

 <p>The logo of Delhi Transco Limited (DTL) features a stylized blue and red circular emblem with a lightning bolt and the text 'DTL' and 'विद्युत शक्ति सर्वोपरि' (Electricity is the most important).</p>	<p>DELHI TRANSCO LIMITED (A Govt. of NCT of Delhi Undertaking) An ISO 9001:2015 certified company {Office of DGM(T)-OS} IInd Floor, Park Street Building, New Delhi-110001 Website:-www.dtl.gov.in</p>
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No. F.DTL/2020-21/DGM (OS)/ OCC /41

Date:-04.12.2020

**Subject: 7th Meeting of Delhi Operation Coordination Committee (2020-21)
- Minutes of Meeting.**

The 7th meeting of Delhi Operation Coordination Committee (OCC) was held on 25.11.2020 (Wednesday), 11:00 A.M and conducted through online mode.

The Minutes of Meeting are enclosed for information and necessary action.

Minutes of Meeting are also available on DTL website, www.dtl.gov.in under the tab “News and Information”-OCC Meeting.

Thanking You.

Sincerely yours,

---Sd/--

(Hitesh Kumar)

Dy. General Manager (OS)

Delhi Transco Limited

Copy for favor of kind information to:

- (i) Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17
- (ii) CMD, DTL
- (iii) Director (Operation), DTL

Dy. General Manager (OS)

To all members - - *As per list enclosed* - -

7th Meeting of Delhi Operation Coordination Committee (2020-21)- Minutes of Meeting

Distribution List:

DTL	General Manager (O&M)-I, Chairman OCC General Manager (O&M)-II General Manager (P&M, DM&S) General Manager (Planning) DGM (O&M) - North, East, West, South DGM (M/P) DGM (Plg.)
SLDC	General Manager (SLDC) DGM (SO)
TPDDL	HOD (PSC &AM), Sr. Manager (PSC)
BRPL	VP, AVP (SO)
BYPL	VP, AVP (SO)
NDMC	Superintending Engineer, E-1
IPGCL	AGM (T) Opr. GTPS
PPCL	AGM (T) Opr.PPS-I AGM (T) Opr. PPS-III
MES	AEE/M.SLDC Officer
BBMB	Sr. Executive Engineer, O&M
DMRC	GM (Traction), Sr.DGM (Traction)
GMR(DIAL)	GM(DIAL)
N. Railways	Sr. DEE (TRD)

Minutes of 7th Delhi OCC Meeting held on 25.11.2020

Date :	25.11.2020
Time:	11:00 AM
Venue:	Online Via Video conferencing O/o-GM(O&M)-I, Delhi Transco Ltd., 220 kV Sub-Stn Park Street, New Delhi-110001

Chairman, OCC welcomed the members and commended on the efforts to maintain uninterrupted power supply in Delhi network despite the ongoing Covid-19 pandemic. He mentioned about the low load condition in Delhi network in winter season & challenges of high voltage condition and reactive power injection in Delhi system. OCC members were requested to put all efforts to maintain voltage profile at various levels and take measures to control reactive power injection in system.

- **Review of Grid operations of October-2020**

(i) The peak demand for October-2020 was 4820 MW against peak demand of 4605 MW in October-2019.

(ii) Total energy consumed in October-2020 was 2450.27 MUs against energy consumed 2469.23 in October-2019.

- **Planning of Grid operation for December-2020**

SLDC Delhi informed that, anticipated peak demand for December 2020 is 5000MW and expected availability is 5024 MW (Surplus +24 MW). Anticipated maximum energy requirement for a day is 68MUs and expected availability is 120MUs (Surplus +52MUs).

List of participants is enclosed as Annexure-I.

1. Confirmation of minutes of 6th Delhi OCC meeting (2020-21) held on dated 28.10.2020.

The 6th Delhi OCC meeting (2020-21) was held on 28.10.2020 through video conferencing in accordance with the agenda circulated vide letter dt: 23.10.2020. Minutes of the aforesaid OCC meeting were issued on 06.11.2020 and the same was also uploaded on DTL website.

Members confirmed the Minutes of 6th OCC Meeting.

2. Updating of communication details of nominated members of Delhi OCC.

As per S. No. 2 of MOM of 3rd OCC meeting dt:24.07.2020 members/ participants were requested to update communication details of nominated representatives & the representatives shall be at the level of Superintending Engineer/ Dy. GM or equivalent level.

As of now BRPL, BYPL, DMRC, TPDDL & NDMC have provided the details as under:

S. N	Name of Utility	Designation	Name of Officer	Mobile No.	E-Mail	Corresponding Office Address
1	BYPL	Vice President	Sh. Jitendra Nalwaya	8467887272	jitendra.nalwaya@relianceada.com	BSES Yamuna Power LTD. Scada Control Room , 2nd Floor, Shankar Road, Delhi - 110060
2	BYPL	Dy. GM	Sh. Som Dutt Sharma	9312782457	som.dutt@relianceada.com	BSES Yamuna Power LTD. Scada Control Room , 2nd Floor, Shankar Road, Delhi - 110060
3	BYPL	Asst. Vice President	Sh. Sushil Sharma	9312725633	sushil.k.sharma@relianceada.com	BSES Yamuna Power LTD. Scada Control Room , 2nd Floor, Shankar Road, Delhi - 110060
4	TPDDL	Addl. GM	Sh. Lalit Wasan	9971316492	lalit.wasan@tatapower-ddl.com	66 KV PP3 Grid S/Stn building Pitampura, Delhi – 110034
5	DMRC	GM/ Traction	Sh. Subodh Pandey	9958097178	subodh_dmrc@yahoo.com	DMRC, Metro Bhawan, New Delhi
6	DMRC	Sr.DGM/ Traction	Sh. Chandrakant Shrivastava	9717497427	chandrakant271170@gmail.com	DMRC, Metro Bhawan, New Delhi
7	BRPL	Vice President	Sh. Salil Saxena	9350582556	salil.saxena@relianceada.com	BRPL SCADA Control Centre, 2nd Floor, 33 kV Balaji Grid Sub-stations, Kalkaji.
8	BRPL	DGM	Sh. M. Kishore Babu	8178347059	miriyala.babu@relianceada.com	BRPL SCADA Control Centre, 2nd Floor, 33 kV Balaji Grid Sub-stations, Kalkaji.
9	BRPL	Asstt. Vice President	Sh. Abhishek Ranjan	9555290403	abhishek.r.ranjan@relianceada.com	BRPL SCADA Control Centre, 2nd Floor, 33 kV Balaji Grid S/stations, Kalkaji.

10	NDMC	CE (E-II)	Er. S.K. Suman	7291840830	ce.elect2@ndmc.gov.in	Room No. 1706 17th Floor, NDMC Palika Kendra, Sansad Marg, New Delhi 110001
11	NDMC	CE (E-I)	Er. V.K. Pandey	7289016000/ 9899066484	ce.elect1@ndmc.gov.in	Room No. 1701 17th Floor, NDMC Palika Kendra, Sansad Marg, New Delhi 110001
12	NDMC	SE (E-I)	Er. D.P. Sharad	9810871808/ 7290061819	se1.elect@ndmcm ail.gov.in/ se.elect@ndmc.gov.in	Room No. 1703 17th Floor, NDMC Palika Kendra, Sansad Marg, New Delhi 110001

OCC requested MES, IPGCL, PPCL & BBMB to update and submit the details in prescribed format to the convener.

(Action by MES, IPGCL, PPCL & BBMB)

3. DTL AGENDA:

3.1 Proposed planned shutdowns of DTL for the month of December-2020.

OCC Chairman advised all the utilities to plan maintenance/up-gradation/replacement activities in lean load period as per respective maintenance plans in preparation of meeting the load requirements of next summer season.

- Shutdown for internal inspection on 100 MVA Tx-II at 220kV Wazirpur Sub station has been allowed subject to availability of 220kV SMB-Bawana Ckt-II.
- Shutdown of 220kV Shalimar Bagh -DMRC Ckt-1 is postponed till Jan-2021 as DMRC-SMB Ckt-2 is under breakdown at DMRC end and expected to be rectified by the end of Dec-2020.
- Shutdown of 220kV Pragati -GT-II planned on 12.12.20 can be clubbed with 220kV Pragati -STG shutdown proposed for 26.12.20.
- BRPL informed that the shutdowns planned on 66kV Nangloi & Nangloi W/W can be availed only after revival of Mangolpuri- Nangloi ckt. BRPL requested to postpone these shutdowns to 1st week of Jan-2021.
- DMRC requested to shift shutdowns related to DMRC feeders to preferably on Saturday/ Sunday/ Public Holidays.

After detailed discussion with members, OCC approved planned shutdowns subject to real time conditions as per the attached Annexure.

3.2 Status of joint checking of Overhead Power Line crossings with Northern Railways representatives by DTL & DISCOMs.

In the 2nd Delhi OCC meeting (2020-21), committee suggested all utilities to conduct the survey in 1st fortnight, July-2020 & share the details with OCC. OCC further advised Discoms, DTL & Northern Railways to conduct joint survey of the power lines on regular basis.

In 4th OCC meeting on 24.08.20, DTL/O&M North & East informed about completion of survey & details shared with OCC. During this meeting, Northern Railway DEE/TRD raised concern regarding condition of 33 kV Feeder at Okhla-NZM Line of BRPL and jumpers are in damaged condition & may fall on the track. DEE/TRD updated on 28.10.20, the joint checking of Okhla-NZM feeder is done, but the issue of jumpers in this line is not resolved yet. OCC requested BRPL to attend the issue at earliest.

In 5th OCC meeting on 24.09.20, Northern Railway DEE/TRD Delhi division informed that survey of the 12 Overhead Transmission lines out of 27 line has been completed. OCC advised all utilities to complete the pending survey of lines/ take remedial actions and share the status in next OCC meeting.

In 06th OCC meeting on 28.10.20, DEE/TRD informed that 07 lines are pending for survey. DEE/TRD requested to dismantle the overhead crossing at SP Marg KM 10/17-18 & 10/19-20 if the section is not used. NDMC representative replied to look into the matter and revert back. It was informed by TPDDL/BRPL that a line emanating from BBMB Rohtak Road feeding to Haryana probably belongs to HVPNL and they may be approached. OCC advised all utilities to complete the pending survey of lines/ take remedial actions and share the status in next OCC meeting.

DEE/TRD informed that 06 lines are still pending for survey. DEE/TRD also requested to provide communication details for Overhead crossings in the section DBSI-DAZ belonging to TPDDL & SSB-NNO belonging to BSES .

OCC advised all utilities to complete the pending survey of lines/ take remedial actions and share the status in next OCC meeting.

List of O/H power lines pending for joint survey is:

SN	Depot	Section	Location	Voltage	Supply Authority	Last joint checking	Contact Person (Railways)
1	NUR	BHD-NUR	15/15-17, 16-18	66kV	TPDDL	08.06.2018	Sh. Anil Thakur, ADEE/TRD/Panipat, 9729531320, Sh. Sanjay Uppadhyay, SSE/OHE/Narela, 9717648532
2	NDLS	ANDI-BHD	11/15-11/17	66kV	TPDDL	20.03.2018	Sh. Sunil Singh, ADEE/TRD/Patel Nagar 9717631312
3	PTNR	DBSI-DAZ	25/11-12, 25/11-12A	33kV	TPDDL	04.03.2015	Sh. Ajay Kasana, SSE/OHE/Patel Nagar 9971265266
4	TKD	HNZM-TKJ/SSP	1532/39G-41G	33kV	BSES	26.03.2016	Sh. Bikarmajeet Singh, ADEE/TRD/Faridabad,

5	TKD	HNZM-TKJ/SSP	1532/41G-43G	33kV	BSES	26.03.2016	9717632607, Sh. Pradeep Chaudhary, SSE/OHE/TKD 9717632847
6	BGZ	SSB-NNO	15/9-11, 15/10-12	66kV	BSES	07.12.2016	

DEE/TRD again requested to dismantle the overhead crossing at SP Marg KM 10/17-18 & 10/19-20 if the section is not used. NDMC representative replied to look into and revert back accordingly.

(Action by TPDDL, BRPL/BYPL & NDMC)

4. SLDC AGENDA:

4.1. Implementation of Automatic Demand Management Scheme by Discoms.

Refer S.No. 2.2 of 20th GCC MoM wherein NDMC had informed that their software for ADMS has been upgraded and under testing and work is linked with the IPDS project, for which efforts shall be made to complete at the earliest.

NDMC has informed in 02nd OCC meeting (2020-21) that the works related to ADMS are under process and expected to be completed by 30.09.2020.

In 06th OCC meeting, NDMC updated that, works related to ADMS are under progress.

NDMC informed that, ADMS works are still under progress. However, no timeline was provided by NDMC for completion of undergoing ADMS works.

OCC requested to expedite.

(Action by NDMC)

4.2 Survival of Local Island at GTPS/ Pragati.

During 20th GCC meeting as per MoM at S.No. 2.4 (9.12) following was discussed:-

“BYPL representative raised the issue of survival and subsequent synchronizing of local islanding at GT/ Pragati.

GCC advised DTL to carry out a joint visit with Discoms and IPGCL/ PPCL to analyze the requirements for sustaining Local Island at GT station”. -

The matter was deliberated in the 12th (2018-19) Delhi OCC meeting held on 28.03.2019 and a committee comprising of following members was constituted for carrying out the above desired work at Pragati:-

- (i) Sh. Satyendra Prakash, AGM(Elect./C&I), PPS-I, PPCL.
- (ii) Sh. B.L. Gujar, DGM (Prot.), DTL.
- (iii) Sh. Bharat Tiwari, MGR(OS), DTL

(iv) Sh. Deepak Kumar, AM(T)-Pragati, DTL.

In 04th Delhi OCC meeting (Aug-2020), DTL representative informed that the control cable laying work assigned to DTL has been completed on 31.07.2020 . PPCL/Pragati representative informed OCC about availability of spare items by the end of August-2020 & work will be executed by 30.09.2020.

In 5th Delhi OCC meeting (Sep-2020), PPCL/Pragati informed OCC about installation of meter at site & connection of meter will be completed after the visit of DTL/Protection.OCC advised to expedite the remaining work & to complete the work by 12.10.2020.

In 06th Delhi OCC meeting (Oct-2020), It was informed that installation work has been completed. PPCL/Pragati requested DTL/Protection to visit the site for finalization & execution of control wirings. OCC advised DTL & PPCL to plan a meeting by next week and complete the pending works.

DTL Protection Deptt informed that, CVT Wiring issue at GTPS/ Pragati has been resolved and Control cable has been laid. The remaining works are expected to be completed by 15th Dec 2020.

(Action by DTL Protection & PPCL)

4.3 Submission of break up energy consumption by the state.

In NRPC OCC meeting all SLDCs were requested to provide the break up energy consumption by the state by segregating the same from the billed data from DISCOMs in the format as prescribed below:

Category	Consumption by Domestic load	Consumption by Commercial load	Consumption by Agricultural load	Consumption by Industrial load	Traction supply load	Miscellaneous /Others
Month						

Report submission status:

DISCOM	BRPL	BYPL	TPDDL	MES	NDMC
Submitted up to	up to August-20	up to Sep-20	up to Sep-20	up to Sep-20	upto Oct-20

OCC advised all utilities to provide data to SLDC in the prescribed format on regular basis without failure.

(Action by all DISCOMs)

4.5 High voltage issues in Delhi network.

The High Voltage issues have been faced in Delhi System. This is because of decrease in power demand in Delhi area. During past winter season, it has been observed high voltage conditions and injection of reactive power to the grid resulting into payment of heavy penalty to be given by Delhi system to NRPC reactive account.

The details of NRPC reactive weekly account for Delhi from 31.08.20 to 04.10.20 are as under:

Week No.	From	To	Payable (Rs in Lakhs)	Receivable (Rs in Lakhs)
23	31.08.20	06.09.20	18.68	0
24	07.09.20	13.09.20	13.68	0
25	14.09.20	20.09.20	6.48	0
26	21.09.20	27.09.20	10.30	0
27	28.09.20	04.10.20	27.99	0

Following steps were in practice to control the high voltage/ injection of reactive power.

- Switching off the capacitors at all the Substations of Delhi.
- Transformer taps optimization by DTL and DISCOM.
- Monitoring of all 400/220kV ICTs and taking actions wherein VAR flows are observed from 220kV to 400kV side. In this respect reactive energy changes could also be monitored.
- Opening of lightly loaded transmission cables/ transmission lines keeping reliability in focus.
- Absorption of reactive power by generating units.

Action Plan for Winter Preparedness 2020-21.

i) The tap positions of Transformers/ ICTs are required to optimize up to extent to control high voltage & reactive power injection in system.

The current Tap position details of ICTs as on 23.11.2020 is attached as Annexure-II

The tap position of 220/66kV & 220/33kV Tx at DTL S/Stns shall be reviewed after detailed deliberation on inputs provided by Discoms and O&M Department of DTL.

ii) SLDC has started the opening of 220kV cables / lightly loaded lines w.e.f 18.10.20. The following lines are opened in the night hours (21.00 hrs to 07.00hrs).

List of 400kV & 220kV Lines which were opened during night Hours is as below:

Sr. No	Name of Stn.	Name of Ckt.	Elements to be opened
1	Bamnauli	Jhatikra Ckt.	Single ckt. at both ends (as per requirement)
2	Harsh Vihar	Dadri Ckt.	Single ckt. at both ends (as per requirement)
3	Maharani Bagh	Trauma Centre ckts	Single ckt. at both ends
4	Trauma Centre	Ridge Valley Ckt.	Single ckt. at both ends
5	Peeragarhi	Wazirpur	Single ckt. at both ends
6	Shalimarbagh	Wazirpur	Both ckts. at both ends
7	Maharani Bagh	Electric Lane	Single ckt. at both ends
8	Harsh Vihar	Preet vihar	Both ckt. at both ends
9	Patparganj	Preet Vihar	Both ckt. at both ends
10	Patparganj	Gazipur	Single ckt. at both ends
11	Mundka	Peeragarhi	Single ckt. at both ends
12	Naraina	Ridge Valley Ckt.	Single ckt. at both ends
13	Bamnauli	Dial	Single ckt. at both ends
14	Narela	Panipat Ckt.-I	Ckt. at both ends
15	Narela	Panipat Ckt.-II	Ckt. at both ends
16	Narela	Panipat Ckt.-II	Ckt. at both ends

List of 66kV BRPL Feeders which were opened during night Hours

SN	Name of Stn.	Name of Ckt.	Elements to be opened
1	220KV VKJ	66kV Vasant Kunj C Blk ckt-1 or 2	Single ckt. at both ends
2	220KV Okhla	66kV Okhla Ph-1 ckt-1 or 2	Single ckt. at both ends
3	220KV Okhla	66kV Okhla Ph-2 ckt-1 or 2	Single ckt. at both ends
4	220KV Park street	66kV Ridge Valley	Single ckt. at both ends
5	220KV SVR	66kV Jasola Ckt-1 or 2	Single ckt. at both ends
6	220KV Mehrauli	66kV Malviya Nagar ckt-1 or 2	Single ckt. at both ends
7	220KV PPK-1	66kV Harinagar	Single ckt. at both ends
8	220KV PPK-3	66kV G-4 PPK ckt-1 or 2	Single ckt. at both ends

In 6th Delhi OCC, October 2020, high voltage & reactive power injection issue was deliberated and following corrective actions were advised :

- (i) All the Capacitor banks installed in DTL as well as DISCOMs should be switched Off.

- (ii) All the generators are advised not to inject MVAR in grid and should absorb MVAR particularly during high voltage condition to improve voltage profile of the Grid as per their capability curve.
- (iii) DISCOMs were requested to select the list of feeders for switching exercise to control reactive power injection. List of selected feeders to be shared with SLDC.
- (iv) DISCOMs were advised to share cases of high voltage conditions in substations directly with SLDC. Further, SLDC will instruct respective DTL substations to change tap position of Transformers if required.
- (v) For switching of 220 kV level U/G cables/Ckts, OCC advised SLDC to not to keep Ckts under Off condition for long duration of time. OCC suggested for switching of U/G cable circuits on alternate basis.

SLDC requested DTL to expedite the process of tendering works and execution of project related to Reactors as suggested by CEA.

OCC advised DMRC, DTL & DISCOMs to explore all possibilities to control system voltage profile and reactive power injection in system from their respective ends.

(Action by DMRC, DTL & DISCOMs)

4.6 System Study for Capacitor requirement in NR for the year 2019-20.

This is regarding Agenda item no. 7 of 177th NRPC OCC held on 18.11.2020 and 19.11.2020. The agenda context is reproduced as under :

In the 45th TCC / 48th NRPC meeting, it was decided that the study report for 2019- 20 along with the guidelines for finding the capacitor requirement at 11/33 kV level in NR would be submitted by CPRI.

In the meeting, CPRI representative had stated that as there were diversified network configurations at the level of DISCOMs, the guidelines to be provided would be generalized and may also include some empirical formula along with examples which may guide the DISCOMs for finding out the capacitor requirement.

Based on the above deliberation, CPRI has submitted the report of the study which was circulated with all the SLDCs and STUs vide e-mail dated 02.11.2020

The state-wise capacitor requirement as stipulated in the CPRI report is as given below

State	Existing Capacitor Bank as per base case file dated on 11.07.2018 (operational)		Recommended Capacitor Banks (MVAR)	Total Compensation (MVAR)
	Switched Shunt (MVAR)	Fixed Shunt (MVAR)		
Punjab	1465.49	301.27	629.25	2396.01
Haryana	227.1	0	1304.83	1531.93
Rajasthan	45.3	0	1659.4	1704.75
Delhi	0	0	1254.3	1254.3
Uttarpradesh	6020.46	0	37	6057.46
Uttarakhand	155	0	163	318
Himachal Pradesh	853.12 (293.6)*	122.2	0	415.8
Jammu & Kashmir	20	0	353.63	373.63
Total	8226.95	423.47	5401.41	14051.88

The above recommendations of CPRI for requirement of capacitor bank was shared to DTL Planning & Delhi Discoms by SLDC, on 04.11.2020 through email for their examination and comments.

No comments received from DTL Planning and DISCOMs except BYPL.

In 177th NRPC OCC, SLDC has submitted the preliminary reply to NRPC which is as under :

The total installation of Capacitor Banks in Delhi as on 31.03.2020 is 5255.43MVARs and the details are as under

Utility	Installed Capacity in MVAR (HT)	Installed Capacity in MVAR (LT)	Total
DTL	773.52	0	773.52
BRPL	1661.12	241.80	1902.92
BYPL	1012.17	102	1114.17
TPDDL	1047.68	119	1166.68
NDMC	253.74	24.29	278.03
MES	20.1	0	20.10
TOTAL	4768.33	487.1	5255.43

However, the CPRI report has recommended 1254.3MVAR capacitor bank for Delhi considering installed capacity as Nil.

In addition to above, during summer 2019 Delhi has met a Peak demand of 7409MW and at that time reactive power drawl was Approx. 470 MVAR from the grid. It seems that CPRI recommendation of 1254.3 MVAR is on very higher side for requirement of capacitor bank in Delhi.

After detailed deliberation, OCC advised DTL/ Planning and DISCOMs to study CPRI report and any other previous concerned report.

The OCC also requested all utilities to send their comments to SLDC for further submission and deliberation in NRPC/OCC.

(Action by DISCOMs & DTL/Planning)

4.7 Review of Delhi islanding Scheme

This is regarding Agenda item no. 12 of 177th NRPC OCC held on 18.11.2020 and 19.11.2020. The agenda context is reproduced as under :

A meeting was held on 29.10.2020 through Video Conferencing to discuss issues related to Delhi Islanding scheme. Following deliberations were held in the meeting:

- DTL representative briefed about the history of designing of Delhi Islanding scheme and basis of the same through a presentation (Enclosed as Annexure – A.VII). He highlighted about revisions in Delhi Islanding scheme which is now a single island after merging of 4 smaller islands. Further, data of six scenarios for summer and winter i.e. peak, off-peak and average for the FY 2019-20 were deliberated.*
- It was highlighted that Revised Delhi Island consists of Delhi generation as well as generations from Dadri (Unit 1, 2), Dadri gas and APCPL. These generators are not being scheduled by DISCOMs. Hence, in case of Islanding, generation from these generators may not be reliable source. It was suggested that rather than complete Delhi Island, individual generators islanding is more reliable and stable.*
- PPCL representative highlighted that during February 2018, islanding was witnessed on PPS-1 which had survived for 30-35 minutes. He mentioned that Black start facility is also available on GTPS which can be also be extended to PPS as well as load connected are super critical loads which are also in radial nature.*
- NRLDC highlighted that issue of mismatch in load-generation is mainly due to huge dependency of Delhi on import. In such case, minimum base generation can be ensured for generators to ensure reliability of system despite of costly generation and corresponding commercial issues can also be tackled separately. It was stated that Rihand – Dadri Bipole HVDC is being disconnected from Dadri during Islanding. It was suggested that possibility of connecting HVDC to facilitate generation from Rihand may also be explored. Further, an option of SPS also needs to be explored. It was stressed reliability needs to be focused rather than commercial issues.*
- DTL also highlighted that current load-generation scenario has completely changed now and there is need to conduct a study to explore possibilities such as consideration of HVDC in*

island, smaller island of individual generation etc. Further, stability of islands needs to be checked in view of the load-generation balance, reactive power compensation considering large no. of cables in Delhi etc.

- *Delhi SLDC highlighted that earlier study through CPRI was carried out for single islanding and accordingly blocking of HVDC, disconnection of feeders was designed. Considering changed load-generation scenario, it was decided that internal discussion with Delhi DISCOMs, SLDC, DTL and other generators may be carried out and proposal may be submitted to committee.*

- *Accordingly, the following roadmap was agreed in the meeting:*

- a. Load wise bifurcation i.e. super critical, critical and essential loads may be done in meeting with DISCOMs by Delhi SLDC.*

- b. Detailed modeling of downstream Delhi network may be done for carrying out study.*

- c. After submission of model, study to explore different possibility of islanding design may be done.*

Further, NRPC enquired about current preparedness of Delhi during any eventuality in real time. PPCL informed during any incidence, natural island of PPS-1 and GTPS is currently having generation of 198 MW and Bawana is having 400-500 MW. Hence, around 600-700 MW island can be formed presently in any eventuality which is without Dadri and APCPL. It was also highlighted that along with generation of Dadri and APCPL, complete Delhi Island with load around 3000 MW can also be formed.

SLDC has already emailed Discoms for updation of Load wise bifurcation i.e. super critical, critical and essential loads for reviewing of Delhi Islanding Scheme.

DTL Protection and Planning Department to explore the possibilities of:

- a) Detailed modeling of downstream Delhi network may be done for carrying out study.

- b) Study to explore different possibility of islanding design may be done.

DTL Protection Deptt. informed that revised Delhi Islanding scheme consists of Delhi local generation as well as generations from Dadri (Unit 1, 2), Dadri gas and APCPL. At present, the generation from Dadri and APCPL are not being scheduled by DISCOMs. Hence, in case of Island formation at 47.9Hz as per approved scheme there will be deficient generation for survival of island. Thus all DISCOMs may be requested to review the scheduling else islanding of Delhi generators may be conceptualized so that in case of any grid disturbance essential load may be survived through islanding of Delhi generators.

In this regard, DISCOMs and Generators under Delhi Islanding scheme shall submit their comments to Delhi SLDC within 07 days so that NRPC may be apprised.

After deliberation, OCC also advised DISCOMs to submit the bifurcated details in the category of Essential, Critical & Supercritical loads as desired in NRPC OCC.

(Action by DISCOMs, SLDC & Generators)

5. Long/Recent Outage/Breakdown of Elements in Delhi power system.

Members may update the latest status of following Long/Recent Outage/Breakdowns of elements in Delhi Power system as under:

S.N	Element's Name	DISCOM/DTL	Date and Time of outage	Status of outage as on 19.11.2020
•	33 kV RIDGE VALLEY - KHEBAR LANE CKT.-II	BRPL	01.06.2019	'Y' PH. Single cable faulty. BRPL informed that the agenda related to handover this ckt to MES to be put up before Steering Committee. BRPL informed that the issue will be taken up in upcoming steering committee meeting.
•	66 kV NANGLOI W. WORKS CKT.- MUNDKA 400 kV)	BRPL	26.08.2020	'B' PH. cable faulty. There are multiple faults in Ckt & BRPL checking for feasibility of cross bonding. Ckt will be energized by the end of Dec-20
•	66kV HASTAL CKT.-I to 220kV PPK -II	BRPL	16.11.2020	R-PH. SINGLE CABLE FAULTY Energized on 24.11.2020
•	66kV GTPS - AKSHARDHAM CKT.	BYPL	15.11.2020	'R' PH. CABLE FAULTY Energized on 22.11.2020
•	33kV I/C-I AT WAZIRPUR -3	TPDDL	25.10.2020	4 NO'S CABLE FAULTY OUT OF 09 NO'S CABLE Ckt will be energized by the 15.12. 2020.
•	66kV NARELA-Bhalaswa Ckt-I & II	TPDDL	10.11.2020	Shutdown for conductor replacement & Tower erection works. Expected to be energized by 31.01.2021.
•	66kV GUEST HOUSE CKT- 220kV PARK STREET -	NDMC	01.11.2020	'B' & 'Y'PH. CABLE FAULTY Ckt will be energized by the 15.12.2020
•	33kV BAY - 4 (IP - ELECTRIC LANE)	NDMC	02.11.2020	'R' PH. CABLE FAULTY Ckt will be energized by the 15.01.2021
•	220kV SHALIMARBAGH - DMRC CKT.-II	DMRC	27.02.2020	'R' PH. CABLE FAULTY Ckt is expected to be energized by the end of Dec-20
•	220/66 kV 160 MVA PR.TR.- II AT R.K. PURAM	DTL	06.03.2020	TX tripped on Buchholz & found faulty. Tx sent to workshop OEM, for repairing works. It has been dispatched & is on the way. Tx is

				expected to be energized by the end of Dec-20.
•	220kV MASJID MOTH - MAHARANI BAGH CKT.-II	DTL	16.10.2020	CABLE JOINT DAMAGED. Ckt is expected to be energized by 30.12.2020
•	AT NAJAFGARH : 66kV CAPACITOR BANK -I	DTL	01.10.2020	SHUTDOWN FOR Dismantling & Augmentation WORK. Expected to be energized by 31.01.2021.
•	AT NAJAFGARH : 66kV CAPACITOR BANK -2&3	DTL	09.10.2020	SHUTDOWN FOR Dismantling & Augmentation WORK. Expected to be energized by 31.01.2021t
•	AT PATPARGANJ: - 100MVA PR.TR.-IV	DTL	20.10.2020	SHUTDOWN FOR SHIFTING OF TRANSFORMER WORK. Tx is expected to be energized by 20.12.2020
•	220kV BAWANA - SHALIMARBAGH CKT.-II	DTL	02.11.2020	SHUT DOWN FOR CONDUCTOR REPLACEMENT. Ckt is expected to be energized by 03.12.2020
•	220kV WAZIRABAD - MANDOLA CKT.-IV	DTL	04.11.2020	SHUT DOWN FOR CONDUCTOR REPLACEMENT. Energized on 24.11.2020

The meeting ended with thanks to the Chair.
