



DELHI TRANSCO LIMITED
(A Govt. of NCT of Delhi Undertaking)
An ISO 9001:2008 certified company
Office of DGM(T) OS, Convener-OCC
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No. F.DTL/831/F.4/2017-18/DGM (OS)/15

Date:-02.05.2017

To,
All Members of Operation Co-ordination committee

DTL	General Manager (O&M)-I, Chairman OCC General Manager (O&M)-II Executive Director (Planning) DGM (O&M) - North, East, West, South DGM (M/P) DGM(Plg.)	Fax no. 011-23366160 Fax No.011-23622707 Fax no. 011-23366160 Fax No.011-23632031
SLDC	GM (SLDC) DGM (SO)	Fax no. 011-23221069 Fax no. 011-23221059/12,
TPDDL	HOD (PSC &AM) Sr. Manager (PSC)	Fax no. 011-66050602 Fax no. 011-66050602
BRPL	Asstt. Vice President (SO)	Fax no. 011-39996549
BYPL	General Manager (SO)	Fax no. 011-39996549
NDMC	Superintending Engineer	Fax no. 011-23235754
IPGCL	AGM (T) COS AGM (T) Opr. GTPS	Fax no. 011-23284797 Fax no. 011-23370884
PPCL	DGM (T) Opr. PPS-I DGM (T) Opr. PPS-III	Fax no. 011-23378947 Fax no. 011-27791175
MES	AEE/M.SLDC Officer	
BTPS	AGM (EEMG)	Fax no. 011-26944348
BBMB	Sr. Executive Engineer, O&M	Fax no. 011-28315542
DMRC	Addl. GM (Elect.)	Special Invitee
DMRC	General Manager (Elect.)	Special Invitee
N. Railways	Sr. DEE (TRD)	Special Invitee
EDWPCL	Director(EDWPCL)	Special Invitee
Delhi MSWSL	Station Incharge	Special Invitee

Sub :- MOM of OCC Meeting held on 27.04.2017 & 28.04.2017 at SLDC Minto Road.

Dear sir/madam,

The OCC meetings was held on **27.04.2017 & 28.04.2017 at SLDC Building, Minto Road, Opp. MCD Civic Centre, New Delhi-110002.**

The minutes of meeting are enclosed herewith for your kind perusal and further necessary action please. The same has also been uploaded on DTL website, www.dtl.gov.in under the Tab "News and Information – OCC Meeting".

Thanking You.

Enclosure: MOM of OCC meeting.

Yours Sincerely,
sd/-
(Hitesh Kumar)
DGM(OS),DTL
Convener-OCC

Copy for favour of kind information to:

1. Member Secretary, NRPC, 18-A, SJS Marg, Katwaria Sarai, New Delhi-110016.
2. Secretary, DERC, Viniyamak Bhawan, C-Block, Shivalik, New Delhi-17.
3. Chairperson & Managing Director, DTL.
4. Chairperson, New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi.
5. Chairperson & Managing Director, Indraprastha Power Generation Company Ltd (Genco)/Pragati Power Corporation Ltd (PPCL), Himadri, Rajghat Power House, New Delhi-110002.
6. Director (Operations), DTL
7. Director (Finance), DTL
8. Executive Director (Planning), DTL
9. General Manager, NRLDC, SJS Marg, Katwaria Sarai, New Delhi-16
10. CEO, BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019.
11. CEO, BSES Yamuna Power Ltd, Shakti Kiran Building, Karkardooma, New Delhi-110092.
12. CEO, North Delhi Power Ltd, 33kV Grid S/Stn, Hudson Lane, Kingsway Camp, Delhi-110009.
13. CWE (Utilities), MES, Kotwali Road, Near Gopi Nath Bazar, Delhi Cantt. New Delhi-110010.
14. General Manager, Badarpur Thermal Power Station, Badarpur, New Delhi-44.
15. General Manager (Project)-I, DTL
16. General Manager (Project)-II, DTL

**DGM(OS),DTL
Convener-OCC**

DELHI TRANSCO LIMITED

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

MOM OF OCC MEETING DT. 27.04.2017

GM (O&M)-I, DTL, Chairman-OCC welcomed the members of OCC. List of participants are enclosed herewith as Annexure-1.

The meeting was started with the presentation on review of grid operation for March 2017. It was informed that peak demand of 4139 MW for March-2017 was met on 31.03.2017 at 19:22:48 hrs. Discom wise load as well as generation within Delhi during the peak and load curve for all the Discoms during the March month was depicted. Planning of Grid operation for May 2017 was also discussed, wherein it was explained that the anticipated peak demand for May 2017 would be around 6500 MW.

The point-wise deliberations made during the OCC meeting are as below:

1.0 Confirmation of minutes of OCC meeting dated 28.03.2017.

Last OCC meeting was held on 28.03.17. Minutes of the aforesaid OCC meeting were issued vide letter dt. 07.04.17. No comments were received regarding the contents of MOM. **As such the minutes of meeting of OCC held on 28.03.2017 were confirmed.**

2. DTL Agenda :

2.1 Implementation of Special Protection Scheme

The matter was also discussed in the previous OCC meeting held on 28.03.2017 wherein it was deliberated that to meet the expected Summer demand of 6600MW and to avoid cascading outage of any transmission element, Special Protection Schemes be devised to obviate complete blackout of sub-stations in case of outage of any of the system elements during peak time, where severe constraints are in existence. SLDC has already identified crucial transmission system including 220 kV transmission lines and 220/66 kV & 220/33 kV Transformers which are likely to be over loaded during the peak time this Summer.

The operation of Special Protection Scheme has to be activated when the loading of 220kV transmission Lines consisting of Zebra Conductors reaches to 700Amp. It was decided that scheme to be worked out so that the tripping command of 66kV, 33kV feeders and 11kV incomers can be given in stages so as to disconnect the load before the parallel over loaded upstream feeder/transformer Over current Relay initiate trip command on Over current protection. The feeders has been identified by the DISCOMs for disconnection in such scenario for the following specific transmission lines and are as under:

S. No.	Name of the Circuit	66/33 kV Feeders which can be switched off during the exigencies.
1	220kV Bamnauli-Papankalan-I ckt-I & ckt-II	66kV Bindapur Ckt-I & II 66kV Budhela Ckt-I & II
2	220kV Bamnauli-Papankalan-II ckt-I & ckt-II	66 kV Hastal and Local Transformers.

3	220kV Bawana-Rohini-I ckt-I & ckt-II	66kV RG-24 Ckt.-I & II 66kV DC-I & II
4	220kV Ballabgarh-BTPS –I & II	The committee has decided during the exigency at Ballabgarh-BTPS –I &–II. The 66 kV Malaviya Nagar-III, 33 kV Tughlakabad and 20 MVA Tr.-1 & 2 shall be switched off from 220 kV Okhla grid.
5	220kV Mandola-Gopalpur Ckt –I & II	33kV Model Town-I & II 33kV Indira Vihar-I & II
6	220kV BTPS-Mehrauli-I &II	Scheme is already commissioned. Tripping of 66kV Malviya Nagar –I & II and 66kV C Dot-I & II for reliability of DIAL supply and to avoid isolation of BTPS from Bamnauli when the system is interconnected.
7	220kV Mundka-Peeragarhi-I &II	Manual load management
8	220kV Mundka-Najafgarh	2 nos Local Transformers, 66kV Nangloi, 66 kV Jafarpur
9	220kV BTPS-Okhla-I &II	The committee has decided during the exigency at Ballabgarh-BTPS –I &–II. The 66 kV Malaviya Nagar-III, 33 kV Tughlakabad and 20 MVA Tr.-1 & 2 shall be switched off from 220 kV Okhla grid.
11	220kV Pragati-Park street-I &II	Manual load management
12	220 kV Mandaula-SOW-I,II,III and IV running parallel	66 kV Shastri Park at SOW and all 33kV feeders at Geeta colony.
13	220kV Ridge valley- Naraina	Scheme is already commissioned. Tripping of 33kV Inderpuri –I and II in Stage -1 and 220kV Bus Coupler in Stage –2 to avoid overloading of Ridge-Valley cable when Maharani Bagh and Bamnauli supply are interconnected through this link.

The Special Protection Scheme (SPS) for immediate load relief is to be implemented by 30th April, 2017. The scheme will be configured in respective Numerical Relays by the Protection Deptt. As decided in the last OCC meeting, the work of laying and termination of 4Cx2.5 sq. mm Control Cable from 220 kV Feeder Relay panel to the respective 66/33kV panel in respect of 220 kV transmission lines as mentioned above is to be done by the respective Sub-Station In-charge in consultation with the Protection Deptt., where the scheme are to be implemented. The work of the laying and termination of Control Cables was to be completed by 15th April, 2017.

It was pointed out that the work of laying and termination of 4Cx2.5 sq. mm Control Cables which was to be done by O&M deptt. has not been completed at some of the Sub-stns. OCC emphasized that in the interest of grid security, implementation of SPS be done on top priority basis. Accordingly, O&M deptt. should expedite the work of laying and termination of 4Cx2.5 sq. mm Control Cables from 220 kV Feeder Relay panel to the respective 66/33KV panel including wiring inside the panel in consultation with the Protection Deptt for timely implementation of scheme.

(Action by DTL O&M/Prot. Deptt.)

2.2 Tripping of 220/33kV 100MVA Tr.-II at 220kV Sub-stn Wazirpur on 21.03.2017 at 00:07 hrs.

The 220/33kV 100MVA Tr.-II at 220kV Sub-stn Wazirpur tripped on 21.03.2017 at 00:07 hrs. resulting load shedding.

It was informed that there was no fault in the transformer as revealed by the DR of numerical relay. However, there was LT supply failure from TPDDL end. There was also some problem in Battery charger which led to the tripping of transformer. The same was set right.

OCC advised that DTL O&M deptt. in consultation with Planning deptt. should expedite for tertiary loading of 100 MVA Tr to provide uninterrupted auxiliary supply to avoid reoccurrence of such incidents.

(Action by DTL O&M/Plg. Deptt.)

2.3 Storage of scrap material by BRPL Najafgarh at the common road at 220kV DTL Substation Najafgarh

The matter has been discussed in previous OCC meetings, wherein it was informed by Mgr(O&M), DTL (N-3) that BRPL Najafgarh is using the common road from Main Security Gate (at Main Road) to Security Gate at DTL 220kV Najafgarh Substation Security Gate which is creating the hindrance to men and material of DTL and common public at large too. The problem enhances and get gruesome when general public park their vehicles while visiting the BRPL Office encroaching the corridor. It can also not be ruled out that in case of major chaos, if any fire breaks out at DTL installation at Najafgarh or similar exigency, fire tenders/emergency vehicles may not be able to enter the premise due to space crunch created by storage of damaged & old scraps in the form of LT transformers, electrical poles and also due to parking of vehicles by general public.

During the OCC meeting, it was informed by DTL that some transformers have been removed from the site. BRPL assured for removing of the rest of the transformers by this May end. OCC advised BRPL for expediting the same. DTL should follow up with BRPL.

(Action by BRPL)

3. SLDC Agenda :

3.1. Split Bus Operation at 400KV Bamnauli

400kV Bamnauli –Jhatikalan Circuit No.2 has been operating on ERS since 22.05.2016. The revival of normal tower is expected to take by 7th June, 2017. Following the increasing load, load on the Circuit has the tendency to cross normal limit of 850MW. During the last Summer Season, a Bus Split arrangement was in vogue. It is proposed to Split the Bus with one 500MVA Transformer on one 400kV bus and the other three ICT's on other 400kV Bus as detailed hereunder :-

400kV Bus-I	400kV Bus-II
1. 400KV Bamnauli-Ballabgarh ckt. I & II	1. 400KV Bamnauli-Jhatikalan ckt.II (on ERS)
2. 315MVA ICT I & IV	2. 500MVA ICT-II
3. 500MVA ICT-II	3. 220KV Bus A& B
4. 220KV Bus C&D	4. 220KV Papankalan-I Ckt. I & II
5. 220KV Naraina Ckt. I & II	
6. 220KV Papankalan-II Ckt. I & II	
7. 220KV Najafgarh Ckt. I & II	
8. 220KVDIAL Ckt. I & II	

In case of outage of either the Jhatikalan 400kV Ckt. or the 500MVA Transformer, the Pappankalan-I load would be affected, till the same is shifted to other Bus with the approval of NRLDC.

It was deliberated that 400kV split bus operation at Bamnauli is required to restrict the loading of 400kV Bamnauli – Jhatikalan Ckt. 2 which has been operating on ERS since 22.05.2016. During last summer season also, there was 400kV split bus operation at Bamnauli. After detailed deliberations, OCC agreed the proposal of Split Bus Operation at 400 kV Bamnauli. However, it was emphasized the need for early revival of 400kV Bamnauli – Jhatikalan Ckt. –I on normal towers for maintaining stable operation of the system. The 400kV Bus split tantamount the breaking of 400kV ring at Bamnauli which is not in the interest of stable operations in Northern Grid.

(Action by DTL (O&M)/SLDC)

3.2. Operating Procedure of Northern Region

NRLDC has drawn out Operating Procedures of Northern Region as per the Regulations of Indian Electricity Grid Code. One of the important aspects with regard to Delhi system is the feeders identified in case of Physical Power Regulation.

Feeders for physical regulation of supply in delhi				
S. No	Transmission elements to be opened	Power supply interruption in	Approx. Relief (MW)	Remarks
1	220KV Mundka- Peeragarhi ckt 1 & 2	Peeragarhi	100-150	
2	220KV BTPS- Okhla 1 & 2	Okhla	200-350	
3	33kv Delhi ckt 1,2,3 & 4 feeders from Rohtak road (BBMB)	Rohtak road	20-30	
4.	220KV Maharani Bagh- Lodhi Road D/C	Lodhi road	200-300	Reliability of VIP load from Lodhi road may be affected
5	220KV Maharani Bagh -Masjid Moth D/C	Masjid Moth		

While identifying the above, it was required to be ensured that the inter connection system are not getting affected in case of physical power regulation to take care of the grid eventuality .

OCC noted the above.

3.3. Real Time Data of Renewables (Grid Connected)

Real Time data of Renewable Clauses 6(3) and 6(4)(b) of General Connectivity Conditions of Central Electricity Authority (Technical Standards for Connectivity to Grid) Regulations 2007 stipulates the voice and data communication requirements for all the generating projects including the renewable, which are getting connected to the grid at voltage level of 33 kV and above. The relevant clauses are as under:

“6(3) – The requester and user shall provide necessary facilities for voice and data communication and transfer of on-line operational data, such as voltage, frequency, line flows, and status of breaker and isolator position and other parameters as prescribed by the Appropriate Load Despatch Centre.

6(4) – The requester and user shall cooperate with the Regional Power Committee, and Appropriate Load Despatch Centres in respect of the matters listed below, but not limited to: -

(b) agree to maintain meters and communication system in its jurisdiction in good condition;”

Similarly, Clause 4(4) of General Connectivity Conditions of Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013 stipulates to provide communication facilities by generating stations feeding electricity into the system at voltage level of below 33 kV. The relevant clause is as under:

“4(4) – The applicant and the user shall provide necessary facilities in the distributed generation resource for communication and storage of data and other parameters as may be stipulated by the appropriate licensee in a nondiscriminatory manner.”

In view of the relevant Clauses of the CEA Regulations cited above, it is obligatory for all the grid connected renewable generators to provide necessary facilities for data communication and data-storage and other parameters as may be stipulated. CEA had requested SLDCs to take up the matter with all the renewable generators to ensure transfer of data to the appropriate Load Despatch Centre, so that the real time generation data is available with them for centralized monitoring. The present status in this regard and the action plan with definite time frame to ensure real time data telemetry from all the grid connected Renewable Generators/Plants to the SLDCs is to be submitted to CEA and NRPC Sectt.

Distribution Licensees expressed practical difficulties in providing data for such small grid connected generations on real time basis. The regulations is not clear upto which voltage level the generation is treated as grid connected as even roof top solar power is also grid connected as power is exported to the system after meeting the local demand.

It was deliberated that SLDC should take up the matter with CEOs of all the discoms for providing Net metering data for renewable generators at least on monthly basis. It was pointed out that the discoms should at least know the quantum of generators to manage the load as there is a massive plan of 2000 MW solar power by year 2020.

(Action by BRPL,BYPL,TPDDL,NDMC & MES)

3.4. Summer Preparedness

On 31.03.2017, Secretary Power, Govt. of India took a meeting to review the power supply position of the country during the Summer 2017. The following were the main decision with regard to Delhi is concerned:-

- a. From the weather outlook broadcast by IMD for March-May 2017, about 2⁰ Celsius rise in temperature above the normal level for this period was forecasted over Northern Region and West Bengal, while across India Temperatures were expected to be about 1⁰ Celsius degrees above normal. AGM(System Operation), NLDC stated that based on an earlier exercise by POSOCO, it was found that a 1 degree rise in temperature above 35-40⁰ contributes to about 3-4% rise in space cooling requirements for a metropolitan city like Delhi. He also stated that based on the MoU between POSOCO and IMD, the latter had developed a portal presenting comprehensive station-wise weather forecasts for about 100 weather stations in Northern Region, which would be helpful to the Northern Regional Load Despatch Centres (NRLDC) and State Load Despatch Centres(SLDCs) of Northern Region.

- b. Secretary(Power), Delhi Government stated that Badarpur TPS has already started generating to meet high demand.
Trippings of 220KV Samaypur BBMB substations as well as the need for re-conductoring of 220KV Samaypur-Ballabgarh-BTPS was emphasized by Delhi.
Considering the N-1 insecurity of Delhi system in case imports exceeded 5000 MW, there is a need for maintaining core generation within Delhi, which is possible only with increase in gas generation.
- c. Based on discussions, following action points were decided :
- i. States to maintain reserves at 50% of their largest size generating unit to take care of contingencies in the system and also in line with the CERC roadmap on operationalization of reserves in the country.
 - ii. All State utilities to procure at least two Emergency Restoration Systems(ERS) to take care of transmission tower failures and minimize outages on this account. Regional Power Committees (RPCs) would monitor the same in respect of all transmission utilities under their jurisdiction.
 - iii. Power Grid and the State Transmission Utilities would make efforts to expedite commissioning of the transmission lines under construction, so that further congestion in the transmission network is minimized.

OCC noted the above and advised all utilities to adhere to the decision to ensure stable and reliable grid operations during summer seasons. With regard to re-conductoring of 220kV Samaypur – Ballabgarh – BTPS Ckt., the DTL Planning Department may take holistic view considering the practical difficulties in arranging shutdowns in view of the facts that the 2X210MW Units at BTPS are allowed to be operated only during the period 15.03.2017 to 15.10.2017.

4.0 TPDDL Agenda

4.1 Non-availability of alternate source at 66kV Rewari Line Grid:

TPDDL have informed that there are two 66kV source for Rewari Line Grid:

- a) I/C from 220kV Pappankalan-I (DTL)
- b) I/C from Pankha Road T-off Sagarpur (BRPL)

But since 30.07.2016, 66kV circuit from Pankha Road has been faulty. Due to which they are facing hindrance in their regular maintenance work. As temperature is going up, loading condition is also attaining severe now. In such condition, any further tripping results in high quantum of load shedding. On 15.04.2017, 66kV Pappankalan-I to Rewari Line circuit tripped and during that time there were load constraint at Rohtak Road due to CT flashed at 220kV Narela (BBMB) end. So, TPDDL have requested that BRPL should look into the matter and arrange to make that 66kV circuit from Pankha Road grid available as early as possible.

During the OCC meeting, it was assured by BRPL that the 66kV I/C source for Rewari Line Grid from Pankha Road T-off Sagarpur will be revived by 10th May, 2017.

(Action by BRPL)

4.2 Issue in getting PTW from BSES Grid:

TPDDL have informed that during the last few days they are facing hindrance in getting PTW on feeder emanating from BSES grid. Whenever their authorised person visits any of their grid for PTW, they refuse to issue and ask unnecessary question about qualification, designation, experience etc. Even after answering all these things,

they ask for showing document against the above detail. These unnecessary argument results in unsolicited delay in restoring consumer and creating tough situation to work on ground.

They have also informed that they have already created a Tagging List of authorised persons after proper training, assessment and interview. They will also undergo refresher training program after certain time period.

In view of above, TPDDL have requested that BRPL should confirm from Cennet regarding authenticity about any employee of their organization without indulging in unnecessary dispute.

During the OCC meeting, it was deliberated that BRPL should confirm from Cennet regarding authenticity about any employee of TPDDL so as to facilitate the issue of PTW to the concerned authorized person in order to get the work done in time bound manner.

(Action by BRPL)

4.3 Low Voltage issue at DTL exchange points:

TPDDL have informed that with rise in summer load, voltage are getting as low as 62kV during peak time especially at 220kV Kanjhawala, 220kV Gopalpur and 220kV Narela grid s/stn. . Similar problem have been noticed at 220/33kV Subji Mandi also. Therefore, TPDDL have requested to raise tap position of 220kV/66kV and 220kV/33kV Power Transformers which were got lowered to counter high voltage problem in winters.

It was deliberated that DTL has already raised the tap position of transformers at the grids mentioned above in order to raise the voltage level.

5. Proposed Planned Shutdowns

5.1 Proposed shutdowns of O&M, DTL

DTL O&M deptt. has proposed the planned shutdowns for the month of May 2017 as per enclosed Annexure.

OCC approved the shutdowns subject to real time conditions. Some of the shutdowns have been deferred in view of abrupt rise in power demand. List of approved shutdown is enclosed as annexure.

6. Long/Recent outage of Elements in Delhi power system.

Members to update the status of following Long/Recent outage of Elements in Delhi Power system:

S. No	Element's Name	Discom/ DTL	Date and Time of outage	Updated Status as on 27.04.2017
1.	33kV BAY -3 (IP – KILOKARI)	BRPL	22.02.11	Clearance from Railways for laying of Underground cables near Bhairon Road is pending. OCC advised BRPL to inform DTL after awarding of the said work. During the OCC meeting dt.-28.11.2016, It was deliberated that the above work shall be started after joint inspection with Railways.
2.	33kV RIDGE VALLEY - KHEBAR LINE CKT.-II	BRPL	31.01.16	R-Ph SINGLE CABLE FAULTY. Energized on 26.04.17.

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3.	33kV IIT-JNU Ckt.	BRPL	27.11.16	CT problem. Expected by 15.05.17.
4.	66kV VASANT KUNJ INSTL.AREA-RIDGE VALLEY CKT.-I	BRPL	26.03.2017	Under Shutdown. Expected by 15.05.17.
5.	33kV OKHLA (220kV) ALAKNANDA CKT-I	BRPL	07.04.2017	SINGLE CABLE FAULTY Expected by 05.05.17.
6.	33kV LODHI ROAD - EXHIBITION GROUND -II	BRPL	23.04.2017	Y & B-Phase Single Cable Faulty. Energized on 25.04.17.
7.	66kV SAGARPUR - REWARI LINE CKT.	BRPL	30.07.16	'B' PH. CABLE FAULTY. RE-ROUTING BEING DONE. Expected by 10.05.17.
8.	66kV BUS COUPLER AT G-15 DWARKA	BRPL	22.11.2016	CT Blast. Expected by 15.05.17.
9.	30MVA PR.TR. AT NANGLOI	BRPL	18.03.2017	Problem in Relay.
10.	33kV CHAUKHANDI - PACIFIC MALL CKT	BRPL	29.03.2017	SINGLE CABLE FAULTY. Energized on 24.04.17.
11.	20 MVA Pr. Tr. -III at G-5 MATIALA	BRPL	11.04.17	UNDER SHUT DOWN Energized on 30.04.17.
12.	33kV NARAINA- MAYA PURI CKT.-I	BRPL	22.04.2017	R-Ph. SINGLE CABLE FAULTY CHARGED ON 02.05.2017 AT 11.23HRS.
13.	33kV NARAINA- MAYA PURI CKT.-II	BRPL	22.04.2017	SINGLE CABLE FAULTY. Energized on 27.04.17.
14.	33kV GONDA - SEELAMPUR U/G CKT.	BYPL	22.04.2017	Y-PH. SINGLE CABLE FAULTY Energized on 26.04.17.
15.	33kV GONDA - SEELAMPUR O/H CKT.	BYPL	23.04.2017	B & Y-PH. CABLE FAULTY Energized on 26.04.17.
16.	33KV PANDAV NAGAR - DMS CKT.	TPDDL	03.04.16	PROBLEM IN RMU. Expected by 05.05.17
17.	33kV JAHANGIRPURI-SANJAY GANDHI TR. NGR CKT-I	TPDDL		R-PH CABLE FAULTY Expected by 05.05.17
18.	66KV S.G.T.N.(GIS) - PP 1 CKT.-1	TPDDL		Y-PH CABLE FAULTY Expected by 29.04.17
19.	33kV JAHANGIRPURI - AZADPUR CKT.-I	TPDDL	05.04.2017	B-PH SINGLE CABLE FAULTY Expected by 15.05.17
20.	33kV NARAINA (220kV) - PADAV NAGAR CKT.	TPDDL	11.04.2017	SINGLE CABLE FAULTY Energized on 22.04.17.
21.	33kV EXHIBITION GROUND-II - TILAK MARG CKT.	NDMC	23.04.2017	CLAMP BURNT. Energized on 24.04.17.
22.	400kV BAMNAULI - JHAKTIKARA CKT.-I	DTL	22.05.16	Dead end Tower No.-169 along with gantry collapsed at Bamnauli end. Ckt.-II charged on ERS. Order placed. Expected by 31.05.17.

23.	100MVA Tr.-2 AT GEETA COLONY	DTL	01.12.16	Transformer energized on 25.04.2017.
24.	220/33kV 100MVA PR.TR.-I AT 220kV WAZIRPUR	DTL	19.10.16	The third 100 MVA Tr. of Preet Vihar Substn has been diverted to Wazirpur. Expected by 2 nd May 2017.
25.	220/33kV 100MVA PR.TR.-II AT 220kV LODHI ROAD	DTL	22.03.17	Transformer tripped on Differential and Buchholz relay. Tr. has been declared faulty and is to be replaced.
26.	220KV MAHARANI BAGH – LODHI ROAD CKT-I	DTL	05.04.17	Y-Phase Bushing of Cable END Box damaged at Maharani Bagh end. Expected by 30.04.2017.
27.	220/33kV 100MVA PR.TR.-IV AT 220kV OKHLA	DTL	07.04.17	Transformer tripped on Differential, PRV. Transformer declared faulty.

Table agenda of EDWPCL

During the Delhi OCC Meeting, East Delhi Waste Processing Company Ltd. (EDWPCL) brought out the attention of OCC that they have addressed a letter to DGM(OS), DTL for declaration of COD of EDWPCL. The contents of the letter are reproduced hereunder:-

Sub: Declaration of Commercial Operation Date

I have attached communications with BYPL and DERC about the test run of 12MW unit for declaration of commercial operations date. Plant is continuously running for achieving the commercial operation date. The recorded energy data of the plant is mentioned below.

Generated and Export Energy				
S. No.	Date		Energy Generated (KWH)	Energy Export (KWH)
	From (6:00am)	to (6:00am)		
1	24.04.17	25.04.17	153700	115500
2	25.04.17	26.04.17	201958	162500
3	26.04.17	27.04.17	263390	218100

We are informing OCC to declare COD of our plant with effect from 00:00 hrs. of 28.04.2017.

They requested OCC for declaring COD of their plant w.e.f. 00:00 hrs. of 28.04.17.

During the OCC meeting dt.-27.04.2017, it was informed by the representative of BYPL (GM (SO), BYPL) that it would be appropriate to discuss the issue separately as the COD should be done as per the provisions contained in the PPA and also he is not aware of the provisions of the PPA regarding the COD of the unit. He requested Chairperson, OCC to call their PMG Group also in the meeting. The other members also supported the view of BYPL.

Therefore, a meeting was called on next day, i.e. dt.-28.04.2017 at 11.00AM in SLDC conference room to discuss the issue of EDWPCL. All the OCC members as well as Head (PMG) of all the Discoms were invited in the meeting. Minutes of meeting held on 28.04.2017 follows:

MINUTES OF MEETING HELD ON 28.04.2017 AT 11.00AM IN SLDC TO DISCUSS THE ISSUE OF COD OF EAST DELHI WASTE PROCESSING PLANT GAZIPUR.

List of participants is enclosed as Annexure (Attendance sheet-page 3).

1. On 27.04.2017 during the Delhi OCC Meeting, East Delhi Waste Processing Company Ltd. (EDWPCL) brought out the attention of OCC that they have addressed a letter to DGM(OS), DTL for declaration of COD of EDWPCL. The contents of the letter are reproduced hereunder:-

Sub: Declaration of Commercial Operation Date

I have attached communications with BYPL and DERC about the test run of 12MW unit for declaration of commercial operations date. Plant is continuously running for achieving the commercial operation date. The recorded energy data of the plant is mentioned below.

Generated and Export Energy				
S. No.	Date		Energy Generated (KWH)	Energy Export (KWH)
	From (6:00am)	to (6:00am)		
1	24.04.17	25.04.17	153700	115500
2	25.04.17	26.04.17	201958	162500
3	26.04.17	27.04.17	263390	218100

We are informing OCC to declare COD of our plant with effect from 00:00 hrs. of 28.04.2017.

2. The copy of the letter was also addressed to Secretary DERC, GM(O&M)-I, Sh. Sunil Kakkar-Head PMG(BYPL) and GM (SLDC) Delhi.
3. The Plant has entered into PPA with BYPL on 29.10.2009 and as per the PPA, 49% of the net available electricity from the plant is to be supplied to BYPL.
4. In Delhi OCC Meeting, BYPL representative has suggested that it would be appropriate to discuss the issue separately as the CoD should be done as per the provisions contained in the PPA and also he is not aware of the provisions of the PPA regarding the CoD of the unit. He requested Chairperson, OCC to call their PMG Group also in the meeting.
5. After hearing the views of BYPL representative, the representative of the generating plant and other members of the OCC, it was decided to call a separate meeting on 28.04.2017 at 11.00AM with the representatives of the Generating Company, BYPL (the identified beneficiary of the Project) and other members of OCC.
6. During the meeting held on 28.04.2017, the Plant Representative gave a presentation regarding the operation of the plant.
7. During the meeting, they established that plant has achieved 90% generation of the installed capacity. They also provided the energy data as under:-

Sr. No.	Date	Energy generated in MUs	Energy Exported in MUs	%age of rated capacity
1	26.04.2017	0.252394	0.207000	88
2	27.04.2017	0.247076	0.204700	86
3	28.04.2017 (till 08.00AM)	0.092676	0.077200	97

8. They requested to consider the CoD from 00:00hrs. on 28.04.2017. They also brought out the National Green Tribunal direction in original application No.199 of 2014 as under:-

"East Delhi Municipal Corporation to supply immediately, at least 1500MT, of MSW, out of which upon exclusion of segregated inert and C&D waste, at least 1300MT of waste should be available to the plant for the purpose of manufacturing of RDF and Generation of energy"

"We also expect that all the authorities would cooperate and provide required assistance, help and guidance to the plant owners if they are found to be deficient and not performing as per the prescribed norms"

9. In view of above, he requested to allow the declaration of commercial operation of 00:00hrs. from 28.04.2017.
10. The representative of BYPL (Head (PMG), BYPL) stated that he was totally unaware of the need of convening this meeting. In case, the Plant wants to declare the CoD, the provisions of PPA must be adhered to. He has cited the clauses of PPA indicating the data requirement etc. before declaring the COD as under:-

Quote

6.3 Commercial Operation

6.3.1 Power Station shall be commissioned on the day after the date when the Procurer receives a Final Test Certificate of the Independent Engineer stating that:

6.3.1 Power Station shall be commissioned on the day after the date when the Procurer receives a Final Test Certificate of the Independent Engineer stating that:

- a) The Commissioning Tests have been carried out in accordance with Schedule 5, and are acceptable to him; and
- b) the results of the Performance Test show that the Power Station's Tested Capacity, is not less than ninety five (95) percent of its Minimum Capacity (Gross), existing on the Effective Date or in case the Seller has exercised the option under Article 3.1.1A the Contracted Capacity so finalized.

6.3.2 If the Power Station fails a Commissioning Test, the Seller may retake the relevant test within a reasonable period after the end of the previous test, with three(3) day's prior written notice to the Procurer and the Independent Engineer. Provided however, the Procurer shall have a right to require deferment of any such re-tests for a period not exceeding fifteen(15) days, without incurring any liability for such deferment, if the Procurer is unable to provide evacuation of power to the generated due to reasons outside the reasonable control of the Procurer or due to inadequate demand in the Grid.

6.3.3 The Seller may retake the Performance Test by giving at least fifteen(15) days advance notice in writing to the Procurer, up to eight(8) times, during a period of one hundred and eighty (180) days (Initial Performance Retest Period) from Power Station's COD in order to demonstrate an increased Tested Capacity over and above as provided in Article 6.3.1(b). Provided however, the Procurer shall have a right to require deferment of any such re-tests for a period not exceeding fifteen(15) days, without incurring any liability for such deferment, if the Procurer are unable to provide evacuation of power to be generated, due to reasons outside the reasonable control of the Procurer or due to inadequate demand in the Grid.

6.3.4 If Power Station's Tested Capacity after the most recent Performance Test mentioned in Article 6.3.3 has been conducted, is less than its Minimum Capacity (10MW) as existing on the Effective Date or in case the Seller has exercised the option under Article 3...1.1A the Capacity so finalized, the

Power Station shall be required to be suitably amended to meet the Minimum Capacity requirements.

- 6.3.5 If Power Station's Tested Capacity as at the end of the Initial Performance Retest Period or the date of the eighth Performance Test mentioned in Article 6.3.3, whichever is earlier, is found to be more than its Minimum Capacity (10MW) as existing on the Effective Date or in case the Seller has exercised the option under Article 3.1.1A the Capacity as so finalized, the Tested Capacity shall be deemed to be the Power Station's Capacity.

Provided that in all the above events, the Seller shall be liable to obtain / maintain all the necessary consents (including Initial Consents), permits and approvals including those required under the environmental laws for generation of such excess Tested Capacity.

5 Schedule 4 Functional Specification

1.1 Grid Conditions at Interconnection Plant

- | | | | | |
|-------|-----------------------------------|-----------|-----|----------------------|
| (i) | Voltage | :Normal | kV | [66] |
| | | Variation | % | [+10] |
| (ii) | Frequency | :Normal | Hz. | [50] |
| | | Variation | % | [+5] |
| (iii) | Combined Voltage and Frequency | | % | [+5] |
| | Variation for Contracted Capacity | | | |
| (iv) | Power Factor : | Normal | | [0.85] lag |
| | | Variation | | [0.80] to [0.90] lag |
| (v) | Basic Impulse (Peak) | | kV | [325] |

1.2 Fault Levels

- | | | | |
|------|------------------------|----|-------|
| (i) | 3 Phase Maximum | kA | [0.6] |
| (ii) | Clearance time maximum | ms | [<1] |

1.3 Ramp Rates

All Units of Power Station shall be capable of increasing or decreasing their output (generation level) by not less than one percent (1%) per minute. Such capability shall be demonstrated during the Unit load of more than 50%.

6 Schedule 5 : Commissioning and Testing.

1.1 Performance Test

- (i) (a) The Performance Test shall be conducted under any all the ambient conditions (temperatures, humidity etc) and any and all Fuel qualities that may exist during the time of Performance Test and no corrections in final gross and net output of the Unit will be allowed as a result of prevailing ambient conditions of Fuel quality.
- (b) The correction curves will only be used if the Grid System operation during the Performance Test exceeds electrical system limits.
- (c) The performance Test shall be deemed to have demonstrated the Contracted Capacity of the Unit under all designed conditions and therefore no adjustment shall be made on account of fuel quality or ambient conditions.
- (d) The Seller perform in respect of each Unit a Performance Test, which such Unit shall be deemed to have passed if it operates continuously for seventy two consecutive hours at or above ninety (90) percent of its Contracted Capacity, as existing on the Effective Date or in case the Seller has exercised the option under Article 3.1A the Contracted Capacity so finalized and within the electrical system limits and the Functional Specifications.
- (ii) For the purpose of any Performance Test pursuant to this sub-article 1.1, the electrical system limits to be achieved shall be as follows:

- (a) Voltage

The unit must operate within the voltage described in the Functional Specification for the duration of the Performance Test. If, during the Performance Test, voltage tests cannot be performed due to Grid System, data supplied from the test of the generator step-up transformers and generators

supplied by the manufacturers shall be used to establish the ability of the Unit to operate within the specified voltage limits.

- (b) **Grid System Frequency**
The Unit shall operate within Grid System frequency levels described in the Functional Specification for the duration of the Performance Test.
- (c) **Power Factor**
The unit shall operate within the power factor range described in the Functional Specification for the duration of the Performance Test. If, during the Performance Test, power factor tests cannot be performed due to the Grid System, data supplied from test of the generators and the generator step-up transformers supplied by the manufacturers shall be used to establish the ability of the Unit to operate within the specified power factor range.
- (d) **Fuel quality and cooling water temperature.**
The unit must operate to its Minimum Capacity with Fuel quality and water temperature available at the time of Testing and no adjustment shall be allowed for any variation in these parameters.
- (iii) As a part of the Performance Test, the Seller shall demonstrate that the Unit meets the Functional Specification for Ramping rate as mentioned in Schedule 4. For this purpose, representative samples of ramp rates shall be taken, by ramping up or down the gross turbine load while maintaining the required temperature and temperatures difference allocated with each ramp rate within the turbine while maintaining all other operational parameters within equipment limits;
- 1.2 Testing and Measurement procedures applied during Performance Test shall be in accordance with codes, practices or procedures as generally normally applied for the Performance Tests.
- 1.3 The Seller shall comply with the prevalent Laws, rules and regulations as applicable to the provisions contained in this Schedule from time to time.

Unquote

- 11. BYPL representative informed that as per the provisions of PPA they already agreed the nomination of Independent Engineer for certifying the CoD and requested the Plant representative to provide all the necessary certificates issued by Independent Engineer in this regard.
- 12. They also requested the Plant representative to provide the technical reasons, if any deviation was necessitated to declare COD as mentioned in the PPA. They also agreed to place all the facts thus supplied before the Competent Authority to consider the request as and when they are provided to them.
- 13. SLDC Representative requested the Forum to consider the Plant which is one of the main sources to dispose off the municipal waste with the provision of Green Energy to the System. He also cited the relevant clauses to the Tariff Policy notified by the Govt. of India in this regard on 28.01.2016. As per the provisions of the National Tariff Policy, NGT Orders, CoD should be done at the earliest. The relevant provisions of the National Tariff Policy in this regard was cited as under:-

4.0 OBJECTIVES OF THE POLICY

The objectives of this tariff policy are to:

- (a) Ensure availability of electricity to consumers at reasonable and competitive rates;
- (b) Ensure financial viability of the sector and attract investments;
- (c) Promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimise perceptions of regulatory risks;

- (d) Promote competition, efficiency in operations and improvement in quality of supply;
- (e) Promote generation of electricity from Renewable sources;**
- (f) Promote Hydroelectric Power generation including Pumped Storage Projects (PSP) to provide adequate peaking reserves, reliable grid operation and integration of variable renewable energy sources;
- (g) Evolve a dynamic and robust electricity infrastructure for better consumer services;
- (h) Facilitate supply of adequate and uninterrupted power to all categories of consumers;
- (i) Ensure creation of adequate capacity including reserves in generation, transmission and distribution in advance, for reliability of supply of electricity to consumers

6.4 Renewable sources of energy generation including Co-generation from renewable energy sources:

- (1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage of the total consumption of electricity in the area of a distribution licensee for purchase of energy from renewable energy sources, taking into account availability of such resources and its impact on retail tariffs. Cost of purchase of renewable energy shall be taken into account while determining tariff by SERCs. Long term growth trajectory of Renewable Purchase Obligations (RPOs) will be prescribed by the Ministry of Power in consultation with MNRE.
Provided that cogeneration from sources other than renewable sources shall not be excluded from the applicability of RPOs.
- (i) Within the percentage so made applicable, to start with, the SERCs shall also reserve a minimum percentage for purchase of solar energy from the date of notification of this policy which shall be such that it reaches 8% of total consumption of energy, excluding Hydro Power, by March 2022 or as notified by the Central Government from time to time.
- (ii) **Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Act.**
- (iii) It is desirable that purchase of energy from renewable sources of energy takes place more or less in the same proportion in different States. To achieve this objective in the current scenario of large availability of such resources only in certain parts of the country, an appropriate mechanism such as Renewable Energy Certificate (REC) would need to be promoted. Through such a mechanism, the renewable energy based generation companies can sell the electricity to local distribution licensee at the rates for conventional power and can recover the balance cost by selling certificates to other distribution companies and obligated entities enabling the latter to meet their renewable power purchase obligations. The REC mechanism should also have a solar specific REC.
- (iv) Appropriate Commission may also provide for a suitable regulatory framework for encouraging such other emerging renewable energy technologies by prescribing separate technology based REC multiplier (i.e. granting higher or lower

number of RECs to such emerging technologies for the same level of generation). Similarly, considering the change in prices of renewable energy technologies with passage of time, the Appropriate Commission may prescribe vintage based REC multiplier (i.e. granting higher or lower number of RECs for the same level of generation based on year of commissioning of plant).

- (2) States shall endeavor to procure power from renewable energy sources through competitive bidding to keep the tariff low, except from the waste to energy plants. Procurement of power by Distribution Licensee from renewable energy sources from projects above the notified capacity, shall be done through competitive bidding process, from the date to be notified by the Central Government. However, till such notification, any such procurement of power from renewable energy sources projects, may be done under Section 62 of the Electricity Act, 2003. While determining the tariff from such sources, the Appropriate Commission shall take into account the solar radiation and wind intensity which may differ from area to area to ensure that the benefits are passed on to the consumers.
- (3) The Central Commission should lay down guidelines for pricing intermittent power, especially from renewable energy sources, where such procurement is not through competitive bidding. The tariff stipulated by CERC shall act as a ceiling for that category.
- (4) In order to incentivize the Distribution Companies to procure power from renewable sources of energy, the Central Government may notify, from time to time, an appropriate bid-based tariff framework for renewable energy, allowing the tariff to be increased progressively in a back-loaded or any other manner in the public interest during the period of PPA, over the life cycle of such a generating plant. Correspondingly, the procurer of such bid-based renewable energy shall comply with the obligations for payment of tariff so determined.
- (5) In order to promote renewable energy sources, any generating company proposing to establish a coal/lignite based thermal generating station after a specified date shall be required to establish such renewable energy generating capacity or procure and supply renewable energy equivalent to such capacity, as may be prescribed by the Central Government from time to time after due consultation with stakeholders. The renewable energy produced by each generator may be bundled with its thermal generation for the purpose of sale. In case an obligated entity procures this renewable power, then the SERCs will consider the obligated entity to have met the Renewable Purchase Obligation (RPO) to the extent of power bought from such renewable energy generating stations. Provided further that in case any existing coal and lignite based thermal power generating station, with the concurrence of power procurers under the existing Power Purchase Agreements, chooses to set up additional renewable energy generating capacity, the power from such plant shall be allowed to be bundled and tariff of such renewable energy shall be allowed to be pass through by the Appropriate Commission. The Obligated Entities who finally buy such power shall account towards their renewable purchase obligations.

Provided also that scheduling and despatch of such conventional and renewable generating plants shall be done separately.

- (6) In order to further encourage renewable sources of energy, no inter-State transmission charges and losses may be levied till such period as may be notified by the Central Government on transmission of the electricity generated from solar and wind

sources of energy through the inter-state transmission system for sale.

- (7) Appropriate Commission may provide regulatory framework to facilitate generation and sale of electricity from renewable energy sources particularly from roof-top solar system by any entity including local authority, Panchayat Institution, user institution, cooperative society, Non-Governmental Organization, franchisee or by Renewable Energy Service Company. The Appropriate Government may also provide complementary policy support for this purpose.

Explanation: "Renewable Energy Service Company" means an energy service company which provides renewable energy to the consumers in the form of electricity.

- 13 SLDC representative also advised the plant representative to complete the formalities for scheduling 51% output of the plant considering the above quoted National Tariff Policy (i.e. (ii) **Distribution Licensee(s) shall compulsorily procure 100% power produced from all the Waste-to-Energy plants in the State, in the ratio of their procurement of power from all sources including their own, at the tariff determined by the Appropriate Commission under Section 62 of the Act.**
14. **Concluding the discussion, it was decided to advise EDWPCL to provide all the requisite data / test report to BYPL for consideration of declaration of COD. After mutual consensus of the plant representative and BYPL, COD may be declared by the plant and informed to SLDC for scheduling the power as per the advise of EDWPCL. The plant was also advised to complete the formalities of scheduling of balance power (51%) after the allocation of 49% capacity of the plant to BYPL.**

The meeting ended with vote of thanks to the Chair.

NOTE:-The MOM of OCC meeting can also be seen on DTL website (www.dtl.gov.in) under the Tab "News and Information – OCC Meeting".
