

DELHI TRANSCO LIMITED

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

AGENDA FOR DELHI OCC MEETING NO. 5/2023-24

Date : **24.08.2023**
Time : **11:00 AM**
Venue : In O/o-GM(O&M)-I, Delhi Transco Ltd.,
 220 KV Sub-Stn Park Street Building,
 New Delhi-110001

1. Confirmation of minutes of 4th Delhi OCC meeting (2023-24) held on dated 25.07.2023.

The 4th Delhi OCC meeting (2023-24) was held on 25.07.2023 physically in the O/o GM(T)O&M-I in accordance with the agenda circulated vide letter dt: 17.07.2023. Minutes of the OCC meeting were issued on 31.07.2023 and were uploaded on DTL website (http://dtl.gov.in/Content/359_1_OCC-Meeting2023.aspx).

DTL Agenda:-

2. Proposed planned shutdowns for the month of September-2023.

Proposed planned shutdowns for the month of September-2023 (Annexure-I).

(OCC may deliberate)

3. 220 kV Masjid Moth:-Regarding Tripping details of 33 kV BRPL Feeder w.e.f Jan-23.

Following tripping occurred at 220 kV Masjid Moth.

| | | | | | | | | |
|---|-----------|-----------------------|-------|----------|--------|----------|---|------------------------------|
| 1 | 30.03.23 | 33 KV Sirifort feeder | 14:35 | 31.03.23 | 08:10 | 17:35 | Tripped Off,showing Dir. O/C & E/F, Master 86. | Ckt.Charge on single Cable . |
| 2 | 12.01.23 | 33 KV Shivalik Feeder | 14:50 | 12.01.23 | 19:40 | 04:50 . | Dist. Prot. B.Ph. Zone-II Dir/O/C,E/F &86 | Ckt.Charge on single Cable . |
| | 30.03.23 | 33 KV Shivalik Feeder | 14:35 | 31.03.23 | 13:00 | 22:25 | Tripped Off,Y Phase Jumper Damage. | Ckt.Charge on single Cable . |
| 3 | 11.04.023 | 33 KV Sirifort | 17:35 | 11.04.23 | 21:05 | 03:30 . | Dir O/C,EF,Dist.Prot . B&G Zone-2 86. | Ckt.Charge on single Cable . |
| 4 | 05.05.23 | 33 KV Shivalik Feeder | 11:30 | 21.05.23 | 13:35. | 386:05.. | Breaker Trouble Alarm & Master 86. Both Cable Damage. | Double cable Damaged. |

| | | | | | | | | |
|----|----------|-------------------------|-------|----------|-------|----------|--|---|
| 5 | 14.06.23 | 33 KV Nehru Place | 12:20 | 14.06.23 | 15:05 | 02:45 .. | Dist. Relay Z-I Protn. Operated. | Ckt.Charge on single Cable . |
| 6 | 27.06.23 | 33 KV Balaji | 12:05 | 27.06.23 | 19:10 | 07:05 . | R Ph. LA Blast & Dir. O/C,E/F Master 86. PC Test of Cable done By BSES | Cable Healthy |
| 7 | 30.06.23 | 33 KV Sirifort | 00:20 | 30.06.23 | 02:32 | 02:12 . | Dir. O/C,E/F Dist Prot B&G .Zone-II & 86 Relay . Y phase Sigle Cable faulty. | Ckt.Charge on single Cable . |
| 8 | 05.07.23 | 33 KV Sirifort | 17:55 | 05.07.23 | 20:45 | 02:50 . | Dir. O/C,E/F Dist Prot.Zone-II & 86 Relay . B ph. Sigle Cable faulty | Ckt.Charge on single Cable . |
| 9 | 01.08.23 | 33 KV Court Complex- I | 01:40 | 01.08.23 | 05:15 | 03:35 . | Dist Prot. O/C E/F Master 86. Cable PC done Found Ok. | Cable Healthy |
| 10 | 14.07.23 | 33 KV Court Complex- II | 01:25 | 14.07.23 | 04:05 | 02:40 . | Trip Dist. Prot.Zone-I Sigle cable faulty. | Ckt.Charge on single Cable . |
| 11 | 01.08.23 | 33 KV Court Complex- II | 01:40 | 01.08.23 | 18:55 | 17:15 . | Trip O/C,E/F Master 86. C.B. B Ph. & Yph.Bus-I Jumper Damaged. | Capacitor bank damaged at BRPL end and symmetrical fault feed in System |

Due to above tripping heavy fault current flow in 33/220 kV Masjid Moth System. and may cause of damaged of our Circuit breaker, CT, LA, Snapping of Jumper. Recent Tripping occurred on 01.08.2023 and sparking observe on all equipment including cable end PG clam and B phase common CB side jumper Snap. DTL requested to BRPL for the reason of fault however BRPL not provided any reason. In this connection all equipment tested and time taken in the restoration 33 kV Court Complex-II circuit. In view of above OCC deliberate.

(OCC may deliberate)

BRPL Agenda

4. Energy recoding issues of meter installed at NDMC stations.

Energy Meters are installed at NDMC stations 33KV Kidwai Ngar and 33KV AIIMS were not recoded energy due to meter was offline in month of June, August and September 2022. Issue identified by BRPL team and informed DTL/SLDC,

Energy draw by these two stations was computed based on meters installed at source end of BRPL, accordingly Mu's are calculated and forwarded to NDMC for validation.

From last six months BRPL is continuously pursuing for this but no response from NDMC end in spite of several reminders and telephonic enquiries. Matter has been escalated several times to Sh Briesh kumar (DGM) also.

DTL/SLDC is requested to resolve the issue in coordination with NDMC.

Impact of energy gap is computed as below,

| Impact of energy deviation at NDMC end on BRPL | | | | | | |
|---|--|-----------|--|-----------|-------------------------------------|-----------|
| Month | Amount calculated without energy deviation at NDMC end (Rs.) | | Amount calculated considering energy deviation at NDMC end (Rs.) | | Difference | |
| | Additional Deviation charges amount | UI amount | Additional Deviation charges amount | UI amount | Additional Deviation charges amount | UI amount |
| Jun-22 | 13686637 | 6841992 | 13176454 | 2579023 | 510183 | 4262969 |
| Aug-22 | 7831689 | -29809871 | 7497227 | -35013949 | 334462 | 5204077 |
| Sep-22 | 2380265 | -30645326 | 2338794 | -33127358 | 41471 | 2482032 |
| Total | 23898591 | -53613206 | 23012476 | -65562284 | 886115 | 11949079 |

(OCC may deliberate)

SLDC Agenda

4. Automatic Demand Management System (ADMS) Implementations in Delhi

ADMS is a regular agenda of NRPC OCC and in 64th NRPC meeting held on 24.03.23 , the following was deliberated and recorded :

NRLDC representative inquired about the operation of ADMS in Delhi State and why some manual intervention was needed. Delhi representative explained that in the case where Delhi as a whole was underdrawing and one DISCOM was overdrawing, a fully automatic ADMS would shed the load of that DISCOM, leading Delhi as a whole to underdraw more from the grid.

However, MS NRPC stressed that ADMS should be fully automatic, and the NRLDC representative suggested adding a logic to the ADMS that could sense the overall drawl of Delhi before its operation to ensure certainty of action.

TPDDL representative reported that ADMS was fully implemented at their end but faced challenges due to poor communication infrastructure during outages. They were unable to revive 100% of the load shed through ADMS when system conditions improved, leading to manual intervention, commercial losses, and marking the outage as under breakdown.

NRLDC representative and MS NRPC urged them to find a solution to improve ADMS and make it automatic.

In 207 NRPC OCC meeting , Delhi SLDC was asked to provide update on decision held in 64th NRPC meeting regarding providing automatic action in ADMS scheme.

Delhi SLDC stated that they are discussing the matter with DISCOMs in state OCC meeting, and would share outcome after discussion in internal OCC meeting.

SE, NRPC stated that separate meeting will be called with states regarding progress and work on ADMS implementation.

Accordingly , A separate meeting was called by NRPC on 07.08.23 along with Delhi Discoms , Delhi SLDC and NRLDC in order to resolve the issue and during the meeting following was discussed and decided :

Delhi SLDC informed that Fully automatic ADMS is not operational in Delhi. The Load shedding is done by individual DISCOMs manually and there is no much scope of load shedding in Delhi being National Capital and 24*7 power supply to Delhi consumers .

BYPL informed that there is no automatic application for ADMS operation in BYPL however, there is a provision for manual load shedding through a single push button from their SCADA control center. Further, he mentioned that if load is very narrow and there are fluctuations in the load due to demand diversity, in that case there is very less scope of load shedding. However, load shedding is done as per the instructions of Delhi SLDC.

BRPL and TPDDL mentioned that they also have provision for manual load shedding through a single push button from there their SCADA control center. TPDDL also mentioned that load fluctuates every minute especially due to DMRC load.

NRLDC mentioned that logic for ADMS operation may be developed at state periphery. Logic for ADMS may have a combination of frequency condition, overdrawal condition and overdrawal limit along with the time duration limit for continuous overdrawal.

MS, NRPC stated that ADMS is necessary for Grid Security and as per IEGC, it is mandatory for all states. He requested Delhi SLDC to co-ordinate with the Delhi DISCOMs and finalize the logic for ADMS operation in Delhi.

In view of above, the logic for ADMS operation in Delhi needs to be explore for fully automatic implementation of ADMS in Delhi.

(OCC may deliberate)

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 the Delhi Power system as under: (breakdown report dt 15.08.2023 as per SLDC website)

| S. no | Element's Name | Utility | Date of outage | Date of Restoration | Status of outage |
|-------|---|---------|----------------|---------------------|--|
| 1 | 66KV PARK STREET TO RIDGE VALLEY | BRPL | 14-08-23 | | B Phase Cable faulty |
| 2 | 66KV MUNDKA TO NANGLOI CKT | BRPL | 30-06-23 | | B Phase Cable faulty |
| 3 | 33KV PPG TO GEETA COLONY CKT | BYPL | 08-08-23 | | B Phase faulty of first cable & Y Phase faulty of Second cable |
| 4 | 66KV PARK STREET-DMRC CKT-I & II | DMRC | 19-10-21 | | Shutdown of six months for grid shifting work at DMRC end |
| 5 | 33KV IP BAY-28-CONNAUGHT PLACE | NDMC | 26-06-23 | | R Phase faulty |
| 6 | 66KV PARK STREET-DMRC CKT-I & II | DMRC | 19-10-21 | 31-12-23 | for grid shifting work at DMRC end |
| 7 | 220KV SUBZI MANDI:- 100MVA -I | DTL | 04.01.23 | 17-08-23 | Tx under B/D. replacement under process |
| 8 | 220KV MAHARANI BAGH -MASJID MOTH CKT-II | DTL | 29.01.23 | 31-12-23 | Cable caught fire. |
| 9 | 220KV BAMNAULI-220KV DIAL CKT-II | DTL | 31.01.23 | 31-12-23 | R phase cable punctured by NHAJ during digging work |
| 10 | 220KV/66KV, 100MVA TX-II PARK STREET | DTL | 07-06-23 | 30-08-23 | Tx under B/D. replacement under process |
| 11 | 220KV GEETA COLONY- WAZIRABAD-I | DTL | 17-05-2023 | | R phase Conductor snapped. |

(OCC may deliberate)

Additional Agenda

Communication division Delhi SLDC.

Based on requirement of PM&DMS and SLDC Department of DTL, new generation Radio Trunking infrastructure is proposed to be established. Following points were deliberated during meeting held on 30.05.2023 at SLDC Building:-

- **SLDC-SO:** All static sets– TOTAL 65 sets
 - 4 sets - Two sets for each control room of SLDC (main and back up)
 - 50 sets – one set for each substation except two sets for each 400kV substations
 - 11 sets – one set each for FIVE DISCOMs, One set for each generator (GT & Pragati), One set each for four WtE plants.

- **O&M:** 400kV substation: (Handheld sets) – 7 sets per substation
 - Two sets for 400kV side maintenance and two sets for 220kV side maintenance
 - Three sets for security purpose (Main gate-01 and fencing petrolling-02).

- **O&M:** 220kV substation: (Handheld sets) – 3 sets per substation
 - Two sets for 220kV side maintenance
 - One set for security purpose (Main gate-01).

- **Disaster Management:** (Handheld sets) 5 sets for Disaster Management and safety.
- **Protection:** (Handheld sets) 8 sets required for protection department (one for each team).
- **SLDC-SCADA:** (Handheld/Static sets) 10 handheld/Static sets maintenance requirement.

(OCC may deliberate)

8. GMR/DIAL

Problem of voltage imbalance arises when we are unable to run the Terminal-2 Operation due to Voltage Imbalance issue at BRPL 66kV Palam Grid. After enquiry at BRPL Palam substation, they updated that 66kV Vasant-Kunj Grid was failed in afternoon and shifted the Load in 66kV Mehrauli. We like to highlight that, at Terminal-2 huge load like Chiller load is heavily impacted due to voltage imbalance and this imbalance of voltage is due to DMRC load at same bus at 66kV Mehrauli from where 66kV Palam is feeding load and further this is supplying power at IGI Airport. Therefore it is requested to the Hon'ble OCC chairperson to separate the DMRC and DIAL load at DTL 66kV Mehrauli voltage bus for uninterrupted power supply at IGI airport.

(OCC may deliberate)

9. DTL/400 kV Tikrikalan

Agenda for 220kV Line Mundka to Najafgarh and Mundka to Kanjhawala switched ON from 220kV Substation Najafgarh and Kanjhawala during NO LOAD Condition

400kV Substation Tikrikalan (Erstwhile Mundka) is having 3 No. 315MVA transformers (ICT 1, ICT 3 and ICT 4). ICT 1 and ICT 3 are diverted from PGCIL Mandola and Ludhianan substation respectively. ICT 4 is diverted from 400kV Bamnauli substation. ICT 1 is under observation by Transformer committee due to formation of Ethane, Methane and Ethylene gases. ICT 4 is under observation by Transformer committee due to high content of Hydrogen.

It is submitted that 220kV Line Mundka to Najafgarh and Mundka to Kanjhawala are generally kept in NO LOAD conditions by SLDC. These lines are loaded when there is shutdown of Najafgarh to Bamanuli line or Kanjahwala to Bawana line or any other tripping incident at other substations which require change in load flow.

It is also submitted that Mundka to Najafgarh and Mundka to Kanjhawala lines are overhead lines and probability of tripping on these lines is higher as these lines pass through some populated areas where some times unauthorized construction is also observed. Tripping on these lines due to kite flying, tree growth or any other activity in the nearby areas causes direct fault fed through 315MVA transformers at Mundka. It has been observed in the past years that these trippings deteriorate the health of the transformers and 2 No. 315MVA transformers have failed during such trippings. Further, the trippings also reduce the life of the transformers.

In view of above, it is advisable to keep the 220kV Lines Mundka to Najafgarh and Mundka to Kanjhawala switched ON from Najafgarh and Kanjhawala substation during NO LOAD conditions so that any fault during NO LOAD conditions is not fed by 315 MVA transformers at Mundka substation.

(OCC may deliberate)
