2013It is informed that some of the states have introduced the incentive scheme to System Operators to have attraction to work in this field. It was explained that in Maharashtra, the proposal has been mooted to provide 5% basic pay to each category for certified System Operators. Punjab has also introduced one time payment of Rs. 10,000/- for each certified System Operators. In the meeting convened at Ministry of Power, Govt. of India chaired by Secretary (Power), GoI on 20.09.2012 regarding follow up action on the recommendations of the Enquiry Committee following the Grid disturbances of 30/31st July 2012, it was decided that POSOCO should approach CERC for amendment in IEGC to insert a proviso that after a specified date, only engineers who have been certified by a certification agency would be allowed to be posted in LDCs. It was also decided that all certified operators be given a cash incentive of Rs. 20000/-**Chairperson, GCC advised that the engineers of ALDCs should also be trained to improve the quality of system operation as without the coordination of ALDCs secure and economic operation of the grid can not be ensured.** **Distribution Licensees representative agreed to send their System Operators for training on regular basis.****GCC further opined to implement the proper incentive schemes to System Operators to make the System Operation activities more attractive as the role of System Operators is becoming more challenging in real time operation of the Grid.** |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 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**  | In the meeting chaired by Director (Operations) on 05.02.2013 the transmission system and distribution system constrains have been identified and remedial measures have been suggested to overcome the constraints on long term and short term basis. It is expected that the major constraints would be resolved with in two years.  |
| 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.  |
| 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 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.  | On emergency basis, 5 nos. battery banks have already been replaced and for procurement of battery banks for remaining locations, tendering process is in advance stage. The work is likely to be awarded by end of April 2013 with the completion period of 30.06.2013 |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 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**  | It was emphasized that the System Study Group comprising of representatives of Discoms, Generators, DTL and SLDC should actively be functioning. The committee already exists under GCC as per the Conduct of Business Rules approved by GCC in its 2nd meeting held on 25.11.2008. The relevant portions of Conduct of Business rules are reiterated hereunder :- **20. System Study Committee:****20.1 Functions:**System Study Committee shall carry out following system studies: 1. Studies for assessment of the quantum of capacitors required in the state taking into account the expected additions in the generation and transmission systems and the low voltage conditions in the system. The study shall be correlated with that of capacitor requirement study of being carried out at Regional level at NRPC.
2. Studies for review of area wise reactive compensation requirement
3. Operational load flow studies, as and when required, for peak conditions off peak conditions etc.
4. Short-circuit studies as and when required.
5. Transient stability studies for major events like grid disturbances or other issues periodically or as and when requested by the constituent(s).
6. System studies related to transmission constraints.
7. Studies specific to high / low voltage conditions with specific reference to reactors or capacitors operation / requirement.
8. Identification of requirement of reactors as and when required
9. Co-relation of protection related issues from Studies as and when required
10. To draw out the contingency plan of Delhi Power System.
11. Islanding scheme of generating stations within Delhi.
12. Any other technical study referred by the GCC.

**20.2 Composition of System Study Committee:**20.2.1 General Manager (Planning) of STU shall be Chairperson of the System Study Committee and preside over the meetings. 20.2.2 Dy. G.M. (Planning) of STU entrusted with the system study shall be convener of this Sub- Committee.20.2.3 System Study Committee shall be represented by the Members of the GCC constituents at the level of Executive Engineers / Managers familiar with the subject.**20.3 Meetings:**The Commercial committee, the Protection committee and the System Study committee meetings will be held quarterly or as and when required to address the issues of urgent nature.System Study Group has also constituted with the following members :- |

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| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
|  |  | **S. N.**  | **Utility**  | **Main member**  | **Alternate member** |
| 01 | NDPL | **Sh. Sanjay Banga**HoG (Automation)CENNET Building, Adj. Pitampura-III Grid S/Stn, Opp. P.P. Jewellers, Pitampura, Delhi-110034Ph. 9818100660 | **Sh.Praveen Verma**Asstt. Manager (Network Analysis Group)Ph. 9971152897 |
| 02 | BRPL | **Sh. Devender Sharma**Manager (CES)BRPL/BYPLPh. 9350109504 |
| 03 | BYPL |
| 04 | NDMC | **Sh. A. K. Joshi**SE (E-IV)Pragati Bhawan, Jai Singh RoadNew Delhi-110001Mobile : 971724999 | **Sh. N. S. Sagar**SE (E-II)Room No. 1706, 7th FloorPalika Kendra, New Delhi-01Mobile : 9899041848 |
|  |  | 05 | IPGCL / PPCL | **ShSatyendra Prakash**Manager (Elec.-I), RPH, O&M Building, RPH, Ring Road, New Delhi-02Ph. 9717694813satyendrap@ipgcl-ppcl.gov.in | **Sh. Rajender Gupta**Asstt. Manager (Protection)O&M Building, PPCLRing Road, New Delhi-02Ph. 9717698293guptaraju@rediffmail.com |
| 06 | BTPS | **Sh. R. C. Agrawal**DGM (Electrical) | **Sh. L.K. Jain**DGM(OS-NCR) |
| 07 | DTL | **Sh. Raj Bhartiya, Chairman**G.M. (Planning)Shakti Deep Building,Jhandewalan, DelhiPh.23552070, 23536469Mo. 9818314817 | **Sh. Bhupender Nath,****Convener**Dy. G.M. (Planning)-IIShakti Deep Building,Jhandewalan, DelhiPh. 23520106, 23632031Mo. 9810299688 |
| 08 | MES | **Sh. Inderjeet Sing Bhatia**AEE /M, SLDC OfficerHQ CWE (Utilities)Delhi Cantt-10 | **Sh. A. K. Bajpai**AEE E/M, AGE E/M-IGE (Utilities) Elec. SupplyDelhi Cantt-110010 |
| 09 | SLDC | **Sh. A. K. Kaul,****G. M. (SLDC),**SLDC Building, 33kV Grid S/Stn, Minto Road, New Delhi-02**Phone:**Mobile: 9810299692Office: 011-23221091, Fax: 011-23221069 | **Sh. V. Venguopal**Dy. G.M. (SO)SLDC Building, 33kV Grid S/Stn, Minto Road, New Delhi-110002Mobile : 9871093902Office no.23221175, 23221149Fax. :23221012, 1059 |
| **It was decided to revive the committee and transact business as envisaged in the conduct or business rules of Sub-Committee of GCC and to implement the recommendations of the enquiry committee. It was also decided to use PSS /E software provided to STUs and SLDCs by PGCIL recently and *e-TAP* software available at SLDC to carry out the study in association with all stakeholders for real time contingency and long term planning. The coordinating agency of such studies is Planning Department of DTL**  |
| Clause | RECOMMENDATIONS  | STATUS AS ON DATE  |
| 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 132 kV level and above.SLDC was advised to ensure the implementation of the recommendations. |

**NEW ISSUES**

**3 OPERATIONAL ISSUES**

**3.1 POWER SUPPLY POSITION**

The power supply position for summer 2013 has been anticipated as under :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DELHI AS A WHOLE  |  |  |  | ALL FIGURES IN MW |
| **MONTH** | **1st Fortnight** | **2nd fortnight** |
| **APRIL 2013** | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 |
| DEMAND | 3350 | 3100 | 3900 | 4200 | 3800 | 3200 | 3100 | 4000 | 4400 | 4200 |
| AVAILABILITY | 4766 | 4769 | 4669 | 4793 | 4957 | 4716 | 4719 | 4669 | 4793 | 4957 |
| SURPLUS (+) / SHORTAGE (-) | **1416** | **1669** | **769** | **593** | **1157** | **1516** | **1619** | **669** | **393** | **757** |
| **MAY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 4200 | 3650 | 4500 | 5000 | 4600 | 4750 | 4450 | 5000 | 5500 | 5200 |
| AVAILABILITY | 5085 | 5085 | 5085 | 5244 | 5339 | 5085 | 5085 | 5085 | 5294 | 5339 |
| SURPLUS (+) / SHORTAGE (-) | **885** | **1435** | **585** | **244** | **739** | **335** | **635** | **85** | **-206** | **139** |
| **JUNE 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 5000 | 4500 | 5000 | 5700 | 5200 | 5200 | 4750 | 5400 | 5900 | 5400 |
| AVAILABILITY | 5226 | 5126 | 5126 | 5480 | 5512 | 5309 | 5203 | 5160 | 5529 | 5536 |
| SURPLUS (+) / SHORTAGE (-) | **226** | **626** | **126** | **-220** | **312** | **109** | **453** | **-240** | **-371** | **136** |
| **JULY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 5200 | 4800 | 5600 | 6000 | 5500 | 5200 | 4800 | 5600 | 5750 | 5500 |
| AVAILABILITY | 5623 | 5617 | 5324 | 5641 | 5714 | 5204 | 5204 | 5204 | 5458 | 5433 |
| SURPLUS (+) / SHORTAGE (-) | **423** | **817** | **-276** | **-359** | **214** | **4** | **404** | **-396** | **-292** | **-67** |
| **AUG 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 5000 | 4600 | 5600 | 5750 | 5500 | 4500 | 3900 | 4800 | 5200 | 4900 |
| AVAILABILITY | 5128 | 5292 | 5128 | 5382 | 5414 | 5097 | 5097 | 5097 | 5352 | 5383 |
| SURPLUS (+) / SHORTAGE (-) | **128** | **692** | **-472** | **-368** | **-86** | **597** | **1197** | **297** | **152** | **483** |
| **SEP 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 4600 | 4200 | 4600 | 5000 | 4900 | 4200 | 3800 | 4200 | 4500 | 4300 |
| AVAILABILITY | 4978 | 4978 | 4978 | 5137 | 5232 | 4926 | 4926 | 4926 | 5085 | 5180 |
| SURPLUS (+) / SHORTAGE (-) | **378** | **778** | **378** | **137** | **332** | **726** | **1126** | **726** | **585** | **880** |

|  |  |  |
| --- | --- | --- |
| **MONTH** | **1st Fortnight** | **2nd fortnight** |
| **APRIL 2013** | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 |
| DEMAND | 1368 | 1269 | 1578 | 1693 | 1554 | 1294 | 1260 | 1621 | 1767 | 1706 |
| AVAILABILITY | 1776 | 1779 | 1779 | 1832 | 1906 | 1755 | 1758 | 1808 | 1860 | 1934 |
| SURPLUS (+) / SHORTAGE (-) | **408** | **510** | **201** | **138** | **352** | **460** | **497** | **186** | **93** | **228** |
| **MAY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1730 | 1500 | 1839 | 2024 | 1880 | 1960 | 1839 | 2056 | 2233 | 2142 |
| AVAILABILITY | 1903 | 1903 | 1903 | 1972 | 2014 | 1903 | 1903 | 1903 | 1972 | 2014 |
| SURPLUS (+) / SHORTAGE (-) | **173** | **403** | **64** | **-52** | **133** | **-57** | **64** | **-153** | **-261** | **-128** |
| **JUNE 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 2079 | 1870 | 2057 | 2321 | 2142 | 2166 | 1979 | 2218 | 2406 | 2229 |
| AVAILABILITY | 1927 | 1927 | 1927 | 2037 | 2051 | 1976 | 1970 | 1927 | 2052 | 2075 |
| SURPLUS (+) / SHORTAGE (-) | **-152** | **56** | **-130** | **-283** | **-91** | **-190** | **-10** | **-292** | **-353** | **-154** |
| **JULY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 2166 | 2001 | 2305 | 2447 | 2264 | 2166 | 2001 | 2305 | 2336 | 2264 |
| AVAILABILITY | 2196 | 2190 | 1897 | 2070 | 2157 | 1897 | 1897 | 1897 | 2007 | 2021 |
| SURPLUS (+) / SHORTAGE (-) | **30** | **188** | **-409** | **-377** | **-107** | **-269** | **-105** | **-409** | **-328** | **-243** |
| **AUG 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 2079 | 1916 | 2318 | 2340 | 2275 | 1861 | 1611 | 1970 | 2109 | 2018 |
| AVAILABILITY | 1886 | 1947 | 1886 | 1997 | 2011 | 1903 | 1903 | 1903 | 2014 | 2028 |
| SURPLUS (+) / SHORTAGE (-) | **-193** | **30** | **-432** | **-343** | **-264** | **42** | **292** | **-67** | **-96** | **10** |
| **SEP 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1913 | 1748 | 1887 | 2022 | 2022 | 1739 | 1578 | 1726 | 1811 | 1765 |
| AVAILABILITY | 1858 | 1858 | 1858 | 1927 | 1968 | 1858 | 1858 | 1858 | 1927 | 1968 |
| SURPLUS (+) / SHORTAGE (-) | **-56** | **109** | **-29** | **-95** | **-54** | **119** | **279** | **132** | **116** | **203** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BYPL |  |  |  |  |  |  | ALL FIGURES IN MW |  |
| **MONTH** | **1st Fortnight** | **2nd fortnight** |
| **APRIL 2013** | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 |
| DEMAND | 855 | 793 | 986 | 1058 | 971 | 809 | 788 | 1013 | 1105 | 1066 |
| AVAILABILITY | 1235 | 1235 | 1219 | 1253 | 1313 | 1221 | 1221 | 1205 | 1240 | 1299 |
| SURPLUS (+) / SHORTAGE (-) | **380** | **442** | **233** | **195** | **342** | **412** | **433** | **192** | **135** | **233** |
| **MAY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1081 | 938 | 1150 | 1265 | 1175 | 1225 | 1150 | 1285 | 1396 | 1339 |
| AVAILABILITY | 1304 | 1304 | 1288 | 1331 | 1373 | 1304 | 1304 | 1288 | 1331 | 1373 |
| SURPLUS (+) / SHORTAGE (-) | **222** | **366** | **138** | **66** | **198** | **79** | **154** | **2** | **-65** | **34** |
| **JUNE 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1299 | 1169 | 1286 | 1451 | 1339 | 1354 | 1237 | 1387 | 1504 | 1393 |
| AVAILABILITY | 1318 | 1318 | 1301 | 1371 | 1396 | 1318 | 1318 | 1301 | 1371 | 1396 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **149** | **16** | **-80** | **57** | **-36** | **81** | **-85** | **-133** | **3** |
| **JULY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1354 | 1251 | 1441 | 1530 | 1415 | 1354 | 1251 | 1441 | 1460 | 1415 |
| AVAILABILITY | **1368** | **1368** | **1351** | **1421** | **1471** | **1368** | **1368** | **1351** | **1421** | **1446** |
| SURPLUS (+) / SHORTAGE (-) | **14** | **117** | **-90** | **-109** | **56** | **14** | **117** | **-90** | **-39** | **31** |
| **AUG 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1299 | 1198 | 1449 | 1463 | 1422 | 1163 | 1007 | 1231 | 1318 | 1261 |
| AVAILABILITY | 1358 | 1399 | 1343 | 1412 | 1436 | 1369 | 1369 | 1354 | 1423 | 1447 |
| SURPLUS (+) / SHORTAGE (-) | **58** | **201** | **-106** | **-51** | **14** | **206** | **362** | **122** | **105** | **186** |
| **SEP 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1196 | 1093 | 1179 | 1264 | 1264 | 1087 | 987 | 1079 | 1132 | 1103 |
| AVAILABILITY | 1322 | 1322 | 1307 | 1350 | 1391 | 1322 | 1322 | 1307 | 1350 | 1391 |
| SURPLUS (+) / SHORTAGE (-) | **126** | **229** | **127** | **86** | **127** | **235** | **335** | **228** | **218** | **288** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TPDDL |  |  |  |  |  |  | ALL FIGURES IN MW |  |
| **MONTH** | **1st Fortnight** | **2nd fortnight** |
| **APRIL 2013** | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 |
| DEMAND | 916 | 850 | 1056 | 1134 | 1040 | 867 | 844 | 1085 | 1183 | 1142 |
| AVAILABILITY | 1421 | 1421 | 1321 | 1358 | 1405 | 1407 | 1407 | 1307 | 1344 | 1391 |
| SURPLUS (+) / SHORTAGE (-) | **505** | **572** | **265** | **225** | **365** | **540** | **563** | **222** | **161** | **248** |
| **MAY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1158 | 1004 | 1231 | 1355 | 1259 | 1313 | 1231 | 1377 | 1495 | 1434 |
| AVAILABILITY | 1545 | 1545 | 1545 | 1592 | 1619 | 1545 | 1545 | 1545 | 1642 | 1619 |
| SURPLUS (+) / SHORTAGE (-) | **387** | **541** | **314** | **236** | **360** | **233** | **314** | **169** | **146** | **185** |
| **JUNE 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1392 | 1252 | 1377 | 1554 | 1434 | 1450 | 1325 | 1485 | 1611 | 1493 |
| AVAILABILITY | 1648 | 1548 | 1548 | 1723 | 1732 | 1682 | 1582 | 1582 | 1757 | 1732 |
| SURPLUS (+) / SHORTAGE (-) | **257** | **296** | **171** | **169** | **298** | **232** | **257** | **97** | **146** | **239** |
| **JULY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1450 | 1340 | 1544 | 1638 | 1516 | 1450 | 1340 | 1544 | 1564 | 1516 |
| AVAILABILITY | 1726 | 1726 | 1726 | 1801 | 1753 | 1606 | 1606 | 1606 | 1681 | 1633 |
| SURPLUS (+) / SHORTAGE (-) | **276** | **386** | **183** | **162** | **237** | **156** | **266** | **63** | **117** | **117** |
| **AUG 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1392 | 1283 | 1552 | 1567 | 1523 | 1246 | 1079 | 1319 | 1412 | 1351 |
| AVAILABILITY | 1574 | 1614 | 1574 | 1649 | 1658 | 1518 | 1518 | 1518 | 1592 | 1601 |
| SURPLUS (+) / SHORTAGE (-) | **183** | **331** | **22** | **82** | **135** | **272** | **439** | **199** | **179** | **250** |
| **SEP 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 1281 | 1171 | 1263 | 1354 | 1354 | 1164 | 1057 | 1156 | 1212 | 1182 |
| AVAILABILITY | 1489 | 1489 | 1489 | 1535 | 1563 | 1437 | 1437 | 1437 | 1483 | 1511 |
| SURPLUS (+) / SHORTAGE (-) | **208** | **318** | **225** | **181** | **209** | **272** | **380** | **281** | **271** | **329** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NDMC |  |  |  |  |  |  | ALL FIGURES IN MW |  |
| **MONTH** | **1st Fortnight** | **2nd fortnight** |
| **APRIL 2013** | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 |
| DEMAND | 180 | 160 | 250 | 280 | 200 | 200 | 180 | 250 | 310 | 250 |
| AVAILABILITY | 284 | 284 | 300 | 300 | 284 | 284 | 284 | 300 | 300 | 284 |
| SURPLUS (+) / SHORTAGE (-) | **104** | **124** | **50** | **20** | **84** | **84** | **104** | **50** | **-10** | **34** |
| **MAY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 200 | 180 | 250 | 320 | 250 | 220 | 200 | 250 | 340 | 250 |
| AVAILABILITY | 284 | 284 | 300 | 300 | 284 | 284 | 284 | 300 | 300 | 284 |
| SURPLUS (+) / SHORTAGE (-) | **84** | **104** | **50** | **-20** | **34** | **64** | **84** | **50** | **-40** | **34** |
| **JUNE 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 200 | 180 | 250 | 340 | 250 | 200 | 180 | 280 | 345 | 250 |
| AVAILABILITY | 284 | 284 | 300 | 300 | 284 | 284 | 284 | 300 | 300 | 284 |
| SURPLUS (+) / SHORTAGE (-) | **84** | **104** | **50** | **-40** | **34** | **84** | **104** | **20** | **-45** | **34** |
| **JULY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 200 | 180 | 280 | 350 | 270 | 200 | 180 | 280 | 355 | 270 |
| AVAILABILITY | 284 | 284 | 300 | 300 | 284 | 284 | 284 | 300 | 300 | 284 |
| SURPLUS (+) / SHORTAGE (-) | **84** | **104** | **20** | **-50** | **14** | **84** | **104** | **20** | **-55** | **14** |
| **AUG 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 200 | 175 | 250 | 345 | 250 | 200 | 175 | 250 | 325 | 240 |
| AVAILABILITY | 260 | 284 | 275 | 275 | 260 | 259 | 259 | 274 | 274 | 259 |
| SURPLUS (+) / SHORTAGE (-) | **60** | **109** | **25** | **-70** | **10** | **59** | **84** | **24** | **-51** | **19** |
| **SEP 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 180 | 160 | 240 | 325 | 230 | 180 | 150 | 210 | 310 | 220 |
| AVAILABILITY | 260 | 260 | 276 | 276 | 260 | 260 | 260 | 276 | 276 | 260 |
| SURPLUS (+) / SHORTAGE (-) | **80** | **100** | **36** | **-49** | **30** | **80** | **110** | **66** | **-34** | **40** |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MES |  |  |  |  |  |  | ALL FIGURES IN MW |  |
| **MONTH** | **1st Fortnight** | **2nd fortnight** |
| **APRIL 2013** | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 | 00-03 | 03-09 | 09-12 | 12-18 | 18-24 |
| DEMAND | 30 | 28 | 30 | 35 | 35 | 30 | 28 | 30 | 35 | 35 |
| AVAILABILITY | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **21** | **19** | **14** | **14** | **19** | **21** | **19** | **14** | **14** |
| **MAY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 30 | 28 | 30 | 35 | 35 | 32 | 30 | 32 | 35 | 35 |
| AVAILABILITY | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **21** | **19** | **14** | **14** | **17** | **19** | **17** | **14** | **14** |
| **JUNE 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 30 | 28 | 30 | 35 | 35 | 30 | 28 | 30 | 35 | 35 |
| AVAILABILITY | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **21** | **19** | **14** | **14** | **19** | **21** | **19** | **14** | **14** |
| **JULY 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 30 | 28 | 30 | 35 | 35 | 30 | 28 | 30 | 35 | 35 |
| AVAILABILITY | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **21** | **19** | **14** | **14** | **19** | **21** | **19** | **14** | **14** |
| **AUG 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 30 | 28 | 30 | 35 | 30 | 30 | 28 | 30 | 35 | 30 |
| AVAILABILITY | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **21** | **19** | **14** | **19** | **19** | **21** | **19** | **14** | **19** |
| **SEP 2013** |  |  |  |  |  |  |  |  |  |   |
| DEMAND | 30 | 28 | 30 | 35 | 30 | 30 | 28 | 30 | 35 | 30 |
| AVAILABILITY | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| SURPLUS (+) / SHORTAGE (-) | **19** | **21** | **19** | **14** | **19** | **19** | **21** | **19** | **14** | **19** |

Note: In the above computation, only 100MW power of Jhajjar (BRPL share) is considered whereas the availability is 231MW as on date. .

It was informed that the Govt. Of Delhi and DERC has regularly being monitoring the power supply position for the coming summer months. The recent review was held on 1st March 2013 at Delhi Secretariat by Principal Secretary (Power), the other is scheduled on 16.03.2013 by Addl. Secretary (Power), Govt. of India. The issue was discussed in DERC on 18.01.2013 in 26th Coordination forum meeting. The salient features of discussions and decisions to meet the summer demand are as under :-

i) Distribution Licensees – BRPL & BYPL – have floated tenders for purchase of power under banking agreements. It was also assured that day ahead purchases would also be carried out during the shortage period.

ii) NDMC has assured that to meet the shortfall, 30-50MW power would be purchased on firm basis during afternoon hours through PTC and balance left out would be met through day ahead purchases from Indian Energy Exchange.

iii) Delhi Power Procurement Group consisting the members of Distribution Licensees, NDMC, DTL and SLDC in its meeting held on 06.03.2013 has also decided to use the surplus power of one discom by shortage utility during low frequency regime to obviate load shedding. The methodology adopted is as under :-

a) No Distribution Licensee should be compelled to carry out load shedding in their areas under over drawal conditions if Delhi as a whole is not over drawing from the Grid in the respective frequency band fixed in IEGC.

b) While drawing out drawal schedules of Distribution Licensees on the basis of Special Energy Meter (SEM) readings, Delhi SLDC would transfer the surplus power available with any Discom to Distribution Licensees who is in shortage in proportion to their shortage when shortage is more than surplus, otherwise in proportion to surplus available. This transaction only occurs in 15 minutes time block when the frequency is below the band wherein the any penalty is applicable to any Discom. All these transaction would be on post facto basis.

c) Delhi SLDC shall issue Monthly Energy Accounts of such transfer after the receipt of entire month’s SEM data.

d) The rate would be the frequency linked UI rate prevailing at the time and applicable only when the frequency band is below the penalty level which is at present 49.7Hz. Hence, the rate of these inter discom transfer of power would be at UI Rate when penalty is applicable which is at present 49.7Hz. and rate at this frequency is presently Rs. 9.00/kWh.

e) The availing utility has to pay the supplying utilities within 10 days of the issue of the Accounts by SLDC (to be posted in SLDC website) failing which the delayed payment surcharge of 0.04% per day from the date of issue of the Accounts would be applicable.

iv) In the 26th meeting of the Coordination Forum of DERC held on 18.01.2013, the Commission has decided the diversion of unscheduled power to the needy distribution licensees. The charges would be variable cost and 50% fixed charges calculated on normative PLF fixed for the recovery of the fixed charges as per the relevant regulations in case, it is not recalled by the original allottee in the sixth time block. In case the power is recalled by the original allottee in 6th time block, only variable charges would be paid.

vi) In Bawana CCGT, only 208MW is considered against the capacity allocation of about 530MW. If gas is made available, more power would be available.

**3.2 SUGGESTIONS TO OVERCOME THE TRANSMISSION CONSTRAINTS.**

The peak demand during summer months is expected 6000MW during June– July 2013. The transmission capacity as per the present information is 6100MW subject to commissioning of 400kV Dadri - Harsh Vihar Double Ckt. Line (100MW) and revival of 220kV AIIMS - Ridge Valley Double Ckt underground cable (300MW). As per the planning criteria for ensuring hassle free meeting of 6000MW demand, the transmission capacity requirement is 9000MW. Due to the less transmission capacity available, occasional congestion can not be ruled out, though peak demand occurs only for 0.1% age of the time in a month as per the previous years records.

The transmission and distribution constraints were discussed in details in the meeting held on 05.02.13 at SLDC chaired by Dir. (Operations), DTL. The gist of the discussions on the issue of increase of transmission capacity is as under :-

1. CEA has cleared the proposal of increasing the transformation capacity at Mandola 400kV S/stn of PGCIL from existing 1260MVA capacity (4nos. 400/220kV 315MVA ICTs) with 2000MVA capacity (4nos. 400/220kV 500MVA ICTs) resulting in increase of 740MVA (600MW) capacity. Augmentation expected before summer 2014.
2. All 3nos. ICTs of 400/220kV 315MVA at Ballabhgarh to 500MVA with enhancement of 555MVA (450MW) by summer 2014. This would enhance the reliability of supply through 220kV Ballabhgarh-BTPS Double Circuit line during summer months.
3. Commissioning of 220kV Wazirpur-II S/stn – all out efforts are taken to commission the S/stn at least by 31.05.2013 (TPDDL has very stressfully emphasized the need of commissioning of the S/stn by this date otherwise load shedding in continuous basis would have to be resorted in north Delhi).
4. Commissioning of 220kV Peeragarhi S/stn on war footing – With present position the sub-station may be commissioned by 31st December 2013. Though, it was expected to be commissioned on 30.06.2013, the delay is due to getting RBI approval for opening Project Account for INR payment to the successful Chinese bidder.
5. 220kV Najafgarh – Kanjhawala Ckt to be LILO at Mundka during this summer – Tower cast completion is expected by 30.06.2013 thereafter shutdown of the Ckt for 15days for LILO.
6. The scheme for line capacity enhancement between Mandola to BTPS namely 220kV Mandola - Wazirabad (4 ckts), 220kV Wazirabad-Geeta Colony (D/C), 220kVGeeta Colony – Patparganj (D/C), 220kV Patparganj – IP (D/C), 220kV IP – IP Extn (Pragati) (D/C), 220kV IP Extn (Pragati) – Sarita Vihar (D/C), 220kV Sarita Vihar - BTPS (D/C) should be prepared so that critical portions can be enhanced before summer 2014. It must be ensured that 220kV Wazirabad - Geeta Colony (D/C), 220kVGeeta Colony – Patparganj (D/C), 220kV Patparganj – IP (D/C), 220kV IP – IP Extn (Pragati) (D/C) lines conductors are replaced with high capacity conductors before summer 2014. Later 220kV Mandola - Wazirabad (4 ckts) and 220kV IP Extn (Pragati) – Sarita Vihar **[**after removing LILO of one Ckt at Maharanibagh after the commissioning of 220kV Maharani Bagh - Gazipur (D/C) line**]** and 220kV Sarita Vihar – BTPS could be taken up for enhancement before summer 2015. Switchgear enhancement would be taken subsequently.

It was emphasized the need to augment the circuit between 220kV Bamnauli – Pappankalan-I ckt-I & II and 66kV Bus bars and other allied equipments at Pappankalan-I before summer 2014 along with the augmentation of existing 220/66kV 100MVA two transformers to 220/66kV 160MVA transformers.

Planning Department of DTL has to prepare the schemes as quick as possible so that the system is made available before summer 2014.

1. Now UP Govt. irrigation deptt. has recommended approval for casting the towers of 220kV Maharanibagh - Gazipur D/C line in their area, the approval from UP Govt. needs to expedited. By the time DTL should complete all other works so that the 220kV Maharanibagh – Gazipur D/C line can possibly be commissioned during summer 2013. As a positive note in this regard, in the 84th OCC of NRPC held on 19.02.2013, the UP Power Transmission Company has informed that they would also coordinate with their State Government for earlier clearance provided 100-150MW power is given to UP through these circuits while augmenting existing 315MVA transformer to 500MVA transformer at Greater Noida S/Stn during April – May 2013 which has been agreed too. This would ensure additional 200MW transmission capacity
2. The establishment of link between 220kV Kashmeregate – RPH should be done so that a parallel link between 220kV Harsh Vihar – Wazirabad – Kashmeregate –RPH could be established for ensuring reliability of central and east Delhi areas.
3. DTL should plan and implement the S/stn being installed at East Delhi for which land has been recently taken over by DTL as quick as possible and alternate 220kV link should be established namely 220kV Harsh Vihar – Wazirabad – Anand Vihar (new s/stn) – Patparganj.
4. Before summer 2013 the augmentation / revival is planned as under :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sr. No.  | Name of element  | Date of outage | Expected date of revival  | Remarks |
| 1 | Mehrauli – Additional 220/66kV 160MVA Tx  | Addition | 31.05.2013 |  |
| 2 | Wazirabad - Additional 220/66kV 160MVA Tx  | Addition  |  31.052013 | Tender for ETC has been opened on 08.03.13. Process for awarding the work is being taken so that the elements are available for the peak summer |
| 3 | Gazipur - Additional 220/66kV 160MVA Tx  | Addition  | 31.05.2013 |
| 4 | Pappankalan-II - Additional 220/66kV 160MVA Tx  | Addition  | 31.05.2013 |  |
| 5 | Okhla – 220/33kV 50MVA Tx to 220/33kV 100MVA Tx  | Augmentation  | 31.05.2013 |  |
| 6 | Okhla – 220/66kV 100MVA Tx-2 | 16.10.2012 | 30.04.2013 | The Tx damaged. The erection of new Tx is under progress.  |
| 7 | IP – 220/33kV 100MVA Tx-3 | 24.07.2012 |  30.04.2013 |
| 8 | Electric Lane- 220/33kV 100MVA Tx-2 | 20.09.2012 |  31.07.2013 | Transformer is being attended at works. |
| 9 | 220kV Naraina-Ridge Valley Ckt | 17.09.2012 | 31.03.2013 | Cable damaged during construction work of DMRC. |
| 10 | 220kV AIIMS –Ridge Valley Ckt-I & II | Double Ckt out since date of test charging. | 31.05.2013. |  |
| 11 | 220/33kV 100MVA Tr-II at Masjid Moth  | 15.02.2013 | Energized on 26.03.2013 | While doing the ten delta test, the winding of the transformer has shown poor ten delta. BHEL carried out internal inspection. |
| 12 | 220kV Ridge Valley – Naraina Ckt |  | 31.03.2013 | Cable damaged in excavation work of Metro. |

k) To ensure maximum evacuation from Mundka and to reduce loading on transformers at 220kV Najafgarh, BRPL be allowed to connect the Paschim Vihar feeder from Nangloi to utilize maximum capacity of Nangloi cables emanating from Mundka. TPDDL is of the view that the T-off portion of Mangolpuri - Nangloi Ckt-I & II is required to be disconnected at Nangloi Grid so that TPDDL could directly feed Mangolpuri Grid from Mundka. The disconnection issue could not be resolved in the Steering Committee held on 30.01.2013 and referred the issue to GCC for decision. The relevant portion of the MoM is given hereunder :-

**Proposed 1 No.of 66kV Circuit from Mundka to MangolPuri-1 :**

TPDDL submitted that the additional 1 No. of 66KV bay from Mundka to MP-1 Grid at 400kV Mundka has already been allocated to TPDDL. Now TPDDL proposed to lay the 66kV circuit(1x1000 sq.mm. XLPE with approx route length 10 km) from Mundka to MP-1 grid which would be connected as T-Off to 66kV MP-1 to Nangloi Ckt-2 as there is no space for additional 66kV bay at MP-1. Commissioning of this circuit would help in evacuation of the power from Mundka to TPDDL network and also helpful to reduce the loading at Rohini 220 kV grid.

Further TPDDL submitted that they has already laid one 66kV circuit from Mundka to MP-1 grid by making T-Off to 66kV MP-1 to Nangloi Ckt-1. They requested that the T-Off portion of existing 66kV MP-1 to Nangloi Ckt-1 is required to be disconnected at Nangloi grid end so that feed could be direct from 400KV Mundka to MP-1 Grid. Similarly, T-Off portion of Nangloi Ckt-2 is also required to be disconnected at Nangloi grid end.

BRPL informed that the part of the load of Nangloi grid is fed from Mundka/Mangolpuri (with restriction at 40MVA) through the Nangloi to MP-1 line. Therefore at present they could not disconnect this Mangolpuri to Nangloi line at Nangloi end. However, it was decided that BRPL & TPDDL shall mutually discuss/review the proposal keeping in view the load flow in the area after commissioning of 220kV Peeragarhi substation.

Steering committee discussed and agreed in principle for laying the 66kV circuit (1x1000sq.mm. XLPE) from Mundka to MP-1 grid which would be connected as T-Off to 66kV MP-1 to Nangloi Ckt-2.

GCC perused the matter and observed that as per the amended Delhi Grid Code notified on 20.01.2012, the Planning Steering Committee is competent forum to decide the issue. The relevant portion of the amended Delhi Grid Code has also been referred to which is given hereunder:-

4 Amendment of Clause No. 8.4

 8.4(ii) Planning Steering Committee

A Planning Steering Committee consists of members from DTL, DISCOMs, NDMC, MES, IPGCL / PPCL, not below the rank of DGM or equivalent, shall be constituted under STU. The role and responsibility of the Planning Steering Committee shall be as under :

1 To develop an integrated and consolidated implemented plan and monitoring thereof.

2 The Steering Committee shall issue guidelines for submission of proposals by Distribution Licensees which shall include

 a) Year wise Load estimates for five years

b) Load Flow study of existing and proposed system for five years time horizon on yearly basis

c) The proposal shall include power exchanges between Distribution Licensees.

d) Distribution Licensees shall submit sub transmission scheme / Reports to the Commission based on the proposals approved by the Steering Committee. The recommendations / approval of Steering Committee shall be binding and Distribution Licensees shall make any change in the Sub-Transmission Schemes only after the prior approval of the Steering Committee.

3 The criteria for planning shall be as per Planning Code (to be formulated by STU within three months)

Planning Department of DTL’s representative informed that the matter would be discussed and decided in forthcoming Steering Committee meeting scheduled to be held on 11.03.2013.

l) There are three bays at Electric Lane namely 33kV Delhi High court, Janpath, IG&CA for which even lands have not been allotted to NDMC for establishing receiving end S/Stns. Out of these unutilized three bays, atleast two bays be allotted to BYPL to give the relief to the already congested 220kV Wazirabad-Geeta Colony – Patpar Ganj - IP link apart from evacuation maximum power from Maharani Bagh 400kV S/Stn.

In the meeting held on 01.03.2013 at GNCTD, it was intimated that to sort out the issues, a meeting is scheduled on 04.03.2013 in which NDMC and other utilities would discuss and resolve the issue.

NDMC informed that the meeting was held on 04.03.2013, it was told that NDMC was not in a position to spare any bay as all the bays have earmarked for future consumes / sub-stations.

SLDC representative informed that due to low load demand during winter nights continuous high voltage conditions persists in the Grid. Due to high voltages, Grid disturbances have occurred on 05.02.2013 where entire Bawana S/Stn became zero and tripping of 220kV line occurred at Maharani Bagh. SLDC also cited the trippings occurred at 03.38hrs. on 30.11.2012 at Maharani Bagh where all 220kV lines tripped at Maharani Bagh due to high voltages causing the trippings of generating units of Pragati and GT. 220kV Maharani Bagh – Lodhi Road Ckt-I & II, 220/66kV transformers and lines at Park Street also tripped causing the supply failure in major parts of NDMC and South Delhi areas. It was also intimated that both 220kV Electric Lane Ckt-I & II put off to control high voltages at Maharani Bagh during entire winter season causing the threat to reliability of the system apart from non usage of the national assets. It was also emphasized that to ensure the reliability of supply to NDMC areas also, the full loading of the feeders is required to be ensured to avoid high voltages and associated trippings.

BRPL and BYPL representatives referred decisions taken in the meeting held on 05.02.2013 in SLDC wherein it was decided to reallocate the bays in case of non usages within one year of date of allotment.

**GCC advised the Planning Department of DTL to list out the non usage bays at 220kV and 400kV S/Stns and take decision for reallocation in case, it is needed by other utilities preferably in the proposed meeting of Steering Committee meeting to be held on 13.03.2013.**

m) The spare bays (2nos) at AIIMS (Trauma Center) needs to be allocated to BRPL for maximum evacuation of power from 400kV Maharanibagh through 220kV Maharanibagh – AIIMS Double Ckt Line.

In the meeting held on 01.03.2013 at GNCTD, it was intimated that to sort out the issues, a meeting is scheduled on 04.03.2013 in which NDMC and other utilities would discuss and resolve the issue.

It was informed that only two spare bays are available at 200kV AIIMS Grid which are also earmarked for upcoming sub-stations of NDMC. However, NDMC representative could not provide the details of the upcoming grid and timeline for the usage of spare bays.

It was also informed that the entire winter season, to avoid trippings, as happened on 30.11.2012, one of the circuits between Maharani Bagh and AIIMS is kept out of the service causing the instability of supply. Optimum loading should be ensured not only to avoid supply interruption but also to ensure the optimum usage of sparingly available national assets.

**Considering the seriousness of the issue, GCC reiterated the decision that Planning Department of DTL needs to list out the non usage bays at 220kV and 400kV S/Stns for more than one year from allocation and take decision for reallocation in case, it is needed, preferably in the proposed meeting of Steering Committee to be held on 13.03.2013**

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

 It was informed by SLDC that at present the capacitor position in Delhi is as under :

|  |  |  |
| --- | --- | --- |
| Sl. No. | Utility | Installed capacity in MVAr |
| HT | LT | Total |
| 1 | TPDDL | 657 | 119 | 776 |
| 2 | BRPL | 1158 | 242 | 1400 |
| 3 | BYPL | 864 | 102 | 966 |
| 4 | NDMC | 180 | 24 | 204 |
| 5 | MES | 20 | 0 | 20 |
| 6 | IPGCL | 20 | 0 | 20 |
| 7 | DTL | 754 | 0 | 754 |
|  | **Total** | **3653** | **487** | **4140** |

As per the capacitor study conducted by NRPC, Delhi has to install additional 1014 MVAR by 31.03.13.

In the meeting held on 05.02.2013 at SLDC, Distribution licensees have given the plan for addition of capacitors as under :

|  |  |  |  |
| --- | --- | --- | --- |
| Utility | Planning for installation of additional capacity in MVAr | Total in MVAr | Remarks |
|  | 2012-13 | 2013-14 |  |  |
| TPDDL | 10.8 | 61.2 | 72.2 |  |
| BRPL | 32.4 | 135 | 167.4 | Additional 256.4MVAr capacity is planned to be added at LT level in 2013-14 |
| BYPL | 10.8 | 97.2 | 108 | Approval for 32.4MVAr has already been accorded by DERC.  |
| NDMC | 65.52 | 60.48 | 126 | 5.04MVAr capacitor is also planned for Ali Ganj, Jorbagh for which building is yet to be constructed. |
| MES | -- | -- | -- | The installed capacity 21.1MVAr is sufficient to meet the load of MES. However for voltage regulation they have planned additional caapcity at LT level for 2013-14. |
| Total | 119.52 | 353.88 | **473.4** |  |

The representatives of Distribution Licensees were of the view that even though it was decided in one of the meetings held at Planning Deptt. of DTL in July 2009 to conduct a study with regard to actual requirement of capacitors in Delhi and the location at which the additional capacitors are required, even after passing 3 years no study has been conducted. They requested DTL’s Planning Deptt to expedite the study so that installation of additional capacities can be pursued with DERC for CAPEX purpose.

In the last Delhi OCC meeting held on 25.02.2013, the Planning Deptt. of DTL has informed that the capacitor requirement study was being entrusted to CPRI. The study is expected to be completed within two months after the order. All utilities were requested to provide the required data to DTL.

It was informed that the Material Management Department of DTL is likely to place the order on CPRI for Capacitor Study by 20th of this month (subsequently, it is confirmed that the order has been placed on 20.03.2013 to CPRI).

**GCC opined that CPRI should carry out a comprehensive study for reactive power management looking into the variation in large peak (during summer) and low off peak demand (during winter nights) being the load characteristic of Delhi and large system augmentation work undertaken in Delhi system in recent times. It also opined that if required, SVC like facilities is required to be adopted so that the facility can absorb and inject reactive power according to the requirement.**

**3.4 STRATEGY TO MEET THE IMPLICATIONS OF CLOSING RPH STATION**

The issue has continuously been discussed in the monthly OCC meetings. In the recent meetings, it was given to understand that the closure has been extended by two years. In the OCC meetings BYPL, the distribution utility whose area is fed mostly by the feeders emanating from RPH has been apprehending the possible outages due to poor maintenance of the yard in view of the possible closure of RPH Plant. They requested IPGCL and DTL to take appropriate action to avoid such happenings in summer months.

Director (Technical), IPGCL informed that the RPH plant is likely to continue generation for two more years for which they are approaching their Board of Directors for approval in its meeting to be held by end of this month. It is expected that DTL would construct 220kV GIS and associated bays equipments by the time so that the supply to the areas feed from the station are not affected.

As far as the maintenance issue is concerned, he assured that the proper maintenance would be carried out before the onset of summer though they are facing severe financial crunch due to non payment of dues by BRPL & BYPL. He further opined that previous year disruptions were not regular but occasional due to the problems beyond their control like bus faults following the incident of monkey menace etc.

**3.5 WORK OF REPLACEMENT OF PORECELAIN INSULATORS WITH POLYMER AND REPLACEMENT OF CONDUCTORS OF 220KV NARELA–ROHTAK ROAD TRANSMISSION LINES OWNED BY BBMB.**

Delhi OCC has continuously been monitoring the issue. The matter was also under the consideration of DERC vide petition no. 72/2008 filed by TPDDL. As per the order dated 22.02.2013, the petition was dismissed on jurisdictional issue. The relevant order is appended hereunder :

**ORDER**

(Date of Hearing 19.02.2013)

(Date of Order: 22.02.2013)

1. Mr. Pradeep Dahiya, Ld. Counsel for Bhakra Beas Management Board (BBMB) submitted that Hon’ble Appellate Tribunal for Electricity in Appeal No. 183 of 2011 in the matter of BBMB vs. CERC and Anrs. upheld the impugned order dated 15.09.2011 of CERC wherein CERC has held that it has jurisdiction over BBMB under this Act. The ATE dismissed the said appeal vide its order dated 14.12.2012.
2. In view of the above, the Commission is of the view that it has no jurisdiction over BBMB. Therefore, it is not appropriate to hear this Petition filed by erstwhile NDPL.
3. This Petition is dismissed.
4. Ordered accordingly.

BBMB representative informed that they are challenging the order of Appellate Tribunal of Electricity upholding the authority of CERC to regulate the tariff and other related issues in Supreme Court.

With regard to the other issues, the status is as under :-

|  |  |  |
| --- | --- | --- |
| **S. N** | **Issue** | **Status as on date** |
| 1 | Replacement of porcelain insulators with polymer insulators and replacement of conductor on 220kV Narela– Rohtak Road transmission line | BBMB has intimated that NIT in this regard was floated but no bidder has shown interest in NIT. BBMB urged DTL authorities for getting the work done as DTL is the State Transmission Utility for Govt. of NCT of Delhi also responsible for ensuring stable supply in NCT of Delhi.O&M Department of DTL expressed their inability to provide any assistance as they do not have the expertise to carry out such works particularly due to the fact that the earlier the 220kV circuits between Narela and Rohtak Road was 132kV which have been enhanced to 220kV and line clearances are also very less. |
| 2 | Proposal for reinforcement of BBMB Rohtak Road Grid S/Stn from a source like 400kV Mundka | In the meeting held on 23.01.13 at BBMB, Chandigarh wherein the representatives of DTL, TPDDL were present, it was decided to explore the possibility of providing additional feed to Rohtak Road preferably from 400kV Mundka S/Stn. BBMB authorities agreed to consider the proposal once it is received from DTL.G.M.(O&M)-I, DTL informed that they have already forward the case to Planning Department.Planning Department representative informed that they are examining the issue. |
| 3 | Parallel operation of 2 nos. 220/33kV 100 MVA Transformers at BBMB 220kV Rohtak Road S/Stn. | In the meeting held on 23.01.2013 at Chandigarh, it was decided that the proposal would be discussed in the coordination meeting of BBMB once the request of DTL is received |

**GCC advised Planning Department of DTL to immediately explore the possibility of providing additional source at Rohtak road S/Stn including the possibility of construction of 220kV GIS for better stability of areas fed from Rohtak Road (at present the sub-station is fed only from 220kV Narela S/Stn of DTL) for which, space is also available at BBMB Rohtak Road S/Stn.**

**SLDC was advised to request BBMB for parallel operation of 220/33kV 100MVA transformers as one transformer is kept as hot reserve for better reliability and to avert load constraints during peak summer months.**

**4 COMMERCIAL ISSUES.**

**4.1 Scheduling and associated issues of 16MW Generating Plant of Timapur – Okhla Waste Management Company Pvt Ltd (towmcl) Okhla Plant.**

The 16MW Waste to Energy Plant of TOWMCL has been declared in commercial operation from 01.10.2012.

BRPL and TOWMCL have entered into a PPA for purchase of power from the plant being the host Discom. As per the provision of PPA, 50% of the power generated in the plant is to be given to BRPL at a rate arrived in bidding. Balance 50% power can be traded to other party. TOWMCL has requested for open access for the banked power with BRPL (balance 50% power is treated as banked power) for sale to other party. Since, Intrastate open access procedures have not yet been approved by State Electricity Regulatory Commission, TOWMCL has given a undertaking that all UI impact would be absorbed by them subject to the decision of the State Commission.

SLDC has forwarded the application for BRPL for their consent on 04.02.2013 with the following remarks :-

In case if BRPL agrees the open access transaction of 5MW power on Round The Clock Basis from 06.02.2013 to 28.02.2013 the following methodology would be adopted as decided in the meeting held on 03.04.2012 at the plant site. The salient features are as under:

i) TOWMCL can sale the power to third party of 50% of the capacity after meeting the auxiliary requirement i.e. 6.24MW on day ahead basis after the COD of the station. This power could be traded by the generating company through open access. Once the power is sold through open access route, UI needs to be applied for mismatched energy of TOWMCL power. To meet the criteria of Must Run, the schedule for open access could be fixed on the basis of 50% of the actual generation converting into 15 minutes time block and match with scheduled quantum for open access and UI would be made applicable for the mismatched quantum as per the UI regulations.

ii) Such mismatch and corresponding UI amount could be deducted from the billed amount for 50% generation to BRPL as per the PPA at a settled rate, on monthly basis. The proposed methodology is on the basis of the fact that the generator is located in the BRPL’s controlled area and the entire generation of the power station is consumed locally by the utility. Any variation of generation gets automatically affected the BRPL’s drawal from the grid and imposition of corresponding UI which is proposed to be adjusted in the bill of the generator.

1. In case the generator goes for open access for the sale of 50% quantum available with it the following charges are required to be paid by the generator who is obviously being the applicant for the sale of energy.

|  |  |  |  |
| --- | --- | --- | --- |
| Sr. No.  | Component of Open Access  | Charges (Rs.) | Remarks  |
| 1 | Application Charges  | 5000 per application | If the sale is to the intrastate utilities within Delhi to be paid to SLDC. For the purpose of interstate transactions the same would also be given to SLDC for consent of the such transactions.  |
| 2 | Scheduling charges for SLDC, Delhi | 2000 per day  | If the sale is to the intrastate utilities within Delhi to be paid to SLDC within three days after the approval of the open access on monthly basis. For the purpose of interstate transactions the same would be charges by the nodal RLDC and reimburse the same to SLDC Delhi.  |
| 3 | STU Charges of Delhi | 80 per MWh | If the sale is to the intrastate utilities within Delhi to be paid to SLDC within three days after the approval of the open access to Delhi SLDC. SLDC shall reimburse the same to DTL on monthly basis after the receipt of the amount. For the purpose of interstate transactions the same would be charges by the nodal RLDC and reimburse the same to SLDC Delhi/ DTL.  |
| 4 | Wheeling charges  | 0.43/PS per unit | To be paid directly to BRPL within 3 days after the approval of the open access. The rate is based on the retail tariff order of DERC dt. 13.07.2012 for BRPL for the FY 2012-13. |
| 5 | CTU charges  | 11.19Ps/unit(only for Delhi injection) | Applicable for interstate transaction only. The drawal charges would be as per the drawal point. The collection and disbursement lies within the responsibility of nodal RLDCs.  |
| 6 | Cross subsidy charges  | Nil  | Being the generator  |
| 7 | Additional surcharge  | Nil  | Being the generator  |
| 8 | Losses (in form of kind) |  |  |
| (i) | STU losses of Delhi  | 1.21% |  |
| (ii) | Wheeling losses (BRPL) | 1.41% |  |
| (iii) | CTU losses (for Delhi injection) | 2%  | Varies on weekly basis |
| (iv) | CTU Drawal losses  | 1.53% -4.3% | Varies on weekly basis and on drawal point  |
| (v) | Other state losses  | Depend upon the drawal point |

iv) In case the generator could not get any buyer for the 50% capacity allowed for sale to the third party that quantum would obviously be treated as a transaction under UI and same would be adjusted on monthly basis based on the accounts prepared by SLDC based on the meter readings to be provided by STU i.e. DTL for computing actual Ex-bus generation (received at 33kV side of Jasola 66kV S/stn of BRPL).

Sofar, no comments have been received from BRPL.

Sh. Ajay Kumar, VP, BRPL informed that the open access transaction should be carried out based on the PPA provisions approved by DERC. As such, the matter is bilaterally being looked into.

TOWMCL representative also confirmed the same.

**GCC noted the position and advised both the utilities to resolve the issue as quick as possible.**

**4.3 COMPUTATION OF TRANSMISSION SYSTEM AVAILABILITY OF DELHI TRANSCO LTD (DTL).**

It was informed that SLDC is certifying Transmission System Availability of DTL on monthly basis as per the Multi Year Transmission Tariff Regulation applicable for the period 01.04.2012 to 31.03.2015. The regulations direct the computation of Transmission System Availability as under :-

**Annual Transmission Service Charge**

6.6 The fixed cost of the transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users.

6.7 The transmission charge (inclusive of incentive) payable for a calendar month for a transmission system or part thereof shall be

ARR x ( NDM / NDY ) x ( TAFM / NATAF )

Where,

ARR= Aggregate Revenue Requirement specified for the year, in Rupees;

NATAF = Normative annual transmission availability factor, in per cent specified in clause 5.3(a) of these Regulations;

NDM = Number of days in the month;

NDY = Number of days in the year; and

TAFM = Transmission system availability factor for the month, in Percent, computed in accordance with Appendix –III to these Regulations.

6.8 The Transmission Licensee shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM. Adjustments, if any, shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last day of the relevant month.

**Appendix-III: Procedure for Calculation of Transmission System Availability Factor for a Month**

1. Transmission system Availability factor for a calendar month (TAFM) shall be calculated by the respective Transmission Licensee, got verified and certified by the SLDC and separately for each AC transmission system and grouped according to sharing of transmission charges.

2. TAFM, in percent, shall be equal to (100 – 100 x NAFM), where NAFM is the non-availability factor in per unit for the month, for the transmission system / subsystem.

3. NAFM for A.C. systems / sub-systems shall be calculated as follows:

NAFM = [l=1 ΣL (OH l x Ckt. km l x NSC l) + t=1Σ T (OH t x MVA t x 2.5) + r=1Σ R (OH r x MVAR r x 4)] ∕ THM x [ l=1ΣL (Ckt. km l x NSC l )+ t=1ΣT (MVA t x 2.5) + r=1ΣR (MVAR r x 4)]

Where,

l identifies a transmission line circuit;

t identifies a transformer / Inter connecting transformer (ICT);

r identifies a bus reactor, switchable line reactor or Static VAR Compensation (SVC);

L = total number of line circuits;

T = total number of transformers and ICTs;

R = total number of bus reactors, switchable line reactors and SVCs;

OH = Outage hours or hours of non-availability in the month, excluding the duration of outages not attributable to the Transmission Licensee, if any, as per clause 5;

Ckt. km = Length of a transmission line circuit in km;

NSC = Number of sub-conductors per phase;

MVA = MVA rating of a transformer / ICT;

MVAR = MVAR rating of a bus reactor, switchable line reactor or an SVC (in which case it would be the sum of inductive and capacitive capabilities);

THM = Total hours in the month;

4. The transmission elements under outage due to following reasons shall be deemed to be available:

(a) Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the Transmission Licensee, the SLDC may restrict the deemed availability period to that considered reasonable by him for the work involved.

(b) Switching off of a transmission line to restrict over voltage and manual tripping of switched reactors as per the directions of SLDC.

5. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.

(a) Outage of elements due to acts of God and force majeure events beyond the control of the Transmission Licensee. However, onus of satisfying the SLDC that element outage was due to aforesaid events and not due to design failure shall rest with the Transmission Licensee. A reasonable restoration time for the element shall be considered by SLDC and any additional time taken by the Transmission Licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the Transmission Licensee. SLDC may consult the Transmission Licensee or any expert for estimation of reasonable restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.

(b) Outage caused by grid incident/disturbance not attributable to the Transmission Licensee, e.g. faults in substation or bays owned by other agency causing outage of the Transmission Licensee‟s elements, and tripping of lines, ICTs, etc. due to grid disturbance. However, if the element is not restored on receipt of direction from SLDC while normalizing the system following grid incident/disturbance within reasonable time, the element shall be considered not available for the period of outage after issuance of SLDC‟s direction for restoration.

While certifying the Transmission System Availability by SLDC to meet the MYT stipulation, the outage of capacitors is also considered in same line with SVC’s or bus reactors. This has been objected by DTL. DTL is of the view that as per the DERC Regulations, the availability of capacitors is not covered for the computation of Transmission System Availability. The regulations envisage only `SVC’ – Static Var Compensators or bus reactors for computing the system availability. In DTL, there is no SVC or bus reactors.

It was further explained that to obtain overall power control in a network, thyristor controlled reactors and thyristor switched capacitors are often combined with mechanically switched shunt reactors and capacitors controlled by the SVC. As such, Static Var Compensators (SVC) have four major components namely Control System, Thyristor valves, Capacitor Banks and Reactors.

DTL representative requested GCC to advise SLDC to exclude the capacitor elements from the computation of Transmission System Availability of DTL as capacitors are passive elements and only delivers reactive power depending upon the voltage conditions whereas SVC has the provision of absorption and injection of reactive power automatically. As such, the weightage factor of SVC has also been kept at **four (4)** by CERC which is not applicable on capacitors.

Representatives of all Distribution Licensees univocally stressed that if DTL has any objection in the interpretation of MYT regulations of Transmission charges and of computation of Transmission System Availability considering the capacitors in same manner as that of SVC by SLDC, they may approach the State Electricity Regulatory Commission invoking the provisions of (clause 10.11) MYT regulation which interalia says “***if a question arises relating to the interpretation of any provision of these regulations, the decision of the Commission shall be final’*** (MYT Regulations issued vide order dated 02.12.2011 applicable for the period 01.04.2012 to 31.03.2015). They also were of the view that till the Commission give the decision, if such references are made before it by DTL, the same may be retrospectively effected. They further opined that the purpose of SVC is same as that of capacitors. For recovery of full fixed charges, the Transmission Utility has to attain the Normative Transmission System Availability (98%) fixed for recovery of full fixed charges. As such, the capacitors provided in the DTL system should be maintained and DTL should ensure their availability. They also pointed out that lot of capacitors are out in DTL quite as detailed hereunder :-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No.** | **Name of S/stn** | **Capacity down in MVAR** | **Date of outage** | **Reason** |
| 1 | 220kV Patparganj | 10 | 09.07.08 | Damage of Reactor and NCT |
| 2 | 220kV Gazipur | 5.04 | 20.05.12 | Damage of cells |
| 3 | 220kV Mehrauli | 20 | 10.09.09 | Non availability of bay |
| 4 | 220kV Narela | 20 | 26.05.12 | Damage of cells |
| 5 | 220kV Shalimarbagh | 10 | 05.01.10 | Damage of cells |
| 6 | 220kV Pappankalan-I | 20 | 08.10.10 | Damage of cells |
| 7 | 220kV Naraina | 10 | 29.06.12 | Damage of cells & Reactor |
| 8 | 220kV IP | 30 | 04.03.2013 | Due to theft of metal strips  |
|  | **Total** | **125.04** |  |  |

The overall availability of capacitors is also as low as 84%

**GCC advised DTL to approach the concerned authority (DERC) if it has any reservation in the methodology adopted by SLDC in the computation of Transmission System Availability, till the time existing methodology of computation of Transmission System Availability adopted by SLDC should be continued.**

**4.4 Intrastate UI Account**

SLDC informed that a substantial amount is due from Regional UI Pool Account to Delhi. It was further informed that at Intrastate level, Rs. 81 Crores is due from BRPL till the end of February 2013.

The details of UI payment status to Delhi from Regional Pool Account as on 31.01.2013 are detailed hereunder :-

Figures in Rs. Crores.

Opening Balance for 2012-13 Rs. 259.0814469

 UI Status in 2012-13 upto 31.01.2013

Receivable Rs. 550.5838595

Payable Rs. 3.6770528

UI Receivable Rs. 507.6253756

Net Receivable Rs. 301.6414026

Interest receivable upto 31.03.13 Rs. 47.747928

Interest received Rs. 47.747928

**Net receivable upto 31.01.2013 Rs 301.6414026**

Major defaulters in Regional UI Pool Accounts as on 31.01.2013 are

Uttar Pradesh : Rs. 2707 Crores

Punjab : Rs. 75 Crores

J&K : Rs. 80 Crores

SLDC further informed that due to the time to time intervention of CERC the payment position of inter state UI account started showing improvement. For example the opening balance of UI due of J&K was Rs. 399.89 Crores which has been reduced to Rs. 79.54 Crores.

As far as Punjab utility is concerned the order dated 26.12.2012 in petition no. 233/SM/2012 has the following features :

5 The respondent, Punjab State Power Corporation Ltd vide its affidavit dated 04.12.2012 has submitted as under :-

a) Due to cash crunch, PSPCL is not in a position to make lumpsum payment of UI arrears charges by 31.10.2012.

b) Government of India scheme for debt restructuring (including power purchase arrears) acknowledge that 50% of the total short term loan / liabilities are Rs. 5823 Crores. However, this scheme has not been made operational / functional;

c) Government of India scheme does not allow for short term loan to pay for power purchase arrears;

d) FIs / Banks are not allowing short term loans for paying of power purchase arrears;

e) The respondent has requested to allow it to make the payment @ Rs. 11 Crores every week plus current UI bill to clear the outstanding UI dues by 31.03.2013.

6 The representative of the NDLC submitted during the hearing that as on date, Rs. 131 Crores is outstanding against the PSPCL on account of UI drawal.

7 Sh. V.K. Kalra, Director (Finance), PSPCL submitted that due to health problem, Chairman-curm-Managing Director, Punjab State Power Corporation Ltd could not appear before the Commission. He submitted that though PSPCL was committed to liquidate the outstanding UI dues, due to cash crunch, PSPCL was no in position to make lumsum payment and requested three months time be granted to enable PSPCL to liquidate outstanding UI dues along with the current dues.

8 We have.......................................................

 ......................... charges in time.

9 The first respondent has requested for three months time for liquidation of its UI liabilities including payment of outstanding UI charges. Considering the assurances given by the respondents to liquidate the outstanding UI dues upto 31.03.2013, we allow the respondent to take necessary action to deposit the outstanding UI dues of Rs. 131 Crores in weekly instalments by 31.03.2013 in addition to the current UI dues.

10 The payment through instalment as permitted above, will, houwver, not entail any relaxation in provisions of the Grid Coe with regard to computation and payment of interest for the delay in payment of UI charges. It is clarified that this relief has been granted as on time relaxation and should not be quoted as precedent in future.

11 NRLDC is directed to apprise the Commission in the first week of every month starting from February 2013 about the UI payment status of PSPCL.

For UPPCL the salient features of the order of CERC dated 14.01.2013 in petition no. 239/SM/2012 are as under :

3 MD, UPPCL apologized for the failure of UPPCL for not making the payments as per the provisions order of the Commission dated 21.05.2012 in Petition No. 41/2012 and submitted that due to the precarious financial conditions of the company, UPPCL could not honour its commitment and directions of the Commission. Director (Finance), UPPCL submitted the following :-

a) The accumulated UI dues pertained to the previous year and since August 2012, UPPCL has stopped overdrawal from the grid.

b) At present, UPPCL has accumulated liability of Rs. 14500/- crores which includes the outstanding dues of Rs. 2200/-crores. The liability is so huge that it is not simply possible to make lumpsum payment without bank loans. Government of India and UP cabinet has approved the scheme for rehabilitation of distribution companies and funds will be provided by the banks and financial institutions to liquidate the outstanding power purchase liability.

c) The financial restructuring has been approved by the banks and the Government of Uttar Pradesh. The respondent is likely to get loans from the banks by April 2013. Moreover, after revision of tariff by the State Commission since November 2012, the cash flow problem of UPPCL is likely to be eased.

d) UPPCL would be also to make payment of Rs. 100/- crores per month starting from January 2013 and shall ensure that the entire UI dues are liquidated by April 2013 after the loans are sanctioned by the banks.

e) It would be ensured that there would be no over drawal from the Grid.

4 The representative of NRLDC....................................

 ....................................Region including UPPCL.

5 We have considered ...........................................

 ....................................UPPCL at the earliest.

6 We have noted the submission of MD, UPPCL and Director (Finance), UPPCL regarding the payment plan to pay @ Rs. 100 crores per month starting from January 2013 and to liquidate the entire outstanding dues in April 2013. We direct MD, UPPCL to place on record the payment plan under affidavit by 20.01.2013. We further direct MD, UPPCL and Director (Finance), UPPCL to faithfully comply with the payment plan failing which they would be held personally liable for non-compliance of the provisions of the UI Regulations and directions of the Commission. We also direct that till the outstanding dues are liquidated, the notice against the MD, UPPCL shall remain pending

7 The payment through instalments are permitted above, will, however, no entail any relaxation in provisions of the Grid Code with regard to computation and payment of interest for the delay in payment of UI charges. It is clarified that this relief has been granted as on time relaxation and should not be quoted as precedent in future.

8 NRLDC is directed to apprise the Commission in the first week of every month starting from January 2013 about the UI payment status of UPPCL. If any default is made by the UPPCL in making payment, NRLDC is granted liberty to approach the Commission for appropriate directions.

In view of the tough stand of the Central Commission the payment position would definitely improve.

As far as intra state default is concerned it was bought to the notice the order of the State Commission in petition 49/2007 in the matter of non –payment of UI by BSES Rajdhani Power Ltd the Commission has ordered the following :

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 :-

1. The current dues shall be paid on weekly basis as and when raised by SLDC to avoid accumulation of outstanding dues and;
2. The outstanding / accumulated dues shall be liquidated immediately with interest payable thereon.

(Reference order 10.10.2007 )

It was also pointed out that the petition has yet been disposed off.

SLDC representative requested BRPL to clear the due as per the above direction of the State Commission for smooth operation of the intra state UI account and to avoid further legal consequences.

It was also informed that the payment details have already been mailed to all Stakeholders upto September 2012 which would be updated and would be emailed to all Stakeholders for their comments. After the reconciliation process is completed, the interest calculation would be taken up. It was further informed that about Rs. 47.74 Crores have been received as interest upto 3rd quarter for 2012-13 as detailed hereunder :-

|  |  |  |
| --- | --- | --- |
| Date of receipt of UI interest  | UI interest received from NRLDC in Rs. Crores. | Period of UI interest |
| 25.04.2012 | 3.59 | 2011-12 (upto 3rd quarter) |
| 16.05.2012 | 7.52 | 2011-12 (4th quarter) |
| 28.01.2013 | 40.22 | 2012-13 (upto 3rd quarter) |
| Total  |  |  |

After the process of interest calculation is completed, the amount of interest would be released to the Stakeholders as per the methodology adopted by GCC in the meeting held on 06.11.2009 as detailed hereunder :-

**21 Methodology for computation of interest on delayed payment of UI Amount based on Intra State UI Accounts issued by SLDC**

In the last Commercial Sub-Committee Meeting held on 10.09.2009, it was proposed to implement the interest calculation methodology being adopted by NRPC to calculate the interest of delayed payment at Intra State level in Delhi. In line with the NRPC methodology, the interest payable by SLDC to the receivable constituents after 14th day of the due date (i.e. 8 days for due date plus 6 days) that is from 15th day of the due date, as indicated in the UI bill. The interest payable by the intra-State constituents to SLDC Pool A/c would be after 10 days (i.e. 8 days for due date plus two days) i.e. from the 11th day of due date.

It was explained that as per the UI Regulations, applicable up to 31.3.2009 the interest payment payable should be equal to payment receivables. From 1.4.2009 interest payment need not be made equal due to enforcement of additional UI charges for over-drawal/under-generation for the frequency below 49.2Hz. The following methodology was explained to calculate the interest of delayed payment:-

1. The interest for delayed payment would be calculated from the 15th day of issue of intra-State UI A/c. for the receivable utilities at intra-State level.
2. The interest for delayed payment would be calculated from the 11th day of issue of intra-State UI A/c. for the payable utilities at intra-State level.
3. In case the interest receivable from NR is to be disbursed to the payable/receivable intra-State Utilities of Delhi on 50-50 basis after the interest receivable from the payable utilities as per intra-State UI A/c.
4. In case the interest payable to NR, the same would have to be paid by the paying utilities interest liability. The difference of interest payable to NR and receivable from the paying utilities as per intra-State UI A/c is to be adjusted from the receivable/payable utilities as per the methodology already adopted for matching the UI amount.

The Commercial Sub Committee agreed the above mentioned methodology of the interest settlement. It was also advised that all utilities to check the intra-State UI A/c statement already circulated and intimate the discrepancy if any to Dy. Manager(Fin) Commercial, DTL by 30.09.2009. After the reconciliation, the interest would be calculated on the above methodology and circulate the same to all utilities for needful action. SLDC indicated that no comments on the accounts has been received, the UI interest calculations have been undertaken. It would be made available to the Intrastate UI Constituents for needful action within two weeks time.

**GCC concurred the procedure of interest calculation adopted by Commercial Sub-Committee.**

TPDDL representative intimated that they never defaulted the UI payment and requested not to pay the amount to the defaulting utilities at Intrastate level in the form of UI interest or regular UI payment and adjust their receivable against the outstanding dues payable to UI pool account.

**GCC requested the utilities to clear the outstanding dues and advised SLDC not to release amount to defaulting utilities and adjust the same against their dues to UI pool.**

**5 ADDITIONAL AGENDA**

**5.1 Request for connectivity of TOWMCL plant at Sarita Vihar 220kV S/Stn.**

TOWMCL representative requested GCC to approve the connectivity of the TOWMCL Plant at 220kV Grid S/Stn instead of 33kV side of 66kV Jasola S/Stn of BRPL. The reason cited by him that plant was affected number of times due to frequent interruptions at 66kV Grid S/Stn Jasola due to one reason or other which is not likely at 220kV Grid S/Stn Sarita Vihar.

It was also informed that they have already having the connectivity approval from DTL which was issued during the year 2010.

**GCC advised TOWMCL to approach Planning Department of DTL with proper application to explore the possibility of connection and consideration in the Steering Committee which is the competent forum to decide such issues.**

**5.2 BILLING ISSUE OF ARAVALI POWER**

TPDDL representative informed that Aravali Power Company Pvt Ltd (APCPL) has not been raising bill based on the scheduled energy quantified by SLDC from Jhajjar to various Discoms as per the State Energy Accounts issued by SLDC. NRPC has also not been considering the scheduled energy of Jhajjar power to various Discoms and adopting the ratio of allocation fixed by DERC vide its order dated 31.03.2007. He mentioned that inspite of diverting TPDDL and BYPL’s share from Jhajjar power station to J&K from 19.01.2013 to 15.03.2013, the NRPC has not changed the ratio of allocation.

To avoid the ambiguity, Delhi Discoms have continuously been requesting NRLDC to carry out Discomwise scheduling of Central Sector and Shared project instead of allocating the sources to Delhi as a whole which is not existing as an entity. He also brought out the fact that the issues were discussed in various meetings at NRPC and SLDC. He cited the MoMs of NRPC OCC and Commercial Sub-Committee. The same is reproduced hereunder :-

 The extracts of the MoM of 77th OCC of NRPC held on 20.07.2012

**13. DISCOM wise scheduling for Central Sector Generating Stations.**

Representative of TPDDL stated that post 01.04. 2007, the Delhi Discoms have been directed by DERC to independently handle their power purchase portfolios and are hence individually responsible to optimize their Power Purchase Cost. In addition, the demand supply scenario of Discoms varies due to variation in load profile and power supply arrangements. Therefore Discoms require scheduling of power from different generators as per their requirement and not as per the prevailing practice of scheduling as per standard ratio for e.g. 29.18% of Delhi’s share to TPDDL. Further, Delhi SLDC has agreed to implement the Discoms wise scheduling for Delhi GENCOS in the recently held 12th meeting of Commercial Sub-Committee on 28.06.12. However, it was informed that RLDC does not accept Discoms wise scheduling for Central Sector Generating Stations, in case requested by SLDC. He requested that Discoms wise scheduling and Energy Accounting be considered for implementation at RLDC’s end to allow the Discoms to have better control over their respective demand-supply situations.

Representative of NRLDC intimated that Discoms wise scheduling was not their responsibility. He added that IEGC has stipulated the responsibilities of RLDCs and SLDCs and according to that we have to prepare the schedule of drawl by various constituents based on their agreements and energy generation schedule and declared capacity of central generating stations. Monitoring of drawl by various constituents in relation to the schedules prepared is also the responsibility of RLDCs. Representative of NTPC stated that power from central generating stations has been allocated to states and not to the Discoms. Further, he added that RLDCs does neither control the central generating stations nor the Discoms but acts as coordinators and facilitators. On the contention of the representative of SLDC that the private players were not in existence when IEGC was drafted and as such their interest has also to be taken care by RLDCs, Representative of NRLDC intimated that IPPs and Discoms were in existence when the IEGC was last revised. Finally, after deliberations, it was decided that RLDCs can not undertake Discom wise scheduling for Central Sector Generating Stations.

Amendment of above MoM in the 79th Meeting of NRPC OCC held on 14.09.2012 :

In the minutes recorded under **“item 13” “DISCOM wise scheduling for Central Sector Generating Stations”** following paragraph stands added at the end:

“Finally, it was agreed that SLDC, Delhi should discuss the same separately with NRPC for necessary modification in their software. It was also suggested that this issue could be taken up separately in commercial co-ordination sub-committee.”

(emphasis supplied)

Accordingly the issue was taken in the 22nd Commercial Sub-Committee meeting held on 13.09.2012 also wherein it was decided to discuss the issue with NRLDC and SLDC Delhi to resolve the issue. The relevant portions of the MoM of the 22nd Commercial Sub-Committee held on 13.09.2012 are reproduced hereunder :-

**Item-3 Discom wise scheduling of Central Sector Stations and Shared**

**Projects**

Representative of Tata Power Delhi Distribution Ltd. (TPDDL) stated that the Discom wise scheduling from Central Sector Generating Stations and Shared Projects was discussed during OCC meeting of NRPC held on 20.07.2012. NRLDC did not agree with the Discom wise scheduling of power. The matter was referred to Commercial

Sub Committee.

Representative of TPDDL also stated that in monthly Regional Energy Accounts (REA) issued by NRPC Secretariat, total scheduled energy to Delhi from Central Sector Generating Stations was divided among the DISCOMS of Delhi in the ratio given by Govt. of NCT Delhi / DERC. However, after 1st April 2007, as directed by Delhi Electricity Regulatory Commission, Delhi Discoms were required to independently handle their Power Purchase portfolios. In addition, the demand supply scenarios of Discoms vary due to variation in load profile and power supply arrangements. Accordingly, DISCOMS had to give schedule from different generators as per their requirement and not as per the prevailing practice of scheduling based on standard ratio approved by Govt. of NCT Delhi / DERC.

Moreover, few Generating Companies namely NHPC, SJVNL etc have imposed Regulation of Power Supply to Discoms of Delhi namely BRPL & BYPL. As a consequence, allocation of power from Central Sector Generating Stations to the Discoms of Delhi is not as per the ratio given by DERC and accordingly, REA issued by NRPC by dividing the power among the DISCOMS of Delhi in the ratio given by DERC becomes incorrect.

He requested NRLDC for Discom wise scheduling, so that exact scheduled energy to Discom was reflected in Regional Energy Accounts. Alternatively, he suggested that the detailed sheet in the REA containing Discom wise scheduled energy in the ratio given by State Govt/SERC should be deleted from the REA and energy accounting of total Delhi should be given.

Delhi SLDC pointed out that, as per the clause 28 (3a) of the Electricity Act 2003 the RLDC/NRLDC is responsible for optimum scheduling and despatch of electricity within the region in which the Licensee and Generating company is located. As such, the Discoms of Delhi viz TPDDL, BRPL, BYPL the Licensees in the control area of Delhi and DTL being the transmission license of Delhi, it would be rational that the scheduling of the power should be done Discoms wise.

Representative of Northern Regional Load Dispatch Centre (NRLDC) stated that in accordance with Scheduling and Despatch Code of Indian Electricity Grid Code, State Load Despatch Centres were responsible for scheduling of power for their control area. Therefore, role of NRLDC was limited to scheduling upto interstate boundary.

SE (C), NRPC stated that the detailed sheet in the REA containing Discom wise scheduled energy in the ratio given by State Govt/SERC was incorporated in REA as requested by generating companies for facilitating the DISCOM wise billing which was never contested by the States DISCOM. However, since TPDDL was not requisitioning power from Central Generating Station based on the ratio for distribution of total allocation approved by the State Govt. / State Regulators and

NHPC, SJVNL etc imposed power regulation to BRPL & BYPL, dividing of power from CSGS to the Delhi Discoms as per ratio given by DERC does not hold good and REA becomes incorrect. In view of the changed scenario, the detailed sheet in the REA containing Discom wise scheduled energy in the ratio given by State Govt/SERC would need to be deleted from REA in future.

Representative of NTPC stated that in case of Delhi, intra-state scheduling was available but in other states like Rajasthan intra-state scheduling was not available. Hence, it would be difficult for them to bill on such Discoms without the figures in any authenticated document like REA.

Representative of THDCIL stated that NRPC Sectt could take the Discom wise scheduling data from SLDC and incorporate in the REA. SE(C) NRPC stated that REA had to be prepared based on data provided by NRLDC only as per the IEGC.

After deliberations, it was decided that for the time being, till the issue was resolved, detailed sheet containing Discom wise allocation/ scheduled energy in the ratio given by State Govt/SERC would be continued in the monthly REA issued by NRPC Secretariat with suitable note as given below:

***“Weighted average entitlements/scheduled/booked energy has been distributed among Distribution Licensees of Delhi based on percentage given by GoNCTD.***

***However, actual allocation/ scheduled /booked energy from ISGS to Distribution Licensees may be obtained from SLDC concerned.”***

Further, NRLDC and Delhi SLDC along with Delhi Discoms would arrange a meeting at the earliest to find out an amicable solution which will be better for the sector and report the same in the next Commercial Sub Committee Meeting.

(Emphasis supplied)

TPDDL representative further added that accordingly, two meetings were held in SLDC one on 26.11.2012 and other on 04.01.2013. As decided in the meeting, SLDC started scheduling of Jhajjar power as per the requirement of the Discoms from 28.12.2012 and same has been reflecting in monthly accounts being issued by SLDC which should have been taken as for billing purpose by APCPL [as per above referred MoM (emphasized)]

TPDDL representative further intimated that ignoring the above decision, Aravli power goes on raising the bills based on the account of NRPC. He further informed that without holding any share during the month of February 2013, the bills have been raised by APCPL from Jhajjar.

SLDC representative quoted the relevant portion of Electricity Act and functions of SLDC as under :-

 Electricity Act 2003 - Section 32

**“**

1) The State Load Despatch Centre (SLDC) shall be the apex body to ensure integrated operation of the power system in a State

2) The State Load Despatch Centre (SLDC) shall

1. *be responsible for optimum scheduling and dispatch of electricity within a State, in accordance with the contracts entered into with the licensees or the generating companies in that State:*
2. *monitor grid operations;*
3. ***keep accounts of the quantity of electricity transmitted through the State grid;***
4. *exercise supervision and control over the intra-state transmission system: and*
5. *be responsible for carrying out real time operations for grid control and dispatch of electricity within the State through secure and economic operation of the State grid in accordance with the Grid Standards and the State Grid Code.****’’***

*(emphasis supplied)*

The SLDC representative further ascertained that for referring the above mentioned provisions of Electricity Act 2003, SLDC is the only authority in respect of intrastate account (intrastate scheduling of Discoms)

APCPL’s response could not be obtained as the representative did not attend the meeting in post lunch session.

**Considering the issue, GCC advised TPDDL to settle the bill according to the accounts issued by SLDC as SLDC is the competent authority for settling the intrastate energy accounts as per the provisions of Electricity Act 2003.**

**5.3 Credit of adjustment of energy of 66kV Bapudham feeder.**

BRPL representative explained the issue as under :-

BRPL is exporting energy from 66KV Ridge Valley Grid to NDMC at 66 KV Bapudham Feeder. 33 KV SP Marg-I on 220 KV Ridge Valley Grid was dismantled on 17.11.11 and 66 KV Bapudham feeder on 220 KV Ridge Valley Grid was energized on the same day. CT ratio which was used for metering and billing purpose since date of energization of 66 KV Bapudham Feeder is 400/1 at meter no. 4864845.

BRPL has been requesting to get the CT ratio checked. On 19.02.13, CT was checked by joint team of BRPL, NDMC and DTL. As per primary injection method CT ratio found was 800/1 for meter no. 4865845.

The details of energy as per the actual CT ratio and CT ratio considered for energy drawal computation are as follows:

|  |
| --- |
|  **FY:2011-12** |
| **Bill month** | **Consumption in MUs (as per bill) considered for NDMC consumption****CT=400/1** | **Actual Consumption of NDMC in MUs as per CT =800/1** | **Credit required to BRPL in MUs** |
| **Nov-11** | 0.304 | 0.608 | 0.30 |
| **Dec-11** | 2.727 | 5.454 | 2.73 |
| **Jan-12** | 5.563 | 11.126 | 5.56 |
| **Feb-12** | 2.812 | 5.624 | 2.81 |
| **Mar-12** | 2.217 | 4.434 | 2.22 |
| **FY:11-12** | **13.623** | **27.246** | **13.623** |
| **FY:2012-13** |
| **Bill month** | **Consumption in MUs (as per bill) considered for NDMC consumption****CT=400/1** | **Actual Consumption of NDMC in MUs as per CT =800/1** | **Credit required to BRPL in MUs** |
| **Apr-12** | 3.328 | 6.656 | 3.33 |
| **May-12** | 3.794 | 7.588 | 3.79 |
| **Jun-12** | 4.83 | 9.66 | 4.83 |
| **Jul-12** | 4.732 | 9.464 | 4.73 |
| **Aug-12** | 3.514 | 7.028 | 3.51 |
| **Sep-12** | 3.579 | 7.158 | 3.58 |
| **Oct-12** | 4.068 | 8.136 | 4.07 |
| **Nov-12** | 3.894 | 7.788 | 3.89 |
| **Till 23th Dec'12\*** | 2.521 | 5.042 | 2.52\*\* |
| **FY: 12-13** | **34.26** | **68.52** | **34.26\*\*** |
| **Total credit** | **47.883** | **95.766** | **47.883** |

The issue was discussed in the 13th Commercial Sub-Committee meeting held on 27.02.2013 wherein NDMC representative informed that they will share its log sheet data / meter data at NDMC end of 66kV Bapudham feeder with BRPL for reconciliation of energy. It was further decided that consequent upon the reconciliation of data, if BRPL found data is supporting their claim, then a joint team of NDMC, BRPL and Metering Department of DTL shall study and validate the data. BRPL was further advised that outcome of referred team study may be brought to the notice of Metering Committee and then to next Commercial Sub-Committee for further deliberation and decision if the need is arisen.

BRPL opined that the decision of the Commercial Sub-Committee is a lengthy process as usually Commercial Sub-Committee meets once or twice a year, the adjustment would get delayed affecting their billing and technical losses computation. As such, they requested GCC to resolove the issue.

NDMC representative informed that the representative of concerned department is not present as being the agenda was not circulated earlier, he could not be briefed on the issue to commit anything on the issue as NDMC’s consumption would be increased and BRPL’s consumption would be reduced if the claim of BRPL is accepted.

**Considering the request of BRPL and observation of NDMC, GCC advised General Manager (O&M)-I, DTL to resolve the issue after considering the data hearing the views of NDMC, BRPL and Metering Department of DTL within two weeks time.**

**5 HOSTING OF NEXT MEETING OF GCC**

Convener GCC requested TPDDL to host the 9th meeting of GCC expected to be July 2013. TPDD representative agreed to consider the request.

**6** **CONCLUSION**

Convener GCC thanked all participants for fruitful discussions and hoped that with such coordinated efforts of all Stakeholders, the coming peak summer demand which is expected to be around 6000MW would be met in hassle free manner. He further thanked the management of TOWMCL to host the meeting.

**Annexure-1**

**The list of the officers attended 8th Grid Coordination Committee meeting held on 08.03.2013 at Hotel, Parkland, New Delhi**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Name**  | **Designation** | **Utility** | **Mobile no.** |
| **1** | Sh. A.K. Haldar  | Dir (O), Chairperson, GCC | DTL | 9650992550 |
| **2** | Sh. V. Venugopal | DGM, SO – Convener GCC | SLDC | 9871093902 |
| **3** | Sh. Jagdish kumar | Director (T) | IPGCL | 9958701234 |
| **4** | Sh. S. M. Verma | GM, Bawana Project | PPCL | 9717694896 |
| **5** | Sh. M. Shukla | G.M. (CS&P) | IPGCL/PPCL | 9717698228 |
| **6** | Sh. R.K. Yadav | DGM (Commercial) | IPGCL/PPCL | 9717694845 |
| **7** | Sh. Prem Prakash | GM(O&M)-I | DTL | 9999533630 |
| **8** | Sh. S.K. Mishra | G.M. (Civil) | DTL | 9999533510 |
| **9** | Sh.R.K. Tola | G.M.(O&M)-II | DTL | 9999533624 |
| **10** | Sh. V.K. Gupta | G.M. (Project)-I | DTL | 9999533625 |
| **11** | Sh. H. Vyas | G.M. (Project)-I | DTL | 9999533631 |
| **12** | Sh. Loveleen Singh | DGM (OS) | DTL | 9999533659 |
| **13** | Sh. Birendra Prasad | DGM(T)-Project-I | DTL | 9999533663 |
| **14** | Sh.A.C. Agrawal | DGM Plg-I | DTL | 9999533636 |
| **15** | Sh. S.P. Routray | Manager (Planning) | DTL | 9999533939 |
| **16** | Sh. Pankaj Vijay | Manager (T)-Planning | DTL | 9999533929 |
| **17** | Sh.Gradamma Saji | AM(T), C&RA | DTL | 999533784 |
| **18** | Sh.P.K.Gupta | G.M. (SLDC) | SLDC | 9999533626 |
| **19** | Sh. A. K. Rathore | Manager (T) | SLDC | 9540040669 |
| **20** | Sh. Sanjeev Kumar | AM(T)-SO | SLDC | 9999533917 |
| **21** | Sh. Ajay Kumar | Vice President | BRPL | 5350683910 |
| **22** | Sh. S. S. Sondhi | AVP (SO) | BRPL | 9312147009 |
| **23** | Sh. Sanjay Srivastava | AVP (PMG) | BRPL | 9312147045 |
| **24** | Sh. Sunil Barnwal | Manager  | BRPL | 9350361886 |
| **25** | Sh. NAveen Chandra  | Asst. Manager  | BRPL | 8010904621 |
| **26** | Sh. Mukesh Dadhichi | DGM(SO) | BYPL | 9350261451 |
| **27** | Sh. A.K. Srivastava | AVP, EHV | BYPL | 9350261972 |
| **28** | Sh. Ashish Dutta | AGM(PMG) | TPDDL | 9871798566 |
| **29** | Sh. P. Devanand | AGM (PSC) | TPDDL | 9871800506 |
| **30** | Sh. Arun Kumar | AM (Comm) | APCPL | 9650996886 |
| **31** | Sh. N.N. Sadasivan | AGM (Comml) | APCPL | 9650990848 |
| **32** | Sh. M.S. Chhabra | AGM | NTPC-BTPS | 9650993953 |
| **33** | Sh.S.K. Maheshwari | AGM(EEMG) | NTPC-BTPS | 9650993817 |
| **34** | P.K. Dass | AGM(O&M) | NTPC\_BTPS | 9650992225 |
| **35** | Sh. B. Pillai | AGE E/M | MES | 9711568988 |
| **36** | Sh. Suresh Kumar |  | MES | 9873502321 |

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| **S. No.** | Name  | Designation | Utility | Mobile no. |
| **37** | Sh. Neelesh Gupta | DGM (Projects) | TOWMCL | 9873930842 |
| **38** | Sh. S. Dadhich | Manager (Project) | JITF | 9540952312 |
| **39** | Sh Raj Kumar tomar | Head – Adm & Security | JITF  | 9999780444 |
| **40** | Sh. Gambhir Singh Negi | Asst. Manager  | TOWMCL | 9540952500 |
| **41** | Sh. Madan Pal | Executive Engineer (Comml) | NDMC | 9868115524 |
| **42** | Sh. K. S. Meena | XEN(E), System Operation | NDMC | 9811203020 |