STATE LOAD DESPATCH CENTER
DELHI

ANNUAL REPORT
2018-19

REGD. OFFICE: SHAKTI SADAN, KOTLA MARG, NEW DELHI-110002
SLDC Building, 33kV Minto Road Grid Sub-Station, New Delhi-110002

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1 INTRODUCTION

Delhi Transco Limited is the State Transmission Utility of the National Capital Territory of Delhi. It is responsible for transmission of power at 220KV and 400KV level, besides up gradation operation and maintenance of EHV Network as per system requirements.

After the enactment of Electricity Act 2003, a new department under the name and style of **State Load Despatch Centre (SLDC)** under Delhi Transco Limited was created, as an Apex body to ensure integrated operation of the power system in Delhi. Earlier the department was part of O&M Department of Delhi Transco Ltd / Delhi Vidyut Board. SLDC Delhi started its function on the First of January 2004. SLDC is responsible for the real time Load Despatch function, O&M of SCADA System and Energy Accounting.

It's mission is to facilitate intra and inter state transfer of power with Reliability, Security and Economy on sound commercial principles.

2 LICENSEES / GENERATING COMPANIES OPERATING IN DELHI

1 STATE TRANSMISSION UTILITY

	DELHI TRANSCO LTD.(DTL)	:	TRANSMISSION LICENSEE (STU, DELHI)

2 DISTRIBUTION LICENSEE

i)	BSES RAJDHANI POWER LTD (BRPL)	:	DISTRIBUTION LICENSEE
ii)	BSES YAMUNA POWER LTD. (BYPL)	:	DISTRIBUTION LICENSEE
iii)	TATA POWER DELHI DISTRIBUTION LTD. (TPDDL)	:	DISTRIBUTION LICENSEE
iv)	NEW DELHI MUNICIPAL COUNCIL (NDMC) (NDMC)	:	DEEMED DISTRIBUTION LICENSEE
v)	MILITARY ENGINEERING SERVICE (MES)	:	DEEMED DISTRIBUTION LICENSEE
vi)	NORTHERN RAILWAYS	:	DEEMED LICENSEE

3 GENERATING UTILITIES

i) INDRAPRASTHA POWER GENERATING COMPANY LTD. (IPGCL)

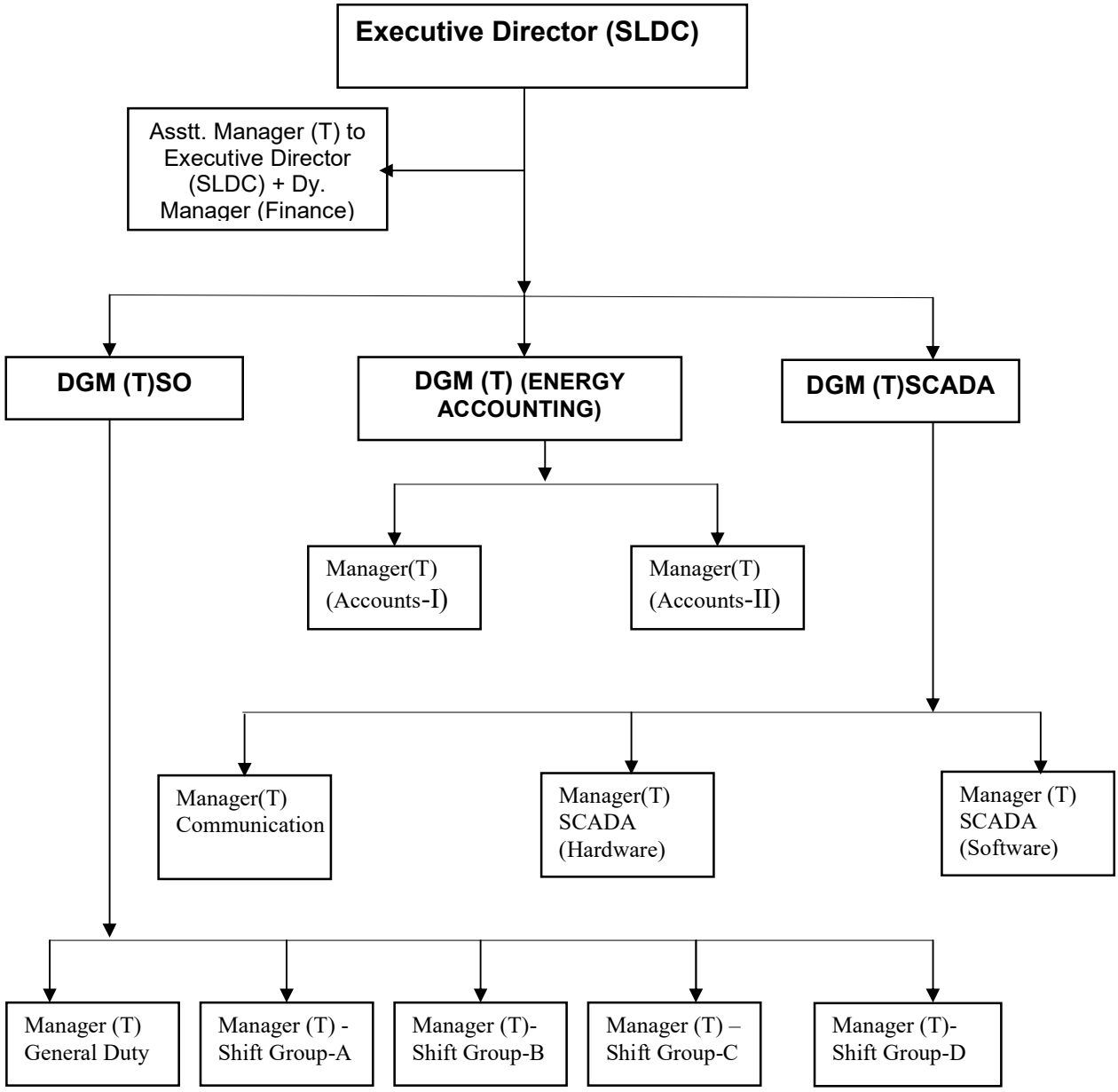
ii) PRAGATI POWER CORPORATION LTD (PPCL)

iii) EAST DELHI WASTE PROCESSING COMPANY LTD (EDWPCL)
(Waste to Energy Plant)

iv) TIMARPUR OKHLA WASTE MANAGEMENT COMPANY LTD. (TOWMCL)
(Waste to Energy plant)

v) DELHI MUNICIPAL SOLID WASTE PROCESSING COMPANY LTD (DMSWPCL)
(Waste to Energy plant)

3 ORGANISATIONAL SETUP OF SLDC DEPARTMENT



4 Functions of various circles of SLDC

i) System Operation
ii) Energy Accounting
iii) SCADA and Communication

4.1 System Operation

System Operation Circle is mainly responsible for techno-economic scheduling and dispatch of electricity within the NCT of Delhi in accordance with the contracts entered into with the licensees or the generating companies operating in Delhi.

The System Operation Division monitors grid operations, exercises supervision and control over the intra-state transmission system and carry out the real time operation of grid control and dispatch of electricity within Delhi through secure and economic operations of the State Grid in accordance with the Grid standards and the State Grid Code.

4.2 Energy Accounting

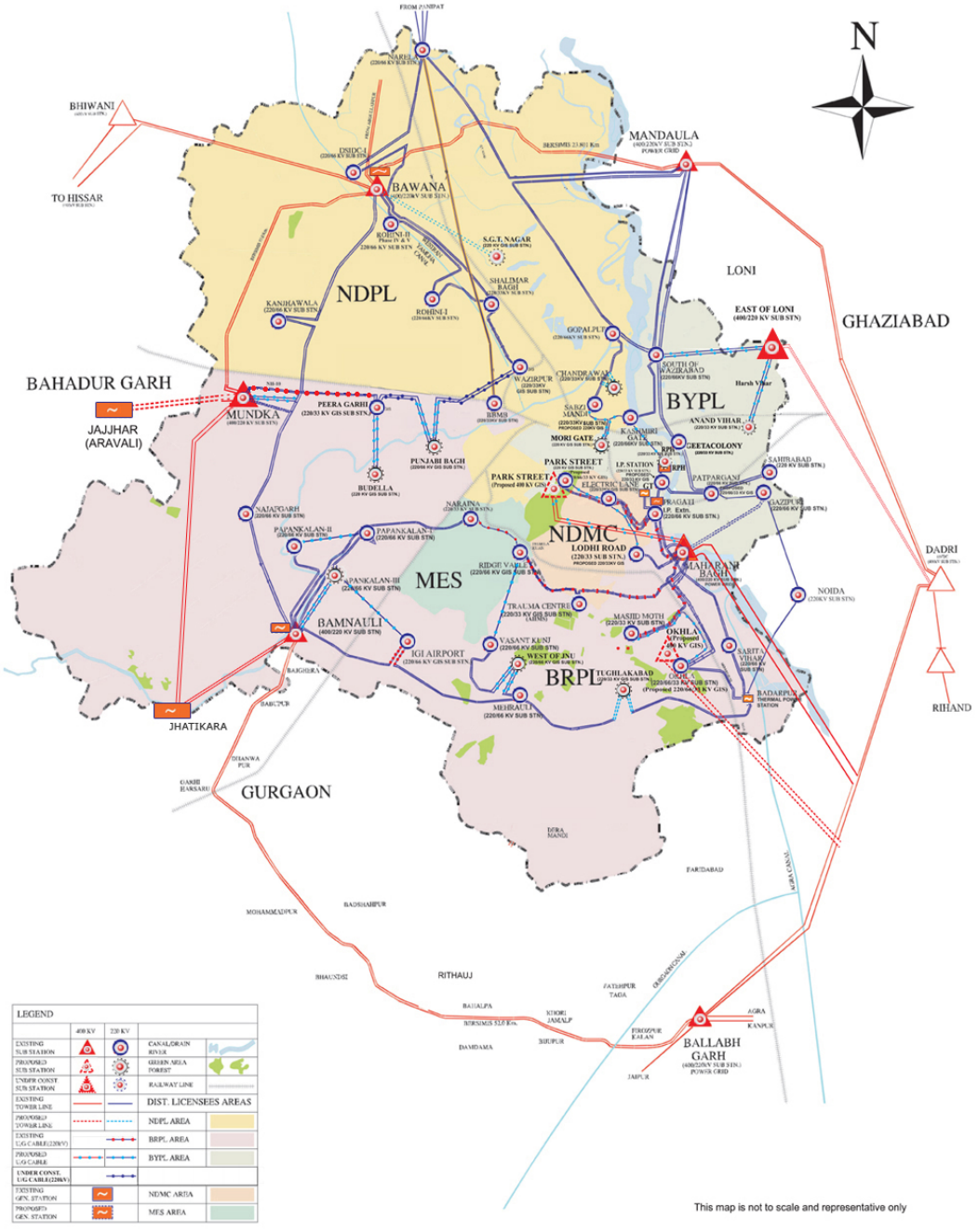
The circle is to undertake the accounting of the quantity of electricity transmitted through the state grid as envisaged in the Electricity Act. This includes the preparation of State Energy Accounts indicating Availability, Scheduled Generation, Plant Load Factor computation, Open Cycle Operation of Gas Turbines etc. in respect of Generating Stations within Delhi. It has also to prepare and issue weekly Deviation Settlement Mechanism (DSM) Accounts for Intrastate utilities.

4.3 Supervisory Control and Data Acquisition (SCADA) and Communication

SLDC has the state of art Load despatch centre having SCADA (Supervisor Control And Data Acquisition System) for retrieving information from generating stations and grid sub stations consisting of analog data (like Mega Watt, Voltage, Current, MVar) and digital status of various elements (like Circuit Breaker, Isolator etc.) for real time monitoring and control of grid, enabling it to operate safely, securely and economically.

The data from sub station is received through an existing communication ring comprising of OPGW and Microwave links. For indicating this data on control room monitors, the hardware and communication links at sub stations are maintained round the clock by the hardware and software sub divisions. The software sub division of SCADA has developed in-house softwares for various activities.

4.4 Network Map of Delhi Power System



5 MAJOR ACTIVITIES OF SLDC DURING 2018-19

In the second phase of power reforms undertaken in Delhi, the power purchase agreements executed by DESU / DVB / DTL have been reassigned to Distribution Licensees / Deemed Distribution Licensees from 01.04.2007. Subsequently, Intrastate ABT has also been introduced in Delhi w.e.f. 01.04.2007 which is first in the country. Delhi State Electricity Regulatory Commission has subsequently come out with Delhi Grid code (DGC) notified in official Gazette on 22.04.2008. Delhi Grid Code envisages Grid Coordination Committee whose responsibilities are :-

The Grid Coordination Committee shall be responsible for the following matters namely -

(a) facilitating the implementation of these Regulations and the procedures developed under the provisions of these Regulations;

(b) assessing and recommending remedial measures for issues that might arise during the course of implementation of provisions of these Regulations and the procedures developed under the provisions of these Regulations;

(c) review of the DGC, in accordance with the provisions of the Act and these Regulations;

(d) analyse any major grid disturbance after its occurrence,

(e) examining problems raised by the Users, and

(f) investigate in case any Beneficiary is indulging in unfair gaming or collusion after getting reported from SLDC.

(g) review of the complete statement of the State UI (now DSM) and the State Reactive Energy account tabled by the SLDC through its Commercial Committee (a Sub-committee of GCC); and

(h) such other matters as may be directed by the Commission from time to time.

Deputy General Manager (System Operation) is the Convener of the GCC. GCC further formed various Sub-Committees whose responsibilities are detailed hereunder:-

a) Operation Co-Ordination Sub-Committee (OCC)

b) Commercial Sub-Committee (CC)

c) Protection Sub-Committee (PC)

d) System Study Sub-Committee

5.1 OPERATION CO-ORDINATION SUB-COMMITTEE (OCC)

Functions and Responsibilities:

Operation Co-ordination Committee (OCC) is responsible for

- Settle all issues related to operation of the Delhi / Regional grid viz. reviewing the schedule v/s. actual generation of various power stations drawn up in the previous month;
- estimating availability of power and energy from each power station and demand of each licensee for the current and next month;
- drawing up coordinated maintenance schedule for Intrastate generating units and Intrastate transmission network;
- reviewing operational discipline and its norms to be observed by constituents;
- reviewing the operation of Automatic Under-Frequency Relays;
- discussing system occurrences, if any, during the previous month ;
- reviewing the status of implementation of the recommendations of the Inquiry Committees;
- monitoring / reviewing violation of provisions of IEGC/DGC related to grid operation;
- discussing / reviewing measures for ensuring economic grid operation including optimization of energy transfer with other constituents;
- examining possibility of optimizing intra state energy exchanges;
- discussing optimization of energy transfer with other states; and
- any other matter referred by the GCC.

5.2 COMMERCIAL SUB-COMMITTEE (CC):

Functions and Responsibilities :

Commercial Sub-Committee(CC) is responsible for

- all commercial related issues viz. energy accounting ;
- schemes required for inclusion in the Bulk Power Supply Agreements ;
- requirement of power from the new projects ;
- installation of special energy meters and its cost sharing, etc.;
- metering aspects;
- reviewing of the payments towards UI (now DSM) charges ;
- treatment of transmission losses;
- commercial declaration of lines / substation and Generating units;
- commercial issues in intra state exchange of power ;
- issues concerning settlement of payments among constituents, if any, etc. and ;
- any other matter referred by the GCC.

Auditing Commercial Committee shall audit the State Energy Accounts, Intra State UI Accounts and Inter discom Energy Transfer Account & Reactive Pool Accounts.

5.3 PROTECTION SUB-COMMITTEE (PC)

Functions and Responsibilities:

Protection Sub-Committee (PC) is responsible for

- all power system protection related issues viz. analysis of system disturbances in the state;
- review of protective relaying schemes ;
- relay co-ordination ;
- islanding schemes;
- automatic under frequency load shedding schemes;
- review of the implementation of recommendations made by the Inquiry Committee of the grid disturbance in the state / region concerning the above matters, etc.;
- and any other matter referred by the GCC.

5.4 SYSTEM STUDY SUB-COMMITTEE:

Functions and Responsibilities

System Study Sub-Committee entrusted with the work to carry out following system studies

- 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.
- Studies for review of area wise reactive compensation requirement
- Operational load flow studies as & when required, for peak conditions off peak conditions etc.
- Short-circuit studies as and when required.
- Transient stability studies for major events like grid disturbances or other issues periodically or as and when requested by the constituent(s).
- System studies related to transmission constraints.
- Studies specific to high / low voltage conditions with specific reference to reactors or capacitors operation / requirement.
- Identification of requirement of reactors as and when required
- Co-relation of protection related issues from Studies as and when required
- To draw out the contingency plan of Delhi Power System.
- Any other technical study referred by the GCC.

The above said Sub-Committees meet periodically to transact business as envisaged in their formation.

The Apex Committee, Grid Coordination met twice during the FY 2018-19. The details of various decisions taken in the meeting are as under :-

S. No.	Date of meeting	Discussions and Decision on the issue(s)
1	**09.04.2018**	The 19th Meeting of Grid Coordination Committee was held on 09.04.2018. the following issues were discussed and decided:- i)GCC discussed the disagreement of BYPL raised on the MoM of 18th GCC meeting in the matter of settlement of of Infirm power prior to CoD in case of EDWPCL . ii)GCC reviewed the status of hot reserve transformers in DTL system and it was decided that the issue of hot reserve status be updated in Delhi OCC meeting every month. iii)GCC reviewed the status of Automatic Demand Management Scheme being implemented by Discoms. GCC advised SLDC to hold a meeting after completion of scheme for implementation of ADMS in Delhi. iv)GCC discussed the issue of non payment of dues of DTL and PPCL/IPGCL by Discoms various discoms. GCC advised utilities to clear the dues without further delays and also advised to honour the bills raised by Transmission and Generating utilities and clear the same within stipulated time. v)GCC also reviewed the status of implementation of recommendations of Expert Committee on Grid Disturbance on 30/31.07.2012. vi)GCC reviewed the power supply position of summer 2018 and advised all Discoms to prepare a contingency plan to meet the shortages. It also discussed the issue of High voltage during winter nights and advised DTL and PGCIL to expedite the reactors installation as suggested by Standing Committee of CEA. DMRC was also advised to implement the reactive power management scheme devised by them as early possible. vii)GCC reviewed the status of System Improvement works planned by DTL and Distribution companies for reliable supply. It also discussed the Capacitors Installation Plans by Discoms and the issue of non usage of bays allotted to various utilities from DTL S/Stns and advised accordingly. viii)GCC reviewed the position of outage of elements in transmission and distribution system and advised all utilities to keep their elements in healthy position so that any eventualities can be managed properly in summer month. ix)GCC also discussed the various issues raised by Discoms and advised accordingly.
2	**28.11.2018**	The 20th Meeting of Grid Coordination Committee was held on 28.11.2018. the following issues were discussed and decided:- i)GCC confirmed the Minutes of 18th and 19th GCC meeting held on 22.09.2017 and 09.04.2018 respectrively. ii)GCC reviewed the status of hot reserve transformers in DTL

S. No.	Date of meeting	Discussions and Decision on the issue(s)
		system. GCC advised that all out efforts be taken to charge the hot reserve transformers within the target date to avoid any power crisis due to breakdown of transformer. Timelines for all associated works for ETC of Tr. such as civil works including Tr. Foundation, equipment replacement, cabling, etc. be also quantified. GCC also discussed the augmentation plan for 66/11kV or 33/11kV 20/16MVA Txs at DTL Grids. It also reviewed the augmentation / replacement plant of 220/66kV 100MVA Tx at various Grids of DTL. iii)GCC reviewed the status of Automatic Demand Management Scheme being implemented by Discoms and advised to iv)GCC discussed the issue of non payment of dues of DTL and PPCL/IPGCL by Discoms various discoms and advised accordingly. v)GCC also reviewed the status of implementation of recommendations of Expert Committee on Grid Disturbance on 30/31.07.2012. vi)GCC reviewed the anticipated power supply position of winter 2018-19 and advised all Discoms to maintain their power portfolio as per their load requirement. It also discussed the issue of High voltage during winter nights and advised all utilities to control the reactive power generation at their respective buses itself for overall effect on system. Further, DTL to expedite the work of installation of reactors. vii)GCC reviewed the status of System Improvement works planned by DTL and Distribution companies for reliable supply. It also discussed the Capacitors Installation Plans by Discoms and the issue of non usage of bays allotted to various utilities and and advised all utilities to utilize the bays allocated to them for optimum utilisation of the assets. viii)GCC reviewed the position of outage of elements in transmission and distribution system and advised all utilities to keep their elements in healthy position so that any eventualities can be managed properly in summer month. GCC also discussed the various issues raised by Discoms and advised accordingly. ix)GCC was apprised about DTL Summer Actiopn Plant-2019 in line with the meeting held in the O/o-Dir(opr.), DTL on 25.07.2018 in consultation with SLDC and DTL Planning & CMG deptt.

Apart from the above, various other meetings were held in Delhi to discuss and decide various issues as under :-

S. No.	Date of meeting	Discussions and Decision on the issue(s)
1	30.08.2018	A meeting was held regarding certification of instances of forced scheduling to TPDDL as per directions issued by DERC order dated 28.08.2018 in petition no.10/2014.
2	18.09.2018	A meeting was held to discuss the request related to Northern Railways regarding installation of ABT meters and CT/PT of 0.2s class for availing open access at 11kV.
3	25.09.2018	A meerting was held for resolution of issues related to Open Access of Northern Railways (in line with the Regulation 16(1) of DERC Open Access Regulations dated 30.01.2006)
4	21.12.2018	A meeting was held for the discussion on the procedure guidelines for the implementation of DSM 4th Amendment notified by CERC and further amendment in Scheduling Procedure and Delhi Grid Code.
5	29.01.2019	A meeting was held to discuss the various issues regarding implementation of DERC order dated 21.01.2019 for Waste to Energy Plants.
6	13.03.2019	A meeting was convened regarding reliability issues of CCGT Bawana raised by various Discoms during winter months. In view of reliability of supply and gas allocation issue in Delhi, it was decided that instead of running one full module on MTL of CCGT Bawana, both the modules would run at MTL on half module mode.

6 SALIENT FEATURES OF DELHI POWER SYSTEM

Sr. No.	Features	2017-18	2018-19
1	**Effective Generation Capacity within Delhi in MW**		
	Rithala	94.2	94.2
	Rajghat Power House	135	135
	Gas Turbine	270	270
	Pragati Stage-I	330	330
	Badapur Thermal Power Station	705	705
	Bawana CCGT	1371	1371
	Timarpur Okhla Waste Management Ltd	16	16
	Delhi Municipal Solid Waste Management Ltd.	24	24
	East Delhi Waste Processing Company Ltd.	10	10
	Total	2955	2955
2	**Maximum Unrestricted Demand (MW)**	**6553**	**7016**
	Date	06.06.17	10.07.18
	Time	15:31:37	15:26:49
3	**Peak Demand met (MW)**	**6526**	**7016**
	Date	06.06.17	10.07.18
	Time	15:31:37	15:26:49
4	Availability (MW)	6651	7017
5	Shortage (-) / Surplus (+) in MW	(+)125	(+)1
6	Percentage Shortage (-) / Surplus (+)	(+)1.92	0.01
7	Maximum Energy Consumption in a day (Mus)	136.816	140.397
8	Energy Consumed during the year	**31875**	**32271**
9	**Load Shedding in Mus**		
A)	Due to Grid Restrictions		
i)	Under Frequency Relay Operations	0.024	0.004
ii)	Load Shedding by		0.000
	TPDDL	0.271	1.493
	BRPL	0.690	0.009
	BYPL	0.151	0.000
	NDMC	0.000	0.000
	MES	0.000	0.000
iii)	Due to Transmission Constraints in Central Sector System	0.000	0.171
	Total due to Grid Restriction	**1.136**	**1.677**
B)	Due to Constraints in System		
	DTL	6.107	4.279
	TPDDL	0.978	1.667
	BRPL	9.433	9.240
	BYPL	1.276	0.865
	NDMC	0.000	0.008
	MES	0.000	0.000
	Other Agencies	0.538	0.111
	Total	**18.332**	**16.171**
11	**Total Load Shedding in MUs**	**19.469**	**17.848**
12	**Load shedding in percentage of Energy Consumption**	**0.061**	**0.055**

7. PERFORMANCE OF GENERATING STATIONS WITHIN DELHI DURING YEAR 2018-19

Sr. No	Power Station	Effective Capacity (MW)	Gross Generation in MUs	Ex-bus Generation In MUs	Plant Availability Factor in %age
1	Rithala CCTG	94.2	0.000	0.000	0.00
2	Rajghat TPS	135	0.000	0.000	0.00
3	Gas Turbine	270	599.691	577.246	81.29
4	Pragati Stage-I	330	1515.627	1480.248	88.36
5	BTPS	705	1396.2501	1263.6063	59.26 (upto Oct 2018)
6	Bawana CCGT	1371	3620.273	3491.065	71.99
7	Timarpur Okhla Waste Management Ltd.	16	163.089	139.155	--
9	Delhi Municipal Solid Waste Management Ltd	24	136.132	111.343	--
10	East Delhi Waste Processing Company Ltd.	12	39.976	29.307	--
	Total	**2957.2**	**7471.0381**	**7091.9703**	**--**

The gross generation and ex-bus generation is shown on the basis of operational figures calculated on day to day basis.

The PAFM of BTPS and RPH w.e.f. 01.01.2016 has been calculated as per directions of Delhi Pollution Control Committee (DPCC) issued vide letters dated 31.12.2015, 02.02.2016, 21.03.2016 and 15.03.2017 subject to finalization at the end of financial year.

8. DETAILS OF OUTAGES OF GENERATING STATIONS WITHIN DELHI FOR 2018-19

RPH

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time	Date	Time	
1	67.5	08.05.15	13.40	--	--	Tripped on boiler tube leakage. However, DPPC has also not allowed the operation of unit due to non meeting pollution norms.
2	67.5	21.05.15	10.20	--	--	DPPC has not allowed the operation of unit due to failure to meet pollution norms.

(B) Gas Turbine

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
1	30	30.3.18	20:15	4.4.18	06:44	Unit stopped due to low SF6 gas pressure in the breaker. Not brought on bar due to low demand.
		17.4.18	00:45	17.4.18	13:25	Machine tripped on Heavy jerk from the system and came on FSNL
		8.5.18	12:33	19.5.18	19:27	Machine stopped due to changeover to GT#5.and not started due to no demand from SLDC.
		23.5.18	08:24	23.5.18	15:02	Machine tripped on CRT got blank.
		26.5.18	12:23	27.5.18	19:25	Machine tripped on heavy jerk and there was a CW line leakage.
		27.5.18	19:25	29.5.18	19:47	Machine could not be taken on bar due to low demand.
		2.6.18	09:20	4.6.18	19:37	Low demand.
		30.6.18	08:14	30.6.18	08:35	Machine came on FSNL due to tripping of 160MVA Tx
		3.7.18	21:07	4.7.18	23:12	Low demand.
		5.7.18	15:50	5.7.18	17:30	Machine tripped on electrical fuse failure.
		29.7.18	00:04	30.7.18	11:12	Low demand.
		30.7.18	20:10	24.09.18	20.00	Machine stopped due to heavy smoke below turbine.
2	30	17.4.18	00:45	17.4.18	03:40	Machine tripped on Heavy jerk and came on FSNL
		18.4.18	05:40	18.4.18	07:49	Machine tripped on Exhaust Temperature High
		13.5.18	19:45	13.5.18	20:20	Machine came on FSNL due to jerk in system.
		16.05.18	03:18	16.5.18	04:00	Machine tripped on lub oil temp high.
		26.05.18	08:05	27.5.18	19:25	Machine tripped on TAD High.
		27.05.18	19:25	29.5.18	21:17	Machine could not be taken on bar due to no schedule from SLDC on CCNG
		2.06.18	09:15	4.6.18	11:35	Low demand.
		26.06.18	23:23	27.6.18	00:10	Machine tripped on T communication link inoperative.
		27.06.18	12:46	27.6.18	18:00	Machine stopped to replace faulty Tx
		30.06.18	07:40	30.6.18	12:46	Low demand.
		03.07.18	21:10	5.7.18	06:48	Machine stopped as per SLDC message due to low demand on CCNG.
		30.07.18	23:32	20.08.18	11.42	
		23.08.18	11.00	31.01.18	23.59	

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
3	30	25.1.18	22:49	4.4.18	07:20	Less demand.
		9.4.18	13:45	13.4.18	13:32	Unit started for Testing Black Start
		13.4.18	14:40	15.4.18	17:05	Unit started for Trial RUN
		15.4.18	17:10	16.4.18	02:18	Less demand.
		24.4.18	11:00	27.4.18	18:50	Less demand.
		29.4.18	00:03	12.05.18	00.20	Less demand.
		13.5.18	19:45	13.5.18	21:04	Machine came on FSNL due to jerk in system.
		14.5.18	00:00	21.5.18	21:50	Less demand.
		23.5.18	16:08	24.5.18	00:17	Less demand.
		26.5.18	16:35	27.5.18	19:25	Machine stopped to attend CW line leakage.
		27.5.18	19:25	29.5.18	12:55	Less demand.
		29.5.18	20:22	04.06.18	11.54	Less demand.
		4.6.18	13:06	4.6.18	15:00	Machine tripped on Exhaust temp high.
		4.6.18	15:00	20.6.18	12:45	Less demand.
		28.6.18	00:01	28.6.18	13:06	Less demand.
		30.6.18	08:14	30.6.18	08:30	Machine came on FSNL due to tripping of 160 MVA Tx
		30.6.18	10:02	30.6.18	10:40	Machine tripped on Battery undervoltage
		30.6.18	13:30	30.6.18	23:59	Machine stopped as per the message of SLDC
		9.7.18	18:30	9.7.18	22:09	Less demand.
		12.7.18	00:02	13.7.18	10:15	Less demand.
		13.7.18	15:30	16.7.18	09:56	Less demand.
		18.7.18	01:44	18.7.18	12:09	Machine stopped due to tripping of STG-II and due to non avaialiability of STG-II.vaialble
		18.7.18	14:17	20.7.18	09:40	Less demand.
		20.7.18	18:45	21.7.18	11:30	Less demand.
		21.7.18	16:54	24.7.18	11:16	
		25.7.18	17:40	31.12.18	23:59	
		22.01.19	07.55	22.01.19	11.35	Class A relay operation
		21.02.19	20.03	21.02.19	21.35	Unit of base mode
		26.02.19	12.16	26.02.19	15.54	Loss of flame.
4	30	17.1.18	10:25	4.4.18	10:05	Less demand.
		6.4.18	07:40	6.4.18	16:31	Machine tripped on Electrical trouble normal shutdown
		6.4.18	17:15	15.4.18	07:34	Less demand.
		15.4.18	23:29	19.4.18	13:04	Machine tripped on Communication failed with IO Pack. Not started due to low demand.
		20.4.18	08:58	30.4.18	23:59	Less demand.
		1.5.18	00:00	12.5.18	21:06	Less demand.
		13.5.18	18:00	23.5.18	09:13	Less demand.
		23.5.18	11:50	24.5.18	12:47	Machine stopped as load could not be increased above 20 MW.
		24.5.18	12:47	26.5.18	08:44	Less demand.

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
4	30	26.5.18	12:23	26.5.18	14:25	Machine tripped due to jerk in system and later taken to attend leakage in CW line..
		26.5.18	16:32	27.5.18	19:25	Machine stopped to attend CW line leakage.
		27.5.18	19:25	28.5.18	12:18	Machine started after attend of CW line leakage
		28.5.18	14:51	29.5.18	12:21	Less demand.
		29.5.18	19:52	4.6.18	14.50	Less demand.
		4.6.18	20:10	20.6.18	22:06	Less demand.
		28.6.18	00:03	28.6.18	13:01	Less demand.
		30.6.18	08:14	30.6.18	08:46	Machine came on FSNL due to grid disturbance.
		30.6.18	16:15	09.07.18	13.20	Less demand.
		9.7.18	18:20	9.7.18	21:52	Less demand.
		10.7.18	02:13	10.7.18	13:40	Less demand.
		12.7.18	00:02	12.7.18	13:55	Less demand.
		14.7.18	04:36	14.7.18	07:29	Machine tripped on control trip and overtemperature trip alarm on CRT
		05.10.18	16.40	05.10.18	17.31	Unit tripped on Electrical trouble normal shutdown.
		27.02.19	17.10	27.02.19	18.35	Loss of flame.
5	30	23.3.18	20:11	29.4.18	10:01	Less demand.
		29.4.18	13:45	29.4.18	18:10	Trial run
		29.4.18	22:14	9.5.18	12:19	Less demand.
		12.5.18	17:25	13.5.18	13:03	Machine tripped on overspeed bolt trip alarm appeared.
		13.5.18	18:00	23.5.18	10:40	Less demand.
		23.5.18	23:08	25.5.18	16:03	Machine tripped on Exhaust overtemperature.
		26.5.18	12:23	26.5.18	16:35	Machine tripped on heavy jerk and there was a CW line leakage.
		26.5.18	16:35	27.5.18	19:25	Machine stopped to attend CW line leakage.
		27.5.18	19:25	28.5.18	13:33	Machine started after CW line leakage attended.
		2.6.18	12:25	2.6.18	20:30	Machine stopped to attend hotspot in HV bushing of STG-III Transformer.
		2.6.18	20:30	4.6.18	09:16	Less demand.
		10.6.18	08:02	11.6.18	10:50	Less demand.
		17.6.18	11:00	1.7.18	22:30	Less demand.
		2.7.18	03:32	3.7.18	21:04	Less demand.
		5.7.18	02:30	9.7.18	22:49	Less demand.
		10.7.18	02:13	10.7.18	10:15	Less demand.
		12.7.18	14:01	18.7.18	12:58	Less demand.
		20.7.18	17:45	20.7.18	17:57	Less demand.
		21.7.18	00:02	25.7.18	16:33	Less demand.
		26.7.18	10:15	30.7.18	20:30	Less demand.
		28.08.18	16.19	28.08.18	20.07	Machine tripped on " Electrical trouble normal shutdown" and 52 H fuse failure alarm appeared.
		05.09.18	12.39	05.09.18	13.57	Machine tripped due to false alarm of condensate level high.

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
6	30	26.3.18	14:00	23.05.18	18.13	Machine under Major Inspection and out of DC
		23.5.18	18:30	24.5.18	15:14	Machine tripped on Generator journal bearing drain oil temp High and lub oil header temp alos high.
		26.5.18	16:35	27.5.18	19:25	Machine stopped to attend CW line leakage.
		27.5.18	19:25	28.5.18	11:21	Machine started after CW line leakage attended.
		30.5.18	11:20	30.5.18	12:42	Machine tripped on Exhaust temperature high.
		2.6.18	12:30	2.6.18	18:10	Machine stopped to attend hotspot in HV bushing of STG-III Transformer.
		10.6.18	08:03	10.6.18	20:05	Machine stopped to attend problem in Governing system of STG.
		10.6.18	20:05	11.6.18	10:58	Less demand.
		17.6.18	11:00	20.6.18	13:46	Less demand.
		20.6.18	19:00	1.7.18	20:55	Less demand.
		2.7.18	03:23	3.7.18	20:56	Less demand.
		5.7.18	18:05	5.7.18	19:35	Machine tripped on communication IO Pack failure.
		5.7.18	19:35	8.7.18	22:57	Less demand.
		13.7.18	16:00	18.7.18	01:35	Less demand.
		20.7.18	17:45	20.7.18	17:56	Machine desynchronized and put on FSNL due to passing of trailer.
		21.7.18	00:02	23.7.18	10:44	Less demand.
		26.7.18	10:15	30.7.18	13:08	Less demand.
		22.10.18	18.04	24.10.18	18.15	Unit tripped due to Y & B phase to phase fault.
STG -1	30	17.4.18	00:45	17.4.18	15:14	Machine tripped on Heavy jerk from the system
		26.4.18	16:52	26.4.18	18:44	Machine tripped due to tripping of 2 MVA Tx-I
		1.5.18	00:28	1.5.18	02:16	Machine tripped due to tripping of 2 MVA Tx
		8.5.18	12:34	8.5.18	13:25	Tripped while slashing HRSG-1
		8.5.18	14:56	8.5.18	15:54	Tripped on class -A relay operated.
		13.5.18	19:45	13.5.18	21:41	Machine tripped due to jerk in system.
		16.5.18	03:02	16.5.18	04:52	Machine tripped due to jerk in system
		16.5.18	12:34	16.5.18	13:21	Machine tripped on Turbine speed very high I,e malfunctioning of output card of turbine.
		26.5.18	16:35	27.5.18	19:25	Machine stopped to attend CW line leakage.
		27.5.18	19:25	30.5.18	01:16	Less demand.
		2.6.18	09:23	4.6.18	13:44	Less demand.
		26.6.18	23:30	27.6.18	00:40	Machine tripped on Exhaust temp high
		30.6.18	07:34	30.6.18	18:40	Machine tripped on Heavy jerk in the system and delay in synchronizing due to vibration problem in front and rear bearing amd ejector flange damaged in jerk
		3.7.18	16:40	4.7.18	21:15	Machine tripped on Heavy jerk due to system and due to jerk in system there was leakage in Ejectir flange.
		4.7.18	21:15	5.7.18	02:05	Less demand.
		28.7.18	13:36	28.7.18	17:50	Machine tripped due to jerk in the system and leading to outage of 160 MVA Transformer 1 & 2 both.
		30.7.18	23:32	20.08.18	15.40	Less demand.

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
STG -1	30	20.08.18	16.05	20.08.18	22.45	Unit tripped on high viberation in bearing.
		23.08.18	11.00	31.08.18	23.59	Less demand.
		07.10.18	03.10	07.10.18	05.30	Unit tripped due to all running parameters shown in blue band.
		18.01.19	12.46	18.01.19	19.58	High vibration in bearing.
		21.01.19	11.20	22.01.19	23.59	Vaccume low
		01.03.19	01.44	01.03.19	06.19	Gas Atrip relay
		20.03.19	14.35	20.03.19	19.02	Sudden CEP A-1 trip.
		23.03.19	11.34	23.03.19	16.45	Attend leakage in CW Line.
STG -2	30	25.1.18	22:49	4.4.18	14:08	Less demand.
		7.4.18	11:35	7.4.18	12:08	Machine tripped suddenly on control valve closing
		9.4.18	13:45	15.4.18	09:43	Less demand.
		17.4.18	01:20	17.4.18	04:58	Unit tripped on all the parameters showing on blue band .
		18.4.18	08:01	18.4.18	08:35	Machine tripped on Turbine channel 1&2 operated alarm appeared.
		18.4.18	10:48	18.4.18	11:38	Machine tripped on hunting started of parameters on BCD.
		24.4.18	11:00	24.4.18	12:15	Stopped to attend oil leakage from servo motor line
		24.4.18	12:15	27.4.18	21:00	Less demand.
		29.4.18	00:03	30.4.18	23:59	Less demand.
		17.4.18	01:20	17.4.18	03:58	Machine tripped on all the parameters showing on blue band
		1.5.18	00:00	12.5.18	03:58	Less demand.
		13.5.18	19:45	13.5.18	20:30	Less demand.
		13.5.18	20:30	21.5.18	23:49	Less demand.
		26.5.18	16:35	27.5.18	19:25	Machine stopped to attend CW line leakage.
		27.5.18	19:25	29.5.18	14:33	Less demand.
		29.5.18	18:40	04.06.18	16.08	Machine stopped to attend water leakage from inlet line of Generator cooler.
		4.6.18	20:13	20.6.18	15:30	Less demand.
		28.6.18	00:03	28.6.18	15:40	Machine stopped as per the message of SLDC
		30.6.18	08:14	30.6.18	13:30	Machine tripped due to tripping of 160 MVA transformer as there was disturbance in the grid.
		30.6.18	13:30	12.07.18	16.30	Machine could not be taken on bar due to Axial shift and taken out of DC.
		14.7.18	04:36	16.7.18	14:30	Machine tripped due to tripping of GT-4 and later not started due to no schedule from SLDC.
		17.7.18	00:55	17.7.18	01:38	Machine tripped on Class A trip alarm, Reverse power trip alarm, Power relay and protection SSVT fuse fail.
		17.7.18	18:06	17.7.18	21:35	Machine tripped on Ch-I & CH-II and class A relay trip alarm appeared on CRT.
		17.7.18	21:49	21.7.18	16:20	Machine again tripped on CH-I & CH-II and Gen RJB and FJB Vibration very high and not started due to no demand..
		25.7.18	17:40	31.12.18	23:59	Less demand.
		25.01.19	18.35	25.01.19	21.08	Generator reserve Power relay inserted in system.
		21.03.19	11.34	23.03.19	16.45	Attend leakage in CW Line.

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
STG -3	30	23.3.18	20:00	08.05.18	14.18	Machine under O/H
		8.5.18	14:28	8.5.18	15:52	Tripped on class -A relay operated.
		11.5.18	15:54	12.5.18	13:50	Machine tripped on calibration of woodward governor.Is under maintenance and STG-II taken on 12.05.2018 at 13:50 made avaialble.
		12.5.18	13:50	23.5.18	13:30	Less demand.
		23.5.18	23:08	24.5.18	19:23	Machine tripped on tripping of GT-5 & 6
		26.5.18	16:35	27.5.18	19:25	Machine stopped to attend CW line leakage.The PTW cancelled on 27.05.2018 at 19:25.
		27.5.18	19:25	28.5.18	14:18	Machine started after attend CW line leakage.
		28.5.18	17:46	28.5.18	18:13	Machine tripped on low vacuum.
		1.6.18	08:15	1.6.18	11:06	Unit stopped to attend oil leakage in governor system.
		2.6.18	12:32	2.6.18	19:48	To attend hotspot in HV bushing of STG-III Tx
		9.6.18	11:30	9.6.18	12:50	To attend problem in Governing system of STG.
		10.6.18	03:52	10.6.18	04:24	To attend problem in Governing system of STG.
		10.6.18	08:03	10.6.18	20:05	To attend problem in Governing system of STG.
		10.6.18	20:05	11.6.18	13:00	Less demand.
		16.6.18	12:25	16.6.18	16:15	Machine tripped on FJB vibration very high.
		17.6.18	11:00	20.6.18	17:45	Less demand.
		20.6.18	17:45	24.6.18	16:45	Machine was out of DC due to problem in MOP.
		24.6.18	16:45	30.6.18	12:17	Less demand.
		30.6.18	12:17	30.6.18	20:00	Machine not available due to problem in MOP.
		30.6.18	20:00	30.6.18	23:59	Less demand.
		1.7.18	22:56	3.7.18	22:00	STG-III out of DC due to unavailiability of MOP but made avaialble on 03.07.2018 at 22:00 hrs.
		4.7.18	21:52	9.7.18	09:39	Machine out of DC due to oil leakage from MOP
		9.7.18	09:39	9.7.18	11:32	Mahcine after made avaialble started on 9/7/2018 at 11:32 hrs.
		10.7.18	16:20	10.7.18	17:36	Machine tripped while increasing load feom 11.5 MW to 19.5 MW.
		13.7.18	16:00	18.7.18	03:44	Less demand.
		20.7.18	00:00	20.7.18	19:51	Machine desynchronized.
		21.7.18	00:02	23.7.18	12:40	Less demand.
		26.7.18	10:15	30.7.18	15:40	Less demand.
		30.7.18	17:36	30.7.18	19:18	Machine tripped on 99 GT, 32G-2B relay operated.
		28.08.18	16.39	28.08.18	21.25	Machine tripped on Bearing vibration high.
		29.08.18	17.25	29.08.18	18.16	Machine tripped on GE Protection Main fuse failure and AVR VT fuse failure alarm on backup desk.
		05.09.18	12.39	05.09.18	15.02	Fire observed near front gland during costing down.
		22.10.18	18.04	22.10.18	20.40	Due to tripping of GT # 6 as half module was runing.
		22.11.18	08.27	22.11.18	10.20	STG tripped due totripping of both 160 MVA Txs
		22.01.19	07.55	22.01.19	11.35	Tripped on class A relay
		23.01.19	10.55	23.01.19	12.00	
		24.01.19	13.07	24.01.19	13.52	Tripped with 160MVA tr.
		20.02.19	10.23	20.02.19	11.55	Glass Atrip relay.
		20.02.19	15.40	28.02.19	23.59	VT Fuse fail
		23.03.19	11.30	23.03.19	17.47	Attend leakage in CW Line.
		29.03.19	14.13	29.03.19	15.39	Class A trip relay operated.

(C) PRAGATI

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
1	104	23.03.18	20.03	17.04.18	16.49	Stopped for HGPI
		03.05.18	12.46	04.05.18	15.07	Stopped due to low demand.
		04.05.18	16.10	11.05.18	14.16	Stopped due to low demand.
		13.05.18	19.50	13.05.18	20.14	Tripped due to grid disturbance
		16.05.18	03.01	16.05.18	04.49	
		26.05.18	12.24	26.05.18	13.22	
		26.05.18	13.56	26.05.18	14.42	
		30.06.18	08.17	30.06.18	12.57	
		28.07.18	00.10	03.08.18	12.30	Stopped due to low demand.
		06.08.18	12.31	13.08.18	17.20	
		02.09.18	16.00	21.09.18	08.32	
		06.10.18	00.00	10.12.18	07.02	
		23.12.18	09.20	23.12.18	10.46	Internal fault
		04.01.19	12.51	04.01.19	21.30	
		04.01.19	21.30	05.01.19	10.50	Stopped due to low demand.
		24.01.19	13.06	24.01.19	13.53	Tripped due to grid disturbance
		04.02.19	01.45	19.02.19	09.24	Stopped due to low demand.
		19.02.19	14.32	20.02.19	10.19	
		21.02.19	00.00	31.03.19	23.59	
2	104	17.04.18	18.47	18.04.18	12.45	Tripped on internal fault.
		18.04.18	12.45	19.04.18	06.24	Stopped due to low demand.
		03.05.18	07.19	03.05.18	09.07	Tripped due to grid disturbance
		26.05.18	13.56	26.05.18	14.38	
		30.06.18	08.17	30.06.18	09.35	
		12.07.18	17.16	12.07.18	18.20	
		29.07.18	15.50	29.07.18	17.29	Tripped on internal fault.
		13.08.18	18.51	13.08.18	21.15	Unit stopped for checking of diverter dumper seal
		13.08.18	21.15	16.08.18	14.30	Stopped due to low demand.
		16.08.18	14.30	30.08.18	18.45	Unit stopped due to repairing of diverter dumper.
		30.08.18	18.45	04.09.18	12.13	Stopped due to low demand.
		21.09.18	14.00	21.09.18	18.30	GT#2 swapped by GT#1 to attend AVR problem by BHEL
		21.09.18	18.30	04.10.18	15.41	Stopped due to low demand.
		05.10.18	11.43	05.10.18	12.20	Tripped on internal fault.
		22.11.18	08.29	22.11.18	09.34	Tripped due to grid disturbance
		26.11.18	12.41	26.11.18	13.30	Tripped on internal fault.
		10.12.18	09.53	10.12.18	19.15	Air filter replacement
		10.12.18	19.15	19.12.18	05.47	
		19.12.18	12.58	20.12.18	05.40	Stopped due to low demand.
		20.12.18	22.42	04.01.19	10.03	
		05.01.19	12.33	12.01.19	12.45	
		12.01.19	12.45	12.01.19	14.00	Repair work
		12.01.19	14.00	21.01.19	05.20	Stopped due to low demand.

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
2	104	21.01.19	06.18	21.01.19	07.53	Tripped on internal fault.
		21.01.19	08.40	23.01.19	02.00	
		23.01.19	02.00	23.01.19	09.40	Stopped due to low demand.
		23.01.19	23.13	25.01.19	12.00	
		26.01.19	09.52	02.02.19	14.12	
		21.02.19	00.00	29.03.19	19.37	
		30.03.19	12.28	31.03.19	14.04	
STG	122	20.04.18	15.01	20.04.18	16.43	Tripped on internal fault.
		03.05.18	07.19	03.05.18	09.00	Tripped due to grid disturbance
		03.05.18	09.00	03.05.18	10.48	Internal problem
		03.05.18	16.51	03.05.18	17.50	Tripped on internal fault.
		26.05.18	13.56	26.05.18	15.39	Tripped due to grid disturbance
		26.05.18	17.59	26.05.18	19.41	
		03.06.18	07.23	03.06.18	12.16	
		30.06.18	08.17	30.06.18	11.50	
		12.07.18	17.16	12.07.18	18.27	
		15.07.18	04.29	15.07.18	08.34	Tripped on internal fault.
		24.07.18	12.37	24.07.18	13.39	
		29.07.18	15.50	29.07.18	18.42	Unit tripped as unit -2 tripped.
		14.08.18	19.30	14.08.18	22.45	Tripped due to grid disturbance
		16.08.18	15.32	23.08.18	09.59	GCB oil leakage.
		29.08.18	08.05	29.08.18	09.10	Tripped on internal fault.
		29.08.18	14.01	29.08.18	16.28	
		02.09.18	16.03	04.09.18	17.09	Stopped due to low demand.
		06.09.18	04.14	06.09.18	05.40	Tripped on internal fault.
		27.09.18	09.15	27.09.18	10.39	
		27.09.18	17.15	27.09.18	18.08	
		22.11.18	08.29	22.11.18	13.18	Tripped due to grid disturbance
		26.11.18	12.41	26.11.18	14.34	Tripped on internal fault.
		23.12.18	09.20	23.12.18	11.40	Stopped due to G.T. -2 tripped.
		15.02.19	04.32	15.02.19	05.40	Tripped due to grid disturbance
		21.02.19	00.00	28.02.19	23.59	Stopped for MI
		15.02.19	04.32	15.02.19	05.40	Tripped due to grid disturbance
		21.02.19	00.00	28.02.19	23.59	Stopped for MI

(D) BADARPUR THERMAL POWER STATION

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
1	95	20.11.14	00.00	31.03.18	23.59	Not in operation due to not meeting pollution norms.
2	95	24.09.15	19.52	31.03.18	23.59	Not in operation due to not meeting pollution norms.
3	95	09.10.15	01.00	31.03.18	23.59	Not in operation due to not meeting pollution norms.
4	210	16.10.17	23.47	01.05.18	11.33	Not in operation due to not meeting pollution norms
		03.05.18	13.29	13.05.18	00.42	Reserve shutdown
		30.07.18	20.30	31.07.18	10.30	Coal shortage
		31.07.18	10.30	01.08.18	05.29	Reserve shutdown
		07.08.18	11.06	08.08.18	15.17	Boiler tube leakage
		09.08.18	01.08	09.08.18	17.54	ID Fan bearing temp high.
		16.10.18				Plant closed permanently
5	210	16.10.17	23.24	09.04.18	07.54	Not in operation due to not meeting pollution norms
		16.10.18				Plant closed permanently

(E) BAWANA CCGT POWER STATION

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
1	216	21.04.18	0.00	23.04.18	07.00	Shut down for Filter Replacement so half of STG #1 was not available.
		16.06.18	08.02	16.06.18	23.59	Unit taken out of DC for solenoid change
		28.06.18	00.50	30.06.18	23.59	DP was running very high so unit taken out of DC for filter replacement.
		15.07.18	09.10	15.07.18	21.45	Filter replacement in compressor bleed (CBV) valve operation attended
		21.07.18	00.00	23.07.18	17.00	Problem in purge valve resolved by replacement of solenoid and compressor washing done during this outage.
		17.08.18	13.40	17.08.18	22.00	Unit tripped due to low lube oil header pressure, STG tripped manually.
		28.08.18	05.08	28.08.18	18.45	Unit tripped due to rotor earth fault.
		25.09.18	01.32	25.09.18	14.00	Generator Trip
		05.11.18	04.55	09.11.18	11.05	High DP unit unloaded
		03.01.19	19.50	03.01.19	21.48	Tripped on high spread.
		21.01.19	04.21	21.01.19	16.16	Tripped on high DP
		02.02.19	06.30	06.02.19	17.00	High inlet air filter DP
		15.02.19	21.30	16.02.19	14.10	
		20.02.19	03.35	21.02.19	09.10	
		25.02.19	01.54	25.02.19	13.45	
		28.02.19	06.05	28.02.19	15.15	
		02.03.19	05.45	02.03.19	10.00	
		19.03.19	05.35	20.03.19	11.04	
		20.03.19	22.24	20.03.19	23.58	
		28.03.19	04.04	31.03.19	23.00	

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
2	216	16.06.18	08.02	16.06.18	23.59	Unit taken out of DC for solenoid change
		28.06.18	00.50	30.06.18	23.59	DP was running very high so unit taken out of DC for filter replacement.
		15.07.18	09.10	15.07.18	21.45	Filter replacement and problem in compressor bleed (CBV) valve operation attended
		21.07.18	00.00	23.07.18	17.00	Problem in purge valve resolved by replacement of solenoid and compressor washing done during this outage.
		17.08.18	13.40	17.08.18	22.00	Unit tripped due to low lu;be oil header pressure, STG also tripped manually.
		28.08.18	05.08	28.08.18	18.45	Unit tripped due to rotor earth fault.
		05.11.18	03.45	05.11.18	11.31	High filter DP
		09.11.18	11.10	11.11.18	00.00	Unit taken out of DC for filter cleaning
		20.12.18	23.02	21.12.18	00.28	Loss of flame.
		21.12.18	23.47	22.12.18	08.50	Machine unloaded on high DP
		22.12.18	19.28	23.12.18	08.00	
		22.01.19	02.33	22.01.19	06.00	
		27.01.19	07.27	27.01.19	10.44	
		30.01.19	07.55	30.01.19	09.33	
		31.01.19	07.38	31.01.19	10.33	
2	216	01.02.19	00.03	01.02.19	10.30	High inlet air filter DP
		02.02.19	06.30	06.02.19	13.06	
		16.02.19	14.15	20.02.19	03.10	
		20.02.19	05.05	23.02.19	08.30	
		25.02.19	05.40	25.02.19	10.02	
		26.02.19	23.40	27.02.19	12.15	
		28.02.19	00.00	28.02.19	09.42	
		01.03.19	06.09	01.03.19	11.05	
		02.03.19	11.03	02.03.19	23.59	
		18.03.19	15.14	18.03.19	16.54	Tripped on signal interfrance
		25.03.19	02.53	26.03.19	10.00	High inlet air filter DP
		29.03.19	06.38	31.03.19	22.38	LCI Problem.
STG -1	254	02.04.18	06.49	02.04.18	11.58	Field breaker and Excitation Trip generated due to Regulation Supply fuse failure.
		02.04.18	12.12	02.04.18	13.34	Again machine tripped on same fault.
		02.04.18	19.37	02.04.18	21.09	Field breaker and Excitation Trip generated due to Regulation Supply fuse failure.
		02.04.18	21.50	02.04.18	22.27	During HRSG paralleling STG tripped on Low Main steam temperature.
		02.05.18	21.32	02.05.18	22.21	High cold-gas temp leading to protection-trip.
		20.05.18	07.35	20.05.18	15.42	Due to Common Thermal Overload alarm appeared
		16.06.18	08.02	16.06.18	23.59	Unit taken out of DC for solenoid change
		28.06.18	00.50	30.06.18	23.59	Unit taken out for filter replacement.
		15.07.18	09.10	15.07.18	21.45	Filter replacement and problem in compressor bleed (CBV) valve operation attended
		21.07.18	00.00	23.07.18	17.00	Problem in purge valve
		27.07.18	00.00	30.07.18	19.30	PHE Cleaning
		17.08.18	13.40	17.08.18	22.00	Unit tripped due to low lube oil header pressure

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
STG -1	254	28.08.18	05.08	28.08.18	18.45	Unit tripped due to rotor earth fault.
		29.08.18	15.29	29.08.18	16.35	Unit tripped on generator electrical protection alarm.
		14.09.18	17.08	14.09.18	01.57	Bus bar protection.
		05.11.18	03.45	05.11.18	11.31	High filter DP
		09.11.18	11.10	11.11.18	00.00	Unit taken out of DC for filter cleaning
		14.11.18	12.00	15.11.18	12.00	Oil leakage in bearing.
		20.12.18	23.06	21.12.18	03.18	Loss of flame.
		21.12.18	23.47	22.12.18	08.50	Machine unloaded on high DP
		22.12.18	19.28	23.12.18	08.00	
		03.01.19	19.50	03.01.19	23.48	Machine tripped on high spread
		08.01.19	23.15	09.01.19	06.05	Electrical protection.
		21.01.19	04.21	21.01.19	16.16	Machine unloaded on high DP
		22.01.19	02.33	22.01.19	06.00	
		27.01.19	07.27	27.01.19	10.44	
		30.01.19	07.55	30.01.19	09.33	
		31.01.19	07.38	31.01.19	10.33	
		01.02.19	00.03	01.02.19	10.30	High inlet air filter DP
		02.02.19	06.30	06.02.19	13.06	
		02.02.19	06.30	06.02.19	17.00	
		06.02.19	13.06	06.02.19	15.00	
		15.02.19	21.30	16.02.19	14.10	
		16.02.19	14.15	20.02.19	03.10	
		20.02.19	03.35	21.02.19	09.10	
		20.02.19	05.05	23.02.19	08.30	
		25.02.19	01.54	25.02.19	13.45	
		25.02.19	05.40	25.02.19	10.02	
		26.02.19	23.40	27.02.19	12.15	
		28.02.19	00.00	28.02.19	09.42	
		28.02.19	06.05	28.02.19	15.15	
		01.03.19	06.09	01.03.19	11.05	
		02.03.19	05.45	02.03.19	10.00	
		02.03.19	11.03	02.03.19	23.59	
		18.03.19	15.14	18.03.19	16.54	Tripped on signal interfrance
		19.03.19	05.35	20.03.19	11.04	High inlet air filter DP
		20.03.19	22.24	20.03.19	23.58	
		25.03.19	02.53	26.03.19	10.00	
		28.03.19	04.04	31.03.19	23.00	
		29.03.19	06.38	31.03.19	22.38	LCI Problem.
3	216	17.04.18	00.00	30.04.18	23.59	Shut-down for minor overhauling of Generator and Upgradation of GT#3 and BHM installation.
		29.06.18	00.00	29.06.18	02.00	Desynch due to problem in GCS (BMS not firing).
		14.07.18	10.00	14.07.18	14.00	Normalization of 6.6kV System Mod#2
		17.11.18	21.02	18.11.18	06.00	Filter cleaning
		19.11.18	20.14	19.11.18	23.14	Loss of flame

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
3	216	15.12.18	20.59	16.12.18	00.00	Pre filter cleaning.
		04.01.19	00.12	04.01.19	14.57	Blow out occurred
		18.01.19	07.30	18.01.19	14.23	HIGH DP
		01.02.19	21.25	03.02.19	13.58	High inlet air filter DP
		03.02.19	17.15	03.02.19	19.21	Low gas pressure.
		04.02.19	02.38	06.02.19	17.00	High inlet air filter DP
		12.02.19	07.58	12.02.19	12.04	
		15.02.19	21.35	23.02.19	14.15	
		04.03.19	07.43	05.03.19	10.00	
		29.03.19	18.35	30.03.19	22.00	LIC Problem.
4	216	01.04.18	00.00	16.04.18	18.00	Shut-down for Machine for Planned maintenance
		22.05.18	15.33	22.05.18	16.15	Unit came on FSNL due to AVR fault and subsequesnt tripping of GCB.
		22.05.18	16.15	24.05.18	12.30	Due to poor gas pipeline hydraulics
		24.05.18	21.46	25.05.18	23.59	Unit came on FSNL due to AVR fault and subsequesnt tripping of GCB.
		14.07.18	10.00	14.07.18	14.00	Normalization of 6.6kV System Mod#2
		03.10.18	12.20	03.10.18	13.50	Low lube oil pressure
		03.10.18	17.36	03.10.18	19.44	
		23.10.18	19.06	23.10.18	20.24	Rotor earth fault
		03.11.18	00.00	06.11.18	09.00	Filter replacement.
		07.12.18	21.00	08.12.18	05.29	Pre filter cleaning.
		18.12.18	23.10	19.12.18	09.40	High dp
		19.12.18	22.57	20.12.18	16.00	
		23.12.18	15.00	23.12.18	23.59	Boroscopic inspection
		05.01.19	06.18	05.01.19	11.30	High DP
		11.01.19	00.54	11.01.19	10.26	
		18.01.19	08.30	18.01.19	12.15	Taken out of DC
		21.01.19	13.30	21.01.19	14.10	AVR Fault
		23.01.19	08.35	24.01.19	23.59	High inlet air filter DP
		02.02.19	19.43	06.02.19	17.00	
		15.02.19	16.18	23.02.19	14.15	
		29.03.19	18.35	31.03.19	23.59	LCI Problem.
STG -2	254	01.04.18	00.00	30.04.18	23.59	STG#2 tripped on Bucholz relay operated. Transformer is under revival.
		01.10.18	14.32	01.10.18	15.05	Condenser vacuum very low
		03.10.18	12.20	03.10.18	13.50	Low lube oil pressure
		03.10.18	17.36	03.10.18	19.44	
		23.10.18	19.06	23.10.18	20.24	Rotor earth fault
		03.11.18	00.00	06.11.18	09.00	Filter replacement.
		17.11.18	21.02	18.11.18	06.00	Filter cleaning
		19.11.18	20.14	19.11.18	23.14	Loss of flame
		07.12.18	21.00	08.12.18	05.29	Pre filter cleaning.
		15.12.18	20.59	16.12.18	00.00	

Unit No	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time (hrs)	Date	Time (hrs)	
STG -2	254	18.12.18	23.10	19.12.18	09.40	High dp
		19.12.18	22.57	20.12.18	16.00	
		23.12.18	15.00	23.12.18	23.59	Boroscopic inspection
		04.01.19	00.12	04.01.19	14.57	Blow out occurred
		05.01.19	06.18	05.01.19	11.30	High dp
		11.01.19	00.54	11.01.19	10.26	
		18.01.19	07.30	18.01.19	14.23	
		18.01.19	08.30	18.01.19	12.15	Taken out of DC
		21.01.19	13.30	21.01.19	14.10	AVR Fault
		23.01.19	08.35	24.01.19	23.59	High DP
		01.02.19	21.25	03.02.19	13.58	High inlet air filter DP
		02.02.19	19.43	06.02.19	17.00	
		03.02.19	17.15	03.02.19	19.21	Low gas pressure.
		04.02.19	02.38	06.02.19	17.00	High inlet air filter DP
		12.02.19	07.58	12.02.19	12.04	
		15.02.19	16.18	23.02.19	14.15	
		15.02.19	21.35	23.02.19	14.15	
		21.02.19	11.00	28.02.19	23.59	Condenser cleaning.
		04.03.19	07.43	05.03.19	10.00	High inlet air filter DP

(F) RITHALA POWER STATION

Unit	Capacity in MW	Outage		Synchronization		Reason of Outage
		Date	Time	Date	Time	
1	31.8	19.03.13	17:32	Still out		No gas availability
2	31.8	07.06.13	22:41	Still out		No gas availability
STG	31.8	07.06.13	22:38	Still out		Due to non operation of GTs

9 POWER SUPPLY POSITION OF DELHI DURING 2018-19

9.1 Power supply position during the month of April 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	62.691	60.743	61.435	59.524
2	SINGRAULI(HYDRO)	0.384	0.372	0.384	0.372
3	RIHAND-I	36.453	35.311	35.673	34.556
4	RIHAND-II	85.045	82.395	83.836	81.220
5	RIHAND-III	85.324	82.635	82.042	79.446
6	UNCHAHAR-I	15.152	14.902	13.628	13.401
7	UNCHAHAR-II	30.549	30.053	27.774	27.321
8	UNCHAHAR-III	10.138	9.983	8.997	8.860
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	386.109	379.815	263.909	259.545
11	DADRI(TH)- Stage-II	484.498	476.569	411.333	404.559
12	FARAKA	7.642	7.525	7.118	7.009
13	KHELGAON	31.451	30.889	28.552	28.042
14	KHELGAON-II	103.474	101.622	98.572	96.807
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	20.034	19.310	0.000	0.000
17	ANTA(RLNG)	10.462	10.084	0.000	0.000
18	AURAIYA(GT)	0.000	0.000	0.000	0.000
19	AURAIYA(Liquid)	12.377	12.083	0.000	0.000
20	AURAIYA(RLNG)	37.982	37.081	0.000	0.000
21	DADRI(GT)	13.630	13.408	2.815	2.770
22	DADRI(Liquid)	16.276	16.009	0.000	0.000
23	DADRI (RLNG)	27.593	27.128	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	1.857	1.824	1.857	1.824
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1479.120**	**1449.741**	**1127.925**	**1105.256**
	NHPC STATIONS				
26	TANAKPUR	1.265	1.234	1.265	1.234
27	CHAMERA-I	9.980	9.819	9.980	9.819
28	CHAMERA-II	12.553	12.314	12.553	12.314
29	CHAMERA-III	7.781	7.651	7.781	7.651
30	BAIRA SUIL	5.358	5.233	5.358	5.233
31	SALAL	22.815	22.446	22.815	22.446
32	DAULI GANGA	5.478	5.388	5.478	5.388
33	DULASTI	19.929	19.596	19.929	19.596
34	URI-I	32.922	32.318	32.922	32.318
35	URI-II	19.442	19.085	19.442	19.085
36	SEWA -II	5.781	5.691	5.781	5.691
37	PARBATI-III	2.442	2.389	2.442	2.389
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**145.745**	**143.166**	**145.745**	**143.166**
	THDC				
38	KOTESHWAR	7.266	7.092	7.266	7.092
39	TEHRI	9.859	9.623	9.859	9.623
C	**TOTAL THDC (TOTAL 38-39)**	**17.125**	**16.715**	**17.125**	**16.715**

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NPC STATIONS				
40	NAPP	18.132	17.687	18.132	17.687
41	RAPP 'C'	37.452	36.101	37.452	36.101
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**55.584**	**53.787**	**55.584**	**53.787**
E	**NATHPA JHAKHRI(SJVNL)**	**25.982**	**25.490**	**25.982**	**25.490**
F	**SASAN**	**296.134**	**287.829**	**295.065**	**286.793**
G	**JHAJJAR**	**283.467**	**278.878**	**224.698**	**221.013**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2303.157**	**2255.607**	**1892.124**	**1852.220**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	4.893	4.755	4.755	4.716
(ii)	RASJASTHAN (SOLAR) BYPL	5.132	4.987	4.987	4.946
(iii)	RASJASTHAN (SOLAR) TPDDL	4.632	4.502	4.502	4.465
(iv)	CLP JHAJJAR - TPDDL	36.022	35.727	35.727	35.435
(v)	DVC	113.393	112.574	112.574	111.616
(vi)	MAITHON - TPDDL	176.553	175.263	175.263	173.826
(vii)	DVC MEJIA-7	62.673	62.214	62.214	61.705
(viii)	HIMACHAL PRADESH - TPDDL	0.000	0.000	0.000	0.000
(ix)	TUTICORIN (TAMIL NADU)	0.000	0.000	0.000	0.000
I	**TOTAL LTA**	403.299	400.023	400.023	396.709
	BILATERAL IMPORT				
(I)	SIKKIM	0.344	0.339	0.339	0.337
(ii)	MEGHALAYA	0.058	0.057	0.057	0.057
(iii)	MADHYA PRADESH	39.006	38.601	38.601	38.262
(iv)	HARYANA	2.961	2.935	2.935	2.909
(v)	ORISSA MT-20 JITPL -DVC	5.617	5.562	5.562	5.517
(vi)	HIMACHAL PRADESH	11.762	11.570	11.570	11.468
(vii)	JAMMU & KASHMIR	0.436	0.432	0.432	0.428
(viii)	DIKCHAU (SIKKIM)	12.207	12.018	12.018	11.920
(ix)	D.B. POWER (CHATTISHGARH)	0.050	0.050	0.050	0.050
(x)	MIZORAM	1.960	1.920	1.920	1.905
(xi)	UNSCHEDULED INTERCHANGED	0.323	0.319	0.323	0.319
(xii)	POWER EXCHANGE(IEX)	37.217	36.899	37.217	36.899
(xiii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**111.941**	**110.702**	**111.023**	**110.070**
	BILATERAL EXPORT				
(I)	GOA	-0.315	-0.320	-0.320	-0.323
(ii)	UTTAR PRADESH	-14.725	-14.998	-14.998	-15.121
(iii)	MANIPUR	-1.216	-1.233	-1.233	-1.246
(iv)	ANDHRA PRADESH	-60.457	-61.345	-61.345	-61.843
(v)	JHARKHAND	-0.163	-0.165	-0.165	-0.167
(vi)	TAMILNADU	-0.148	-0.150	-0.150	-0.151
(vii)	MEGHALAYA	-2.955	-3.000	-3.000	-3.023
(viii)	HIMACHAL PRADESH	-24.670	-25.230	-25.230	-25.413
(ix)	WEST BENGAL	-62.497	-62.950	-62.950	-63.503
(x)	HARYANA	-2.682	-2.725	-2.725	-2.747
(xi)	POWER EXCHANGE (IEX)	-85.769	-86.486	-85.769	-86.486
(xii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xiii)	SHARE PROJECT (HARYANA)	-20.576	-20.748	-20.576	-20.748
(xiv)	POWER EXCHANGE (PUNJAB)	-20.575	-20.748	-20.575	-20.748
K	**TOTAL BILATERAL EXPORT**	**-296.748**	**-300.098**	**-299.036**	**-301.518**

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
L	**TOTAL DRAWAL FROM THE GRID**	**2521.649**	**2466.233**	**2104.134**	**2057.480**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-42.634
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				64.774
(iii)	PRAGATI				144.602
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				319.317
(vi)	Timarpur - Okhla Waste Management				14.391
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.302
(viii)	Delhi Municipality Solid Waste Ltd.				14.000
(ix)	BTPS				80.551
N	**TOTAL GENERATION WITHIN DELHI**				**639.937**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.173
(ii)	RENEWABLE SOLAR (BRPL)				1.037
(iii)	RENEWABLE SOLAR (BYPL)				0.029
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				1.238
P	NET GENERATION WITHIN DELHI (N+O)				641.175
Q	GROSS CONSUMPTION (L+M+O)				2656.021
R	LOAD SHEDDING				1.455
S	REQUIREMENT				2657.476
T	% DEPENDENCE ON GRID				77.465
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				22.094
V	**NET CONSUMPTION OF DELHI (Q-U)**				**2633.927**

9.2 Power supply position during the month of May 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	85.483	83.203	82.035	79.847
2	SINGRAULI(HYDRO)	0.380	0.370	0.380	0.370
3	RIHAND-I	60.882	59.258	57.592	56.054
4	RIHAND-II	56.960	55.444	54.778	53.321
5	RIHAND-III	92.229	89.769	85.118	82.849
6	UNCHAHAR-I	15.954	15.648	14.512	14.234
7	UNCHAHAR-II	31.820	31.208	28.711	28.160
8	UNCHAHAR-III	10.724	10.514	9.743	9.553
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	489.629	483.863	354.430	350.260
11	DADRI(TH)- Stage-II	452.369	447.065	385.284	380.767
12	FARAKA	11.575	11.429	9.971	9.845
13	KHELGAON	33.094	32.595	29.393	28.951
14	KHELGAON-II	82.318	81.078	74.825	73.701
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	9.421	9.125	0.000	0.000
17	ANTA(RLNG)	8.531	8.260	0.000	0.000

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
18	AURAIYA(GT)	1.071	1.051	0.413	0.405
19	AURAIYA(Liquid)	8.127	7.973	0.009	0.009
20	AURAIYA(RLNG)	22.586	22.151	0.020	0.020
21	DADRI(GT)	10.000	9.884	3.233	3.195
22	DADRI(Liquid)	9.062	8.958	0.009	0.009
23	DADRI (RLNG)	5.724	5.654	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	6.743	6.642	6.743	6.642
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1504.681**	**1481.143**	**1197.200**	**1178.190**
	NHPC STATIONS				
26	TANAKPUR	3.281	3.218	3.281	3.218
27	CHAMERA-I	15.198	15.019	15.198	15.019
28	CHAMERA-II	22.884	22.543	22.899	22.558
29	CHAMERA-III	14.782	14.609	14.792	14.609
30	BAIRA SUIL	5.434	5.330	5.434	5.330
31	SALAL	36.373	35.945	36.373	35.945
32	DAULI GANGA	11.066	10.935	11.066	10.935
33	DULASTI	36.715	36.283	36.715	36.283
34	URI-I	39.004	38.449	39.004	38.449
35	URI-II	22.495	22.176	22.495	22.176
36	SEWA -II	3.770	3.726	3.770	3.726
37	PARBATI-III	5.038	4.953	5.038	4.953
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**216.039**	**213.186**	**216.065**	**213.201**
	THDC				
38	KOTESHWAR	6.402	6.280	6.402	6.280
39	TEHRI	8.007	7.854	8.007	7.854
C	**TOTAL THDC (TOTAL 38-39)**	**14.409**	**14.133**	**14.409**	**14.133**
	NPC STATIONS				
40	NAPP	20.996	20.590	20.996	20.590
41	RAPP 'C'	37.421	36.237	37.421	36.237
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**58.417**	**56.827**	**58.417**	**56.827**
E	**NATHPA JHAKHRI(SJVNL)**	**47.264**	**46.673**	**47.177**	**46.588**
F	**SASAN**	**297.146**	**289.619**	**295.464**	**287.980**
G	**JHAJJAR**	**261.069**	**258.007**	**228.615**	**225.942**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2399.025**	**2359.588**	**2057.348**	**2022.861**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	4.879	4.753	4.753	4.725
(ii)	RASJASTHAN (SOLAR) BYPL	5.111	4.978	4.978	4.949
(iii)	RASJASTHAN (SOLAR) TPDDL	4.691	4.570	4.570	4.543
(iv)	CLP JHAJJAR - TPDDL	41.321	41.079	41.079	40.837
(v)	DVC	193.080	191.892	191.892	190.765
(vi)	MAITHON - TPDDL	183.774	182.627	182.627	181.543
(vii)	DVC MEJIA-7	58.807	58.441	58.441	58.098
(viii)	HIMACHAL PRADESH - TPDDL	0.000	0.000	0.000	0.000
(ix)	TUTICORIN (TAMIL NADU)	0.000	0.000	0.000	0.000
I	**TOTAL LTA**	**491.664**	**488.339**	**488.339**	**485.459**
	BILATERAL IMPORT				
(I)	NAGALAND	0.277	0.275	0.275	0.273
(ii)	SIKKIM	18.747	18.480	18.480	18.371
(iii)	WEST BENGAL	0.462	0.460	0.460	0.457

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(iv)	MADHYA PRADESH	40.661	40.273	40.273	40.036
(v)	ORISSA MT-20 JITPL -DVC	4.627	4.574	4.574	4.547
(vi)	ORISSA	0.131	0.130	0.130	0.129
(vii)	HIMACHAL PRADESH	256.484	253.039	253.039	251.539
(viii)	JAMMU & KASHMIR	67.879	67.479	67.479	67.082
(ix)	KARNATAKA	0.160	0.158	0.158	0.157
(x)	DIKCHAU (SIKKIM)	9.088	8.959	8.959	8.907
(xi)	MIZORAM	2.655	2.606	2.606	2.591
(xii)	GUJRAT	0.141	0.140	0.140	0.139
(xiii)	TELENGANA	0.162	0.160	0.160	0.159
(xiv)	ADHPL (KULLU)	6.291	6.207	6.207	6.171
(xv)	GCEL (GURGAON)	9.270	9.214	9.214	9.158
(xvi)	UNSCHEDULED INTERCHANGED	0.080	0.078	0.080	0.078
(xvii)	POWER EXCHANGE(IEX)	35.302	35.094	35.302	35.094
(xviii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**452.417**	**447.327**	**447.536**	**444.889**
	BILATERAL EXPORT				
(I)	BIHAR	-0.099	-0.100	-0.100	-0.101
(ii)	SIKKIM	-0.118	-0.120	-0.120	-0.121
(iii)	MANIPUR	-0.059	-0.060	-0.060	-0.060
(iv)	ANDHRA PRADESH	-0.025	-0.025	-0.025	-0.025
(v)	TAMILNADU	-0.286	-0.289	-0.289	-0.291
(vi)	HIMACHAL PRADESH	-1.464	-1.495	-1.495	-1.504
(vii)	WEST BENGAL	-0.328	-0.330	-0.330	-0.332
(viii)	POWER EXCHANGE (IEX)	-233.578	-234.955	-233.578	-234.955
(ix)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(x)	SHARE PROJECT (HARYANA)	-18.413	-18.523	-18.413	-18.523
(xi)	POWER EXCHANGE (PUNJAB)	-18.475	-18.585	-18.475	-18.585
K	**TOTAL BILATERAL EXPORT**	**-272.845**	**-274.482**	**-272.886**	**-274.496**
L	**TOTAL DRAWAL FROM THE GRID**	**3070.260**	**3020.773**	**2720.338**	**2678.713**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-35.157
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				55.570
(iii)	PRAGATI				183.460
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				327.046
(vi)	Timarpur - Okhla Waste Management				14.664
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				3.856
(viii)	Delhi Municipality Solid Waste Ltd.				12.898
(ix)	BTPS				196.787
N	**TOTAL GENERATION WITHIN DELHI**				**794.281**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.211
(ii)	RENEWABLE SOLAR (BRPL)				1.035
(iii)	RENEWABLE SOLAR (BYPL)				0.030
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				1.275
P	NET GENERATION WITHIN DELHI (N+O)				795.557
Q	GROSS CONSUMPTION (L+M+O)				3439.113

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
R	LOAD SHEDDING				3.741
S	REQUIREMENT				3442.854
T	% DEPENDENCE ON GRID				77.890
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				23.953
V	**NET CONSUMPTION OF DELHI (Q-U)**				**3415.160**

9.3 Power supply position during the month of June 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	77.390	75.113	72.681	70.540
2	SINGRAULI(HYDRO)	0.385	0.374	0.385	0.374
3	RIHAND-I	61.758	59.921	57.291	55.586
4	RIHAND-II	49.381	47.893	46.086	44.693
5	RIHAND-III	81.434	79.018	70.334	68.243
6	UNCHAHAR-I	15.351	15.051	12.129	11.892
7	UNCHAHAR-II	30.690	30.089	24.088	23.615
8	UNCHAHAR-III	18.933	18.562	14.779	14.487
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	497.381	490.115	339.692	334.730
11	DADRI(TH)- Stage-II	468.451	461.644	390.127	384.437
12	FARAKA	14.063	13.836	11.161	10.981
13	KHELGAON	30.757	30.134	25.415	24.897
14	KHELGAON-II	80.401	78.751	70.469	69.020
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	20.437	19.803	0.007	0.007
17	ANTA(RLNG)	6.924	6.709	0.000	0.000
18	AURAIYA(GT)	0.000	0.000	0.000	0.000
19	AURAIYA(Liquid)	13.330	13.035	0.000	0.000
20	AURAIYA(RLNG)	32.570	31.770	0.000	0.000
21	DADRI(GT)	10.842	10.686	4.459	4.398
22	DADRI(Liquid)	13.487	13.269	0.050	0.049
23	DADRI (RLNG)	24.018	23.672	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	10.904	10.695	10.904	10.695
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1558.888**	**1530.140**	**1150.058**	**1128.645**
	NHPC STATIONS				
26	TANAKPUR	4.508	4.404	4.508	4.405
27	CHAMERA-I	21.620	21.253	21.620	21.253
28	CHAMERA-II	24.984	24.526	24.984	24.526
29	CHAMERA-III	17.582	17.279	17.582	17.279
30	BAIRA SUIL	5.045	4.927	5.045	4.927
31	SALAL	54.470	53.501	54.470	53.501
32	DAULI GANGA	17.897	17.580	17.897	17.580
33	DULASTI	33.322	32.715	33.322	32.715
34	URI-I	33.095	32.386	33.095	32.386
35	URI-II	21.979	21.497	21.979	21.497
36	SEWA -II	2.867	2.814	2.867	2.814

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
37	PARBATI-III	8.842	8.674	8.842	8.674
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**246.212**	**241.556**	**246.212**	**241.557**
	THDC				
38	KOTESHWAR	9.317	9.115	9.317	9.115
39	TEHRI	10.833	10.598	10.833	10.598
C	**TOTAL THDC (TOTAL 38-39)**	**20.150**	**19.714**	**20.150**	**19.714**
	NPC STATIONS				
40	NAPP	25.882	25.270	25.882	25.270
41	RAPP 'C'	37.199	36.041	37.199	36.041
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**63.081**	**61.311**	**63.081**	**61.311**
E	**NATHPA JHAKHRI(SJVNL)**	**99.184**	**97.035**	**99.184**	**97.035**
F	**SASAN**	**292.660**	**283.176**	**288.275**	**278.918**
G	**JHAJJAR**	**341.323**	**336.340**	**252.217**	**248.547**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2621.498**	**2569.271**	**2119.177**	**2075.727**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	3.258	3.185	3.185	3.167
(ii)	RASJASTHAN (SOLAR) BYPL	3.423	3.345	3.345	3.327
(iii)	RASJASTHAN (SOLAR) TPDDL	3.184	3.113	3.113	3.095
(iv)	CLP JHAJJAR - TPDDL	42.375	42.077	42.077	41.840
(v)	DVC	182.662	181.351	181.351	180.322
(vi)	MAITHON - TPDDL	166.340	165.147	165.147	164.210
(vii)	DVC MEJIA-7	63.017	62.563	62.563	62.209
(viii)	HIMACHAL PRADESH - TPDDL	0.000	0.000	0.000	0.000
(ix)	TUTICORIN (TAMIL NADU)	0.000	0.000	0.000	0.000
I	**TOTAL LTA**	**464.260**	**460.781**	**460.781**	**458.169**
	BILATERAL IMPORT				
(I)	NAGALAND	1.569	1.557	1.557	1.548
(ii)	SIKKIM	9.180	9.042	9.042	8.993
(iii)	ANDHRA PRADESH	117.565	116.657	116.657	115.996
(iv)	MEGHALAYA	50.733	50.232	50.232	49.947
(v)	MADHYA PRADESH	53.071	52.480	52.480	52.171
(vi)	HARYANA	0.403	0.399	0.399	0.396
(vii)	MAHARASHTRA	0.068	0.067	0.067	0.066
(viii)	ORISSA MT-20 JITPL -DVC	4.731	4.686	4.686	4.659
(ix)	JHARKHAND	21.792	21.638	21.638	21.513
(x)	HIMACHAL PRADESH	428.818	422.446	422.446	420.050
(xi)	JAMMU & KASHMIR	67.845	67.232	67.232	66.851
(xii)	TAMILNAIDU	10.956	10.871	10.871	10.809
(xiii)	D.B. POWER (CHATTISHGARH)	0.081	0.080	0.080	0.079
(xiv)	MIZORAM	6.647	6.515	6.515	6.478
(xv)	GUJRAT	0.111	0.110	0.110	0.109
(xvi)	ADHPL (KULLU)	6.076	5.986	5.986	5.952
(xvii)	GCEL (GURGAON)	18.869	18.729	18.729	18.623
(xviii)	JHABUA (MP)	1.989	1.968	1.968	1.958
(xix)	POWER EXCHANGE(IEX)	20.068	19.959	20.068	19.959
(xx)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**820.569**	**810.653**	**810.761**	**806.157**
	BILATERAL EXPORT				
(I)	JHARKHAND	-0.763	-0.771	-0.771	-0.779
(ii)	HIMACHAL PRADESH	-2.967	-3.025	-3.025	-3.060

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(iii)	HARYANA	-0.390	-0.398	-0.398	-0.403
(iv)	POWER EXCHANGE (IEX)	-295.226	-297.960	-295.226	-297.960
(v)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(vi)	SHARE PROJECT (HARYANA)	-17.896	-18.059	-17.896	-18.059
(vii)	POWER EXCHANGE (PUNJAB)	-17.878	-18.040	-17.878	-18.040
K	**TOTAL BILATERAL EXPORT**	**-335.120**	**-338.253**	**-335.193**	**-338.301**
L	**TOTAL DRAWAL FROM THE GRID**	**3571.206**	**3502.451**	**3055.525**	**3001.752**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-40.808
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				88.957
(iii)	PRAGATI				196.547
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				350.778
(vi)	Timarpur - Okhla Waste Management				12.838
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.915
(viii)	Delhi Municipality Solid Waste Ltd.				12.338
(ix)	BTPS				220.002
N	TOTAL GENERATION WITHIN DELHI				884.375
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.184
(ii)	RENEWABLE SOLAR (BRPL)				1.036
(iii)	RENEWABLE SOLAR (BYPL)				0.026
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				1.246
P	NET GENERATION WITHIN DELHI (N+O)				885.621
Q	GROSS CONSUMPTION (L+M+O)				3846.565
R	LOAD SHEDDING				2.695
S	REQUIREMENT				3849.260
T	% DEPENDENCE ON GRID				78.037
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				25.652
V	**NET CONSUMPTION OF DELHI (Q-U)**				**3820.913**

9.4 Power supply position during the month of July 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	66.956	64.940	60.515	58.688
2	SINGRAULI(HYDRO)	0.294	0.285	0.294	0.285
3	RIHAND-I	67.858	65.816	60.631	58.805
4	RIHAND-II	86.147	83.553	80.330	77.911
5	RIHAND-III	92.332	89.550	77.061	74.733
6	UNCHAHAR-I	16.175	15.808	12.308	12.027
7	UNCHAHAR-II	16.948	16.563	13.189	12.889
8	UNCHAHAR-III	19.316	18.877	14.722	14.386
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	474.399	467.094	316.223	311.346
11	DADRI(TH)- Stage-II	468.569	461.398	358.856	353.336

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
12	FARAKA	13.451	13.210	10.091	9.910
13	KHELGAON	25.837	25.247	19.720	19.269
14	KHELGAON-II	90.592	88.529	74.866	73.159
15	ANTA(GT)	0.043	0.042	0.005	0.005
16	ANTA(Liquid)	28.324	27.468	0.000	0.000
17	ANTA(RLNG)	2.476	2.405	0.000	0.000
18	AURAIYA(GT)	2.186	2.134	0.039	0.038
19	AURAIYA(Liquid)	3.977	3.882	0.039	0.038
20	AURAIYA(RLNG)	43.660	42.553	0.000	0.000
21	DADRI(GT)	10.494	10.327	3.085	3.037
22	DADRI(Liquid)	34.421	33.892	0.205	0.202
23	DADRI (RLNG)	18.852	18.574	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	22.057	21.557	22.057	21.557
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1605.364**	**1573.704**	**1124.236**	**1101.622**
	NHPC STATIONS				
26	TANAKPUR	5.428	5.292	5.428	5.292
27	CHAMERA-I	29.608	29.013	29.608	29.013
28	CHAMERA-II	28.536	27.958	28.536	27.958
29	CHAMERA-III	20.694	20.274	20.694	20.274
30	BAIRA SUIL	6.579	6.414	6.579	6.414
31	SALAL	58.492	57.310	58.492	57.310
32	DAULI GANGA	23.306	22.830	23.306	22.830
33	DULASTI	30.536	29.912	30.536	29.912
34	URI-I	38.568	37.597	38.568	37.597
35	URI-II	22.733	22.160	22.848	22.272
36	SEWA -II	6.508	6.377	6.508	6.377
37	PARBATI-III	16.461	16.136	16.461	16.136
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**287.449**	**281.272**	**287.564**	**281.385**
	THDC				
38	KOTESHWAR	9.996	9.773	9.996	9.773
39	TEHRI	14.741	14.413	14.741	14.413
C	**TOTAL THDC (TOTAL 38-39)**	**24.737**	**24.185**	**24.737**	**24.185**
	NPC STATIONS				
40	NAPP	29.954	29.199	29.954	29.199
41	RAPP 'C'	38.737	37.570	38.737	37.570
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**68.691**	**66.770**	**68.691**	**66.770**
E	**NATHPA JHAKHRI(SJVNL)**	**108.174**	**105.447**	**108.174**	**105.447**
F	**SASAN**	**251.047**	**242.303**	**247.271**	**238.656**
G	**JHAJJAR**	**382.643**	**376.803**	**191.387**	**188.389**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2728.104**	**2670.484**	**2052.061**	**2006.453**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	3.291	3.225	3.225	3.208
(ii)	RASJASTHAN (SOLAR) BYPL	17.453	17.100	17.100	17.011
(iii)	RASJASTHAN (SOLAR) TPDDL	3.295	3.228	3.228	3.212
(iv)	CLP JHAJJAR - TPDDL	34.146	33.886	33.886	33.713
(v)	DVC	183.023	181.597	181.597	180.654
(vi)	MAITHON - TPDDL	132.276	131.250	131.250	130.553
(vii)	DVC MEJIA-7	17.237	17.100	17.100	17.011
(viii)	HIMACHAL PRADESH - TPDDL	0.000	0.000	0.000	0.000

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(ix)	TUTICORIN (TAMIL NADU)	0.000	0.000	0.000	0.000
I	**TOTAL LTA**	**390.722**	**387.388**	**387.388**	**385.362**
	BILATERAL IMPORT				
(I)	NAGALAND	2.925	2.905	2.905	2.890
(ii)	ANDHRA PRADESH	82.092	81.442	81.442	81.033
(iii)	MEGHALAYA	24.163	23.876	23.876	23.753
(iv)	MADHYA PRADESH	109.479	108.391	108.391	107.830
(v)	ORISSA MT-20 JITPL -DVC	4.772	4.718	4.718	4.694
(vi)	UTTRANCHAL	37.393	37.012	37.012	36.821
(vii)	JHARKHAND	22.380	22.206	22.206	22.091
(viii)	HIMACHAL PRADESH	420.305	413.917	413.917	411.765
(ix)	JAMMU & KASHMIR	60.522	59.906	59.906	59.596
(x)	MIZORAM	5.078	4.980	4.980	4.954
(xi)	GUJRAT	0.191	0.189	0.189	0.188
(xii)	ADHPL (KULLU)	6.273	6.178	6.178	6.146
(xiii)	JP NIGRIE (MP)	0.036	0.036	0.036	0.036
(xiv)	ESSAR (MP)	0.050	0.050	0.050	0.050
(xv)	UNSCHEDULED INTERCHANGED	2.596	2.583	2.596	2.583
(xvi)	POWER EXCHANGE(IEX)	26.178	26.045	26.178	26.045
(xvii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**804.435**	**794.434**	**794.580**	**790.474**
	BILATERAL EXPORT				
(I)	ANDHRA PRADESH	-3.793	-3.831	-3.831	-3.868
(ii)	HARYANA	-0.337	-0.343	-0.343	-0.347
(iii)	POWER EXCHANGE (IEX)	-167.808	-169.635	-167.808	-169.635
(iv)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(v)	SHARE PROJECT (HARYANA)	-16.533	-16.713	-16.533	-16.713
(vi)	POWER EXCHANGE (PUNJAB)	-16.533	-16.713	-16.533	-16.713
K	**TOTAL BILATERAL EXPORT**	**-205.005**	**-207.234**	**-205.049**	**-207.275**
L	**TOTAL DRAWAL FROM THE GRID**	**3718.256**	**3645.072**	**3028.980**	**2975.015**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-62.653
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				73.833
(iii)	PRAGATI				191.850
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				279.226
(vi)	Timarpur - Okhla Waste Management				12.757
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				1.835
(viii)	Delhi Municipality Solid Waste Ltd.				10.442
(ix)	BTPS				222.174
N	**TOTAL GENERATION WITHIN DELHI**				**792.117**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.140
(ii)	RENEWABLE SOLAR (BRPL)				0.947
(iii)	RENEWABLE SOLAR (BYPL)				0.025
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				1.112
P	NET GENERATION WITHIN DELHI (N+O)				793.229
Q	GROSS CONSUMPTION (L+M+O)				3705.590

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
R	LOAD SHEDDING				2.793
S	REQUIREMENT				3708.383
T	% DEPENDENCE ON GRID				80.285
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				23.293
V	**NET CONSUMPTION OF DELHI (Q-U)**				**3682.297**

9.5 Power supply position during the month of August 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	86.369	83.757	73.176	70.966
2	SINGRAULI(HYDRO)	0.000	0.000	0.000	0.000
3	RIHAND-I	66.567	64.561	58.943	57.168
4	RIHAND-II	88.354	85.688	83.652	81.129
5	RIHAND-III	92.491	89.701	77.271	74.941
6	UNCHAHAR-I	12.037	11.766	9.254	9.046
7	UNCHAHAR-II	26.118	25.519	18.501	18.077
8	UNCHAHAR-III	16.858	16.472	12.270	11.989
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	511.451	502.473	293.395	288.180
11	DADRI(TH)- Stage-II	507.012	498.107	363.642	357.230
12	FARAKA	12.535	12.313	8.364	8.216
13	KHELGAON	31.402	30.690	22.125	21.623
14	KHELGAON-II	109.360	106.879	87.673	85.683
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	20.923	20.216	0.000	0.000
17	ANTA(RLNG)	10.452	10.098	0.000	0.000
18	AURAIYA(GT)	6.044	5.892	2.460	2.398
19	AURAIYA(Liquid)	26.688	26.012	0.000	0.000
20	AURAIYA(RLNG)	18.397	17.936	0.004	0.003
21	DADRI(GT)	2.629	2.588	1.320	1.299
22	DADRI(Liquid)	21.496	21.121	0.260	0.256
23	DADRI (RLNG)	40.283	39.567	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	22.602	22.034	22.602	22.034
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1730.067**	**1693.387**	**1134.912**	**1110.240**
	NHPC STATIONS				
26	TANAKPUR	6.899	6.725	6.899	6.725
27	CHAMERA-I	31.337	30.702	31.336	30.702
28	CHAMERA-II	28.418	27.841	28.418	27.841
29	CHAMERA-III	20.408	19.994	20.407	19.994
30	BAIRA SUIL	8.473	8.259	8.473	8.259
31	SALAL	56.467	55.321	56.467	55.321
32	DAULI GANGA	23.997	23.512	23.997	23.512
33	DULASTI	32.928	32.260	32.928	32.260
34	URI-I	34.916	34.036	34.916	34.036
35	URI-II	22.232	21.671	22.232	21.671

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
36	SEWA -II	8.048	7.884	8.048	7.884
37	PARBATI-III	20.062	19.653	20.062	19.653
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**294.185**	**287.858**	**294.183**	**287.858**
	THDC				
38	KOTESHWAR	21.374	20.886	21.374	20.886
39	TEHRI	38.046	37.179	38.046	37.179
C	**TOTAL THDC (TOTAL 38-39)**	**59.420**	**58.065**	**59.420**	**58.065**
	NPC STATIONS				
40	NAPP	28.571	27.852	28.571	27.852
41	RAPP 'C'	38.582	37.418	38.582	37.418
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**67.152**	**65.270**	**67.152**	**65.270**
E	**NATHPA JHAKHRI(SJVNL)**	**88.875**	**86.628**	**88.875**	**86.628**
F	**SASAN**	**275.904**	**266.215**	**273.838**	**264.222**
G	**JHAJJAR**	**461.988**	**454.895**	**245.702**	**241.926**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2977.591**	**2912.318**	**2164.082**	**2114.208**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	3.679	3.605	3.605	3.586
(ii)	RASJASTHAN (SOLAR) BYPL	3.721	3.646	3.646	3.627
(iii)	RASJASTHAN (SOLAR) TPDDL	3.574	3.502	3.502	3.483
(iv)	CLP JHAJJAR - TPDDL	49.975	49.588	49.588	49.328
(v)	DVC	232.451	230.680	230.680	229.480
(vi)	MAITHON - TPDDL	150.348	149.201	149.201	148.424
(vii)	DVC MEJIA-7	39.299	39.018	39.018	38.803
(viii)	HIMACHAL PRADESH - TPDDL	0.000	0.000	0.000	0.000
(ix)	TUTICORIN (TAMIL NADU)	0.000	0.000	0.000	0.000
I	**TOTAL LTA**	**483.047**	**479.238**	**479.238**	**476.731**
	BILATERAL IMPORT				
(I)	NAGALAND	3.281	3.260	3.260	3.243
(ii)	ANDHRA PRADESH	62.280	61.801	61.801	61.481
(iii)	MADHYA PRADESH	108.761	107.591	107.591	107.033
(iv)	MAHARASHTRA	0.076	0.075	0.075	0.074
(v)	ORISSA MT-20 JITPL -DVC	4.400	4.348	4.348	4.325
(vi)	JHARKHAND	22.379	22.208	22.208	22.093
(vii)	HIMACHAL PRADESH	382.390	376.579	376.579	374.622
(viii)	JAMMU & KASHMIR	67.235	66.550	66.550	66.205
(ix)	MIZORAM	6.502	6.386	6.386	6.353
(x)	ADHPL (KULLU)	5.531	5.447	5.447	5.420
(xi)	POWER EXCHANGE(IEX)	4.821	4.794	4.821	4.794
(xii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**667.657**	**659.039**	**659.066**	**655.643**
	BILATERAL EXPORT				
(I)	ANDHRA PRADESH	-8.845	-8.955	-8.955	-9.048
(ii)	MADHYA PRADESH	-0.781	-0.796	-0.796	-0.804
(iii)	WEST BENGAL	-0.647	-0.652	-0.652	-0.659
(iv)	POWER EXCHANGE (IEX)	-285.697	-288.667	-285.697	-288.667
(v)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(vi)	SHARE PROJECT (HARYANA)	-21.958	-22.185	-21.958	-22.185
(vii)	POWER EXCHANGE (PUNJAB)	-21.926	-22.153	-21.926	-22.153
K	**TOTAL BILATERAL EXPORT**	**-339.853**	**-343.407**	**-339.982**	**-343.515**
L	**TOTAL DRAWAL FROM THE GRID**	**3788.442**	**3707.189**	**2962.404**	**2903.066**

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-29.246
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				60.848
(iii)	PRAGATI				113.605
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				255.364
(vi)	Timarpur - Okhla Waste Management				15.064
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.351
(viii)	Delhi Municipality Solid Waste Ltd.				11.582
(ix)	BTPS				218.948
N	**TOTAL GENERATION WITHIN DELHI**				**677.762**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.148
(ii)	RENEWABLE SOLAR (BRPL)				0.855
(iii)	RENEWABLE SOLAR (BYPL)				0.023
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				1.027
P	NET GENERATION WITHIN DELHI (N+O)				678.789
Q	GROSS CONSUMPTION (L+M+O)				3552.608
R	LOAD SHEDDING				1.938
S	REQUIREMENT				3554.546
T	% DEPENDENCE ON GRID				81.716
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				20.446
V	**NET CONSUMPTION OF DELHI (Q-U)**				**3532.162**

9.6 Power supply position during the month of September 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	93.799	90.835	86.240	83.510
2	SINGRAULI(HYDRO)	0.000	0.000	0.000	0.000
3	RIHAND-I	56.829	55.039	49.876	48.303
4	RIHAND-II	85.504	82.804	81.130	78.565
5	RIHAND-III	77.682	75.226	67.952	65.796
6	UNCHAHAR-I	11.161	10.916	9.270	9.067
7	UNCHAHAR-II	30.793	30.120	25.502	24.943
8	UNCHAHAR-III	18.814	18.403	15.655	15.311
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	481.204	471.253	231.021	226.009
11	DADRI(TH)- Stage-II	493.891	483.329	373.373	365.301
12	FARAKA	14.286	14.004	10.551	10.341
13	KHELGAON	32.077	31.487	24.874	24.414
14	KHELGAON-II	80.005	78.553	66.242	65.030
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	22.351	21.645	0.000	0.000
17	ANTA(RLNG)	8.036	7.782	0.000	0.000
18	AURAIYA(GT)	0.000	0.000	0.000	0.000

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
19	AURAIYA(Liquid)	28.788	28.022	0.000	0.000
20	AURAIYA(RLNG)	20.891	20.333	0.000	0.000
21	DADRI(GT)	15.754	15.446	7.406	7.268
22	DADRI(Liquid)	26.601	25.967	0.000	0.000
23	DADRI (RLNG)	19.456	19.081	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	18.961	18.489	18.961	18.489
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1636.881**	**1598.734**	**1068.052**	**1042.347**
	NHPC STATIONS				
26	TANAKPUR	8.270	8.050	8.270	8.050
27	CHAMERA-I	21.283	20.826	21.283	20.826
28	CHAMERA-II	21.296	20.837	21.296	20.837
29	CHAMERA-III	14.829	14.510	14.829	14.510
30	BAIRA SUIL	4.178	4.057	4.178	4.057
31	SALAL	44.786	43.720	44.786	43.720
32	DAULI GANGA	23.142	22.641	23.142	22.641
33	DULASTI	35.638	34.783	35.638	34.783
34	URI-I	17.738	17.347	17.738	17.347
35	URI-II	13.014	12.756	13.014	12.756
36	SEWA -II	5.287	5.160	5.287	5.160
37	PARBATI-III	13.718	13.390	13.718	13.390
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**223.179**	**218.077**	**223.179**	**218.075**
	THDC				
38	KOTESHWAR	14.482	14.107	14.482	14.107
39	TEHRI	27.597	26.882	27.597	26.882
C	**TOTAL THDC (TOTAL 38-39)**	**42.079**	**40.989**	**42.079**	**40.989**
	NPC STATIONS				
40	NAPP	28.267	27.513	28.267	27.513
41	RAPP 'C'	21.319	20.650	21.319	20.650
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**49.586**	**48.163**	**49.586**	**48.163**
E	**NATHPA JHAKHRI(SJVNL)**	**86.540**	**84.246**	**86.540**	**84.246**
F	**SASAN**	**260.606**	**252.376**	**257.995**	**249.848**
G	**JHAJJAR**	**452.203**	**442.431**	**331.122**	**323.394**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2751.075**	**2685.015**	**2058.553**	**2007.062**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	3.409	3.337	3.337	3.317
(ii)	RASJASTHAN (SOLAR) BYPL	3.409	3.337	3.337	3.317
(iii)	RASJASTHAN (SOLAR) TPDDL	3.315	3.245	3.245	3.226
(iv)	CLP JHAJJAR - TPDDL	41.395	40.922	40.922	40.676
(v)	DVC	233.646	232.101	232.101	230.728
(vi)	MAITHON - TPDDL	122.519	121.724	121.724	120.999
(vii)	DVC MEJIA-7	1.126	1.118	1.118	1.113
(viii)	HIMACHAL PRADESH - TPDDL	0.000	0.000	0.000	0.000
(ix)	TUTICORIN (TAMIL NADU)	0.000	0.000	0.000	0.000
I	**TOTAL LTA**	**408.817**	**405.786**	**405.786**	**403.376**
	BILATERAL IMPORT				
(I)	NAGALAND	0.032	0.032	0.032	0.032
(ii)	MEGHALAYA	5.616	5.567	5.567	5.534
(iii)	MADHYA PRADESH	105.266	104.400	104.400	103.784
(iv)	ORISSA MT-20 JITPL -DVC	4.052	4.006	4.006	3.982

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(v)	JHARKHAND	21.584	21.492	21.492	21.365
(vi)	HIMACHAL PRADESH	236.357	232.073	232.073	230.717
(vii)	JAMMU & KASHMIR	61.796	60.978	60.978	60.618
(viii)	MIZORAM	0.751	0.739	0.739	0.734
(ix)	ADHPL (KULLU)	6.289	6.175	6.175	6.139
(x)	UNSCHEDULED INTERCHANGED	0.600	0.596	0.600	0.596
(xi)	POWER EXCHANGE(IEX)	3.375	3.355	3.375	3.355
(xii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**445.718**	**439.411**	**439.435**	**436.855**
	BILATERAL EXPORT				
(I)	ASSAM	-0.125	-0.127	-0.127	-0.129
(ii)	ANDHRA PRADESH	-1.222	-1.239	-1.239	-1.252
(iii)	KERALA	-0.203	-0.208	-0.208	-0.210
(iv)	TAMILNADU	-0.134	-0.136	-0.136	-0.137
(v)	MEGHALAYA	-0.196	-0.199	-0.199	-0.201
(vi)	POWER EXCHANGE (IEX)	-533.894	-539.823	-533.894	-539.823
(vii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(viii)	SHARE PROJECT (HARYANA)	-30.672	-31.010	-30.672	-31.010
(ix)	POWER EXCHANGE (PUNJAB)	-30.671	-31.009	-30.671	-31.009
K	**TOTAL BILATERAL EXPORT**	**-597.116**	**-603.750**	**-597.145**	**-603.771**
L	**TOTAL DRAWAL FROM THE GRID**	**3008.494**	**2926.462**	**2306.630**	**2243.521**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-29.579
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				28.885
(iii)	PRAGATI				105.819
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				349.316
(vi)	Timarpur - Okhla Waste Management				13.028
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.723
(viii)	Delhi Municipality Solid Waste Ltd.				10.464
(ix)	BTPS				218.990
N	**TOTAL GENERATION WITHIN DELHI**				**729.225**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.163
(ii)	RENEWABLE SOLAR (BRPL)				0.784
(iii)	RENEWABLE SOLAR (BYPL)				0.024
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				0.971
P	NET GENERATION WITHIN DELHI (N+O)				730.196
Q	GROSS CONSUMPTION (L+M+O)				2944.138
R	LOAD SHEDDING				1.041
S	REQUIREMENT				2945.179
T	% DEPENDENCE ON GRID				76.203
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				20.604
V	**NET CONSUMPTION OF DELHI (Q-U)**				**2923.534**

9.7 Power supply position during the month of October 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	97.389	94.037	95.313	92.035
2	SINGRAULI(HYDRO)	0.000	0.000	0.000	0.000
3	RIHAND-I	59.147	57.116	56.139	54.216
4	RIHAND-II	88.354	85.309	87.324	84.317
5	RIHAND-III	46.018	44.432	44.385	42.858
6	UNCHAHAR-I	15.516	15.134	14.396	14.042
7	UNCHAHAR-II	28.234	27.545	26.727	26.076
8	UNCHAHAR-III	19.635	19.152	18.491	18.037
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	377.524	370.089	275.362	269.962
11	DADRI(TH)- Stage-II	489.380	479.723	428.956	420.520
12	FARAKA	12.750	12.477	11.972	11.716
13	KHELGAON	31.234	30.564	29.178	28.552
14	KHELGAON-II	91.035	89.084	84.298	82.493
15	ANTA(GT)	0.869	0.839	0.401	0.387
16	ANTA(Liquid)	28.971	27.973	0.163	0.158
17	ANTA(RLNG)	0.000	0.000	0.000	0.000
18	AURAIYA(GT)	3.552	3.446	1.094	1.061
19	AURAIYA(Liquid)	46.278	44.913	0.103	0.101
20	AURAIYA(RLNG)	0.131	0.127	0.000	0.000
21	DADRI(GT)	3.460	3.394	1.155	1.133
22	DADRI(Liquid)	59.286	58.120	0.238	0.234
23	DADRI (RLNG)	0.000	0.000	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	7.286	7.094	7.286	7.094
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1506.050**	**1470.568**	**1182.984**	**1154.991**
	NHPC STATIONS				
26	TANAKPUR	7.000	6.793	7.000	6.793
27	CHAMERA-I	14.526	14.169	14.526	14.169
28	CHAMERA-II	16.115	15.718	16.115	15.718
29	CHAMERA-III	9.981	9.735	9.981	9.735
30	BAIRA SUIL	2.476	2.396	2.476	2.396
31	SALAL	19.496	18.966	19.496	18.966
32	DAULI GANGA	11.632	11.345	11.632	11.345
33	DULASTI	28.111	27.348	28.111	27.348
34	URI-I	13.753	13.413	13.753	13.413
35	URI-II	10.322	10.093	10.322	10.093
36	SEWA -II	3.604	3.506	3.604	3.506
37	PARBATI-III	5.442	5.295	5.442	5.295
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**142.458**	**138.777**	**142.458**	**138.777**
	THDC				
38	KOTESHWAR	6.202	6.019	6.202	6.019
39	TEHRI	12.169	11.810	12.169	11.810
C	**TOTAL THDC (TOTAL 38-39)**	**18.371**	**17.829**	**18.371**	**17.829**

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NPC STATIONS				
40	NAPP	31.135	30.216	31.135	30.216
41	RAPP 'C'	31.425	30.467	31.298	30.345
D	TOTAL NPC STATIONS (TOTAL 40-41)	62.560	60.684	62.433	60.561
E	NATHPA JHAKHRI(SJVNL)	43.191	41.914	43.191	41.914
F	SASAN	281.332	272.180	280.879	271.742
G	JHAJJAR	307.150	301.121	284.050	278.495
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2361.111**	**2303.073**	**2014.365**	**1964.308**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	2.886	2.822	2.822	2.801
(ii)	RASJASTHAN (SOLAR) BYPL	2.878	2.814	2.814	2.793
(iii)	RASJASTHAN (SOLAR) TPDDL	2.855	2.791	2.791	2.770
(iv)	CLP JHAJJAR - TPDDL	52.338	51.699	51.699	51.327
(v)	DVC	229.583	228.068	228.068	226.377
(vi)	MAITHON - TPDDL	162.069	160.984	160.984	159.799
(vii)	DVC MEJIA-7	2.479	2.462	2.462	2.447
(viii)	HIMACHAL PRADESH - TPDDL	3.682	3.610	3.610	3.584
(ix)	TUTICORIN (TAMIL NADU)	2.211	2.194	2.194	2.179
I	**TOTAL LTA**	460.982	457.445	457.445	454.076
	BILATERAL IMPORT				
(I)	MEGHALAYA	0.903	0.895	0.895	0.889
(ii)	HARYANA	0.347	0.343	0.343	0.341
(iii)	ORISSA MT-20 JITPL -DVC	3.388	3.349	3.349	3.325
(iv)	JHARKHAND	4.606	4.587	4.587	4.553
(v)	HIMACHAL PRADESH	23.248	22.786	22.786	22.618
(vi)	JAMMU & KASHMIR	1.711	1.686	1.686	1.673
(vii)	MIZORAM	5.749	5.659	5.659	5.617
(viii)	UNSCHEDULED INTERCHANGED	0.354	0.352	0.354	0.352
(ix)	POWER EXCHANGE(IEX)	2.372	2.355	2.372	2.355
(x)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**42.679**	**42.012**	**42.031**	**41.722**
	BILATERAL EXPORT				
(I)	ASSAM	-0.088	-0.090	-0.090	-0.091
(ii)	ANDHRA PRADESH	-50.592	-51.011	-51.011	-51.652
(iii)	TAMILNADU	-0.787	-0.796	-0.796	-0.806
(iv)	HIMACHAL PRADESH	-59.267	-60.441	-60.441	-61.172
(v)	MAHARASHTRA	-1.078	-1.094	-1.094	-1.108
(vi)	MADHYA PRADESH	-43.043	-43.557	-43.557	-44.088
(vii)	WEST BENGAL	-0.514	-0.517	-0.517	-0.524
(viii)	GUJRAT	-3.737	-3.796	-3.796	-3.841
(ix)	POWER EXCHANGE (IEX)	-428.456	-433.802	-428.456	-433.802
(x)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xI)	SHARE PROJECT (HARYANA)	2.855	2.891	2.855	2.891
(xII)	POWER EXCHANGE (PUNJAB)	2.104	2.131	2.104	2.131
K	**TOTAL BILATERAL EXPORT**	**-582.601**	**-590.082**	**-584.799**	**-592.060**
L	**TOTAL DRAWAL FROM THE GRID**	**2282.170**	**2212.447**	**1929.042**	**1868.046**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-89.527
	GENERATION WITHIN DELHI				
(I)	RPH				0.000

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(ii)	GT				41.138
(iii)	PRAGATI				124.489
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				440.062
(vi)	Timarpur - Okhla Waste Management				14.355
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				5.509
(viii)	Delhi Municipality Solid Waste Ltd.				10.410
(ix)	BTPS				109.679
N	**TOTAL GENERATION WITHIN DELHI**				**745.642**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.196
(ii)	RENEWABLE SOLAR (BRPL)				0.798
(iii)	RENEWABLE SOLAR (BYPL)				0.022
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				1.016
P	NET GENERATION WITHIN DELHI (N+O)				746.658
Q	GROSS CONSUMPTION (L+M+O)				2525.177
R	LOAD SHEDDING				0.995
S	REQUIREMENT				2526.172
T	% DEPENDENCE ON GRID				73.977
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				24.784
V	**NET CONSUMPTION OF DELHI (Q-U)**				**2500.393**

9.8 Power supply position during the month of November 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	100.565	97.048	98.329	94.885
2	SINGRAULI(HYDRO)	0.000	0.000	0.000	0.000
3	RIHAND-I	57.576	55.551	57.329	55.313
4	RIHAND-II	81.017	78.126	80.394	77.527
5	RIHAND-III	81.017	78.090	77.480	74.682
6	UNCHAHAR-I	15.268	14.873	12.680	12.352
7	UNCHAHAR-II	30.765	29.965	25.822	25.152
8	UNCHAHAR-III	19.001	18.507	16.089	15.672
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	389.292	381.010	251.942	246.643
11	DADRI(TH)- Stage-II	450.188	440.555	347.064	339.638
12	FARAKA	14.583	14.280	11.721	11.478
13	KHELGAON	29.300	28.679	24.630	24.109
14	KHELGAON-II	98.448	96.364	88.614	86.738
15	ANTA(GT)	11.303	10.891	3.455	3.349
16	ANTA(Liquid)	18.734	18.043	0.100	0.316
17	ANTA(RLNG)	0.000	0.000	0.000	0.000
18	AURAIYA(GT)	4.786	4.637	1.174	1.141
19	AURAIYA(Liquid)	43.066	41.759	0.521	0.507
20	AURAIYA(RLNG)	0.000	0.000	0.000	0.000
21	DADRI(GT)	8.791	8.570	2.905	2.831

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
22	DADRI(Liquid)	54.167	53.061	0.719	0.706
23	DADRI (RLNG)	0.000	0.000	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	3.500	3.411	3.500	3.411
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1511.368**	**1473.421**	**1104.469**	**1076.451**
	NHPC STATIONS				
26	TANAKPUR	3.913	3.795	3.913	3.795
27	CHAMERA-I	7.968	7.767	7.968	7.767
28	CHAMERA-II	9.424	9.185	9.424	9.185
29	CHAMERA-III	5.801	5.654	5.801	5.654
30	BAIRA SUIL	0.000	0.000	0.000	0.000
31	SALAL	14.089	13.708	14.089	13.708
32	DAULI GANGA	6.744	6.573	6.744	6.573
33	DULASTI	18.168	17.675	18.168	17.675
34	URI-I	18.734	18.265	18.734	18.265
35	URI-II	13.989	13.669	13.989	13.669
36	SEWA -II	3.004	2.924	3.004	2.924
37	PARBATI-III	3.260	3.169	3.260	3.169
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**105.094**	**102.385**	**105.094**	**102.385**
	THDC				
38	KOTESHWAR	6.710	6.502	6.710	6.502
39	TEHRI	12.961	12.566	12.961	12.566
C	**TOTAL THDC (TOTAL 38-39)**	**19.671**	**19.068**	**19.671**	**19.068**
	NPC STATIONS				
40	NAPP	30.879	29.935	30.879	29.935
41	RAPP 'C'	38.490	37.078	38.490	37.078
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**69.369**	**67.013**	**69.369**	**67.013**
E	**NATHPA JHAKHRI(SJVNL)**	**28.521**	**27.656**	**28.521**	**27.656**
F	**SASAN**	**289.528**	**280.303**	**289.528**	**280.303**
G	**JHAJJAR**	**325.237**	**318.361**	**264.290**	**258.721**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2348.789**	**2288.207**	**1880.943**	**1831.598**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	2.540	2.479	2.479	2.458
(ii)	RASJASTHAN (SOLAR) BYPL	2.505	2.445	2.445	2.424
(iii)	RASJASTHAN (SOLAR) TPDDL	2.508	2.448	2.448	2.427
(iv)	CLP JHAJJAR - TPDDL	44.373	43.830	43.830	43.486
(v)	DVC	230.517	228.830	228.830	226.912
(vi)	MAITHON - TPDDL	150.025	148.939	148.939	147.651
(vii)	DVC MEJIA-7	61.349	60.899	60.899	60.388
(viii)	HIMACHAL PRADESH - TPDDL	1.625	1.592	1.592	1.579
(ix)	TUTICORIN (TAMIL NADU)	5.991	5.933	5.933	5.878
I	**TOTAL LTA**	**501.432**	**497.395**	**497.395**	**493.204**
	BILATERAL IMPORT				
(I)	MAHARASHTRA	0.132	0.130	0.130	0.128
(ii)	ORISSA MT-20 JITPL -DVC	5.368	5.308	5.308	5.262
(iii)	HIMACHAL PRADESH	13.525	13.247	13.247	13.134
(iv)	JAMMU & KASHMIR	0.221	0.218	0.218	0.216
(v)	KARNATAKA	0.025	0.025	0.025	0.025
(vi)	D.B. POWER (CHATTISHGARH)	0.505	0.497	0.497	0.494
(vii)	MIZORAM	1.494	1.468	1.468	1.453

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(viii)	UNSCHEDULED INTERCHANGED	0.222	0.220	0.222	0.220
(ix)	POWER EXCHANGE(IEX)	10.039	9.935	10.039	9.935
(x)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**31.530**	**31.049**	**31.154**	**30.867**
	BILATERAL EXPORT				
(I)	ORISSA	-9.883	-10.050	-10.050	-10.195
(ii)	CHATTISHGARH	-8.965	-9.137	-9.137	-9.265
(iii)	ANDHRA PRADESH	-116.575	-118.309	-118.309	-119.847
(iv)	JAMMU & KASHMIR	-70.704	-71.696	-71.696	-72.617
(v)	MEGHALAYA	-21.090	-21.424	-21.424	-21.727
(vi)	HIMACHAL PRADESH	-185.287	-189.701	-189.701	-192.153
(vii)	MAHARASHTRA	-53.559	-54.391	-54.391	-55.087
(viii)	MADHYA PRADESH	-107.838	-109.810	-109.810	-111.220
(ix)	UTTRANCHAL	-39.116	-39.637	-39.637	-40.146
(x)	GUJRAT	-37.655	-38.267	-38.267	-38.794
(xi)	POWER EXCHANGE (IEX)	-299.561	-303.308	-299.561	-303.308
(xii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xiii)	SHARE PROJECT (HARYANA)	-18.760	-19.003	-18.760	-19.003
(xiv)	POWER EXCHANGE (PUNJAB)	-20.185	-20.445	-20.185	-20.445
K	**TOTAL BILATERAL EXPORT**	**-989.178**	**-1005.178**	**-1000.928**	**-1013.807**
L	**TOTAL DRAWAL FROM THE GRID**	**1892.573**	**1811.473**	**1408.563**	**1341.862**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				18.186
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				36.365
(iii)	PRAGATI				117.370
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				314.240
(vi)	Timarpur - Okhla Waste Management				14.089
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				5.681
(viii)	Delhi Municipality Solid Waste Ltd.				11.363
(ix)	BTPS				-1.720
N	**TOTAL GENERATION WITHIN DELHI**				**497.388**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.142
(ii)	RENEWABLE SOLAR (BRPL)				0.690
(iii)	RENEWABLE SOLAR (BYPL)				0.015
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				0.848
P	NET GENERATION WITHIN DELHI (N+O)				498.236
Q	GROSS CONSUMPTION (L+M+O)				1858.284
R	LOAD SHEDDING				0.448
S	REQUIREMENT				1858.732
T	% DEPENDENCE ON GRID				72.210
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				20.506
V	**NET CONSUMPTION OF DELHI (Q-U)**				**1837.778**

9.9 Power supply position during the month of December 2018

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	102.286	98.129	99.900	95.845
2	SINGRAULI(HYDRO)	0.000	0.000	0.000	0.000
3	RIHAND-I	43.933	42.223	41.785	40.160
4	RIHAND-II	86.478	83.173	84.768	81.532
5	RIHAND-III	85.027	81.802	78.668	75.690
6	UNCHAHAR-I	15.782	15.336	12.715	12.356
7	UNCHAHAR-II	31.580	30.688	25.056	24.349
8	UNCHAHAR-III	19.635	19.080	15.870	15.422
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	477.592	466.572	213.723	208.651
11	DADRI(TH)- Stage-II	512.867	500.901	407.984	398.479
12	FARAKA	14.872	14.614	10.778	10.590
13	KHELGAON	32.735	32.035	25.306	24.766
14	KHELGAON-II	107.620	105.319	92.289	90.318
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	32.153	30.767	0.000	0.000
17	ANTA(RLNG)	0.000	0.000	0.000	0.000
18	AURAIYA(GT)	0.173	0.168	0.072	0.070
19	AURAIYA(Liquid)	50.336	48.790	0.000	0.000
20	AURAIYA(RLNG)	0.000	0.000	0.000	0.000
21	DADRI(GT)	17.862	17.443	10.605	10.355
22	DADRI(Liquid)	49.158	48.013	0.404	0.395
23	DADRI (RLNG)	0.000	0.000	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	1.926	1.885	1.926	1.885
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1682.013**	**1636.940**	**1121.850**	**1090.864**
	NHPC STATIONS				
26	TANAKPUR	2.889	2.801	2.882	2.794
27	CHAMERA-I	5.583	5.440	5.583	5.440
28	CHAMERA-II	6.035	5.881	6.035	5.881
29	CHAMERA-III	3.201	3.119	3.201	3.119
30	BAIRA SUIL	0.000	0.000	0.000	0.000
31	SALAL	10.299	10.059	10.299	10.059
32	DAULI GANGA	4.746	4.624	4.746	4.624
33	DULASTI	13.235	12.927	13.235	12.927
34	URI-I	12.353	12.067	12.353	12.067
35	URI-II	9.121	8.910	9.121	8.910
36	SEWA -II	1.528	1.493	1.528	1.493
37	PARBATI-III	1.482	1.444	1.482	1.442
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**70.473**	**68.764**	**70.466**	**68.754**
	THDC				
38	KOTESHWAR	8.227	7.952	8.227	7.952
39	TEHRI	15.535	15.017	15.516	14.998
C	**TOTAL THDC (TOTAL 38-39)**	**23.762**	**22.969**	**23.743**	**22.951**
	NPC STATIONS				
40	NAPP	31.033	30.084	31.033	30.084

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
41	RAPP 'C'	40.067	38.340	40.067	38.340
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**71.100**	**68.424**	**71.100**	**68.424**
E	**NATHPA JHAKHRI(SJVNL)**	**22.136**	**21.457**	**22.136**	**21.457**
F	**SASAN**	**300.450**	**290.815**	**300.399**	**290.766**
G	**JHAJJAR**	**437.779**	**427.723**	**318.800**	**311.504**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2607.713**	**2537.091**	**1928.493**	**1874.720**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	2.876	2.784	2.784	2.751
(ii)	RASJASTHAN (SOLAR) BYPL	2.950	2.856	2.856	2.822
(iii)	RASJASTHAN (SOLAR) TPDDL	2.907	2.814	2.814	2.781
(iv)	CLP JHAJJAR - TPDDL	57.247	56.580	56.580	55.922
(v)	DVC	184.912	183.611	183.611	181.479
(vi)	MAITHON - TPDDL	177.931	176.684	176.684	174.613
(vii)	DVC MEJIA-7	68.878	68.395	68.395	67.593
(viii)	HIMACHAL PRADESH - TPDDL	0.932	0.914	0.914	0.903
(ix)	TUTICORIN (TAMIL NADU)	10.426	10.298	10.298	10.178
I	**TOTAL LTA**	**509.057**	**504.936**	**504.936**	**499.042**
	BILATERAL IMPORT				
(I)	ANDHRA PRADESH	1.787	1.764	1.764	1.742
(ii)	MAHARASHTRA	0.061	0.060	0.060	0.059
(iii)	ORISSA MT-20 JITPL -DVC	6.106	6.032	6.032	5.962
(iv)	PUNJAB	0.081	0.080	0.080	0.079
(v)	HIMACHAL PRADESH	12.370	12.130	12.130	11.988
(vi)	JAMMU & KASHMIR	0.229	0.226	0.226	0.223
(vii)	KARNATAKA	0.412	0.406	0.406	0.402
(viii)	COASTENG (TAMILNAIDU)	0.071	0.070	0.070	0.069
(ix)	BIHAR	0.161	0.160	0.160	0.158
(x)	UNSCHEDULED INTERCHANGED	0.101	0.100	0.101	0.100
(xi)	POWER EXCHANGE(IEX)	30.783	30.396	30.783	30.396
(xii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**52.162**	**51.424**	**51.813**	**51.179**
	BILATERAL EXPORT				
(I)	ORISSA	-24.898	-25.202	-25.202	-25.490
(ii)	MANIPUR	-21.395	-21.701	-21.701	-21.959
(iii)	ANDHRA PRADESH	-80.135	-81.151	-81.151	-82.110
(iv)	JAMMU & KASHMIR	-73.526	-74.401	-74.401	-75.283
(v)	MEGHALAYA	-46.999	-47.672	-47.672	-48.237
(vi)	HIMACHAL PRADESH	-44.299	-45.633	-45.633	-46.174
(vii)	MAHARASHTRA	-2.987	-3.040	-3.040	-3.075
(viii)	MADHYA PRADESH	-92.420	-94.027	-94.027	-95.142
(ix)	TELANGANA	-0.492	-0.500	-0.500	-0.507
(x)	GUJRAT	-18.377	-18.667	-18.667	-18.889
(xi)	POWER EXCHANGE (IEX)	-260.743	-263.772	-260.743	-263.772
(xii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xiii)	SHARE PROJECT (HARYANA)	-25.871	-26.181	-25.871	-26.181
(xiv)	POWER EXCHANGE (PUNJAB)	-25.675	-25.983	-25.675	-25.983
K	**TOTAL BILATERAL EXPORT**	**-717.816**	**-727.930**	**-724.282**	**-732.801**
L	**TOTAL DRAWAL FROM THE GRID**	**2451.116**	**2365.522**	**1760.960**	**1692.140**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-195.980

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				36.796
(iii)	PRAGATI				124.417
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				332.680
(vi)	Timarpur - Okhla Waste Management				14.445
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.688
(viii)	Delhi Municipality Solid Waste Ltd.				10.041
(ix)	BTPS				-0.921
N	**TOTAL GENERATION WITHIN DELHI**				**520.146**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.146
(ii)	RENEWABLE SOLAR (BRPL)				0.352
(iii)	RENEWABLE SOLAR (BYPL)				0.016
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				0.513
P	NET GENERATION WITHIN DELHI (N+O)				520.659
Q	GROSS CONSUMPTION (L+M+O)				2016.820
R	LOAD SHEDDING				0.605
S	REQUIREMENT				2017.425
T	% DEPENDENCE ON GRID				83.901
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				19.108
V	**NET CONSUMPTION OF DELHI (Q-U)**				**1997.712**

9.10 Power supply position during the month of January 2019

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	94.068	89.844	89.774	85.741
2	SINGRAULI(HYDRO)	0.218	0.208	0.218	0.208
3	RIHAND-I	68.053	65.181	61.188	58.610
4	RIHAND-II	77.229	73.931	71.034	67.997
5	RIHAND-III	92.498	88.597	80.063	76.694
6	UNCHAHAR-I	16.237	15.712	13.101	12.679
7	UNCHAHAR-II	31.214	30.203	25.129	24.317
8	UNCHAHAR-III	19.632	18.997	15.867	15.355
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	374.964	364.694	254.591	247.676
11	DADRI(TH)- Stage-II	500.545	486.875	393.052	382.334
12	FARAKA	14.764	14.453	10.536	10.316
13	KHELGAON	33.296	32.518	25.323	24.732
14	KHELGAON-II	109.174	106.625	91.173	89.048
15	ANTA(GT)	13.426	12.780	7.374	7.018
16	ANTA(Liquid)	19.294	18.399	0.092	0.087
17	ANTA(RLNG)	0.000	0.000	0.000	0.000
18	AURAIYA(GT)	0.000	0.000	0.000	0.000
19	AURAIYA(Liquid)	52.256	50.438	0.000	0.000
20	AURAIYA(RLNG)	0.000	0.000	0.000	0.000

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
21	DADRI(GT)	4.573	4.464	3.541	3.456
22	DADRI(Liquid)	61.198	59.506	0.305	0.298
23	DADRI (RLNG)	0.000	0.000	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	0.695	0.679	0.695	0.679
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1583.334**	**1534.105**	**1143.055**	**1107.246**
	NHPC STATIONS				
26	TANAKPUR	1.963	1.895	1.958	1.891
27	CHAMERA-I	5.087	4.936	5.087	4.936
28	CHAMERA-II	5.575	5.408	5.575	5.408
29	CHAMERA-III	2.485	2.411	2.485	2.411
30	BAIRA SUIL	0.000	0.000	0.000	0.000
31	SALAL	12.362	12.022	12.362	12.022
32	DAULI GANGA	3.858	3.743	3.858	3.743
33	DULASTI	9.853	9.578	9.853	9.578
34	URI-I	14.451	14.056	14.451	14.056
35	URI-II	10.234	9.954	10.234	9.954
36	SEWA -II	2.707	2.633	2.707	2.633
37	PARBATI-III	0.000	0.000	0.000	0.000
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**68.576**	**66.637**	**68.571**	**66.632**
	THDC				
38	KOTESHWAR	10.045	9.671	10.045	9.671
39	TEHRI	17.805	17.142	17.805	17.142
C	**TOTAL THDC (TOTAL 38-39)**	**27.850**	**26.813**	**27.850**	**26.813**
	NPC STATIONS				
40	NAPP	16.125	15.564	16.125	15.564
41	RAPP 'C'	40.473	38.567	40.473	38.567
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**56.598**	**54.131**	**56.598**	**54.131**
E	**NATHPA JHAKHRI(SJVNL)**	**19.219**	**18.551**	**19.219**	**18.551**
F	**SASAN**	**295.649**	**285.912**	**294.982**	**285.267**
G	**JHAJJAR**	**417.435**	**405.862**	**313.722**	**305.049**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2468.660**	**2392.011**	**1923.996**	**1863.689**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	3.001	2.899	2.899	2.859
(ii)	RASJASTHAN (SOLAR) BYPL	3.068	2.964	2.964	2.924
(iii)	RASJASTHAN (SOLAR) TPDDL	3.053	2.950	2.950	2.910
(iv)	CLP JHAJJAR - TPDDL	59.219	58.334	58.334	57.538
(v)	DVC	207.469	205.969	205.969	203.094
(vi)	MAITHON - TPDDL	148.903	147.834	147.834	145.784
(vii)	DVC MEJIA-7	66.463	65.985	65.985	65.074
(viii)	HIMACHAL PRADESH - TPDDL	0.591	0.577	0.577	0.570
(ix)	TUTICORIN (TAMIL NADU)	13.987	13.823	13.823	13.635
I	**TOTAL LTA**	**505.755**	**501.335**	**501.335**	**494.388**
	BILATERAL IMPORT				
(I)	ANDHRA PRADESH	17.654	17.447	17.447	17.207
(ii)	MEGHALAYA	5.000	4.973	4.973	4.904
(iii)	MADHYA PRADESH	0.045	0.045	0.045	0.044
(iv)	MANIPUR	2.172	2.153	2.153	2.125
(v)	ORISSA MT-20 JITPL -DVC	5.313	5.248	5.248	5.175
(vi)	HIMACHAL PRADESH	11.115	10.860	10.860	10.710

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(vii)	JAMMU & KASHMIR	0.470	0.463	0.463	0.456
(viii)	D.B. POWER (CHATTISHGARH)	0.061	0.060	0.060	0.059
(ix)	UNSCHEDULED INTERCHANGED	1.012	0.997	1.012	0.997
(x)	POWER EXCHANGE(IEX)	61.546	60.731	61.546	60.731
(xi)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**104.388**	**102.978**	**103.808**	**102.408**
	BILATERAL EXPORT				
(I)	ASSAM				
(ii)	GOA	-2.173	-2.200	-2.200	-2.232
(iii)	ORISSA	-0.188	-0.190	-0.190	-0.193
(iv)	UTTAR PRADESH	-0.129	-0.132	-0.132	-0.134
(v)	BIHAR	-0.593	-0.600	-0.600	-0.609
(vi)	MANIPUR	-19.741	-20.001	-20.001	-20.282
(vii)	ANDHRA PRADESH	-73.527	-74.399	-74.399	-75.440
(viii)	JAMMU & KASHMIR	-73.287	-74.399	-74.399	-75.440
(ix)	JHARKHAND	-0.108	-0.110	-0.110	-0.111
(x)	TRIPURA	-0.040	-0.040	-0.040	-0.040
(xi)	MEGHALAYA	-22.161	-22.470	-22.470	-22.785
(xii)	HIMACHAL PRADESH	-216.813	-223.820	-223.820	-226.959
(xiii)	MAHARASHTRA	-6.095	-6.200	-6.200	-6.287
(xiv)	MADHYA PRADESH	-92.650	-94.032	-94.032	-95.347
(xv)	WEST BENGAL	-0.148	-0.150	-0.150	-0.152
(xvi)	GUJRAT	-17.193	-17.444	-17.444	-17.686
(xvii)	POWER EXCHANGE (IEX)	-194.465	-197.207	-194.465	-197.207
(xviii)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xix)	SHARE PROJECT (HARYANA)	-25.463	-25.820	-25.463	-25.820
(xx)	POWER EXCHANGE (PUNJAB)	-25.591	-25.951	-25.591	-25.951
K	**TOTAL BILATERAL EXPORT**	**-770.365**	**-785.167**	**-781.709**	**-792.674**
L	**TOTAL DRAWAL FROM THE GRID**	**2308.438**	**2211.156**	**1747.430**	**1667.811**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-44.101
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				42.542
(iii)	PRAGATI				127.252
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				341.345
(vi)	Timarpur - Okhla Waste Management				13.739
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.895
(viii)	Delhi Municipality Solid Waste Ltd.				9.919
(ix)	BTPS				-0.600
N	TOTAL GENERATION WITHIN DELHI				537.092
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.146
(ii)	RENEWABLE SOLAR (BRPL)				0.318
(iii)	RENEWABLE SOLAR (BYPL)				0.017
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				0.481
P	NET GENERATION WITHIN DELHI (N+O)				537.574
Q	GROSS CONSUMPTION (L+M+O)				2161.284
R	LOAD SHEDDING				1.093

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
S	REQUIREMENT				2162.377
T	% DEPENDENCE ON GRID				77.168
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				20.228
V	**NET CONSUMPTION OF DELHI (Q-U)**				**2141.056**

9.11 Power supply position during the month of February 2019

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	89.843	85.914	85.948	82.191
2	SINGRAULI(HYDRO)	0.394	0.377	0.394	0.377
3	RIHAND-I	59.642	57.083	54.998	52.652
4	RIHAND-II	79.496	76.083	70.078	67.057
5	RIHAND-III	83.260	79.683	75.272	72.054
6	UNCHAHAR-I	14.635	14.198	11.439	11.097
7	UNCHAHAR-II	28.678	27.822	22.353	21.685
8	UNCHAHAR-III	17.735	17.205	13.901	13.485
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	455.595	444.178	272.208	265.515
11	DADRI(TH)- Stage-II	377.473	367.438	297.933	289.996
12	FARAKA	13.382	13.116	9.786	9.592
13	KHELGAON	30.062	29.388	22.785	22.272
14	KHELGAON-II	98.501	96.291	82.019	80.169
15	ANTA(GT)	2.541	2.426	1.943	1.855
16	ANTA(Liquid)	26.614	25.424	0.000	0.000
17	ANTA(RLNG)	0.000	0.000	0.000	0.000
18	AURAIYA(GT)	2.219	2.121	1.277	1.221
19	AURAIYA(Liquid)	44.818	43.318	0.045	0.043
20	AURAIYA(RLNG)	0.000	0.000	0.000	0.000
21	DADRI(GT)	20.144	19.649	15.444	15.065
22	DADRI(Liquid)	39.698	38.701	1.079	1.055
23	DADRI (RLNG)	0.000	0.000	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	0.243	0.237	0.243	0.237
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1484.971**	**1440.650**	**1039.148**	**1007.619**
	NHPC STATIONS				
26	TANAKPUR	2.005	1.938	2.005	1.938
27	CHAMERA-I	14.001	13.666	14.001	13.666
28	CHAMERA-II	8.626	8.399	8.626	8.399
29	CHAMERA-III	4.249	4.144	4.249	4.144
30	BAIRA SUIL	0.000	0.000	0.000	0.000
31	SALAL	20.163	19.633	20.163	19.633
32	DAULI GANGA	3.559	3.452	3.559	3.452
33	DULASTI	10.619	10.349	10.619	10.349
34	URI-I	27.566	26.764	27.566	26.764
35	URI-II	17.344	16.898	17.344	16.898
36	SEWA -II	10.012	9.750	10.012	9.750
37	PARBATI-III	0.000	0.000	0.000	0.000
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**118.143**	**114.992**	**118.143**	**114.992**

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	THDC				
38	KOTESHWAR	8.270	7.981	8.270	7.981
39	TEHRI	13.829	13.347	13.829	13.347
C	**TOTAL THDC (TOTAL 38-39)**	**22.098**	**21.328**	**22.098**	**21.328**
	NPC STATIONS				
40	NAPP	15.856	15.331	15.856	15.331
41	RAPP 'C'	30.378	29.051	30.378	29.051
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**46.234**	**44.382**	**46.234**	**44.382**
E	**NATHPA JHAKHRI(SJVNL)**	**17.565**	**17.032**	**16.310**	**15.810**
F	**SASAN**	**274.426**	**266.510**	**274.034**	**266.129**
G	**JHAJJAR**	**381.615**	**372.083**	**270.382**	**263.537**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2345.052**	**2276.977**	**1786.350**	**1733.799**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	3.244	3.139	3.139	3.099
(ii)	RASJASTHAN (SOLAR) BYPL	3.224	3.119	3.119	3.079
(iii)	RASJASTHAN (SOLAR) TPDDL	3.211	3.106	3.106	3.067
(iv)	CLP JHAJJAR - TPDDL	48.314	47.693	47.693	47.078
(v)	DVC	163.499	162.275	162.275	160.117
(vi)	MAITHON - TPDDL	160.088	158.883	158.883	156.889
(vii)	DVC MEJIA-7	62.599	62.129	62.129	61.346
(viii)	HIMACHAL PRADESH - TPDDL	0.562	0.549	0.549	0.543
(ix)	TUTICORIN (TAMIL NADU)	10.682	10.574	10.574	10.443
I	**TOTAL LTA**	**455.422**	**451.468**	**451.468**	**445.661**
	BILATERAL IMPORT				
(I)	ANDHRA PRADESH	0.502	0.496	0.496	0.491
(ii)	MEGHALAYA	3.881	3.869	3.869	3.822
(iii)	MADHYA PRADESH	0.081	0.080	0.080	0.079
(iv)	ORISSA MT-20 JITPL -DVC	3.697	3.651	3.651	3.605
(v)	HIMACHAL PRADESH	7.702	7.526	7.526	7.428
(vi)	JAMMU & KASHMIR	0.606	0.598	0.598	0.590
(vii)	KARNATAKA	0.183	0.180	0.180	0.178
(viii)	D.B. POWER (CHATTISHGARH)	0.084	0.083	0.083	0.082
(ix)	UNSCHEDULED INTERCHANGED	2.816	2.780	2.816	2.780
(x)	POWER EXCHANGE(IEX)	57.467	56.772	57.467	56.772
(xi)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**77.019**	**76.034**	**76.765**	**75.826**
	BILATERAL EXPORT				
(I)	UTTAR PRADESH	-0.283	-0.290	-0.290	-0.293
(ii)	MANIPUR	-21.627	-21.848	-21.848	-22.121
(iii)	ANDHRA PRADESH	-66.371	-67.166	-67.166	-68.026
(iv)	JAMMU & KASHMIR	-66.028	-67.195	-67.195	-68.056
(v)	MEGHALAYA	-8.546	-8.683	-8.683	-8.787
(vi)	HIMACHAL PRADESH	-223.352	-230.276	-230.276	-233.226
(vii)	MAHARASHTRA	-19.263	-19.599	-19.599	-19.850
(viii)	UTTRANCHAL	-2.990	-3.093	-3.093	-3.124
(ix)	GUJRAT	-14.045	-14.255	-14.255	-14.447
(x)	POWER EXCHANGE (IEX)	-167.067	-169.136	-167.067	-169.136
(xi)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xii)	SHARE PROJECT (HARYANA)	-6.748	-6.820	-6.748	-6.820
(xiii)	POWER EXCHANGE (PUNJAB)	-6.571	-6.642	-6.571	-6.642

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
K	**TOTAL BILATERAL EXPORT**	**-602.891**	**-615.003**	**-612.791**	**-620.526**
L	**TOTAL DRAWAL FROM THE GRID**	**2274.602**	**2189.475**	**1701.791**	**1634.760**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-4.960
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				38.627
(iii)	PRAGATI				84.908
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				89.608
(vi)	Timarpur - Okhla Waste Management				13.276
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				2.126
(viii)	Delhi Municipality Solid Waste Ltd.				10.456
(ix)	BTPS				-0.520
N	**TOTAL GENERATION WITHIN DELHI**				**238.481**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.129
(ii)	RENEWABLE SOLAR (BRPL)				0.257
(iii)	RENEWABLE SOLAR (BYPL)				0.018
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				0.404
P	NET GENERATION WITHIN DELHI (N+O)				238.885
Q	GROSS CONSUMPTION (L+M+O)				1868.685
R	LOAD SHEDDING				0.451
S	REQUIREMENT				1869.136
T	% DEPENDENCE ON GRID				87.482
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				13.195
V	**NET CONSUMPTION OF DELHI (Q-U)**				**1855.490**

9.12 Power supply position during the month of March 2019

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	101.908	98.612	98.646	95.455
2	SINGRAULI(HYDRO)	0.474	0.458	0.474	0.458
3	RIHAND-I	68.524	66.308	67.265	65.088
4	RIHAND-II	80.437	77.830	77.818	75.299
5	RIHAND-III	91.906	88.936	87.287	84.460
6	UNCHAHAR-I	16.237	15.954	12.699	12.476
7	UNCHAHAR-II	31.096	30.553	24.078	23.656
8	UNCHAHAR-III	17.000	16.714	13.068	12.848
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	480.140	474.062	289.544	285.963
11	DADRI(TH)- Stage-II	255.069	251.900	199.785	197.289
12	FARAKA	15.137	14.952	12.241	12.092
13	KHELGAON	29.405	28.972	24.911	24.545
14	KHELGAON-II	105.963	104.407	94.579	93.190
15	ANTA(GT)	0.000	0.000	0.000	0.000
16	ANTA(Liquid)	31.916	30.878	0.000	0.000
17	ANTA(RLNG)	0.000	0.000	0.000	0.000

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
18	AURAIYA(GT)	0.000	0.000	0.000	0.000
19	AURAIYA(Liquid)	52.344	51.173	0.000	0.000
20	AURAIYA(RLNG)	0.000	0.000	0.000	0.000
21	DADRI(GT)	26.065	25.740	19.675	19.431
22	DADRI(Liquid)	36.789	36.328	0.536	0.528
23	DADRI (RLNG)	0.000	0.000	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	1.066	1.048	1.066	1.048
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**1441.477**	**1414.827**	**1023.672**	**1003.825**
	NHPC STATIONS				
26	TANAKPUR	1.961	1.921	1.961	1.921
27	CHAMERA-I	15.400	15.201	15.400	15.201
28	CHAMERA-II	10.485	10.321	10.485	10.321
29	CHAMERA-III	6.065	5.984	6.065	5.984
30	BAIRA SUIL	0.000	0.000	0.000	0.000
31	SALAL	24.881	24.496	24.881	24.496
32	DAULI GANGA	5.083	4.980	5.083	4.980
33	DULASTI	13.800	13.591	13.800	13.591
34	URI-I	38.736	37.966	38.736	37.966
35	URI-II	24.161	23.801	24.161	23.801
36	SEWA -II	11.617	11.441	11.617	11.441
37	PARBATI-III	0.000	0.000	0.000	0.000
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**152.188**	**149.703**	**152.188**	**149.703**
	THDC				
38	KOTESHWAR	10.412	10.179	10.412	10.179
39	TEHRI	16.085	15.725	16.085	15.725
C	**TOTAL THDC (TOTAL 38-39)**	**26.497**	**25.904**	**26.497**	**25.904**
	NPC STATIONS				
40	NAPP	29.345	28.684	29.345	28.684
41	RAPP 'C'	31.072	30.091	31.072	30.091
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**60.417**	**58.775**	**60.417**	**58.775**
E	**NATHPA JHAKHRI(SJVNL)**	**20.110**	**19.756**	**20.110**	**19.756**
F	**SASAN**	**301.770**	**295.621**	**301.713**	**295.566**
G	**JHAJJAR**	**488.033**	**481.966**	**191.550**	**189.132**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**2490.492**	**2446.551**	**1776.148**	**1742.661**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	4.106	3.998	3.998	3.973
(ii)	RASJASTHAN (SOLAR) BYPL	4.070	3.963	3.963	3.938
(iii)	RASJASTHAN (SOLAR) TPDDL	4.033	3.927	3.927	3.902
(iv)	CLP JHAJJAR - TPDDL	51.282	50.961	50.961	50.643
(v)	DVC	158.250	157.308	157.308	156.313
(vi)	MAITHON - TPDDL	186.462	185.346	185.346	184.189
(vii)	DVC MEJIA-7	75.629	75.174	75.174	74.706
(viii)	HIMACHAL PRADESH - TPDDL	0.999	0.985	0.985	0.979
(ix)	TUTICORIN (TAMIL NADU)	7.156	7.094	7.094	7.051
I	**TOTAL LTA**	**491.986**	**488.756**	**488.756**	**485.694**
	BILATERAL IMPORT				
(I)	ASSAM	0.121	0.120	0.120	0.119
(ii)	MEGHALAYA	4.627	4.615	4.615	4.586
(iii)	MADHYA PRADESH	0.250	0.249	0.249	0.247

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(iv)	ORISSA MT-20 JITPL -DVC	5.320	5.262	5.262	5.229
(v)	HIMACHAL PRADESH	9.396	9.269	9.269	9.212
(vi)	JAMMU & KASHMIR	0.670	0.664	0.664	0.660
(vii)	D.B. POWER (CHATTISHGARH)	0.198	0.195	0.195	0.194
(viii)	GUJRAT	0.282	0.280	0.280	0.279
(ix)	UNSCHEDULED INTERCHANGED	1.581	1.571	1.581	1.571
(x)	POWER EXCHANGE(IEX)	69.224	68.801	69.224	68.801
(xI)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**91.669**	**91.025**	**91.459**	**90.897**
	BILATERAL EXPORT				
(I)	GOA	-6.121	-6.209	-6.209	-6.239
(ii)	UTTAR PRADESH	-0.112	-0.115	-0.115	-0.115
(iii)	MANIPUR	-27.311	-27.579	-27.579	-27.713
(iv)	CHATTISHGARH	-44.544	-45.299	-45.299	-45.528
(v)	ANDHRA PRADESH	-73.663	-74.500	-74.500	-74.861
(vi)	JAMMU & KASHMIR	-73.482	-74.506	-74.506	-74.867
(vii)	TAMILNADU	-0.079	-0.080	-0.080	-0.081
(viii)	MEGHALAYA	-5.183	-5.273	-5.273	-5.297
(ix)	HIMACHAL PRADESH	-187.689	-192.686	-192.686	-193.593
(x)	MAHARASHTRA	-12.340	-12.552	-12.552	-12.611
(xi)	WEST BENGAL	-0.474	-0.478	-0.478	-0.480
(xii)	UTTRANCHAL	-18.704	-19.208	-19.208	-19.301
(xiii)	GUJRAT	-2.675	-2.716	-2.716	-2.718
(xiv)	POWER EXCHANGE (IEX)	-137.365	-138.005	-137.365	-138.005
(xv)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xvi)	SHARE PROJECT (HARYANA)	-16.319	-16.378	-16.319	-16.378
(xvii)	POWER EXCHANGE (PUNJAB)	-13.661	-13.709	-13.661	-13.709
K	**TOTAL BILATERAL EXPORT**	**-619.722**	**-629.294**	**-628.546**	**-631.496**
L	**TOTAL DRAWAL FROM THE GRID**	**2454.425**	**2397.038**	**1727.816**	**1687.755**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-24.034
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				31.356
(iii)	PRAGATI				1.308
(iv)	RITHALA				0.000
(v)	BAWANA (CCGT)				221.291
(vi)	Timarpur - Okhla Waste Management				10.443
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				5.095
(viii)	Delhi Municipality Solid Waste Ltd.				12.189
(ix)	BTPS				-0.552
N	**TOTAL GENERATION WITHIN DELHI**				**281.130**
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				0.232
(ii)	RENEWABLE SOLAR (BRPL)				0.242
(iii)	RENEWABLE SOLAR (BYPL)				0.028
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				0.502
P	NET GENERATION WITHIN DELHI (N+O)				281.632
Q	GROSS CONSUMPTION (L+M+O)				1945.353
R	LOAD SHEDDING				0.593

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
S	REQUIREMENT				1945.946
T	% DEPENDENCE ON GRID				86.758
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				15.232
V	**NET CONSUMPTION OF DELHI (Q-U)**				**1930.121**

9.13 Consolidated Power Supply Position for 2018-19

All figures in MUs

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	NTPC STATIONS				
1	SINGRAULI	1058.747	1022.174	1003.993	969.228
2	SINGRAULI(HYDRO)	2.529	2.444	2.529	2.444
3	RIHAND-I	707.222	683.368	658.710	636.512
4	RIHAND-II	944.401	912.229	901.230	870.566
5	RIHAND-III	1001.218	967.440	902.933	872.447
6	UNCHAHAR-I	179.504	175.299	148.130	144.670
7	UNCHAHAR-II	348.485	340.328	286.932	280.239
8	UNCHAHAR-III	207.420	202.466	169.452	165.406
9	UNCHAHAR-IV	0.000	0.000	0.000	0.000
10	DADRI(TH)	5395.281	5295.218	3356.040	3294.480
11	DADRI(TH)- Stage-II	5460.312	5355.504	4357.389	4273.886
12	FARAKA	159.039	156.208	124.291	122.086
13	KHELGAON	370.649	363.200	302.212	296.172
14	KHELGAON-II	1156.890	1133.503	1005.620	985.355
15	ANTA(GT)	28.182	26.977	13.178	12.615
16	ANTA(Liquid)	279.172	269.052	0.363	0.569
17	ANTA(RLNG)	46.881	45.338	0.000	0.000
18	AURAIYA(GT)	20.031	19.449	6.529	6.334
19	AURAIYA(Liquid)	382.384	371.399	0.718	0.697
20	AURAIYA(RLNG)	176.216	171.952	0.024	0.023
21	DADRI(GT)	144.244	141.599	75.643	74.239
22	DADRI(Liquid)	421.639	412.945	3.805	3.730
23	DADRI (RLNG)	135.926	133.676	0.000	0.000
24	TALCHER	0.000	0.000	0.000	0.000
25	TALA	97.842	95.595	97.841	95.595
A	**TOTAL NTPC STATIONS (TOTAL 1-25)**	**18724.214**	**18297.362**	**13417.560**	**13107.295**
	NHPC STATIONS				
26	TANAKPUR	49.383	48.065	49.370	48.054
27	CHAMERA-I	191.592	187.810	191.591	187.810
28	CHAMERA-II	194.931	190.932	194.947	190.948
29	CHAMERA-III	127.856	125.364	127.865	125.364
30	BAIRA SUIL	37.544	36.617	37.544	36.616
31	SALAL	374.692	367.128	374.692	367.128
32	DAULI GANGA	140.507	137.604	140.507	137.604
33	DULASTI	282.853	277.017	282.853	277.017
34	URI-I	321.838	314.664	321.838	314.664
35	URI-II	207.067	202.669	207.182	202.782
36	SEWA -II	64.732	63.398	64.733	63.398
37	PARBATI-III	76.746	75.103	76.746	75.100
B	**TOTAL NHPC STATIONS (TOTAL 26-37)**	**2069.741**	**2026.372**	**2069.867**	**2026.485**

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
	THDC				
38	KOTESHWAR	118.702	115.557	118.702	115.557
39	TEHRI	197.467	192.154	197.448	192.136
C	**TOTAL THDC (TOTAL 38-39)**	**316.169**	**307.711**	**316.151**	**307.693**
	NPC STATIONS				
40	NAPP	306.174	297.927	306.174	297.927
41	RAPP 'C'	422.615	407.609	422.488	407.486
D	**TOTAL NPC STATIONS (TOTAL 40-41)**	**728.789**	**705.535**	**728.662**	**705.413**
E	**NATHPA JHAKHRI(SJVNL)**	**606.761**	**591.885**	**605.420**	**590.578**
F	**SASAN**	**3416.652**	**3312.857**	**3399.444**	**3296.192**
G	**JHAJJAR**	**4539.942**	**4454.470**	**3116.535**	**3055.648**
H	**TOTAL CENTRAL SECTOR STATIONS (A+B+C+D+E+F+G)**	**30402.267**	**29696.192**	**23653.639**	**23089.304**
	LONG TERM BILATERAL AGREEMENTS				
(I)	RASJASTHAN (SOLAR) BRPL	42.062	40.980	40.980	40.661
(ii)	RASJASTHAN (SOLAR) BYPL	56.943	55.555	55.555	55.158
(iii)	RASJASTHAN (SOLAR) TPDDL	41.259	40.196	40.196	39.881
(iv)	CLP JHAJJAR - TPDDL	558.006	552.376	552.376	547.823
(v)	DVC	2312.485	2296.257	2296.257	2277.856
(vi)	MAITHON - TPDDL	1917.288	1903.882	1903.882	1888.479
(vii)	DVC MEJIA-7	579.556	575.500	575.500	570.493
(viii)	HIMACHAL PRADESH - TPDDL	8.391	8.228	8.228	8.156
(ix)	TUTICORIN (TAMIL NADU)	50.453	49.917	49.917	49.364
I	**TOTAL LTA**	**5566.443**	**5522.890**	**5522.890**	**5477.872**
	BILATERAL IMPORT				
(I)	NAGALAND	8.084	8.029	8.029	7.986
(ii)	SIKKIM	28.270	27.861	27.861	27.701
(iii)	ASSAM	0.121	0.120	0.120	0.119
(iv)	ANDHRA PRADESH	281.881	279.607	279.607	277.948
(v)	MEGHALAYA	94.980	94.084	94.084	93.491
(vi)	WEST BENGAL	0.462	0.460	0.460	0.457
(vii)	MADHYA PRADESH	456.621	452.111	452.111	449.487
(viii)	HARYANA	3.711	3.677	3.677	3.646
(ix)	MAHARASHTRA	0.335	0.331	0.331	0.328
(x)	MANIPUR	2.172	2.153	2.153	2.125
(xii)	ORISSA MT-20 JITPL -DVC	57.392	56.742	56.742	56.280
(xiii)	UTTRANCHAL	37.393	37.012	37.012	36.821
(xiv)	JHARKHAND	92.741	92.129	92.129	91.614
(xv)	ORISSA	0.131	0.130	0.130	0.129
(xvi)	PUNJAB	0.081	0.080	0.080	0.079
(xvii)	HIMACHAL PRADESH	1813.472	1785.441	1785.441	1775.252
(xviii)	JAMMU & KASHMIR	329.620	326.432	326.432	324.599
(xix)	KARNATAKA	0.780	0.769	0.769	0.762
(xx)	COASTENG (TAMILNAIDU)	0.071	0.070	0.070	0.069
(xxi)	TAMILNAIDU	10.956	10.871	10.871	10.809
(xxii)	DIKCHAU (SIKKIM)	21.296	20.977	20.977	20.826
(xxiii)	D.B. POWER (CHATTISHGARH)	0.979	0.965	0.965	0.957
(xxiv)	MIZORAM	30.836	30.273	30.273	30.086
(xxv)	GUJRAT	0.725	0.719	0.719	0.715
(xxvi)	TELENGANA	0.162	0.160	0.160	0.159
(xxvii)	ADHPL (KULLU)	30.461	29.993	29.993	29.827

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
(xxviii)	GCEL (GURGAON)	28.139	27.943	27.943	27.782
(xxix)	JHABUA (MP)	1.989	1.968	1.968	1.958
(xxx)	JP NIGRIE (MP)	0.036	0.036	0.036	0.036
(xxxi)	ESSAR (MP)	0.050	0.050	0.050	0.050
(xxxii)	BIHAR	0.161	0.160	0.160	0.158
(xxxiii)	UNSCHEDULED INTERCHANGED	9.685	9.596	9.685	9.596
(xxxiv)	POWER EXCHANGE(IEX)	358.393	355.135	358.393	355.135
(xxxv)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
J	**TOTAL BILATERAL IMPORT**	**3702.183**	**3656.085**	**3659.432**	**3636.987**
	BILATERAL EXPORT				
(I)	ASSAM	-0.213	-0.217	-0.217	-0.219
(ii)	GOA	-8.609	-8.729	-8.729	-8.795
(iii)	ORISSA	-34.968	-35.442	-35.442	-35.878
(iv)	UTTAR PRADESH	-15.249	-15.534	-15.534	-15.663
(v)	BIHAR	-0.691	-0.700	-0.700	-0.710
(vi)	SIKKIM	-0.118	-0.120	-0.120	-0.121
(vii)	MANIPUR	-91.350	-92.424	-92.424	-93.380
(viii)	CHATTISHGARH	-53.509	-54.436	-54.436	-54.794
(ix)	ANDHRA PRADESH	-535.204	-541.930	-541.930	-547.971
(x)	JAMMU & KASHMIR	-357.027	-362.198	-362.198	-366.262
(xii)	KERALA	-0.203	-0.208	-0.208	-0.210
(xiii)	JHARKHAND	-1.035	-1.046	-1.046	-1.057
(xiv)	TRIPURA	-0.040	-0.040	-0.040	-0.040
(xv)	TAMILNADU	-1.433	-1.451	-1.451	-1.467
(xvi)	MEGHALAYA	-107.131	-108.721	-108.721	-110.057
(xvii)	HIMACHAL PRADESH	-945.807	-972.307	-972.307	-983.253
(xviii)	MAHARASHTRA	-95.321	-96.877	-96.877	-98.017
(xix)	MADHYA PRADESH	-336.732	-342.222	-342.222	-346.600
(xx)	WEST BENGAL	-64.608	-65.077	-65.077	-65.650
(xxi)	UTTRANCHAL	-60.809	-61.938	-61.938	-62.571
(xxii)	HARYANA	-3.409	-3.466	-3.466	-3.497
(xxiii)	TELANGANA	-0.492	-0.500	-0.500	-0.507
(xxiv)	GUJRAT	-93.682	-95.145	-95.145	-96.375
(xxv)	POWER EXCHANGE (IEX)	-3089.627	-3122.756	-3089.627	-3122.756
(xxvi)	POWER EXCHANGE (PX)	0.000	0.000	0.000	0.000
(xxvii)	SHARE PROJECT (HARYANA)	-216.354	-218.548	-216.354	-218.548
(xxviii)	POWER EXCHANGE (PUNJAB)	-215.637	-217.844	-215.637	-217.844
K	**TOTAL BILATERAL EXPORT**	**-6329.260**	**-6419.877**	**-6382.347**	**-6452.241**
L	**TOTAL DRAWAL FROM THE GRID**	**33341.633**	**32455.291**	**26453.614**	**25751.922**
M	OVER DRAWL(+)/UNDER DRAWAL(-) FROM THE GRID				-580.495
	GENERATION WITHIN DELHI				
(I)	RPH				0.000
(ii)	GT				599.691
(iii)	PRAGATI				1515.627
(vi)	RITHALA				0.000
(v)	BAWANA (CCGT)				3620.273
(vi)	Timarpur - Okhla Waste Management				163.089
(vii)	EAST DELHI WASTE PROCESSING CO.LTD.				39.977
(viii)	Delhi Municipality Solid Waste Ltd.				136.102
(ix)	BTPS				1262.818

S. no.	SOURCE	Availability at Power Plant bus	Availability at Delhi periphery	Power Scheduled at Power Plant	Power scheduled at Delhi periphery
N	TOTAL GENERATION WITHIN DELHI				7337.577
	RENEWABLE GENERATION				
(I)	RENEWABLE SOLAR (NDPL)				2.010
(ii)	RENEWABLE SOLAR (BRPL)				8.351
(iii)	RENEWABLE SOLAR (BYPL)				0.273
(iv)	RENEWABLE SOLAR (NDMC)				0.000
O	TOTAL RENEWABLE GENERATION				10.634
P	NET GENERATION WITHIN DELHI (N+O)				7348.211
Q	GROSS CONSUMPTION (L+M+O)				32519.638
R	LOAD SHEDDING				17.848
S	REQUIREMENT				32537.486
T	% DEPENDENCE ON N.GRID				**79.189**
U	AUXILIARY CONSUMPTION OF STATIONS WITHIN DELHI				249.095
V	**NET CONSUMPTION OF DELHI (Q-U)**				**32270.543**

9.14 LOAD SHEDDING DETAILS FOR 2018-19

Month	Number of Under Frequency Trippings	Load shedding due to under Frequency Relay Operation in MUs				
		BYPL	BRPL	TPDDL	NDMC	Total
Apr 2018	0	0.000	0.000	0.000	0.000	**0.000**
May 2018	0	0.000	0.000	0.000	0.000	**0.000**
Jun 2018	0	0.000	0.000	0.000	0.000	**0.000**
July 2018	0	0.000	0.000	0.000	0.000	**0.000**
Aug. 2018	0	0.000	0.000	0.000	0.000	**0.000**
Sept 2018	0	0.000	0.000	0.000	0.000	**0.000**
Oct. 2018	0	0.000	0.000	0.000	0.000	**0.000**
Nov. 2018	0	0.000	0.000	0.000	0.000	**0.000**
Dec. 2018	0	0.000	0.000	0.000	0.000	**0.000**
Jan. 2019	0	0.000	0.000	0.000	0.000	**0.000**
Feb. 2019	1	0.000	0.000	0.002	0.000	**0.002**
Mar. 2019	3	0.000	0.000	0.002	0.000	**0.002**
TOTAL	**4**	**0.000**	**0.000**	**0.004**	**0.000**	**0.004**

Months	Load Shedding due to Grid Restriction in MUs								
	To restrict over drawal at low frequency and low voltage					Due to TTC / ATC Violation			
	BYPL	BRPL	TPDDL	NDMC	MES	BYPL	BRPL	TPDDL	NDMC
Apr 2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May 2018	0.000	0.000	0.083	0.000	0.000	0.000	0.000	0.000	0.000
Jun 2018	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000
July 2018	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Aug. 2018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sept 2018	0.000	0.000	0.039	0.000	0.000	0.000	0.000	0.000	0.000
Oct. 2018	0.000	0.000	0.340	0.000	0.000	0.000	0.000	0.000	0.000
Nov. 2018	0.000	0.000	0.076	0.000	0.000	0.000	0.000	0.000	0.000
Dec. 2018	0.000	0.000	0.102	0.000	0.000	0.000	0.000	0.000	0.000
Jan. 2019	0.000	0.000	0.648	0.000	0.000	0.000	0.000	0.000	0.000
Feb. 2019	0.000	0.000	0.072	0.000	0.000	0.000	0.000	0.000	0.000
Mar. 2019	0.000	0.000	0.125	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	**0.000**	**0.009**	**1.493**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Month	Load Shedding due to Transmission Constraints in Central Sector Transmission System in MUs				Total in MUs	Total Shedding due to Grid Restrictions in MUs
	BYPL	BRPL	TPDDL	NDMC		
Apr 2018	0.000	0.000	0.000	0.000	**0.000**	**0.000**
May 2018	0.000	0.000	0.000	0.000	**0.083**	**0.083**
Jun 2018	0.000	0.000	0.000	0.000	**0.008**	**0.008**
July 2018	0.000	0.000	0.000	0.000	**0.009**	**0.009**
Aug. 2018	0.000	0.000	0.000	0.000	**0.000**	**0.000**
Sept 2018	0.069	0.000	0.000	0.000	**0.108**	**0.108**
Oct. 2018	0.000	0.000	0.000	0.000	**0.340**	**0.340**
Nov. 2018	0.000	0.000	0.000	0.000	**0.076**	**0.076**
Dec. 2018	0.000	0.000	0.000	0.000	**0.102**	**0.102**
Jan. 2019	0.000	0.000	0.000	0.000	**0.648**	**0.648**
Feb. 2019	0.000	0.000	0.000	0.000	**0.072**	**0.074**
Mar. 2019	0.003	0.099	0.000	0.000	**0.227**	**0.229**
TOTAL	**0.072**	**0.099**	**0.000**	**0.000**	**1.673**	**1.677**

Month	Load Shedding due to Trippings / Break-downs / Shut-downs / Constraints in DTL System in MUs					Total in MUs
	BYPL	BRPL	TPDDL	NDMC	MES	
Apr 2018	0.055	0.509	0.080	0.000	0.006	**0.650**
May 2018	0.704	0.659	0.302	0.075	0.000	**1.740**
Jun 2018	0.054	0.097	0.033	0.012	0.000	**0.196**
July 2018	0.147	0.097	0.119	0.000	0.000	**0.363**
Aug. 2018	0.066	0.166	0.105	0.000	0.000	**0.337**
Sept 2018	0.073	0.028	0.034	0.000	0.000	**0.135**
Oct. 2018	0.013	0.015	0.055	0.000	0.000	**0.083**
Nov. 2018	0.072	0.045	0.027	0.009	0.000	**0.153**
Dec. 2018	0.101	0.073	0.026	0.000	0.000	**0.200**
Jan. 2019	0.030	0.089	0.023	0.000	0.000	**0.142**
Feb. 2019	0.031	0.101	0.023	0.000	0.000	**0.155**
Mar. 2019	0.004	0.055	0.066	0.000	0.000	**0.125**
TOTAL	1.350	**1.934**	**0.893**	**0.096**	**0.006**	**4.279**

Months	Load shedding due to Constraints in Discoms System in MUs				Load shedding due to Shut-downs / Break-downs / Trippings in the System of other utilities in MUs				
	BYPL	BRPL	TPDDL	NDMC	BYPL	BRPL	TPDDL	NDMC	Total
Apr 2018	0.051	0.661	0.080	0.000	0.000	0.007	0.005	0.000	**0.012**
May 2018	0.129	1.615	0.171	0.000	0.000	0.000	0.003	0.000	**0.003**
Jun 2018	0.222	1.926	0.298	0.008	0.000	0.012	0.025	0.000	**0.037**
July 2018	0.132	1.866	0.396	0.000	0.000	0.016	0.011	0.000	**0.027**
Aug. 2018	0.049	1.353	0.178	0.000	0.000	0.007	0.014	0.000	**0.021**
Sept 2018	0.117	0.552	0.129	0.000	0.000	0.000	0.000	0.000	**0.000**
Oct. 2018	0.061	0.448	0.060	0.000	0.000	0.000	0.003	0.000	**0.003**
Nov. 2018	0.024	0.164	0.031	0.000	0.000	0.000	0.000	0.000	**0.000**
Dec. 2018	0.017	0.155	0.131	0.000	0.000	0.000	0.000	0.000	**0.000**
Jan. 2019	0.032	0.189	0.082	0.000	0.000	0.000	0.000	0.000	**0.000**
Feb. 2019	0.008	0.177	0.037	0.000	0.000	0.000	0.000	0.000	**0.000**
Mar. 2019	0.023	0.134	0.074	0.000	0.000	0.003	0.005	0.000	**0.008**
TOTAL	0.865	9.240	**1.667**	**0.008**	**0.000**	**0.045**	**0.066**	**0.000**	**0.111**

Month	Load shedding carried out in theft prone areas in MUs			Total shedding due to T& D Constraints in MUs	Total Load Sheddin g in MUs	Net Consumpti on in MUs	Max Demand met in MW	Date	Time in Hrs.
	BYPL	BRPL	TPDDL						
Apr 2018	0.000	0.000	0.000	**1.455**	**1.455**	2633.927	5200	27.04.2018	15:34:54
May 2018	0.000	0.000	0.000	**3.658**	**3.741**	3415.160	6442	30.05.2018	15:42:30
Jun 2018	0.000	0.000	0.000	**2.687**	**2.695**	3820.913	6934	08.06.2018	15:28:33
July 2018	0.000	0.000	0.000	**2.784**	**2.793**	3682.297	7016	10.07.2018	15:26:49
Aug. 2018	0.000	0.000	0.000	**1.938**	**1.938**	3532.162	5937	17.08.2018	22:46:00
Sept 2018	0.000	0.000	0.000	**0.933**	**1.041**	2923.534	5358	01.09.2018	00:02:01
Oct. 2018	0.000	0.000	0.000	**0.655**	**0.995**	2500.393	4713	05.10.2018	11:42:49
Nov. 2018	0.000	0.000	0.000	**0.372**	**0.448**	1837.778	3788	02.11.2018	18:21:11
Dec. 2018	0.000	0.000	0.000	**0.503**	**0.605**	1997.712	4417	28.12.2018	10:01:49
Jan. 2019	0.000	0.000	0.000	**0.445**	**1.093**	2141.056	4472	01.01.2019	10:33:04
Feb. 2019	0.000	0.000	0.000	**0.377**	**0.451**	1855.490	4386	03.02.2019	10:20:56
Mar. 2019	0.000	0.000	0.000	**0.364**	**0.593**	1930.121	4016	01.03.2019	10:10:19
TOTAL	0.000	0.000	**0.000**	**16.171**	**17.848**	**32270.543**	**7016**	10.07.2018	15:26:49

Month	Shedding at the time of Peak Demand in MW	Un-restricted Demand in MW	Maximum Un-restricted Demand in MW	Date	Time in Hrs.	Demand at that Time in MW	Shedding at that time in MW
Apr 2018	0	**5200**	**5200**	27.04.2018	15:34:54	5200	0
May 2018	10	**6452**	**6452**	30.05.2018	15:42:30	6442	10
Jun 2018	3	**6937**	**6937**	08.06.2018	15:28:33	6934	3
July 2018	0	**7016**	**7016**	10.07.2018	15:26:49	7016	0
Aug. 2018	0	**5937**	**5937**	17.08.2018	22:46:00	5937	0
Sept 2018	0	**5358**	**5358**	01.09.2018	00:02:01	5358	0
Oct. 2018	0	**4713**	**4774**	04.10.2018	15:35:50	4704	70
Nov. 2018	0	**3788**	**3788**	02.11.2018	18:21:11	3788	0
Dec. 2018	0	**4417**	**4417**	28.12.2018	10:01:49	4417	0
Jan. 2019	0	**4472**	**4472**	01.01.2019	10:33:04	4472	0
Feb. 2019	12	**4398**	**4398**	03.02.2019	10:20:56	4386	12
Mar. 2019	0	**4016**	**4016**	01.03.2019	10:10:19	4016	0
TOTAL	0	**7016**	**7016**	10.07.2018	15:26:49	**7016**	0

9.15 DEMAND - AVAILABILITY-DEMAND POSITION OF DELHI AT THE TIME OF PEAK DEMAND MET DURING 2018-19

Month	Date	Time of peak demand in Hrs.	Generation within Delhi in MW						
			GT	Pragati	Bawana	BTPS	TOWMCL	EDWPCL	DMSW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Apr 2018	27	15:34:00	68	284	564	187	17	-1	17
May 2018	30	15:42:30	131	280	620	365	18	4	19
Jun 2018	8	15:28:33	137	282	665	371	18	2	17
July 2018	10	15:26:58	164	277	661	364	12	4	5
Aug 2018	17	22:46:00	74	94	293	302	16	3	15
Sept 2018	1	00:02:01	70	144	434	300	18	-1	-1
Oct. 2018	5	11:42:49	116	294	790	305	19	7	13
Nov. 2018	2	18:21:11	74	156	692	-3	16	-1	6
Dec. 2018	28	10:01:49	40	161	632	0	17	-1	6
Jan. 2019	1	10:33:04	42	162	636	0	16	10	15
Feb. 2019	3	10:20:56	117	283	-7	0	16	0	16
Mar 2019	1	10:10:19	112	-2	24	0	11	7	15
TOTAL	10	15:26:58	164	277	661	364	12	4	5

Month	Date	Time of peak demand in Hrs	Total	Import from the Grid in MW	Schedule from the Grid in MW	OD (-) / UD (+) in MW	Demand met in MW	Shedding in MW	Un-Restricted Demand in MW
	(1)	(2)	(10)= Sum (3 to 9)	(11)	(12)	(13)= (12)- (11)	(14)= (10)+ (11)	(15)	(16)= (14)+ (15)
Apr 2018	27	15:34:00	1136	4064	3931	-133	5200	0	**5200**
May 2018	30	15:42:30	1437	5005	4882	-123	6442	10	**6452**
Jun 2018	8	15:28:33	1492	5442	5447	5	6934	3	**6937**
July 2018	10	15:26:58	1487	5529	5537	8	7016	0	**7016**
Aug 2018	17	22:46:00	797	5140	5176	36	5937	6	**5943**
Sept 2018	1	00:02:01	964	4394	4203	-191	5358	0	**5358**
Oct. 2018	5	11:42:49	1544	3169	3039	-130	4713	0	**4713**
Nov. 2018	2	18:21:11	940	2848	2714	-134	3788	0	**3788**
Dec. 2018	28	10:01:49	855	3562	3345	-217	4417	0	**4417**
Jan. 2019	1	10:33:04	881	3591	3476	-115	4472	0	**4472**
Feb. 2019	3	10:20:56	425	3961	3683	-278	4386	12	**4398**
Mar 2019	1	10:10:19	167	3849	3672	-177	4016	0	**4016**
Max	10	15:26:58	1487	5529	5537	8	7016	0	**7016**

9.16 POWER AVAILABILITY- DEMAND POSITION AT THE TIME OF OCCURRENCE OF MAXIMUM UNRESTRICTED DEMAND DURING 2018-19

Month	Date	Time of peak demand in Hrs.	Generation within Delhi in MW						
			GT	Pragati	Bawana	BTPS	TOWMCL	EDWPCL	DMSW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Apr 2018	27	15:34:00	68	284	564	187	17	-1	17
May 2018	30	15:42:30	131	280	620	365	18	4	19
Jun 2018	8	15:28:33	137	282	665	371	18	2	17
July 2018	10	15:26:58	164	277	661	364	12	4	5
Aug 2018	17	22:46:00	74	94	293	302	16	3	15
Sept 2018	1	00:02:01	70	144	434	300	18	-1	-1
Oct. 2018	4	15:35:50	34	142	869	361	10	-1	14
Nov. 2018	2	18:21:11	74	156	692	-3	16	-1	6
Dec. 2018	28	10:01:49	40	161	632	0	17	-1	6
Jan. 2019	1	10:33:04	42	162	636	0	16	10	15
Feb. 2019	3	10:20:56	117	283	-7	0	16	0	16
Mar 2019	1	10:10:19	112	-2	24	0	11	7	15
TOTAL	10	15:26:58	164	277	661	364	12	4	5

Month	Date	Time of peak demand in Hrs	Total	Import from the Grid in MW	Schedule from the Grid in MW	OD (-) / UD (+) in MW	Demand met in MW	Sheddin g in MW	Un-Restricted Demand in MW
	(1)	(2)	(10)= sum(3 to 9)	(11)	(12)	(13)= (12) -(11)	(14)= (10)+ (11)	(15)	(16)= (14)+ (15)
Apr 2018	27	15:34:00	1136	4064	3931	-133	5200	0	**5200**
May 2018	30	15:42:30	1437	5005	4882	-123	6442	10	**6452**
Jun 2018	8	15:28:33	1492	5442	5447	5	6934	3	**6937**
July 2018	10	15:26:58	1487	5529	5537	8	7016	0	**7016**
Aug 2018	17	22:46:00	797	5140	5176	36	5937	6	**5943**
Sept 2018	1	00:02:01	964	4394	4203	-191	5358	0	**5358**
Oct. 2018	4	15:35:50	1429	3275	3063	-212	4704	70	**4774**
Nov. 2018	2	18:21:11	940	2848	2714	-134	3788	0	**3788**
Dec. 2018	28	10:01:49	855	3562	3345	-217	4417	0	**4417**
Jan. 2019	1	10:33:04	881	3591	3476	-115	4472	0	**4472**
Feb. 2019	3	10:20:56	425	3961	3683	-278	4386	12	**4398**
Mar 2019	1	10:10:19	167	3849	3672	-177	4016	0	**4016**
Max	10	15:26:58	1487	5529	5537	8	7016	0	**7016**

9.17 LOAD PATTERN

9.17.1 SUMMER SEASON

9.17.1.1 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM PEAK DEMAND MET DURING SUMMER 2018-19 – 7016 MW at 15:26:59 Hrs. on 10.07.2018

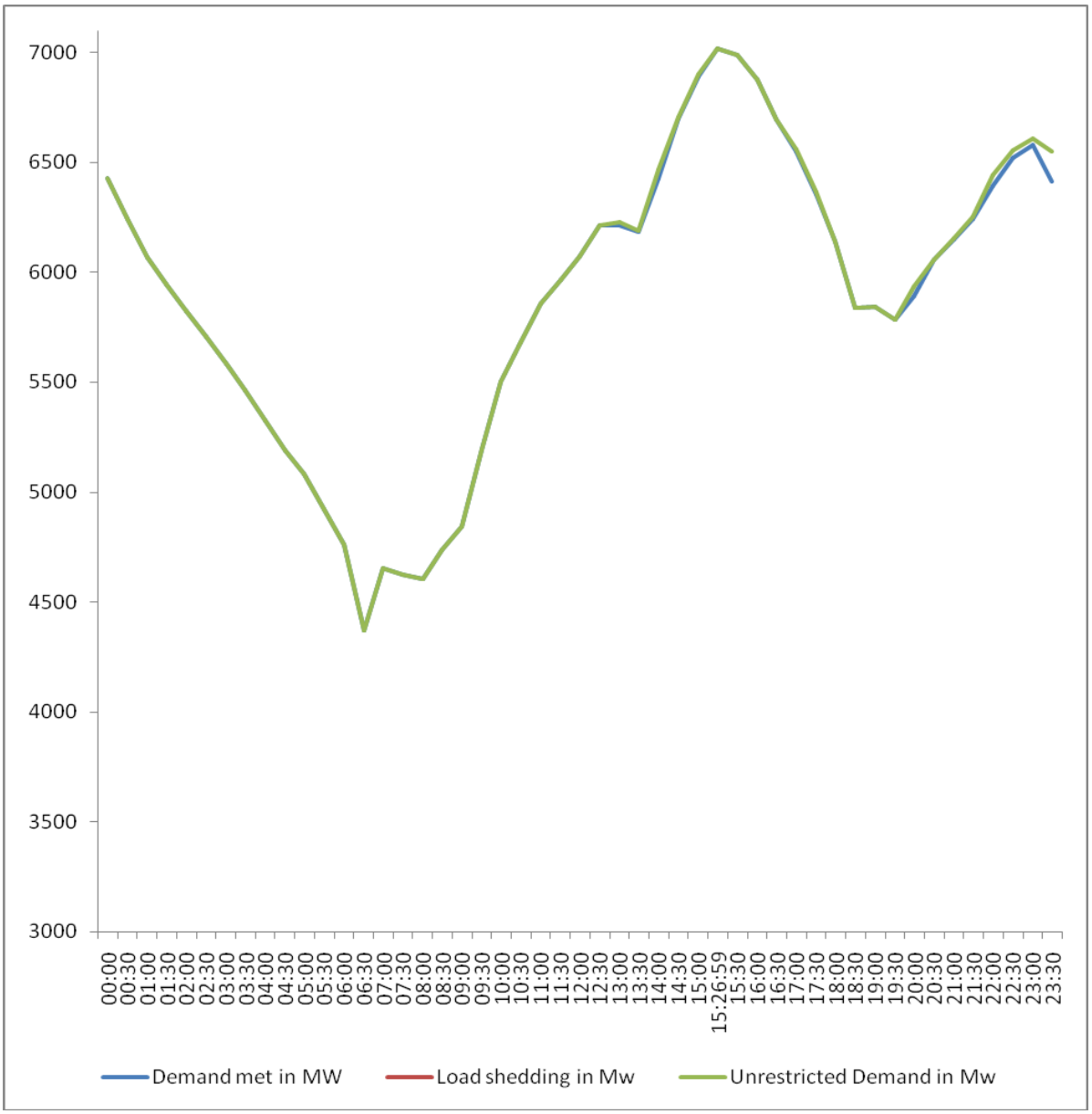
Time (Hrs).	Demand in MW	Load Shedding in MW	Un-Restricted Demand in MW
00:00	6430	0	6430
00:30	6243	0	6243
01:00	6065	0	6065
01:30	5946	0	5946
02:00	5825	0	5825
02:30	5709	0	5709
03:00	5586	0	5586
03:30	5462	0	5462
04:00	5328	0	5328
04:30	5190	0	5190
05:00	5083	0	5083
05:30	4923	0	4923
06:00	4760	0	4760
06:30	4372	0	4372
07:00	4654	0	4654
07:30	4622	0	4622
08:00	4602	0	4602
08:30	4737	0	4737
09:00	4844	0	4844
09:30	5196	0	5196
10:00	5503	0	5503
10:30	5682	0	5682
11:00	5856	0	5856
11:30	5962	0	5962
12:00	6070	0	6070
12:30	6212	0	6212
13:00	6214	12	6226
13:30	6182	7	6189
14:00	6426	39	6465
14:30	6701	7	6708
15:00	6892	7	6899
15:26:59	**7016**	0	7016
15:30	6988	0	6988
16:00	6875	0	6875
16:30	6696	0	6696
17:00	6550	10	6560
17:30	6352	10	6362
18:00	6142	0	6142
18:30	5836	0	5836
19:00	5842	0	5842
19:30	5782	0	5782
20:00	5891	47	5938
20:30	6056	0	6056
21:00	6151	4	6155
21:30	6242	10	6252
22:00	6393	48	6441
22:30	6518	35	6553
23:00	6577	29	6606
23:30	6414	133	6547
Energy Consumption in MUs	140.397	0.278	140.675

9.17.1.2 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM UNRESTRICTED DEMAND DURING SUMMER 2018-19 – 7016 MW at 15:26:59 Hrs. on 10.07.2018.

Time (Hrs).	Demand in MW	Load Shedding in MW	Un-Restricted Demand in MW
00:00	6430	0	6430
00:30	6243	0	6243
01:00	6065	0	6065
01:30	5946	0	5946
02:00	5825	0	5825
02:30	5709	0	5709
03:00	5586	0	5586
03:30	5462	0	5462
04:00	5328	0	5328
04:30	5190	0	5190
05:00	5083	0	5083
05:30	4923	0	4923
06:00	4760	0	4760
06:30	4372	0	4372
07:00	4654	0	4654
07:30	4622	0	4622
08:00	4602	0	4602
08:30	4737	0	4737
09:00	4844	0	4844
09:30	5196	0	5196
10:00	5503	0	5503
10:30	5682	0	5682
11:00	5856	0	5856
11:30	5962	0	5962
12:00	6070	0	6070
12:30	6212	0	6212
13:00	6214	12	6226
13:30	6182	7	6189
14:00	6426	39	6465
14:30	6701	7	6708
15:00	6892	7	6899
15:26:59	7016	0	**7016**
15:30	6988	0	6988
16:00	6875	0	6875
16:30	6696	0	6696
17:00	6550	10	6560
17:30	6352	10	6362
18:00	6142	0	6142
18:30	5836	0	5836
19:00	5842	0	5842
19:30	5782	0	5782
20:00	5891	47	5938
20:30	6056	0	6056
21:00	6151	4	6155
21:30	6242	10	6252
22:00	6393	48	6441
22:30	6518	35	6553
23:00	6577	29	6606
23:30	6414	133	6547
Energy Consumption in MUs	140.397	0.278	140.675

9.17.1.3 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM ENERGY CONSUMED DURING SUMMER 2018-19 – 140.397 MUs on 10.07.2018.

Time (Hrs).	Demand in MW	Load Shedding in MW	Un-Restricted Demand in MW
00:00	6430	0	6430
00:30	6243	0	6243
01:00	6065	0	6065
01:30	5946	0	5946
02:00	5825	0	5825
02:30	5709	0	5709
03:00	5586	0	5586
03:30	5462	0	5462
04:00	5328	0	5328
04:30	5190	0	5190
05:00	5083	0	5083
05:30	4923	0	4923
06:00	4760	0	4760
06:30	4372	0	4372
07:00	4654	0	4654
07:30	4622	0	4622
08:00	4602	0	4602
08:30	4737	0	4737
09:00	4844	0	4844
09:30	5196	0	5196
10:00	5503	0	5503
10:30	5682	0	5682
11:00	5856	0	5856
11:30	5962	0	5962
12:00	6070	0	6070
12:30	6212	0	6212
13:00	6214	12	6226
13:30	6182	7	6189
14:00	6426	39	6465
14:30	6701	7	6708
15:00	6892	7	6899
15:26:59	7016	0	7016
15:30	6988	0	6988
16:00	6875	0	6875
16:30	6696	0	6696
17:00	6550	10	6560
17:30	6352	10	6362
18:00	6142	0	6142
18:30	5836	0	5836
19:00	5842	0	5842
19:30	5782	0	5782
20:00	5891	47	5938
20:30	6056	0	6056
21:00	6151	4	6155
21:30	6242	10	6252
22:00	6393	48	6441
22:30	6518	35	6553
23:00	6577	29	6606
23:30	6414	133	6547
Energy Consumption in MUs	**140.397**	0.278	140.675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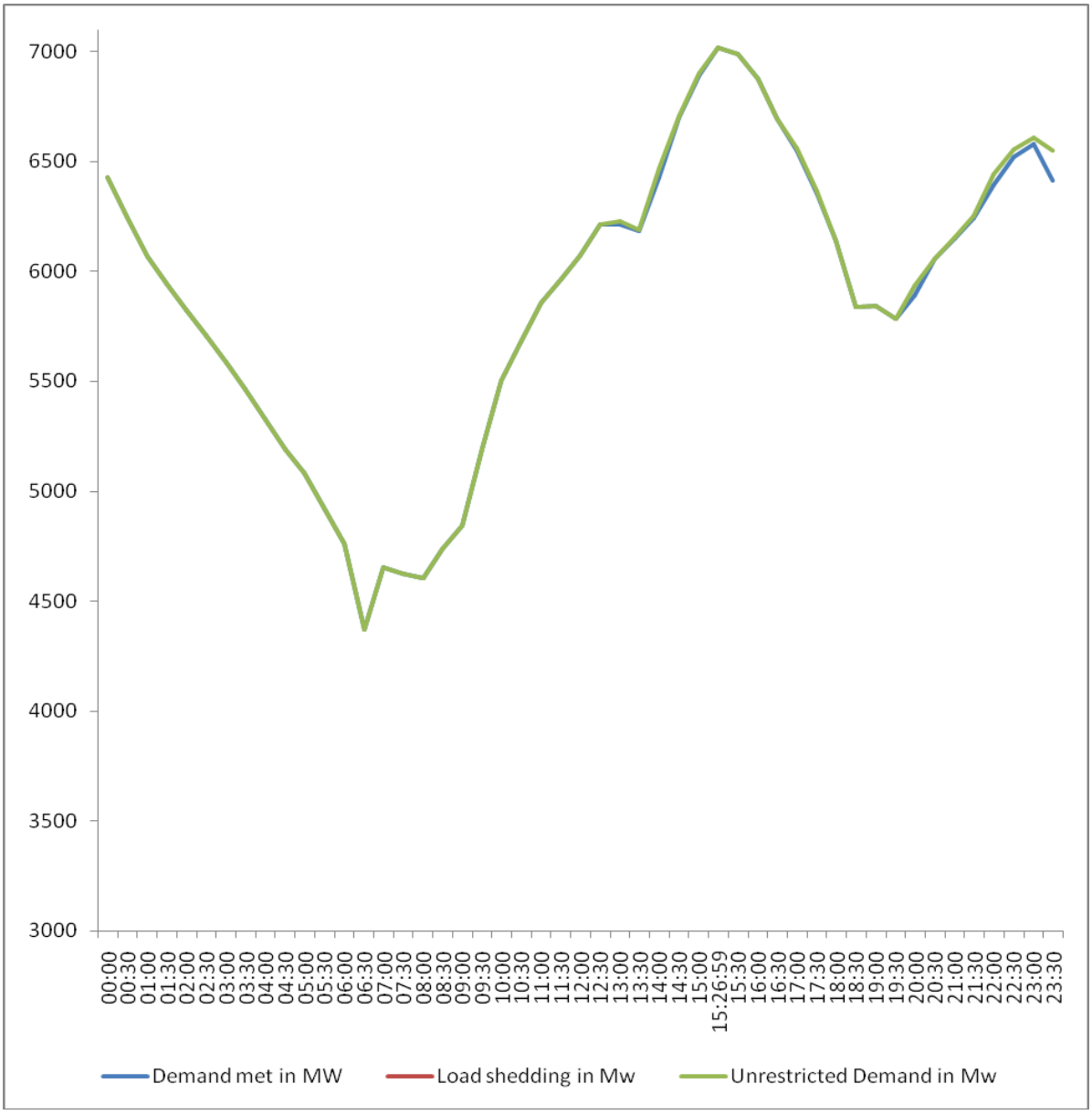
Demand met in MW
Load shedding in Mw
Unrestricted Demand in Mw

9.17.1.4 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM UNRESTRICTED ENERGY DEMAND DURING SUMMER 2018-19 – 140.675 MUs on 10.07.2018.

Time (Hrs).	Demand in MW	Load Shedding in MW	Un-Restricted Demand in MW
00:00	6430	0	6430
00:30	6243	0	6243
01:00	6065	0	6065
01:30	5946	0	5946
02:00	5825	0	5825
02:30	5709	0	5709
03:00	5586	0	5586
03:30	5462	0	5462
04:00	5328	0	5328
04:30	5190	0	5190
05:00	5083	0	5083
05:30	4923	0	4923
06:00	4760	0	4760
06:30	4372	0	4372
07:00	4654	0	4654
07:30	4622	0	4622
08:00	4602	0	4602
08:30	4737	0	4737
09:00	4844	0	4844
09:30	5196	0	5196
10:00	5503	0	5503
10:30	5682	0	5682
11:00	5856	0	5856
11:30	5962	0	5962
12:00	6070	0	6070
12:30	6212	0	6212
13:00	6214	12	6226
13:30	6182	7	6189
14:00	6426	39	6465
14:30	6701	7	6708
15:00	6892	7	6899
15:26:59	7016	0	7016
15:30	6988	0	6988
16:00	6875	0	6875
16:30	6696	0	6696
17:00	6550	10	6560
17:30	6352	10	6362
18:00	6142	0	6142
18:30	5836	0	5836
19:00	5842	0	5842
19:30	5782	0	5782
20:00	5891	47	5938
20:30	6056	0	6056
21:00	6151	4	6155
21:30	6242	10	6252
22:00	6393	48	6441
22:30	6518	35	6553
23:00	6577	29	6606
23:30	6414	133	6547
Energy Consumption in MUs	140.397	0.278	**140.675**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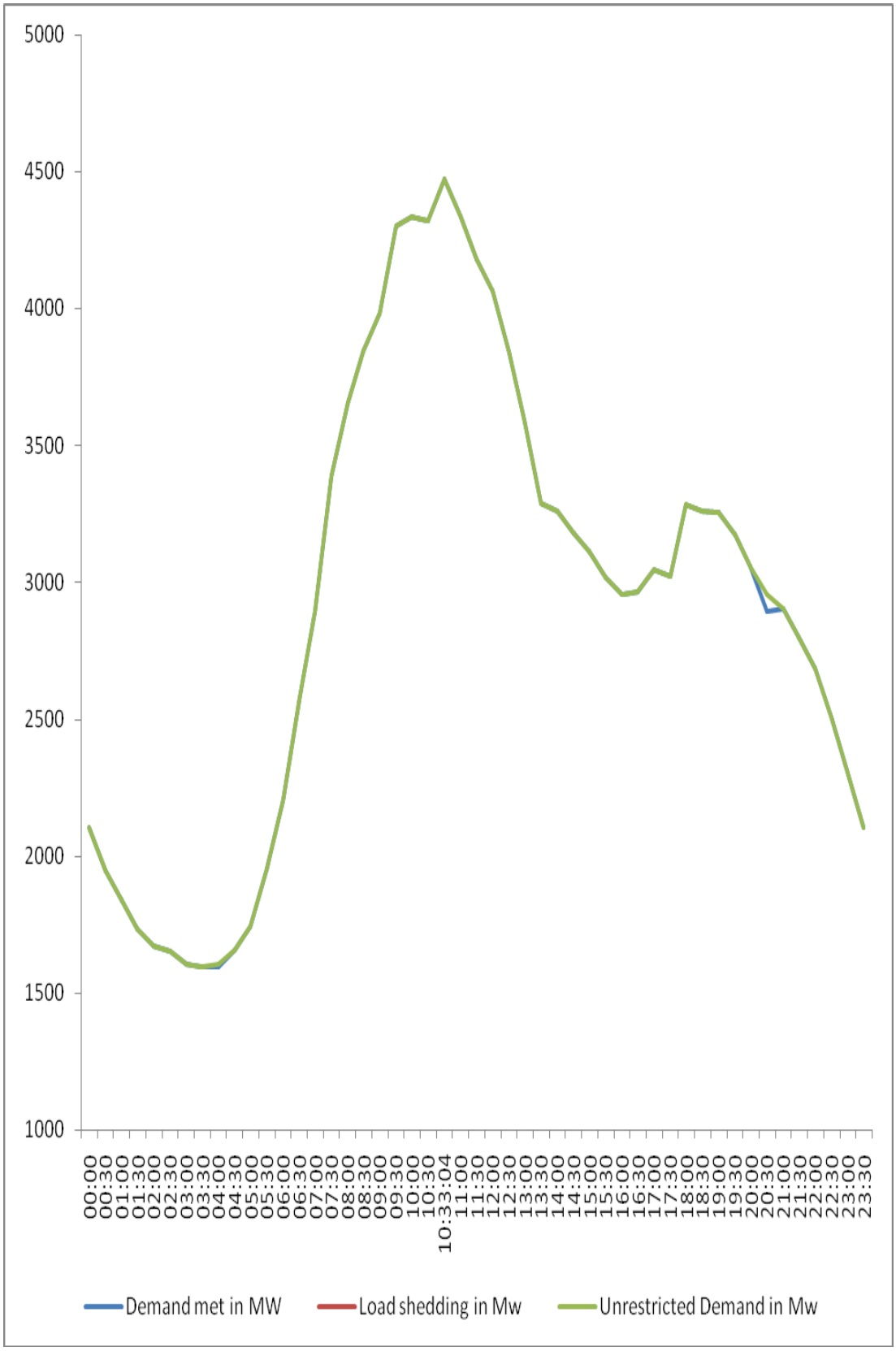
Demand met in MW
Load shedding in Mw
Unrestricted Demand in Mw

9.17.2 WINTER LOAD PATTERN

9.17.2.1 LOAD PATTERN OF DELHI ON THE DAY OF PEAK DEMAND MET DURING WINTER 2018-19 - 4472 MW at 10:33:04 Hrs. on 01.01.2019.

All figures in MW

Hrs.	Demand	Load Shedding	Un-Restricted Demand
00:00	2104	0	2104
00:30	1946	0	1946
01:00	1836	0	1836
01:30	1734	0	1734
02:00	1669	0	1669
02:30	1652	0	1652
03:00	1605	0	1605
03:30	1593	0	1593
04:00	1596	6	1602
04:30	1656	0	1656
05:00	1743	0	1743
05:30	1949	0	1949
06:00	2203	0	2203
06:30	2572	0	2572
07:00	2892	0	2892
07:30	3389	0	3389
08:00	3653	0	3653
08:30	3844	0	3844
09:00	3983	0	3983
09:30	4302	0	4302
10:00	4336	0	4336
10:30	4322	0	4322
10:33:04	4472	0	4472
11:00	4333	0	4333
11:30	4183	0	4183
12:00	4063	0	4063
12:30	3839	0	3839
13:00	3588	0	3588
13:30	3290	0	3290
14:00	3258	0	3258
14:30	3177	0	3177
15:00	3113	0	3113
15:30	3018	0	3018
16:00	2954	0	2954
16:30	2963	0	2963
17:00	3046	0	3046
17:30	3021	0	3021
18:00	3283	0	3283
18:30	3261	0	3261
19:00	3255	0	3255
19:30	3174	0	3174
20:00	3057	0	3057
20:30	2895	62	2957
21:00	2902	0	2902
21:30	2798	0	2798
22:00	2682	0	2682
22:30	2504	0	2504
23:00	2299	0	2299
23:30	2102	0	2102
Energy Consumption in MUs	68.414	0.012	68.426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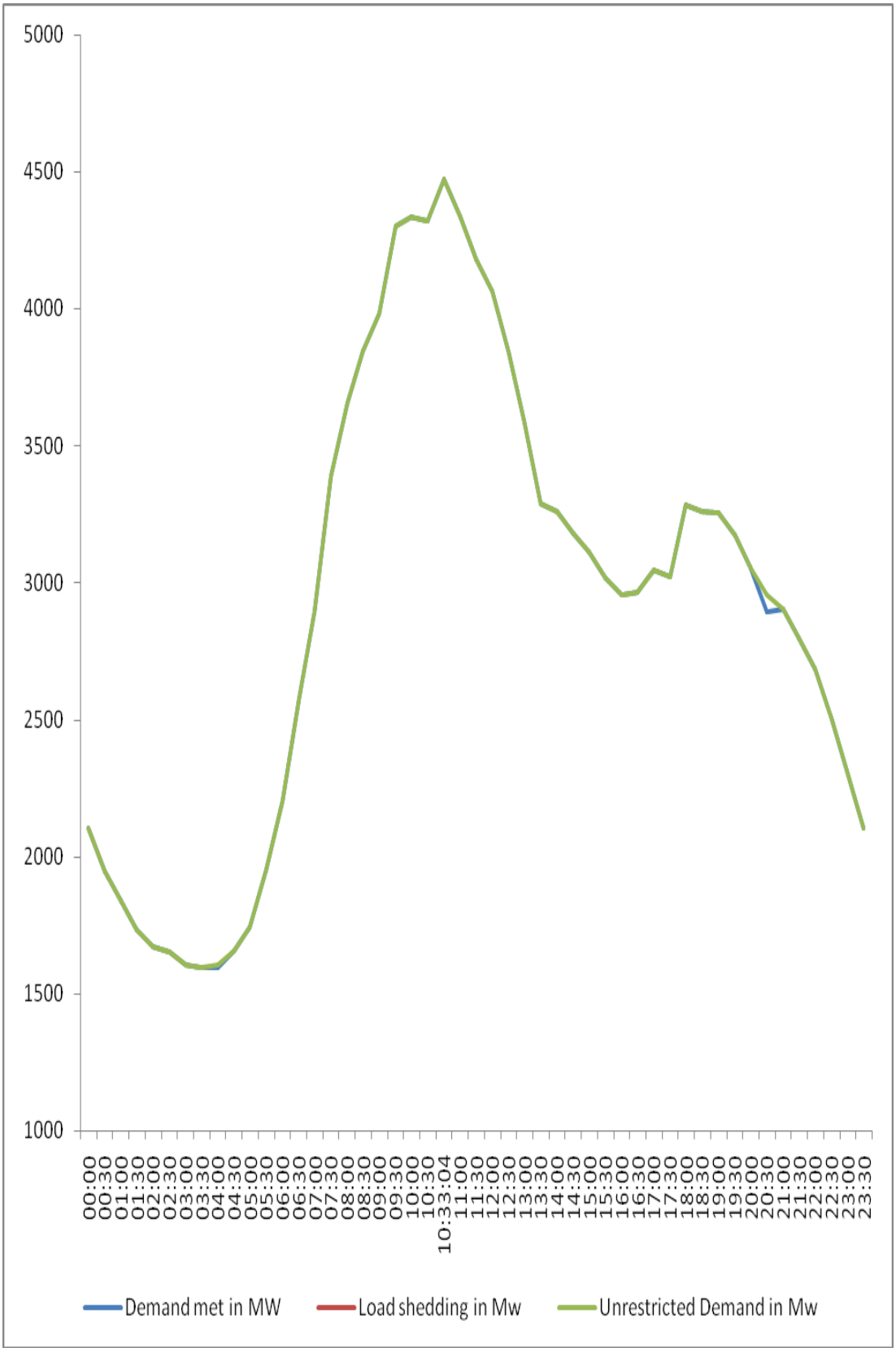
Demand met in MW
Load shedding in Mw
Unrestricted Demand in Mw

9.17.2.2 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM UN-RESTRICTED DEMAND WINTER 2018-19 - 4472 MW at 10:33:04 Hrs. on 01.01.2019.

All figures in MW

Hrs.	Demand	Load Shedding	Un-Restricted Demand
00:00	2104	0	2104
00:30	1946	0	1946
01:00	1836	0	1836
01:30	1734	0	1734
02:00	1669	0	1669
02:30	1652	0	1652
03:00	1605	0	1605
03:30	1593	0	1593
04:00	1596	6	1602
04:30	1656	0	1656
05:00	1743	0	1743
05:30	1949	0	1949
06:00	2203	0	2203
06:30	2572	0	2572
07:00	2892	0	2892
07:30	3389	0	3389
08:00	3653	0	3653
08:30	3844	0	3844
09:00	3983	0	3983
09:30	4302	0	4302
10:00	4336	0	4336
10:30	4322	0	4322
10:33:04	4472	0	4472
11:00	4333	0	4333
11:30	4183	0	4183
12:00	4063	0	4063
12:30	3839	0	3839
13:00	3588	0	3588
13:30	3290	0	3290
14:00	3258	0	3258
14:30	3177	0	3177
15:00	3113	0	3113
15:30	3018	0	3018
16:00	2954	0	2954
16:30	2963	0	2963
17:00	3046	0	3046
17:30	3021	0	3021
18:00	3283	0	3283
18:30	3261	0	3261
19:00	3255	0	3255
19:30	3174	0	3174
20:00	3057	0	3057
20:30	2895	62	2957
21:00	2902	0	2902
21:30	2798	0	2798
22:00	2682	0	2682
22:30	2504	0	2504
23:00	2299	0	2299
23:30	2102	0	2102
Energy Consumption in MUs	68.414	0.012	68.426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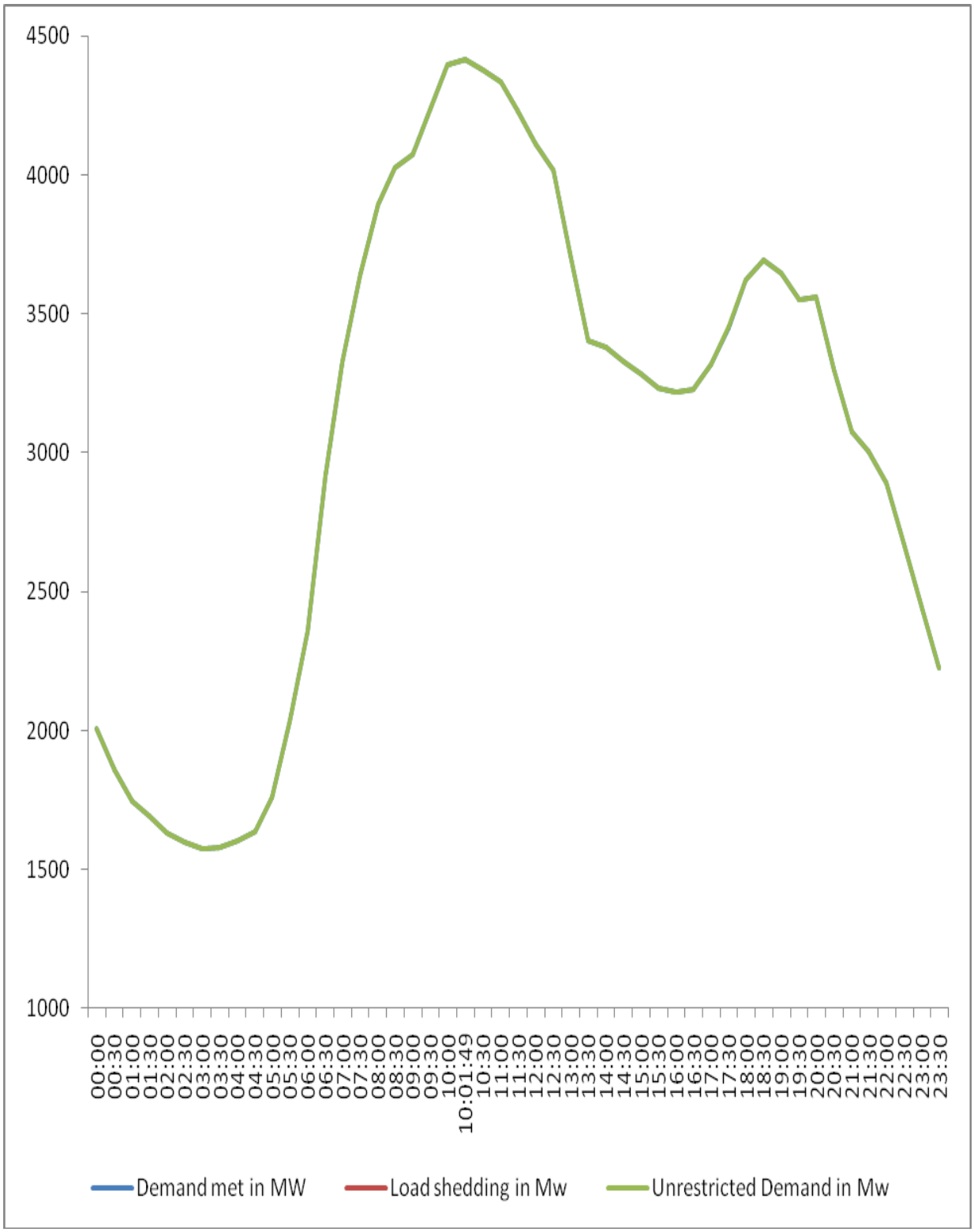
Demand met in MW
Load shedding in Mw
Unrestricted Demand in Mw

9.17.2.3 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM ENERGY CONSUMED DURING WINTER 2018-19 – 73.674 MUs ON 28.12.2018.

All figures in MW

Hrs.	Demand	Load Shedding	Un-Restricted Demand
00:00	2005	0	2005
00:30	1860	0	1860
01:00	1745	0	1745
01:30	1691	0	1691
02:00	1633	0	1633
02:30	1600	0	1600
03:00	1572	0	1572
03:30	1579	0	1579
04:00	1603	0	1603
04:30	1638	0	1638
05:00	1761	0	1761
05:30	2034	0	2034
06:00	2360	0	2360
06:30	2917	0	2917
07:00	3326	0	3326
07:30	3642	0	3642
08:00	3892	0	3892
08:30	4028	0	4028
09:00	4075	0	4075
09:30	4240	0	4240
10:00	4397	0	4397
10:01:49	4417	0	4417
10:30	4376	0	4376
11:00	4335	0	4335
11:30	4228	0	4228
12:00	4113	0	4113
12:30	4015	0	4015
13:00	3710	0	3710
13:30	3402	0	3402
14:00	3377	0	3377
14:30	3328	0	3328
15:00	3284	0	3284
15:30	3235	0	3235
16:00	3218	0	3218
16:30	3228	0	3228
17:00	3317	0	3317
17:30	3449	7	3456
18:00	3621	0	3621
18:30	3692	0	3692
19:00	3646	0	3646
19:30	3551	0	3551
20:00	3561	0	3561
20:30	3300	0	3300
21:00	3073	0	3073
21:30	3007	0	3007
22:00	2889	0	2889
22:30	2667	0	2667
23:00	2441	0	2441
23:30	2224	0	2224
Energy Consumption in MUs	73.674	0.002	73.676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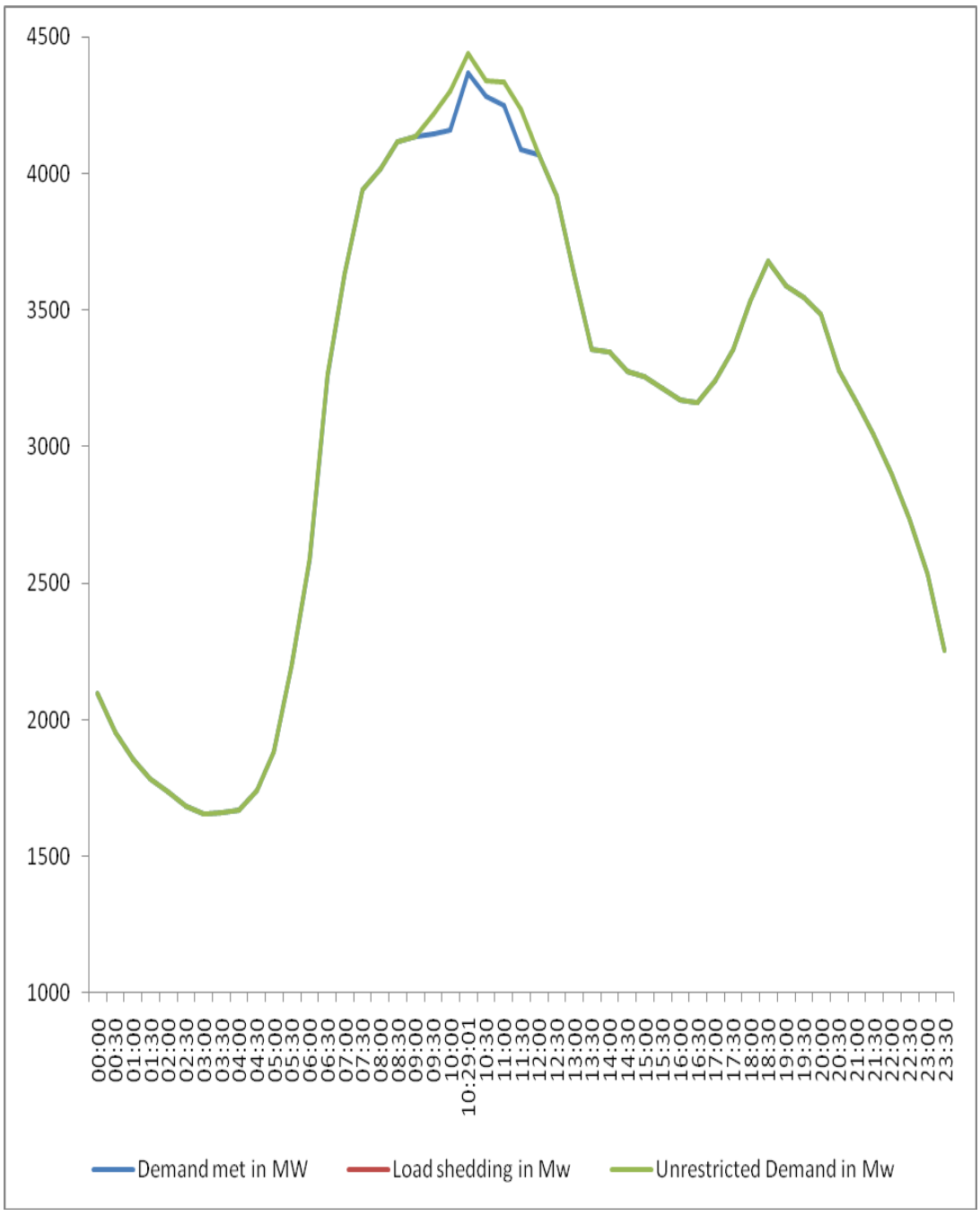
Demand met in MW
Load shedding in Mw
Unrestricted Demand in Mw

9.17.2.4 LOAD PATTERN OF DELHI ON THE DAY OF MAXIMUM UNRESTRICTED ENERGY DEMAND DURING WINTER 2018-19 – 73.808 MUs ON 18.01.2019.

All figures in MW

Hrs.	Demand met	Load Shedding	Un-Restricted Demand
00:00	2097	0	2097
00:30	1955	0	1955
01:00	1855	0	1855
01:30	1785	0	1785
02:00	1737	0	1737
02:30	1684	0	1684
03:00	1656	0	1656
03:30	1659	0	1659
04:00	1670	0	1670
04:30	1742	0	1742
05:00	1884	0	1884
05:30	2200	0	2200
06:00	2587	4	2591
06:30	3261	4	3265
07:00	3633	0	3633
07:30	3942	0	3942
08:00	4015	0	4015
08:30	4117	0	4117
09:00	4133	0	4133
09:30	4143	71	4214
10:00	4159	140	4299
10:29:01	4368	69	4437
10:30	4282	56	4338
11:00	4248	87	4335
11:30	4087	146	4233
12:00	4068	0	4068
12:30	3914	0	3914
13:00	3638	0	3638
13:30	3355	0	3355
14:00	3347	0	3347
14:30	3276	0	3276
15:00	3258	0	3258
15:30	3212	0	3212
16:00	3170	0	3170
16:30	3163	0	3163
17:00	3241	0	3241
17:30	3357	0	3357
18:00	3533	0	3533
18:30	3679	0	3679
19:00	3590	0	3590
19:30	3544	0	3544
20:00	3485	0	3485
20:30	3279	0	3279
21:00	3163	0	3163
21:30	3042	0	3042
22:00	2899	0	2899
22:30	2734	0	2734
23:00	2534	0	2534
23:30	2254	0	2254
Energy Consumption in MUs	73.526	0.282	73.808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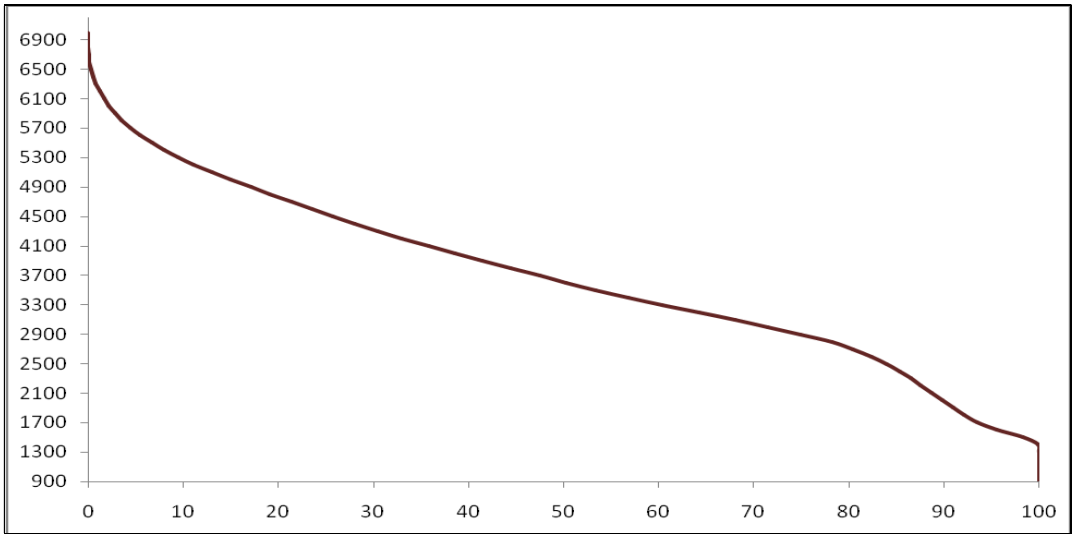
Demand met in MW
Load shedding in Mw
Unrestricted Demand in Mw

9.18 LOAD DURATION CURVE FOR 2018-19 (Based on SCADA)

LOAD REMAINED ABOVE IN MW	(%) OF TIME	LOAD REMAINED ABOVE IN MW	(%) OF TIME
7000	0.003	3900	41.510
6900	0.014	3800	44.418
6800	0.049	3700	47.574
6700	0.080	3600	50.351
6600	0.163	3500	53.382
6500	0.300	3400	56.784
6400	0.519	3300	60.374
6300	0.830	3200	64.318
6200	1.207	3100	68.091
6100	1.689	3000	71.555
6000	2.209	2900	74.940
5900	2.805	2800	78.242
5800	3.559	2700	80.474
5700	4.449	2600	82.372
5600	5.451	2500	84.041
5500	6.701	2400	85.314
5400	7.982	2300	86.513
5300	9.472	2200	87.594
5200	11.133	2100	88.739
5100	13.096	2000	89.857
5000	15.051	1900	90.953
4900	17.149	1800	92.080
4800	19.170	1700	93.453
4700	21.404	1600	95.557
4600	23.579	1500	98.288
4500	25.776	1400	99.900
4400	28.065	1300	99.994
4300	30.511	1200	99.997
4200	33.042	1100	99.997
4100	35.839	1000	99.997
4000	38.633	900	100.000



10 FREQUENCY SPECTRUM OF NORTHERN REGION [(NORTH-EAST-WEST)(NEW)] FOR 2018-19

Month	Frequency in Hz.			Frequency Variation inded (FVI)	Percentage of Time									
	Average Frequency (Hz.)	Maximum Instant Frequency (Hz.)	Minimum Instant Frequency (Hz.)		<49.20 HZ (%)	<49.70 HZ (%)	<49.80 HZ (%)	<49.90 HZ (%)	<50.00 HZ (%)	49.90-50.05 HZ (%)	50.05-50.10 HZ (%)	>50.10 Hz (%)	>50.20 Hz (%)	>50.20 HZ (%)
Apr 2018	49.97	50.21	49.62	0.047	0.00	0.02	0.73	12.69	65.90	79.36	7.11	1.12	0.00	0.00
May 2018	49.89	50.22	49.57	0.080	0.00	0.22	3.29	22.52	70.25	70.06	6.43	1.22	0.02	0.00
Jun 2018	49.98	50.24	49.60	0.050	0.00	0.14	1.41	12.53	58.79	76.45	9.72	1.62	0.04	0.00
July 2018	49.98	50.24	49.62	0.040	0.00	0.08	0.88	10.24	58.71	78.13	10.17	1.46	0.00	0.00
Aug 2018	49.98	50.18	49.64	0.040	0.00	0.06	1.04	10.88	60.46	80.37	7.91	1.17	0.00	0.00
Sept 2018	49.97	50.20	49.57	0.050	0.00	0.22	1.60	13.21	66.42	80.23	6.01	0.61	0.00	0.00
Oct. 2018	49.97	50.20	49.69	0.050	0.00	0.00	0.83	12.05	63.10	79.19	7.85	0.91	0.00	0.00
Nov. 2018	49.97	50.25	49.70	0.043	0.00	0.00	0.40	10.92	64.64	79.88	7.77	1.41	0.03	0.00
Dec. 2018	49.98	50.25	49.67	0.048	0.00	0.03	0.71	12.67	63.40	77.04	8.52	1.75	0.03	0.00
Jan. 2019	49.99	50.28	49.58	0.051	0.00	0.06	1.02	10.67	50.76	70.24	15.13	3.82	0.03	0.00
Feb. 2019	50.00	50.26	49.68	0.042	0.00	0.00	0.47	7.02	44.24	70.73	18.10	4.02	0.03	0.00
Mar 2019	49.99	50.30	49.64	0.047	0.00	0.00	0.80	9.47	48.35	71.07	15.41	3.83	0.06	0.00
2018-19	49.97	50.30	49.57	0.049	0.00	0.07	1.10	12.11	59.66	76.07	9.97	1.90	0.02	0.00

11 DETAILS OF UNDER FREQUECY RELAY TRIPPINGS OCCURRED IN 2018-19

MONTH	STAGE-1	STAGE-2	df/dt	TOTAL
APRIL 2018	0	0	0	0
MAY 2018	0	0	0	0
JUNE 2018	0	0	0	0
JULY 2018	0	0	0	0
AUGUST 2018	0	0	0	0
SEPTEMBER 2018	0	0	0	0
OCTOBER 2018	0	0	0	0
NOVEMBER 2018	0	0	0	0
DECEMBER 2018	0	0	0	0
JANUARY 2019	0	0	0	0
FEBRUARY 2019	01*	0	0	0
MARCH 2019	03*	0	0	0
TOTAL 2018-19	**04***	0	0	**04***

* Malfunctioning of Under Frequency Relays.

12 INTRASTATE TRANSMISSION LOSSES

12.1 WEEK WISE INTRASTATE TRANSMISSION LOSSES FOR 2018-19 (Based on SEM data)

Week No.	Avg Trans. Loss in %age	Actual drawal from the grid in Mus	Actual Ex-bus generation with in Delhi in Mus							
			RPH	GT	Pragati	BTPS	Bawana	MSW Bawana	EDW PCL	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)=sum(4 to 10)
1	0.98	55.086	-0.010	0.817	3.662	-0.057	10.805	0.422	0.111	15.751
2	0.99	464.031	-0.090	15.662	25.292	-0.339	80.105	2.923	0.621	124.174
3	1.01	421.331	-0.093	13.668	25.652	24.419	76.470	2.515	0.610	143.241
4	1.15	490.506	-0.065	16.256	35.414	26.863	64.931	2.626	0.066	146.092
5	1.04	527.724	-0.067	14.634	44.863	26.134	65.124	2.752	0.110	153.550
6	0.96	560.977	-0.062	12.302	35.003	33.914	56.173	2.747	0.642	140.718
7	0.83	587.054	-0.058	12.291	32.857	30.466	46.083	2.243	0.853	124.735
8	0.84	572.232	-0.092	6.435	45.225	52.513	71.152	2.057	0.803	178.093
9	0.86	623.303	-0.105	14.318	45.589	53.436	92.249	2.397	0.129	208.012
10	0.91	665.978	-0.101	16.090	45.526	51.737	94.559	2.115	0.517	210.442
11	0.95	699.463	-0.122	21.551	45.230	51.581	78.519	2.701	0.450	199.910
12	0.87	718.620	-0.139	22.295	44.705	50.847	71.666	1.936	0.399	191.709
13	0.92	683.871	-0.128	18.588	45.229	51.808	94.250	2.336	0.606	212.690
14	0.87	671.652	-0.081	19.371	44.099	51.393	63.650	2.616	0.243	181.292
15	0.88	674.627	-0.105	12.227	45.012	51.463	72.754	1.940	0.102	183.392
16	0.94	691.100	-0.145	21.235	44.607	51.595	84.290	1.535	0.172	203.289
17	1.00	659.499	-0.152	17.984	44.910	51.028	67.800	2.150	0.456	184.175
18	0.85	615.409	-0.061	15.043	38.789	50.542	30.641	2.559	0.225	137.738
19	0.82	659.930	-0.092	11.934	32.272	45.450	44.101	1.867	0.608	136.141
20	0.81	652.761	-0.109	13.070	27.101	44.294	52.328	2.420	0.081	139.186
21	0.90	690.680	-0.095	12.920	20.665	51.667	32.777	2.437	0.569	120.940
22	0.87	637.122	-0.128	15.204	20.372	51.031	69.303	2.458	0.265	158.505
23	0.91	594.953	-0.088	11.047	23.665	51.345	70.106	0.572	0.150	156.798
24	0.68	512.517	-0.138	5.053	19.674	50.132	73.305	1.924	0.106	150.056
25	0.81	565.554	-0.108	5.830	25.995	51.205	76.332	1.952	0.812	162.018
26	0.89	536.904	-0.127	8.269	26.025	50.638	87.032	2.508	0.168	174.513
27	0.92	453.795	-0.115	6.023	25.409	52.405	78.790	2.072	0.818	165.401

Week No.	Avg Trans. Loss in %age	Actual drawal from the grid in Mus	Actual Ex-bus generation with in Delhi in Mus							
			RPH	GT	Pragati	BTPS	Bawana	MSW Bawana	EDW PCL	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)=sum(4 to 10)
28	0.93	439.131	-0.153	8.319	29.322	53.331	119.498	1.974	0.706	212.998
29	0.95	410.100	-0.107	9.640	26.808	51.592	97.490	2.018	0.999	188.439
30	0.40	399.531	-0.086	11.334	26.891	5.050	80.388	1.868	1.100	126.543
31	0.89	378.041	-0.082	6.289	27.034	-0.258	83.877	1.783	1.070	119.713
32	0.99	335.786	-0.082	11.118	27.069	-0.197	109.351	1.328	1.219	149.805
33	1.93	324.489	-0.078	7.225	27.293	-0.157	40.077	2.561	1.266	78.188
34	1.01	318.362	-0.070	6.342	27.046	-0.166	69.088	2.140	0.847	105.227
35	0.96	314.961	-0.067	7.821	26.449	-0.170	71.988	2.297	1.089	109.407
36	0.90	317.611	-0.067	8.608	26.147	-0.164	74.381	2.354	1.035	112.294
37	0.86	323.605	-0.053	8.771	25.691	-0.164	72.792	0.999	0.328	108.364
38	0.80	332.036	-0.063	6.306	27.485	-0.163	71.278	2.004	0.354	107.202
39	0.82	354.166	-0.073	7.472	29.518	-0.176	66.111	2.041	0.269	105.163
40	0.86	354.702	-0.073	9.272	27.615	-0.182	77.886	2.050	0.534	117.104
41	1.09	367.034	-0.076	9.824	27.495	-0.182	74.590	2.658	0.986	115.295
42	0.69	363.310	-0.087	7.396	27.304	-0.178	83.383	1.481	0.595	119.895
43	1.11	375.644	-0.089	8.020	27.214	-0.175	78.316	1.950	0.079	115.314
44	1.09	357.980	-0.071	11.920	30.871	-0.160	66.785	1.083	0.169	110.598
45	1.06	399.559	-0.066	9.861	31.055	-0.139	49.868	1.554	0.466	92.599
46	0.96	437.548	-0.058	6.760	27.307	-0.158	-0.897	1.754	0.184	34.891
47	0.91	394.288	-0.061	7.187	26.740	-0.153	29.883	2.270	0.357	66.224
48	0.98	388.862	-0.044	11.033	13.522	-0.142	28.034	2.306	0.248	54.957
49	0.96	403.937	-0.057	9.581	-0.081	-0.148	27.209	2.580	1.055	40.138
50	0.96	391.331	-0.069	6.369	-0.091	-0.125	32.427	2.562	0.373	41.446
51	1.02	367.148	-0.059	6.225	-0.072	-0.123	54.063	1.418	0.920	62.372
52	1.07	306.208	-0.060	6.194	-0.071	-0.121	85.057	2.245	1.024	94.269
53	1.00	432.782	-0.059	7.981	1.018	-0.129	27.979	2.642	1.378	40.810
Total	0.92 Avg	25275	-5	577	1479	1264	3476	111	29	6932

Week	Total Consumption of Delhi at DTL periphery in Mus	Actual drawal of distribution licensees and deemed licensees in MUs								Transmission losses in	
		TPDDL	BRPL	BYPL	NDMC	MES	IP	Nor4thern Railway	Total	in Mus	in %
(1)	(12)=(3)+(11)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)=(13)+(14)+(15)+(16)+(17)+(19)	(21)=(12)-(20)	(21)=(21)*100/12
1	70.837	21.694	28.395	16.568	2.799	0.474	0.001	0.209	70.140	0.697	0.98
2	588.205	177.070	238.078	134.172	27.453	4.184	0.001	1.409	582.368	5.837	0.99
3	564.571	171.790	227.484	128.545	25.639	3.967	0.001	1.423	558.850	5.722	1.01
4	636.598	189.283	261.982	143.119	28.972	4.565	0.002	1.370	629.292	7.306	1.15
5	681.274	199.509	283.523	154.153	30.882	4.842	0.003	1.305	674.217	7.057	1.04
6	701.696	204.498	293.865	158.978	31.251	4.939	0.002	1.397	694.930	6.766	0.96
7	711.789	205.503	299.282	162.849	31.923	4.948	0.002	1.340	705.846	5.943	0.83
8	750.324	216.015	317.044	171.226	33.129	5.148	0.002	1.477	744.040	6.285	0.84
9	831.315	238.170	352.705	191.216	35.146	5.446	0.003	1.475	824.163	7.152	0.86
10	876.420	248.367	375.000	200.284	37.581	5.799	0.003	1.434	868.468	7.952	0.91
11	899.373	253.900	385.874	204.909	38.749	5.967	0.003	1.450	890.852	8.521	0.95
12	910.328	257.545	391.143	207.624	38.706	5.959	0.003	1.443	902.424	7.904	0.87
13	896.561	254.004	386.404	201.721	38.716	6.010	0.002	1.450	888.307	8.254	0.92
14	852.944	243.372	362.351	195.194	37.350	5.750	0.002	1.532	845.550	7.393	0.87
15	858.019	246.488	363.417	196.075	37.156	5.833	0.001	1.460	850.431	7.588	0.88
16	894.389	253.453	381.969	204.361	38.664	6.116	0.003	1.447	886.012	8.377	0.94
17	843.674	238.170	358.644	194.628	37.439	4.959	0.002	1.411	835.254	8.420	1.00
18	753.147	217.225	315.106	173.472	34.236	5.215	0.002	1.490	746.747	6.400	0.85
19	796.070	232.552	330.072	185.168	35.024	5.416	0.001	1.344	789.578	6.492	0.82
20	791.947	231.308	330.572	182.390	34.615	5.371	0.001	1.275	785.532	6.415	0.81
21	811.620	233.367	346.601	183.930	33.493	5.484	0.004	1.449	804.328	7.292	0.90
22	795.627	230.967	335.523	180.518	34.201	5.333	0.003	2.182	788.729	6.898	0.87
23	751.750	216.748	315.130	171.897	33.743	5.210	0.003	2.197	744.928	6.822	0.91
24	662.572	194.386	275.899	151.360	30.179	4.560	0.003	1.703	658.090	4.482	0.68
25	727.573	214.791	301.113	166.853	32.632	4.937	0.004	1.341	721.670	5.903	0.81
26	711.417	211.515	294.369	162.061	31.024	4.669	0.003	1.440	705.081	6.337	0.89
27	619.196	188.248	251.550	139.279	28.418	4.201	0.003	1.818	613.516	5.680	0.92

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Week	Total Consumption of Delhi at DTL periphery in Mus	Actual drawal of distribution licensees and deemed licensees in MUs								Transmission losses in	
		TPDDL	BRPL	BYPL	NDMC	MES	IP	Nor4thern Railway	Total	in Mus	in %
(1)	(12)=(3)+(11)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)=(13)+(14)+(15)+(16)+(17)+(19)	(21)=(12)-(20)	(21)=(21)*100/12
28	652.130	194.824	266.600	150.926	28.030	4.321	0.003	1.371	646.076	6.054	0.93
29	598.539	184.104	239.650	136.909	26.661	3.984	0.004	1.559	592.871	5.668	0.95
30	526.074	163.912	210.117	121.926	22.756	3.372	0.005	1.894	523.982	2.092	0.40
31	497.753	158.566	194.902	112.794	22.057	3.293	0.003	1.693	493.307	4.446	0.89
32	485.591	155.207	190.982	108.015	21.588	3.227	0.002	1.782	480.803	4.788	0.99
33	402.677	118.776	165.635	87.627	18.098	2.935	0.000	1.815	394.885	7.792	1.93
34	423.590	133.906	169.564	91.482	19.321	3.159	0.002	1.883	419.316	4.274	1.01
35	424.368	137.538	168.236	90.898	18.243	3.089	0.002	2.286	420.292	4.076	0.96
36	429.905	138.978	169.611	92.745	19.116	3.368	0.002	2.222	426.042	3.863	0.90
37	431.970	140.589	170.971	92.295	19.003	3.657	0.002	1.747	428.264	3.705	0.86
38	439.238	141.435	175.687	93.388	19.832	4.064	0.003	1.333	435.742	3.496	0.80
39	459.328	145.926	185.986	96.079	21.360	4.729	0.003	1.473	455.555	3.773	0.82
40	471.806	146.274	194.687	98.554	21.773	5.068	0.005	1.382	467.743	4.063	0.86
41	482.329	152.454	196.041	99.120	22.741	5.305	0.004	1.403	477.068	5.261	1.09
42	483.205	153.064	197.372	99.661	22.791	5.266	0.004	1.718	479.876	3.329	0.69
43	490.959	154.390	199.980	100.756	23.445	5.347	0.003	1.611	485.533	5.425	1.11
44	468.578	146.338	191.694	96.903	21.797	5.159	0.003	1.597	463.491	5.087	1.09
45	492.158	153.506	200.218	102.696	23.389	5.401	0.003	1.727	486.940	5.217	1.06
46	472.440	149.561	190.195	99.596	22.104	4.834	0.003	1.604	467.897	4.543	0.96
47	460.512	146.970	184.625	97.285	21.338	4.566	0.003	1.543	456.329	4.183	0.91
48	443.819	144.164	176.089	94.126	19.547	3.920	0.002	1.604	439.452	4.367	0.98
49	444.075	143.346	176.675	94.317	19.770	4.025	0.003	1.685	439.821	4.254	0.96
50	432.777	140.695	172.246	91.917	18.609	3.505	0.002	1.635	428.608	4.168	0.96
51	429.520	140.710	168.947	92.403	18.060	3.256	0.003	1.769	425.146	4.374	1.02
52	400.477	123.531	163.169	86.823	17.922	2.975	0.003	1.765	396.188	4.289	1.07
53	473.591	149.775	188.444	103.827	21.704	3.298	0.003	1.801	468.852	4.739	1.00
Total 2018-19	32207	9648	13311	7196	1430	240	0	83	31909	297	0.92

12.2 MONTH WISE TRANSMISSION LOSSES FOR 2018-19

Month	ENERGY CONSUMPTION OF DISCOMS IN MUs							Total supply to disoms in MUs
	TPDDL	BRPL	BYPL	NDMC	MES	IP	Northern Railway	
1	2	3	4	5	6	7	8	9=sum(2 to 8)
Apr 2018	789.8454	1083.3423	599.8072	119.8031	18.6823	0.0080	5.9022	2617.3903
May 2018	980.5201	1439.3221	778.6946	150.3903	23.2832	0.0089	6.3222	3378.5414
Jun 2018	1077.4123	1632.0030	865.0610	164.0062	25.3239	0.0122	6.2510	3770.0695
July 2018	1054.2428	1559.7593	846.5902	162.0676	24.4065	0.0092	6.4436	3653.5192
Aug 2018	1022.2299	1482.7416	807.8669	152.9326	23.9533	0.0124	7.4168	3497.1534
Sept 2018	865.6891	1205.9285	664.5304	129.9204	19.6531	0.0134	6.9324	2892.6673
Oct. 2018	769.8725	994.2975	569.3484	109.2790	16.3936	0.0160	7.3144	2466.5214
Nov. 2018	579.1610	734.1461	398.0185	81.7069	13.4273	0.0056	8.6643	1815.1298
Dec. 2018	633.2058	802.5043	420.2940	90.2392	19.2347	0.0138	6.6407	1972.1326
Jan. 2019	673.7111	872.6123	440.8690	101.4526	23.5009	0.0154	7.1421	2119.3035
Feb. 2019	588.5353	736.5283	388.8846	84.0235	17.8415	0.0104	6.4568	1822.2804
Mar 2019	614.0529	768.2321	415.6510	84.3551	14.7242	0.0123	7.6838	1904.7114
2018-19	9648.4783	13311.4175	7195.6159	1430.1766	240.4244	0.1375	83.1702	31909.4203

Month	Generation within Delhi in MUs						
	GT	RPH	PPCL	BTPS	EDWPCL	Bawana CCGT	MSW Bawana
1	10	11	12	13	14	15	16
Apr 2018	62.7855	-0.3357	141.2584	80.5568	1.5067	308.3514	11.6141
May 2018	53.5312	-0.3617	178.9859	196.7946	2.7537	314.5622	10.5417
Jun 2018	86.1843	-0.5096	191.6253	219.9763	1.9172	336.6222	9.9544
July 2018	71.2819	-0.4533	187.1282	222.1627	1.1190	266.6212	8.7689
Aug 2018	58.9834	-0.4640	110.7202	219.0546	1.4933	243.1324	9.4504
Sept 2018	27.3521	-0.5096	103.1247	218.9478	1.9002	336.0059	8.4500
Oct. 2018	39.4297	-0.4653	121.6520	109.6719	4.4385	423.8296	8.3918
Nov. 2018	34.8536	-0.3121	114.8781	-0.7105	4.7008	301.5486	9.3048
Dec. 2018	35.1560	-0.2884	121.7652	-0.7581	1.8880	319.7671	8.1048
Jan. 2019	40.6196	-0.3537	124.5212	-0.7442	2.0380	331.5418	7.5278
Feb. 2019	37.0480	-0.2146	83.0216	-0.7442	1.4644	83.0860	8.5865
Mar 2019	29.7607	-0.2765	0.7414	-0.6014	4.1204	211.1307	10.0056
2018-19	576.9859	-4.5444	1479.4223	1263.6063	29.3402	3476.1991	110.7008

Month	Drawal from NR in MUs	Total Injection For supply to Discoms	Losses in MUs	Losses in %	Losses in % during previous year
1	17	18=Sum(10to17)	19=18-9	20=19*100/18	21
Apr 2018	2039.3105	2645.0479	27.6576	1.05	0.90
May 2018	2651.5873	3408.3949	29.8535	0.88	0.81
Jun 2018	2958.5303	3804.3005	34.2309	0.90	0.81
July 2018	2930.4872	3687.1158	33.5966	0.91	0.79
Aug 2018	2885.1272	3527.4977	30.3442	0.86	0.68
Sept 2018	2221.6352	2916.9063	24.2389	0.83	0.51
Oct. 2018	1779.9571	2486.9052	20.3838	0.82	0.69
Nov. 2018	1372.5240	1836.7872	21.6574	1.18	0.91
Dec. 2018	1503.1164	1988.7509	16.6182	0.84	1.12
Jan. 2019	1635.5956	2140.7461	21.4427	1.00	1.14
Feb. 2019	1627.6704	1839.9182	17.6378	0.96	1.09
Mar 2019	1669.2898	1924.1707	19.4593	1.01	1.02
2018-19	25274.8310	32206.5413	297.1209	0.92	0.84

13 ALLOCATION OF POWER TO DISCOMS FOR 2018-19

i) Details of Allocation w.e.f 01.04.2018 to 30.09.2018

Name of the Stn	Installed capacity in MW	Capacity Allocation to Delhi in %age	Capacity Allocation in MW to Delhi	DISCOMWISE CAPACITY ALLOCATION IN MW					
				BRPL	BYPL	TPDDL	NDMC	MES	IP
STATE GENERATING STATIONS									
RPH	135	100	135	59	34	41	0	0	
GAS TURBINE	270	100	270	164.78	23.19	81.68	0.00	0.00	0.35
PRAGATI	330	100	330	93	53	64	100	20	
BTPS	705	100	705	236	134	161	125	50	
BAWANA CCGT	1371	80	1097	427	247	298	100	25	
CENTRAL SECTOR GENERATION									
NTPC STATIONS									
Singrauli STPS	2000	7.50	150	30	74	46	0	0	
Rihand Stage-I	1000	10.00	100	69	0	31	0	0	
Rihand Stage -II	1000	12.60	126	55	32	39	0	0	
Rihand Stage-III	1000	13.19	132	78	54	0	0	0	
ANTA GPS	419	10.50	44	19	11	13	0	0	
Auriya GPS	663.36	10.86	72	32	18	22	0	0	
Dadri GPS	829.78	10.96	91	40	23	28	0	0	
Dadri (Th)-I	840	90.00	756	559	62	10	125	0	
Dadri (Th) -II	980	74.52	730	545	175	10	0	0	
Unchahaar-I TPS	420	5.71	24	11	6	7	0	0	
Unchahaar-II TPS	420	11.19	47	21	12	14	0	0	
Unchahaar-III TPS	210	13.81	29	13	7	9	0	0	
Unchahaar-IV TPS	500	5.518	28	0	0	28	0		
Jhajjar	1500	46.20	693	10	69	614	0	0	
NHPC (HYDRO)									
Baira Suil HPS	180	11.00	20	9	5	6	0	0	
Salal HPS	690	11.62	80	60	20	0	0	0	
Tanakpur HEP	94	12.81	12	5	3	4	0	0	
Chamera HEP	540	7.90	43	19	11	13	0	0	
Chamera-II HEP	300	13.33	40	18	10	12	0	0	
Chamera-III HEP	231	12.73	29	13	7	9	0	0	
URI-I HEP	480	11.04	53	23	13	16	0	0	
URI -II HEP	240	13.45	32	14	8	10	0	0	
Sewa HEP	120	13.33	16	7	4	5	0	0	
Dhauli Ganga HEP	280	13.21	37	16	9	11	0	0	
Dulhasti HEP	390	12.83	50	22	13	15	0	0	
Parbati-III HEP	520	12.73	66	29	17	20	0	0	
Nathpa Jhakri HEP	1500	9	142	62	36	44	0	0	
THDC									
Tehri Hydro	1000	6.30	63	44	0	19	0	0	
Koteshwar HEP	400	9.86	39	27	0	12	0	0	
Singrauli Hyd	8	19.13	2	0	0	2			
NPC (NUCLEAR)									
Narora APS	440	10.68	47	33	0	14	0	0	
RAPP (C)	440	12.69	56	25	14	17	0	0	

Name of the Stn	Installed capacity in MW	Capacity Allocation to Delhi in %age	Capacity Allocation in MW to Delhi	DISCOMWISE CAPACITY ALLOCATION IN MW					
				BRPL	BYPL	TPDDL	NDMC	MES	IP
Allocation from ER									
Farakka	1600	1.39	22	10	6	7	0	0	
Kahalgaon-I	840	6.07	51	22	13	16	0	0	
Tala HEP	1020	2.94	30	13	8	9	0	0	
Kahalgaon-II	1500	10.49	157	69	40	48	0	0	
SASAN	3960	11.25	446	66	243	137	0	0	
DVC(CTPS7 &8 & Mejia6)	750		400	176	102	123	0	0	
Allocation from Long term Bilateral									
CLP Jhajjar(Th)	1320		124			124			
Mejia-7(Th)	500		119		119				
Methan(Th)	1050		281			281			
Total in MW	34986		8016	3243	1737	2491	450	95	0.35

ii) Details of Allocation w.e.f 01.05.2018 to 31.10.2018

Name of the Stn				DISCOMWISE CAPACITY ALLOCATION IN MW					
	Installed capacity in MW	Capacity Allocation to Delhi in %age	capacity Allocation in MW to Delhi	BRPL	BYPL	TPDDL	NDMC	MES	IP
STATE GENERATING STATIONS									
RPH	135	100	135	59	34	41	0	0	
GAS TURBINE	270	100	270	164.78	23.19	81.68	0.00	0.00	0.35
PRAGATI	330	100	330	93	53	64	100	20	
BTPS	705	100	705	236	134	161	125	50	
BAWANA CCGT	1371	80	1097	427	247	298	100	25	
CENTRAL SECTOR GENERATION									
NTPC STATIONS									
Singrauli STPS	2000	7.50	150.00	30	74	46	0	0	
Rihand Stage-I	1000	10.00	100.00	69	0	31	0	0	
Rihand Stage -II	1000	12.60	126.00	55	32	39	0	0	
Rihand Stage-III	1000	13.19	131.91	78	54	0	0	0	
ANTA GPS	419	10.50	44.00	19	11	13	0	0	
Auriya GPS	663.36	10.86	72.04	32	18	22	0	0	
Dadri GPS	829.78	10.96	90.94	40	23	28	0	0	
Dadri (Th)-I	840	90.00	756.00	559	62	10	125	0	
Dadri (Th) -II	980	74.52	730.26	545	175	10	0	0	
Unchahaar-I TPS	420	5.71	23.98	11	6	7	0	0	
Unchahaar-II TPS	420	11.19	47.00	21	12	14	0	0	
Unchahaar-III TPS	210	13.81	29.00	13	7	9	0	0	
Unchahaar-IV TPS	500	5.518	27.59	0	0	28	0		
Jhajjar	1500	46.20	693.00	10	69	614	0	0	

Name of the Stn	Installed capacity in MW	Capacity Allocation to Delhi in %age	capacity Allocation in MW to Delhi	DISCOMWISE CAPACITY ALLOCATION IN MW					
				BRPL	BYPL	TPDDL	NDMC	MES	IP
NHPC (HYDRO)									
Baira Suil HPS	180	11.00	19.80	8.7	5.0	6.1	0	0	
Salal HPS	690	11.62	80.18	59.8	20.4	0	0	0	
Tanakpur HEP	94	12.81	12.07	5.30	3.07	3.70	0	0	
Chamera HEP	540	7.90	42.66	18.7	10.8	13.1	0	0	
Chamera-II HEP	300	13.33	39.99	17.6	10.2	12.3	0	0	
Chamera-III HEP	231	12.73	29.42	12.9	7.5	9.0	0	0	
URI-I HEP	480	11.04	52.99	23.3	13.5	16.3	0	0	
URI -II HEP	240	13.45	32.28	14.2	8.2	9.9	0	0	
Sewa HEP	120	13.33	16.00	7.02	4.06	4.91	0	0	
Dhauli Ganga HEP	280	13.21	36.99	16.2	9.4	11.3	0	0	
Dulhasti HEP	390	12.83	50.04	22.0	12.7	15.4	0	0	
Parbati-III HEP	520	12.73	66.20	29.1	16.8	20.3	0	0	
Nathpa Jhakri HEP	1500	9	142.05	62	36	44	0	0	
THDC									
Tehri Hydro	1000	6.30	63.00	44	0	19	0	0	
Koteshwar HEP	400	9.86	39.44	27	0	12	0	0	
Singrauli Hyd	8	19.13	1.53	0	0	1.53			
NPC (NUCLEAR)									
Narora APS	440	10.68	46.99	33	0	14	0	0	
RAPP (C)	440	12.69	55.84	25	14	17	0	0	
Allocation from ER									
Farakka	1600	1.39	22.24	10	6	7	0	0	
Kahalgaon-I	840	6.07	50.99	22	13	16	0	0	
Tala HEP	1020	2.94	29.99	13	8	9	0	0	
Kahalgaon-II	1500	10.49	157.35	69	40	48	0	0	
SASAN	**3960**	**11.25**	**445.50**	**66.08**	**311.08**	**68.34**	**0**	**0**	
DVC(CTPS7 &8 & Mejia6)	750		400.00	176	102	123	0	0	
Allocation from Long term Bilateral									
CLP Jhajjar(Th)	1320		124.00			124			
Mejia-7(Th)	500		119.00		119				
Methan(Th)	1050		281.00			281			
Total in MW	**34986**		**8016**	**3243**	**1805**	**2423**	**450**	**95**	**0.35**

iii) Details of Allocation w.e.f 01.11.2018 to 31.03.2019

Name of the Stn	Installed capacity in MW	Capacity Allocation to Delhi in %age	capacity Allocation in MW to Delhi	DISCOMWISE CAPACITY ALLOCATION IN MW						
				BRPL	BYPL	TPDDL	NDMC	MES	IP	NR
STATE GENERATING STATIONS										
RPH										
GAS TURBINE	270	100	270	164.78	23.19	81.68	0.00	0.00	0.35	
PRAGATI	330	100	330	93.4	53.03	63.6	100	20		
BTPS										
BAWANA CCGT	1371	80	1097	427	247	298	100	25		
MSW BAWAN	24	100	24	10	6	7	1			
EDWMPCL	12	49	6		6					
TOWMCL	13		13	7		6				
CENTRAL SECTOR GENERATION										
NTPC STATIONS										
Singrauli STPS	2000	7.50	150.00	30	74	46	0	0		
Rihand Stage-I	1000	10.00	100.00	69	0	31	0	0		
Rihand Stage -II	1000	12.60	126.00	55	32	39	0	0		
Rihand Stage-III	1000	13.19	131.91	78	54	0	0	0		
ANTA GPS	419	10.50	44.00	19	11	13	0	0		
Auriya GPS	663.36	10.86	72.04	32	18	22	0	0		
Dadri GPS	829.78	10.96	90.94	40	23	28	0	0		
Dadri (Th)-I	840	90.00	756.00	559	62	10	125	0		
Dadri (Th) -II	980	74.52	730.26	545	175	10	0	0		
Unchahaar-I TPS	420	5.71	23.98	11	6	7	0	0		
Unchahaar-II TPS	420	11.19	47.00	21	12	14	0	0		
Unchahaar-III TPS	210	13.81	29.00	13	7	9	0	0		
Unchahaar-IV TPS	500	5.518	27.59	0	0	28	0			
Jhajjar	1500	46.20	693.00	10	69	614	0	0		
NHPC (HYDRO)										
Baira Suil HPS	180	11.00	19.80	8.7	5.0	6.1	0	0		
Salal HPS	690	11.62	80.18	59.8	20.4	0	0	0		
Tanakpur HEP	94	12.81	12.07	5.30	3.07	3.70	0	0		
Chamera HEP	540	7.90	42.66	18.7	10.8	13.1	0	0		
Chamera-II HEP	300	13.33	39.99	17.6	10.2	12.3	0	0		
Chamera-III HEP	231	12.73	29.42	12.9	7.5	9.0	0	0		
URI-I HEP	480	11.04	52.99	23.3	13.5	16.3	0	0		
URI -II HEP	240	13.45	32.28	14.2	8.2	9.9	0	0		
Sewa HEP	120	13.33	16.00	7.02	4.06	4.91	0	0		
Dhauli Ganga HEP	280	13.21	36.99	16.2	9.4	11.3	0	0		
Dulhasti HEP	390	12.83	50.04	22.0	12.7	15.4	0	0		
Parbati-III HEP	520	12.73	66.20	29.1	16.8	20.3	0	0		
Nathpa Jhakri HEP	1500	9	142.05	62	36	44	0	0		
THDC										
Tehri Hydro	1000	6.30	63.00	44	0	19	0	0		
Koteshwar HEP	400	9.86	39.44	27	0	12	0	0		
Singrauli Hyd	8	19.13	1.53	0	0	1.53				

Name of the Stn	Installed capacity in MW	Capacity Allocation to Delhi in %age	capacity Allocation in MW to Delhi	DISCOMWISE CAPACITY ALLOCATION IN MW						
				BRPL	BYPL	TPDDL	NDMC	MES	IP	NR
NPC (NUCLEAR)										
Narora APS	440	10.68	46.99	33	0	14	0	0		
RAPP (C)	440	12.69	55.84	25	14	17	0	0		
Allocation from ER										
Farakka	1600	1.39	22.24	10	6	7	0	0		
Kahalgaon-I	840	6.07	50.99	22	13	16	0	0		
Tala HEP	1020	2.94	29.99	13	8	9	0	0		
Kahalgaon-II	1500	10.49	157.35	69	40	48	0	0		
SASAN	**3960**	**11.25**	**445.50**	**66.08**	**352.09**	**27.34**	**0**	**0**		
DVC(CTPS7 &8 & Mejia6)	750		400.00	176	102	123	0	0		
Allocation from Long term Bilateral										
CLP Jhajjar(Th)	1320		124.00			124				
Mejia-7(Th)	500		119.00		119					
Methan(Th)	1050		281.00			281				
Surya Kanta(Hyd)			14.00			14				
Tutikoren(LT-61)			50.00	50						
SECI			60.00	20	20	20				
JIPTL			9.46							9.46
Total in MW	34195		7352	3034	1710	2227	326	45	0.35	9.46

14 DERC vide its letter no.F3(288)/Tariff/DERC/2011-12/3115/4054 dated 28.11.2014 revised the rates of inter discom transfer of surplus power as Indian Energy Exchange + 10Ps per unit.

14.1 Inter Discom Transfer of surplus power on day ahead basis @ Indian Exchange Rate + 10Ps per unit for 2018-19

All figures in MU

Month	BRPL sale to				
	BYPL	MES	NDMC	TPDDL	Total
Apr-18	0.000000	0.000000	0.000000	0.000000	0.000000
May-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jun-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jul-18	0.000000	0.000000	0.000000	0.000000	0.000000
Aug-18	0.031511	0.000000	0.000000	0.000000	0.031511
Sep-18	0.000000	0.000000	0.000000	0.000000	0.000000
Oct-18	0.000000	0.000000	0.000000	0.000000	0.000000
Nov-18	0.000000	0.019321	0.000000	0.152797	0.172118
Dec-18	0.000000	0.004053	0.000000	0.000000	0.004053
Jan-19	0.000000	0.009543	0.000000	0.030772	0.040314
Feb-19	0.000000	0.192654	0.000000	0.000000	0.192654
Mar-19	0.000000	0.689688	0.000000	0.007905	0.697593
Total	**0.031511**	**0.915258**	**0.000000**	**0.191473**	**1.138242**

Month	BYPL sale to				
	BRPL	MES	NDMC	TPDDL	Total
Apr-18	0.230175	0.000000	0.000000	2.313312	2.543487
May-18	6.512850	0.000000	0.000000	7.509665	14.022515
Jun-18	12.433324	0.000000	0.000000	0.807550	13.240874
Jul-18	2.724064	0.000000	0.000000	0.729835	3.453899
Aug-18	3.356729	0.000000	0.000000	0.059221	3.415950
Sep-18	0.196887	0.000000	0.000000	0.369756	0.566643
Oct-18	0.145284	0.104397	0.000000	0.475457	0.725138
Nov-18	0.220215	0.135201	0.000000	3.334233	3.689649
Dec-18	4.292326	0.117380	0.000000	0.653474	5.063180
Jan-19	16.243177	0.397829	0.000000	9.001111	25.642116
Feb-19	1.167530	0.171684	0.000000	0.125287	1.464501
Mar-19	0.165074	1.265071	0.000000	2.017331	3.447476
Total	47.687634	2.191561	0.000000	27.396231	77.275426

Month	TPDDL sale to				
	BRPL	BYPL	MES	NDMC	Total
Apr-18	0.004469	0.108629	0.010000	0.000000	0.123097
May-18	3.783884	0.000000	0.000000	0.000000	3.783884
Jun-18	9.445301	0.000000	0.000000	0.000000	9.445301
Jul-18	2.713334	0.572959	0.000000	0.000000	3.286292
Aug-18	2.186691	0.027240	0.000000	0.000000	2.213931
Sep-18	0.036113	0.000000	0.000000	0.000000	0.036113
Oct-18	0.261217	0.000000	0.080603	0.000000	0.341820
Nov-18	0.006402	0.000000	0.085107	0.000000	0.091508
Dec-18	5.631130	0.000000	0.130049	0.000000	5.761179
Jan-19	4.146554	0.000000	0.206343	0.000000	4.352897
Feb-19	4.150665	0.104127	1.110072	0.000000	5.364864
Mar-19	2.419976	0.286081	2.470177	0.000000	5.176234
Total	34.785733	1.099035	4.092350	0.000000	39.977118

Month	NDMC sale to				
	BRPL	BYPL	MES	TPDDL	Total
Apr-18	0.000000	0.000000	0.000000	0.000000	0.000000
May-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jun-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jul-18	0.000000	0.000000	0.000000	0.000000	0.000000
Aug-18	0.000000	0.000000	0.000000	0.000000	0.000000
Sep-18	0.000000	0.000000	0.000000	0.000000	0.000000
Oct-18	0.000000	0.000000	0.000000	0.000000	0.000000
Nov-18	0.000000	0.000000	0.000000	0.000000	0.000000
Dec-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jan-19	0.000000	0.000000	0.000000	0.000000	0.000000
Feb-19	0.000000	0.000000	0.000000	0.000000	0.000000
Mar-19	0.000000	0.000000	0.000000	0.000000	0.000000
Total	0.000000	0.000000	0.000000	0.000000	0.000000

Month	MES sale to				
	BRPL	BYPL	NDMC	TPDDL	Total
Apr-18	0.000000	0.000000	0.000000	0.000000	0.000000
May-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jun-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jul-18	0.000000	0.000000	0.000000	0.000000	0.000000
Aug-18	0.000000	0.000000	0.000000	0.000000	0.000000
Sep-18	0.000000	0.000000	0.000000	0.000000	0.000000
Oct-18	0.000000	0.000000	0.000000	0.002242	0.002242
Nov-18	0.000000	0.000000	0.000000	0.000000	0.000000
Dec-18	0.000000	0.000000	0.000000	0.000000	0.000000
Jan-19	0.000000	0.000000	0.000000	0.000000	0.000000
Feb-19	0.000000	0.000000	0.000000	0.000000	0.000000
Mar-19	0.006508	0.000000	0.000000	0.011841	0.018349
Total	0.006508	0.000000	0.000000	0.014083	0.020591

14.2 Inter Discom Transfer of surplus power to avoid penalty on the basis of Actual Energy Meter data (IDT-II)

All figures in MU

Months	BRPL Energy Sale to					
	BYPL	TPDDL	NDMC	MES	Northern Railways	Total
Apr 2018	0.046892	0.240095	0.611167	0.428578	0.331373	1.658105
May 2018	0.069251	0.442331	0.034021	0.299854	0.335418	1.180875
Jun 2018	0.575932	1.699890	0.248658	0.392373	0.708965	3.625818
July 2018	0.351514	0.536972	0.458492	0.239796	0.390478	1.977253
Aug 2018	0.192061	0.014333	0.067890	0.140066	0.323573	0.737924
Sept 2018	0.030438	0.017537	0.000000	0.009682	0.157724	0.215381
Oct. 2018	0.024641	0.008618	0.045648	0.013100	0.431486	0.523493
Nov. 2018	0.004639	0.006654	0.219920	0.003455	0.156743	0.391410
Dec. 2018	0.022707	0.018538	0.114261	0.076106	0.052197	0.283809
Jan. 2019	0.055481	0.141776	0.108089	0.406482	0.296502	1.008331
Feb. 2019	0.018414	0.018489	0.074201	0.402018	0.215759	0.728881
Mar 2019	0.031400	0.012124	0.028030	0.116364	0.143738	0.331655
Total 2018-19	1.423370	3.157357	2.010377	2.527874	3.543956	12.662935

All figures in MU

Months	BYPL Energy Sale to					
	BRPL	TPDDL	NDMC	MES	N.Railways	Total
Apr 2018	0.035768	0.031966	0.003761	0.051867	0.017211	0.140573
May 2018	0.066208	0.091097	0.041977	0.054294	0.067952	0.321529
Jun 2018	0.004998	0.087225	0.004160	0.014934	0.057488	0.168805
July 2018	0.007782	0.032572	0.058754	0.025131	0.079129	0.203368
Aug 2018	0.012231	0.000247	0.008846	0.006079	0.058438	0.085842
Sept 2018	0.026293	0.006186	0.000000	0.007614	0.145464	0.185557
Oct. 2018	0.000468	0.000642	0.010829	0.004468	0.079748	0.096155
Nov. 2018	0.011976	0.001302	0.045331	0.002297	0.045647	0.106553
Dec. 2018	0.003476	0.064102	0.016918	0.036432	0.005199	0.126127
Jan. 2019	0.000122	0.010653	0.027120	0.040360	0.015556	0.093812
Feb. 2019	0.013354	0.002356	0.008800	0.124643	0.091899	0.241052
Mar 2019	0.012954	0.003187	0.005571	0.121755	0.078369	0.221836
Total 2018-19	0.195630	0.331534	0.232069	0.489874	0.742100	1.991207

All figures in MU

Months	TPDDL Energy Sale to					
	BRPL	BYPL	NDMC	MES	N.Railways	Total
Apr 2018	0.004929	0.006898	0.018366	0.047262	0.014858	0.092313
May 2018	0.005336	0.097182	0.003004	0.022893	0.039104	0.167519
Jun 2018	0.003557	0.009933	0.031987	0.002338	0.019350	0.067165
July 2018	0.006904	0.021058	0.048783	0.035447	0.102640	0.214832
Aug 2018	0.058784	0.065220	0.023229	0.032687	0.251043	0.430964
Sept 2018	0.066515	0.027611	0.000000	0.017673	0.207720	0.319519
Oct. 2018	0.014041	0.012927	0.025617	0.001593	0.194524	0.248703
Nov. 2018	0.000036	0.003905	0.048166	0.000385	0.040810	0.093301
Dec. 2018	0.005907	0.000592	0.005235	0.057085	0.005085	0.073904
Jan. 2019	0.000000	0.011607	0.070343	0.169637	0.112026	0.363612
Feb. 2019	0.032091	0.041295	0.084836	0.602222	0.379186	1.139630
Mar 2019	0.022215	0.015318	0.027435	0.131186	0.173258	0.369413
Total 2018-19	0.220316	0.313549	0.387001	1.120407	1.539604	3.580876

All figures in MU

Months	NDMC Energy Sale to					
	BRPL	BYPL	TPDDL	MES	N.Railways	Total
Apr 2018	0.078231	0.082319	1.048433	0.124463	0.212075	1.545521
May 2018	0.127456	0.050530	0.231408	0.167173	0.226089	0.802656
Jun 2018	0.012004	0.116490	0.301766	0.060519	0.102317	0.593097
July 2018	0.008135	0.033100	0.043835	0.004897	0.038324	0.128290
Aug 2018	0.018901	0.142593	0.014513	0.004471	0.166142	0.346620
Sept 2018	0.119783	0.099272	0.046123	0.012267	0.417071	0.694517
Oct. 2018	0.004674	0.000362	0.001076	0.001012	0.040519	0.047644
Nov. 2018	0.001926	0.003810	0.003051	0.000816	0.033588	0.043191
Dec. 2018	0.000000	0.016194	0.005948	0.035230	0.053524	0.110896
Jan. 2019	0.000000	0.001316	0.000170	0.007135	0.009976	0.018597
Feb. 2019	0.002213	0.003343	0.000680	0.027815	0.036758	0.070809
Mar 2019	0.148746	0.046156	0.031137	0.165822	0.398208	0.790069
Total 2018-19	0.522068	0.595486	1.728141	0.611621	1.734591	5.191907

All figures in MU

Months	MES Energy Sale to					
	BRPL	BYPL	TPDDL	NDMC	N.Railways	Total
Apr 2018	0.007432	0.014179	0.041610	0.000000	0.020903	0.084124
May 2018	0.070270	0.079438	0.140478	0.002219	0.186684	0.479088
Jun 2018	0.024448	0.145055	0.441591	0.029933	0.241495	0.882523
July 2018	0.044683	0.218004	0.210539	0.123679	0.460916	1.057820
Aug 2018	0.080826	0.191433	0.042221	0.017738	0.631785	0.964003
Sept 2018	0.226091	0.134295	0.102169	0.001771	0.668535	1.132861
Oct. 2018	0.023643	0.037997	0.006095	0.072775	0.694608	0.835118
Nov. 2018	0.005514	0.017946	0.012524	0.198688	0.208179	0.442851
Dec. 2018	0.000000	0.001676	0.000671	0.044019	0.008493	0.054858
Jan. 2019	0.000000	0.000272	0.000000	0.000000	0.000830	0.001102
Feb. 2019	0.000006	0.000000	0.000000	0.000270	0.002275	0.002551
Mar 2019	0.009888	0.004068	0.006000	0.002535	0.060423	0.082915
Total 2018-19	0.492800	0.844363	1.003898	0.493627	3.185127	6.019815

All figures in MU

Months	Northern Railways Energy Sale to					
	BRPL	BYPL	TPDDL	NDMC	MES	Total
Apr 2018	0.004836	0.004665	0.027352	0.023433	0.076797	0.137083
May 2018	0.003965	0.007691	0.008583	0.001549	0.007886	0.029673
Jun 2018	0.001513	0.006114	0.018176	0.003155	0.008831	0.037790
July 2018	0.000942	0.005040	0.010337	0.004218	0.003230	0.023767
Aug 2018	0.000504	0.012776	0.000326	0.005673	0.002677	0.021957
Sept 2018	0.001974	0.001709	0.000923	0.000062	0.004820	0.009488
Oct. 2018	0.000404	0.000569	0.000024	0.000980	0.000245	0.002222
Nov. 2018	0.000093	0.000714	0.000709	0.028107	0.000046	0.029670
Dec. 2018	0.002188	0.019955	0.007198	0.087565	0.066154	0.183061
Jan. 2019	0.000365	0.005491	0.002677	0.004566	0.019301	0.032398
Feb. 2019	0.000383	0.000471	0.000000	0.002203	0.016510	0.019566
Mar 2019	0.001302	0.002384	0.002679	0.003179	0.017850	0.027393
Total 2018-19	0.018468	0.067579	0.078983	0.164690	0.224348	0.554069

15 IMPLEMENTATION OF INTRASTATE ABT IN DELHI

In the second phase of power reforms undertaken in Delhi, the power purchase agreements entered into by DESU/DVB/DTL have been reassigned to distribution licensees as per DERC order dated 31.03.2007. Intrastate ABT has also been introduced in Delhi from 01.04.2007. SLDC has started issuing UI bills from covering the period from 01.04.2007 on weekly basis. The Intrastate DSM Pool Account is also operated by SLDC as per the DERC order. The details of Main meters used for ABT billing are as under:

15.1 For Intrastate (Meters provided by DTL) -As on 1/4/2019

S.no.	Main Metering Points				No. of meters as per beneficiary / utility	Check metering points			No. of meters as per beneficiary / utility	Number of meters
	Discom	220/66/33KV	11/6.6KV	TOTAL	(+)	220/66/33KV	11/6.6KV	TOTAL	(+)	Total
1	TPDDL	70	36	106	83	60	0	60	47	130
2	BRPL	111	41	152	99	84	08	92	73	172
3	BYPL	73	19	92	55	66	1	67	50	105
4	NDMC	37	5	42	38	31	4	35	35	73
5	MES	8	7	15	15	8	7	15	15	30
6	N.RAILWAY	3	0	3	3	3	0	3	3	6
	TOTAL	**302**	**108**	**410**	**293**	**252**	**20**	**272**	**223**	**516**
	GRAND TOTAL			**682**	**516**					

15.2 For Generating Stations (Meters provided by DTL)

Sr. No.	Station	Metering points (feeders)	Main	Check
			Nos. of meters as per beneficiary utility	Nos. of meters as per beneficiary utility
01	PPCL BWN	0	4	4
02	RPH	11	2	2
03	G.T.	8	2	2
04	Pragati	3	3	-
05	BTPS	6	6	6
	TOTAL	**28**	**17**	**14**

a) No. of Meters involved for Intrastate = 293 (M)+ 223 (C)+27 (Local TX.) ABT billing with DISCOMs

b) No of Meters involved for UI billing of Genco= 17 (M)+ 14 (C)

c) Overall meters dealt by DTL = 574

15.3 For Interstate (Meters provided by NRLDC)

S. N.	Details	Main	Stand by / check
01	Nos. of meters to compute input from the Grid to DTL system	42	42
	Total		84

15.4 The details of the DSM Transactions for 2018-19 at Intrastate Level are as under:

15.4.1 DSM Transactions of TPDDL

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	780.911	789.845	8.934	275.406	27.582	--	0.000	302.988	260.147
May-18	977.636	980.520	2.884	342.265	65.531	--	0.000	407.796	202.882
Jun-18	1064.018	1077.412	13.394	387.241	35.104	--	0.000	422.345	375.057
Jul-18	1054.479	1054.243	-0.144	89.642	29.334	--	0.000	118.976	37.079
Aug-18	1029.873	1022.230	-7.643	-106.560	4.917	--	0.000	-101.643	-161.851
Sep-18	872.244	865.689	-6.554	-88.862	6.381	--	0.000	-82.481	-139.927
Oct-18	777.591	769.873	-7.719	-151.849	1.839	--	0.000	-150.011	-172.170
Nov-18	575.355	579.161	3.806	121.547	5.824	--	0.000	127.371	116.506
Dec-18	628.904	633.206	4.302	139.957	7.116	--	0.000	147.073	135.082
Jan-19	670.567	673.711	3.144	166.384	61.492	127	96.053	323.929	141.555
Feb-19	597.973	588.535	-9.437	-225.903	46.529	156	189.158	9.784	-271.718
Mar-19	619.314	614.053	-5.261	-108.259	56.511	108	59.511	7.763	-136.972
Total	**9648.865**	**9648.478**	**-0.295**	**841.008**	**348.160**		**344.722**	**1533.890**	**385.669**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason.

15.4.2 DSM Transactions of BRPL

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	1105.247	1083.342	-21.904	-415.197	17.838			-397.359	-508.926
May-18	1462.744	1439.322	-23.422	-345.059	35.426			-309.634	-565.376
Jun-18	1685.789	1632.003	-53.786	-746.774	8.188			-738.586	-1167.733
Jul-18	1597.225	1559.759	-37.466	-541.262	7.431			-533.831	-815.161
Aug-18	1497.670	1482.742	-14.929	-203.818	14.513			-189.304	-304.591
Sep-18	1205.925	1205.929	0.004	64.898	19.232			84.130	22.872
Oct-18	1005.084	994.297	-10.787	-173.072	2.996			-170.076	-218.490
Nov-18	744.861	734.146	-10.715	-204.053	5.984			-198.069	-236.146
Dec-18	812.957	802.504	-10.453	-181.470	3.098			-178.372	-190.677
Jan-19	898.749	872.612	-26.137	-671.686	131.927	337	511.856	-27.903	-809.434
Feb-19	745.792	736.528	-9.264	-179.453	97.255	216	303.646	221.449	-213.346
Mar-19	768.578	768.232	-0.346	51.194	98.065	211	423.643	572.903	4.568
Total	**13530.623**	**13311.417**	**-219.206**	**-3545.75**	**441.953**		**1239.146**	**-1864.65**	**-5002.44**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.3 DSM Transactions of BYPL

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	602.297	599.807	-2.490	-12.769	3.396		0.000	-9.373	-33.996
May-18	781.158	778.695	-2.464	38.353	19.158		0.000	57.512	-1.085
Jun-18	864.792	865.061	0.269	85.022	8.539		0.000	93.561	63.479
Jul-18	845.375	846.590	1.215	110.418	18.866		0.000	129.284	72.534
Aug-18	800.457	807.867	7.410	197.868	24.171		0.000	222.039	185.997
Sep-18	666.123	664.530	-1.592	0.272	6.037		0.000	6.309	-34.084
Oct-18	568.895	569.348	0.454	41.028	5.787		0.000	46.815	31.610
Nov-18	391.869	398.019	6.150	171.817	11.521		0.000	183.337	165.318
Dec-18	410.677	420.294	9.617	244.176	5.161		0.000	249.337	240.727
Jan-19	435.595	440.869	5.274	246.945	70.271	153	132.341	449.557	234.036
Feb-19	388.693	388.885	0.191	37.725	36.545	125	59.502	133.772	27.615
Mar-19	415.688	415.651	-0.037	53.078	52.613	83	26.795	132.486	39.531
Total	**7171.621**	**7195.616**	**23.995**	**1213.933**	**262.064**		**218.638**	**1694.636**	**991.684**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.4 DSM Transactions of NDMC

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	125.140	119.803	-5.337	-111.255	1.480		0.000	-109.775	-111.462
May-18	159.204	150.390	-8.814	-244.640	0.000		0.000	-244.639	-246.279
Jun-18	168.460	164.006	-4.454	-89.167	0.525		0.000	-88.642	-92.978
Jul-18	160.007	162.068	2.060	50.884	0.306		0.000	51.190	50.727
Aug-18	154.069	152.933	-1.137	-19.938	0.004		0.000	-19.934	-20.018
Sep-18	140.758	129.920	-10.838	-279.665	0.003		0.000	-279.661	-279.854
Oct-18	106.075	109.279	3.204	76.469	0.000		0.000	76.469	76.469
Nov-18	76.272	81.707	5.435	140.328	0.000		0.000	140.328	140.328
Dec-18	84.800	90.239	5.439	153.411	0.222		0.000	153.633	153.669
Jan-19	97.325	101.453	4.127	168.324	23.085	330	156.149	347.558	168.324
Feb-19	82.042	84.024	1.982	54.804	9.134	204	50.107	114.045	54.804
Mar-19	89.000	84.355	-4.645	-136.807	26.931	163	116.756	6.881	-137.701
Total	**1443.152**	**1430.177**	**-12.976**	**-237.252**	**61.692**		**323.012**	**147.452**	**-243.970**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.5 DSM Transactions of MES

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	17.724	18.682	0.959	26.383	0.000		0.000	26.383	26.383
May-18	23.631	23.283	-0.348	18.256	0.265		0.000	18.521	18.256
Jun-18	28.233	25.324	-2.909	-50.138	0.096		0.000	-50.042	-50.138
Jul-18	27.993	24.407	-3.587	-75.833	0.000		0.000	-75.833	-75.833
Aug-18	25.704	23.953	-1.751	-37.548	0.000		0.000	-37.548	-37.548
Sep-18	23.628	19.653	-3.975	-98.233	0.000		0.000	-98.233	-98.233
Oct-18	18.118	16.394	-1.724	-44.771	0.000		0.000	-44.771	-44.771
Nov-18	14.036	13.427	-0.608	-12.727	15.193		0.000	2.466	-12.727
Dec-18	17.141	19.235	2.093	54.458	2.217		0.000	56.675	56.093
Jan-19	19.290	23.501	4.211	156.922	13.382	438	179.622	349.925	191.315
Feb-19	13.068	17.841	4.773	141.610	5.199	390	147.058	293.867	141.610
Mar-19	12.954	14.724	1.770	55.287	4.115	240	64.260	123.663	55.287
Total	**241.520**	**240.424**	**-1.095**	**133.667**	**40.467**		**390.941**	**565.075**	**169.695**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.6 DSM Transactions of RPH

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	-0.504	-0.336	0.168	-3.858	0.000			-3.858	-4.243
May-18	-0.521	-0.362	0.159	-3.387	0.000			-2.903	-3.328
Jun-18	-0.504	-0.510	-0.006	0.199	0.000			0.199	0.292
Jul-18	-0.521	-0.495	0.026	-0.335	0.000			-0.335	-0.252
Aug-18	-0.521	-0.464	0.057	-0.941	0.000			-0.941	-0.978
Sep-18	-0.470	-0.510	-0.039	0.599	0.006			0.605	0.644
Oct-18	-0.521	-0.465	0.055	-1.752	0.000			-1.752	-2.060
Nov-18	-0.504	-0.312	0.192	-4.614	0.000			-4.614	-5.044
Dec-18	-0.521	-0.288	0.232	-5.178	0.000			-5.178	-5.629
Jan-19	-0.521	-0.354	0.167	-5.625	0.616	0	0.000	-5.010	-5.625
Feb-19	-0.470	-0.215	0.256	-7.662	0.861	0	0.000	-6.801	-7.662
Mar-19	-0.521	-0.276	0.244	-7.796	0.763	0	0.000	-7.033	-7.796
Total	**-6.098**	**-4.586**	**1.513**	**-40.350**	**2.246**		**0.000**	**-37.620**	**-41.682**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.7 DSM Transactions of GT

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	62.494	62.786	0.291	-7.494	0.407			-7.087	-7.494
May-18	53.570	53.531	-0.039	5.836	0.180			5.454	5.268
Jun-18	86.088	86.184	0.096	1.959	0.207			2.166	1.959
Jul-18	71.250	71.282	0.032	-2.623	0.135			-2.488	-2.667
Aug-18	58.792	58.983	0.191	-3.966	0.004			-3.962	-4.149
Sep-18	26.905	27.352	0.448	-13.295	0.140			-13.155	-13.295
Oct-18	39.381	39.430	0.049	-0.346	0.016			-0.330	-0.346
Nov-18	34.643	34.854	0.210	-4.918	0.021			-4.897	-4.918
Dec-18	34.918	35.156	0.238	-4.709	0.024			-4.685	-4.730
Jan-19	40.335	40.620	0.284	-10.262	3.568	249	9.681	2.986	-13.315
Feb-19	36.992	37.048	0.056	-2.321	1.622	192	5.886	5.188	-2.580
Mar-19	29.640	29.761	0.121	-4.732	1.472	154	5.030	1.771	-6.707
Total	**575.009**	**576.986**	**1.977**	**-46.872**	**7.796**		**20.597**	**-19.040**	**-52.974**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.8 DSM Transactions of Pragati

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	140.730	141.258	0.529	-13.307	0.258			-13.048	-13.752
May-18	178.805	178.986	0.181	-4.342	3.106			-5.432	-8.561
Jun-18	191.311	191.625	0.314	-7.366	0.059			-7.307	-7.463
Jul-18	186.843	187.128	0.285	-6.177	1.147			-5.030	-7.136
Aug-18	110.486	110.720	0.234	-4.128	0.019			-4.109	-4.128
Sep-18	102.739	103.125	0.386	-8.056	0.084			-7.972	-8.175
Oct-18	121.341	121.652	0.312	-6.408	0.327			-6.080	-6.408
Nov-18	114.777	114.878	0.101	-3.086	0.468			-2.618	-3.086
Dec-18	122.150	121.765	-0.384	10.971	1.745			12.716	10.969
Jan-19	124.797	124.521	-0.276	14.665	5.334	176.000	6.181	26.181	18.117
Feb-19	82.921	83.022	0.101	-1.413	3.154	99.000	2.204	3.945	-1.161
Mar-19	0.364	0.741	0.377	-9.365	1.669	10.000	0.614	-7.081	-12.749
Total	**1477.263**	**1479.422**	**2.160**	**-38.011**	**17.371**		**9.000**	**-15.837**	**-43.534**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.9 DSM Transactions of BTPS

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	82.163	80.572	-1.592	30.725	0.033			30.759	32.785
May-18	203.069	196.795	-6.274	112.824	0.986			100.172	103.197
Jun-18	226.982	219.976	-7.006	130.014	0.193			130.207	137.520
Jul-18	230.677	222.163	-8.514	156.166	1.090			157.256	165.099
Aug-18	224.498	219.055	-5.444	101.372	0.639			102.011	106.685
Sep-18	226.582	218.948	-7.634	145.436	1.739			147.175	153.569
Oct-18	114.505	109.629	-4.876	92.935	1.108			94.042	95.668
Nov-18	0.000	-0.711	-0.711	12.891	0.000			12.891	13.507
Dec-18	0.000	-0.758	-0.758	13.891	0.000			13.891	14.591
Jan-19	0.000	-0.744	-0.744	26.156	1.518	0.000	0.000	27.674	26.156
Feb-19	0.000	-0.601	-0.601	17.430	0.358	0.000	0.000	17.788	17.430
Mar-19	0.000	-0.561	-0.561	17.870	0.784	0.000	0.000	18.654	17.870
Total	**1308.476**	**1263.761**	**-44.715**	**857.711**	**8.448**			**852.521**	**884.077**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.10 DSM Transactions of Bawana

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	309.365	308.351	-1.013	28.337	5.746			34.083	24.004
May-18	315.806	314.562	-1.244	39.136	4.510			60.311	54.203
Jun-18	339.920	336.622	-3.298	63.240	3.507			66.747	61.560
Jul-18	269.073	266.621	-2.452	55.101	0.237			55.338	55.044
Aug-18	245.023	243.132	-1.890	44.070	5.939			50.009	43.986
Sep-18	337.789	336.006	-1.783	39.636	4.100			43.736	39.268
Oct-18	425.506	423.830	-1.676	44.484	2.450			46.934	42.469
Nov-18	303.141	301.549	-1.592	41.927	2.072			43.999	40.315
Dec-18	320.946	319.767	-1.179	33.788	1.877			35.665	31.929
Jan-19	333.786	331.542	-2.244	62.330	27.723	142.000	31.854	121.907	93.031
Feb-19	84.835	83.086	-1.749	44.485	14.315	157.000	28.876	87.677	49.723
Mar-19	212.958	211.131	-1.827	44.638	19.607	233.000	40.782	105.027	83.698
Total	**3498.146**	**3476.199**	**-21.947**	**541.172**	**92.083**			**751.433**	**619.230**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

15.4.11 DSM Transactions of Northern Railways

Month	Scheduled Drawal in Mus	Actual drawal in Mus	Deviation in Mus	Deviation Amount in Lakhs	ADDI Deviation Amount in Lakhs	No of Sustain Deviation	Sustain Deviation Amount in Rs Lakhs	NET Deviation in Rs Lakhs	Deviation Charges with out Caping in Rs. Lakhs
Apr-18	5.736	5.902	0.166	3.169	0.000			3.169	3.169
May-18	5.368	6.322	0.954	30.891	0.141			31.031	30.891
Jun-18	5.758	6.251	0.493	12.773	0.114			12.887	12.773
Jul-18	5.703	6.444	0.740	18.992	0.000			18.992	18.992
Aug-18	5.682	7.417	1.735	40.543	0.000			40.543	40.543
Sep-18	5.537	6.932	1.395	38.234	0.209			38.443	38.234
Oct-18	4.735	7.314	2.579	60.139	0.000			60.139	60.139
Nov-18	5.673	8.664	2.991	71.038	0.000			71.038	71.038
Dec-18	5.853	6.641	0.788	20.969	0.000			20.969	20.963
Jan-19	5.534	7.142	1.608	57.970	4.887	303	54.887	117.744	57.970
Feb-19	4.281	6.457	2.176	65.099	1.828	339	72.028	138.956	65.099
Mar-19	6.011	7.684	1.672	53.392	3.080	331	75.976	132.448	53.392
Total	**65.872**	**83.170**	**17.298**	**473.209**	**10.260**		**202.891**	**686.360**	**473.203**

Note :

i) (-)ve indicates amount receivable by the Utility

ii) (+)ve indicates amount payable by the Utility.

iii) The above UI / DSM accounts are subject to change if accounts are revised by NRPC due to any reason

16 REACTIVE POWER MANAGEMENT

16.1 INSTALLED CAPACITY OF CAPACITORS IN DELHI AS ON 31.03.2019.

DETAILS OF THE CAPACITORS INSTALLED IN DELHI SYSTEM LUMPED TO THE NEAREST 220KV GRID SUB-STATIONS AS ON 31.03.2019 IS AS UNDER:-

(All figures in MVAR)

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
1	**IP YARD**	**DTL**		30.00		**30.00**
1	Kamla Market	BYPL			5.45	**5.45**
2	Minto Road	BYPL			5.45	**5.45**
3	GB Pant Hosp	BYPL			5.45	**5.45**
4	Delhi Gate	BYPL			16.35	**16.35**
5	Tilakmarg	NDMC			5.04	**5.04**
6	Cannaught Place	NDMC			10.08	**10.08**
7	Kilokri	BRPL		10.08	10.48	**20.56**
8	NDSE-II	BRPL				**0.00**
9	Nizamuddin	BRPL				**0.00**
10	Exhibition-I	BRPL				**0.00**
11	Exhibition-II	BRPL				**0.00**
12	Defence Colony	BRPL			5.40	**5.40**
13	IG Stadium	BYPL		10.08		**10.08**
14	Lajpat Nagar	BRPL			7.20	**7.20**
15	IP Estate	BYPL			10.90	**10.90**
16	Jamia Millia	BRPL			5.44	**5.44**
17	Sarai Julaina	BRPL			5.44	**5.44**
18	HUdco	BRPL			5.45	**5.45**
19	D.D.U.Marg	BYPL			10.80	**10.80**
			0.00	**50.16**	**108.93**	**159.09**
2	**Electric Lane**					
1	Electric Lane	NDMC			5.04	**5.04**
2	Scindia House	NDMC			10.44	**10.44**
3	Mandi House	NDMC			10.80	**10.80**
4	Raisina Road	NDMC			10.08	**10.08**
5	Raja Bazar	NDMC			10.08	**10.08**
			0.00	**0.00**	**46.44**	**46.44**
3	**RPH Station**	**IPGCL**		20.00		**20.00**
1	Lahori Gate	BYPL			12.65	**12.65**
2	Jama Masjid	BYPL			5.06	**5.06**
3	Kamla Market	BYPL			10.90	**10.90**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
4	Minto Road	BYPL			5.45	**5.45**
5	GB Pant Hosp	BYPL			5.03	**5.03**
6	Town Hall				3.60	**3.60**
7	IG Stadium				5.45	**5.45**
8	Motia Khan					**5.45**
			0.00	**20.00**	**48.14**	**68.14**
4	**Parkstreet S/stn**	**DTL**	20.00	20.00		**40.00**
1	Shastri Park	BYPL			5.45	**5.45**
2	Faiz Road	BYPL			18.05	**18.05**
3	Motia Khan	BYPL			10.85	**10.85**
4	Prasad Nagar	BYPL			16.25	**16.25**
5	Anand Parbat	BYPL			10.80	**10.80**
6	Shankar Road	BYPL			10.44	**10.44**
7	Tibia College	BYPL			14.40	**14.40**
8	Rama Road	TPDDL			14.40	**14.40**
9	Pusa	TPDDL			7.20	**7.20**
10	Ridge Valley	BRPL			7.20	**7.20**
11	Baird Road	NDMC			10.08	**10.08**
12	Hanuman Road	NDMC			10.08	**10.08**
13	B. D. Marg	NDMC			5.40	**5.40**
14	Nirman Bhawan	NDMC			5.04	**5.04**
			20.00	**20.00**	**145.64**	**185.64**
5	**Naraina S/stn**	**DTL**		20.00	5.04	**25.04**
1	DMS	BYPL			10.85	**10.85**
2	Mayapuri	BRPL			17.60	**17.60**
3	Inderpuri	TPDDL		10.00	7.20	**17.20**
4	Rewari line	TPDDL			7.20	**7.20**
5	Khyber Lane	MES		10.05		**10.05**
6	Kirbi Place	MES		10.05		**10.05**
7	Payal	TPDDL			14.40	**14.40**
8	A-21 Naraina	TPDDL			7.20	**7.20**
9	Saraswati Garden	TPDDL			14.40	**14.40**
			0.00	**50.10**	**83.89**	**133.99**
6	**Mehrauli S/stn**	**DTL**	80.00		5.04	**85.04**
1	Adchini	BRPL			10.43	**10.43**
2	IIT	BRPL			5.45	**5.45**
3	JNU	BRPL			10.03	**10.03**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
4	Bijwasan	BRPL			22.67	**22.67**
5	Malviya Nagar	BRPL	21.79		10.85	**32.64**
6	C Dot	BRPL			23.08	**23.08**
7	Palam	BRPL			7.20	**7.20**
8	IGNOU	BRPL			14.54	**14.54**
9	R. K. Puram-I	BRPL			5.03	**5.03**
10	Vasant Vihar	BRPL			12.05	**12.05**
11	Bhikaji Cama Place	BRPL			7.20	**7.20**
12	Sirifort	BRPL			5.04	**5.04**
13	Tuglakabad	BRPL			5.40	**5.40**
14	Fatehpuri	BRPL			14.40	**14.40**
			101.79	**0.00**	**158.41**	**260.20**
7	**Vasantkunj S/stn**	**DTL**	40.00		5.04	**45.04**
1	Vasant kunj B-Blk	BRPL	21.79		10.90	**32.69**
2	Vasant kunj C-Blk	BRPL	20.16		10.48	**30.64**
3	Vasant kunj D-Blk	BRPL			9.63	**9.63**
4	Andheria Bagh				10.85	**10.85**
5	Vasant Kunj Instt Area				21.60	**21.60**
6	Ridge Valley	BRPL				**0.00**
			81.95	**0.00**	**68.50**	**150.45**
8	**Okhla S/stn**	**DTL**	60.00	10.00	5.04	**75.04**
1	Balaji	BRPL			10.80	**10.80**
2	East of Kailash	BRPL			10.89	**10.89**
3	Alaknanda	BRPL			5.45	**5.45**
4	Malviya Nagar	BRPL		20.16		**20.16**
5	Nehru Place	BRPL			15.89	**15.89**
6	Okhla Ph-I	BRPL	21.79		23.50	**45.29**
7	Okhla Ph-II	BRPL		20.93	15.47	**36.40**
8	Shivalik	BRPL			7.20	**7.20**
9	Batra	BRPL			15.90	**15.90**
10	DC Saket	BRPL			5.45	**5.45**
11	Tuglakabad	BRPL			12.65	**12.65**
			81.79	**51.09**	**128.24**	**261.12**
9	**Lodhi Road S/stn**	**DTL**			20.00	**20.00**
1	Defence Colony	BRPL			9.45	**9.45**
2	Hudco	BRPL			12.65	**12.65**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
3	Lajpat Nagar	BRPL			5.45	**5.45**
4	Nizamuddin	BRPL			17.64	**17.64**
5	Vidyut Bhawan (Shahjahan Rd)	NDMC			10.80	**10.80**
6	East of Kailash	BRPL			5.00	**5.00**
7	Ex. Gr. II	BRPL				**0.00**
8	IHC	BRPL				**0.00**
			0.00	**0.00**	**80.99**	**80.99**
10	**Sarita Vihar S/stn**	**DTL**	20.00		5.04	**25.04**
1	Sarita Vihar	BRPL			10.07	**10.07**
2	MCIE	BRPL			17.26	**17.26**
3	Mathura Road	BRPL			11.69	**11.69**
4	Jamia Millia	BRPL			10.89	**10.89**
5	Sarai Julena	BRPL			10.85	**10.85**
6	Jasola	BRPL			5.44	**5.44**
7	Meethapur	BRPL			14.40	**14.40**
			20.00	**0.00**	**85.64**	**105.64**
11	**Wazirabad**					
1	Bhagirathi	BYPL		14.40	18.10	**32.50**
2	Seelam Pur	BYPL		10.08	21.40	**31.48**
3	Dwarkapuri	BYPL			22.70	**22.70**
4	Yamuna Vihar	BYPL			21.60	**21.60**
5	East of Loni Road	BYPL			18.00	**18.00**
6	Shastri Park	BYPL			10.90	**10.90**
7	Karawal Nagar	BYPL			12.60	**12.60**
8	Sonia Vihar	BYPL			14.70	**14.70**
			0.00	**24.48**	**140.00**	**164.48**
12	**Geeta Colony**					
1	Geeta Colony	BYPL			10.49	**10.49**
2	Kanti Nagar	BYPL			18.10	**18.10**
3	Kailash Nagar	BYPL			15.48	**15.48**
4	Shakar Pur	BYPL			7.20	**7.20**
5	Krishna Nagar	BYPL			14.40	**14.40**
			0.00	**0.00**	**65.67**	**65.67**
13	**Gazipur S/stn**	DTL	40.00		5.04	**45.04**
1	Dallupura	BYPL			18.10	**18.10**
2	Vivek Vihar	BYPL			9.57	**9.57**
3	GT Road	BYPL			10.90	**10.90**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
4	Kondli	BYPL	20.00		10.44	**30.44**
5	MVR-I	BYPL			7.20	**7.20**
6	MVR-II	BYPL	20.00		10.44	**30.44**
7	PPG Ind. Area	BYPL			10.06	**10.06**
8	New Kondli	BYPL			10.80	**10.80**
			80.00	**0.00**	**92.55**	**172.55**
14	**Patparganj S/stn**	DTL	40.00	20.00	5.04	**65.04**
1	GH-I	BYPL	19.90		15.85	**35.75**
2	GH-II	BYPL	20.10		18.10	**38.20**
3	CBD	BYPL		10.03	15.43	**25.46**
4	Guru Angad Nagar	BYPL			22.69	**22.69**
5	Karkadooma	BYPL		10.80	10.08	**20.88**
6	Preet Vihar	BYPL			10.08	**10.08**
7	CBD-II	BYPL			10.80	**10.80**
8	Shakarpur	BYPL			3.60	**3.60**
9	Jhilmil	BYPL			10.80	**10.80**
10	Khichripur	BYPL	21.80		15.89	**37.69**
11	Mother Dairy	BYPL				**0.00**
12	Scope Building	BYPL				**0.00**
13	Vivek Vihar	BYPL			7.20	**7.20**
14	Akhardham	BYPL			14.60	**14.60**
			101.80	**40.83**	**160.16**	**302.79**
15	**Najafgarh S/stn**	**DTL**	60.00		5.04	**65.04**
1	A4 Paschim Vihar	BRPL			18.00	**18.00**
2	Nangloi	BRPL				**0.00**
3	Jaffarpur	BRPL			20.83	**20.83**
4	Paschimpuri	BRPL		10.05	15.47	**25.52**
5	Paschim Vihar	BRPL	21.73	20.10	24.83	**66.66**
6	Mukherjee Park	BRPL			20.83	**20.83**
7	Udyog Nagar	BRPL			10.43	**10.43**
8	Choukhandi	BRPL			17.27	**17.27**
9	G-5 Matiala	BRPL			7.20	**7.20**
10	Bodella-II	BRPL	21.73		17.64	**39.37**
11	DJB Najafgarh	BRPL			21.60	**21.60**
			81.73	**30.15**	**179.14**	**291.02**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
16	**Pappankalan-I S/stn**	**DTL**	20.00		5.04	**25.04**
1	Bindapur Grid G-3 PPK	**BRPL**	21.73		23.05	**44.78**
2	Bodella-I	**BRPL**	20.10		23.45	**43.55**
3	DC Janakpuri	**BRPL**			10.03	**10.03**
4	G-2 PPK (Nasirpur)	**BRPL**			23.40	**23.40**
5	G-5 PPK (Matiala)	**BRPL**			7.20	**7.20**
6	Sagarpur	**BRPL**			17.60	**17.60**
			61.83	**0.00**	**109.77**	**171.60**
17	**BBMB Rohtak Road**					
1	S.B. Mill	BRPL			10.07	**10.07**
2	Rama Road	TPDDL			14.40	**14.40**
3	Rohtak Road	TPDDL			7.20	**7.20**
4	Vishal	BRPL			10.40	**10.40**
5	Madipur	BRPL			10.43	**10.43**
6	Sudershan Park	TPDDL			14.40	**14.40**
7	Kirti Nagar	TPDDL			7.20	**7.20**
			0.00	**0.00**	**74.10**	**74.10**
18	**Shalimarbagh S/stn**	**DTL**		40.00	6.00	**46.00**
1	S.G.T. Nagar	TPDDL			14.40	**14.40**
2	Ashok Vihar	TPDDL			21.60	**21.60**
3	Haiderpur	TPDDL			21.60	**21.60**
4	SMB FC	TPDDL			14.40	**14.40**
5	Rani Bagh	TPDDL			14.40	**14.40**
6	SMB KHOSLA	TPDDL			7.20	**7.20**
			0.00	**40.00**	**99.60**	**139.60**
19	**Subzimandi S/stn**	**DTL**			6.00	**6.00**
1	Shakti Nagar	TPDDL			7.20	**7.20**
2	Gulabibagh	TPDDL			14.40	**14.40**
3	Shahzadabagh	TPDDL			21.60	**21.60**
4	DU	TPDDL			7.20	**7.20**
5	Tripolia	TPDDL			14.40	**14.40**
6	B. G. Road	BYPL			5.40	**5.40**
			0.00	**0.00**	**76.20**	**76.20**
20	**Narela S/stn**	**DTL**	40.00		5.04	**45.04**
1	A-7 Narela	TPDDL			14.40	**14.40**
2	Azad Pur	TPDDL			21.60	**21.60**
3	Badli	TPDDL	20.00		7.20	**27.20**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
4	DSIDC Narela-1	TPDDL	20.00		14.40	**34.40**
5	GTK	TPDDL			14.40	**14.40**
6	Jahangirpuri	TPDDL	20.00	20.00	7.20	**47.20**
7	Bhalswa	TPDDL			14.40	**14.40**
8	Pitampura-I	TPDDL	20.00		14.40	**34.40**
9	RG-1	TPDDL			7.20	**7.20**
			120.00	**20.00**	**120.24**	**260.24**
21	**Gopalpur S/stn**	**DTL**		30.00	5.04	**35.04**
1	Hudson Lane	TPDDL			7.20	**7.20**
2	Wazirabad	TPDDL			7.20	**7.20**
3	Indra Vihar	TPDDL			7.20	**7.20**
4	DIFR	TPDDL			0.00	**0.00**
5	GTK Road	TPDDL			14.40	**14.40**
6	Civil lines	TPDDL			14.40	**14.40**
7	Pitam Pura-3	TPDDL			7.20	**7.20**
8	Tiggipur	TPDDL			14.40	**14.40**
9	Model Town	TPDDL			14.40	**14.40**
10	Dheerpur	TPDDL			14.40	**14.40**
			0.00	**30.00**	**105.84**	**135.84**
22	**Rohini S/stn**	**DTL**	40.00		6.00	**46.00**
1	Rohini Sec-22	TPDDL			21.60	**21.60**
2	Rohini Sec-24	TPDDL			7.20	**7.20**
3	Rohini-3	TPDDL			7.20	**7.20**
4	Rohini-4	TPDDL			14.40	**14.40**
5	Rohini-5	TPDDL			14.40	**14.40**
6	Rohini-6	TPDDL			14.40	**14.40**
7	Mangolpuri-2	TPDDL	20.00		7.20	**27.20**
8	Pitam Pura-2	TPDDL			14.40	**14.40**
9	Rohini DC-1	TPDDL			14.40	**14.40**
10	AIR Kham pur	TPDDL			14.40	**14.40**
			60.00	**0.00**	**135.60**	**195.60**
23	**Kanjhawala S/stn**	**DTL**	20.00		5.04	**25.04**
1	Bawana Clear Water	TPDDL			21.60	**21.60**
2	Pooth Khoord	TPDDL	20.00		7.20	**27.20**
3	Rohini -2	TPDDL			14.40	**14.40**
			40.00	**0.00**	**48.24**	**88.24**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
24	**BAWANA S/stn**					
1	Bawana S/stn No. 6	TPDDL			14.40	**14.40**
2	Bawana S/stn No. 7	TPDDL			7.20	**7.20**
			0.00	**0.00**	**21.60**	**21.60**
25	**Kashmeregate S/stn**	**DTL**			5.04	**5.04**
1	Town Hall	BYPL			5.04	**5.04**
2	Lahori Gate	BYPL			5.04	**5.04**
3	Fountain	BYPL			5.45	**5.45**
4	Jama Masjid	BYPL			5.45	**5.45**
			0.00	**0.00**	**26.02**	**26.02**
26	**Pappankalan-II**					
1	DMRC	BRPL				**0.00**
2	HASTAL	BRPL			21.60	**21.60**
3	G-5 Matiala	BRPL			15.51	**15.51**
4	GGSH	BRPL			10.80	**10.80**
5	Hari Nagar		21.18		16.28	**37.46**
6	Pankha Road				15.88	**15.88**
7	Hastal				21.60	**21.60**
8	G-15 Dwarka				18.00	**18.00**
9	G-IV				21.60	**21.60**
			21.18	**0.00**	**141.27**	**162.45**
27	**Trauma Center (AIIMS)**					
1	AIIMS	NDMC		13.26	5.04	**18.30**
2	Trauma Center	NDMC			10.08	**10.08**
3	Netaji Nagar	NDMC			15.12	**15.12**
4	Sanjay Camp	NDMC			10.08	**10.08**
5	Kidwai Nagar	NDMC			10.08	**10.08**
6	SJ Airport	NDMC			5.04	**5.04**
7	Race Course	NDMC			10.44	**10.44**
8	IIT	BRPL			5.45	**5.45**
9	Adhchini	BRPL			4.18	**4.18**
10	Bhikajicama	BRPL		10.08	10.07	**20.15**
			0.00	**23.34**	**85.58**	**108.92**
28	**MUNDKA**					
1	Mangolpuri-I	TPDDL			21.60	**21.60**
2	Rohini Sec-23	TPDDL			14.40	**14.40**
3	Nangloi Water Works	BRPL	20.89		10.85	**31.74**
4	66kV Mundka	BRPL			21.60	**21.60**
			20.89	**0.00**	**68.45**	**89.34**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
29	**DSIDC BAWANA**					
1	DSIDC NRL-1	TPDDL			0.00	**0.00**
2	DSIDC NRL-2	TPDDL			21.60	**21.60**
3	Bawana Clear Water	TPDDL			21.60	**21.60**
4	Bawana-1	TPDDL				**0.00**
			0.00	**0.00**	**43.20**	**43.20**
30	**RIDGE VALLEY**					
1	Keventry Diary	NDMC			10.08	**10.08**
2	Nehru Park	NDMC			5.04	**5.04**
3	State Guest House	NDMC			5.40	**5.40**
4	Bapu Dham	NDMC			15.48	**15.48**
5	R.K. Puram-I	BRPL			5.04	**5.04**
6	R.K. Puram-II	BRPL			10.80	**10.80**
7	Vasant Vihar	BRPL			7.20	**7.20**
8	Vasant Kunj Instt Area	BRPL				**0.00**
			0.00	**0.00**	**59.04**	**59.04**
31	**PRAGATI**					
1	Vidyut Bhawan	NDMC			10.08	**10.08**
2	Dalhousie Road	NDMC			5.04	**5.04**
3	National Archives	NDMC			10.08	**10.08**
4	School Lane	NDMC			10.44	**10.44**
			0.00	**0.00**	**35.64**	**35.64**
32	**Wazirpur**					
1	Tri Nagar	TPDDL			14.20	**14.20**
2	Wazirpur-1	TPDDL			21.60	**21.60**
3	Wazirpur-2	TPDDL			14.20	**14.20**
4	Ashok vihar	TPDDL			21.60	**21.60**
			0.00	**0.00**	**71.60**	**71.60**
33	**Peeragarhi**					
1	Rani Bagh cc	TPDDL			9.60	**9.60**
			0.00	**0.00**	**9.60**	**9.60**
34	**Rohini-II**					
1	Siraspur	TPDDL			**14.40**	**14.40**
			0.00	**0.00**	**14.40**	**14.40**
35	**Pappankalan-III**					
1	G-6	BRPL			**19.80**	**19.80**
2	G-7	BRPL			**21.60**	**21.60**
			0.00	**0.00**	**41.40**	**41.40**

S.No.	SUB-STATION	Name of Utility	INSTALLED CAPACITY			
			66KV	33kV	11kV	TOTAL
36	**Masjid Moth**	**DTL**				
1	Alaknanda	BRPL			10.85	**10.85**
2	Nehru Place	BRPL			5.45	**5.45**
3	Pushap vihar	BRPL			10.44	**10.44**
4	Shivalik	BRPL			10.80	**10.80**
5	VSNL	BRPL			19.25	**19.25**
6	VSNL-II	BRPL				**0.00**
7	Siri Fort	BRPL			10.49	**10.49**
8	Masjid Moth	BRPL			16.30	**16.30**
9	DC Saket	BRPL		10.08	4.54	**14.62**
			0.00	**10.08**	**88.12**	**98.20**
37	**Harsh Vihar**					
1	Dilshad Garden	BYPL	20.20		15.50	**35.70**
2	Ghonda	BYPL	21.79	22.56	23.10	**67.45**
3	Nandnagri	BYPL		20.20	23.40	**43.60**
			41.99	**42.76**	**62.00**	**146.75**

(The above does not include capacitors installed at LT level).

16.2 REACTIVE ENERGY TRANSACTIONS OF DISCOMS WITH DTL

TPDDL					
Month	MVARh Drawal		Amount in Rs. Lacs		Net Amount in Rs. Lacs
	High Voltage	Low Voltage	High Voltage	Low Voltage	
Apr-18	-14219.500	-100.330	19.90730	-0.14046	19.76684
May-18	-6071.900	-2571.800	8.50066	-3.60052	4.90014
Jun-18	-253.000	-2007.400	0.35420	-2.81036	-2.45616
Jul-18	-3278.900	-2074.800	4.59046	-2.90472	1.68574
Aug-18	-4652.100	-2426.000	6.51294	-3.39640	3.11654
Sep-18	-5624.900	-2653.700	7.87486	-3.71518	4.15968
Oct-18	-22091.900	-422.600	30.92866	-0.59164	30.33702
Nov-18	-70409.200	-387.600	98.57288	-0.54264	98.03024
Dec-18	-65162.900	66.300	91.22806	0.09282	91.32088
Jan-19	-70812.100	335.100	99.13694	0.46914	99.60608
Feb-19	-64841.800	172.100	90.77852	0.24094	91.01946
Mar-19	-69318.900	191.500	97.04646	0.26810	97.31456
Total	**-396737.100**	**-11879.230**	**555.43194**	**-16.63092**	**538.80102**

BRPL					
Month	MVARh Drawal		Amount in Rs. Lacs		Net Amount in Rs. Lacs
	High Voltage	Low Voltage	High Voltage	Low Voltage	
Apr-18	-8908.100	-1924.600	12.47134	-2.69444	9.77690
May-18	-2457.200	-62.300	3.44008	-0.08722	3.35286
Jun-18	-5234.200	8624.100	7.32788	12.07374	19.40162
Jul-18	-4921.800	20844.600	6.89052	29.18244	36.07296
Aug-18	-7573.800	17208.700	10.60332	24.09218	34.69550
Sep-18	-10042.600	8083.100	14.05964	11.31634	25.37598
Oct-18	-25059.100	-779.000	35.08274	-1.09060	33.99214
Nov-18	-62514.300	-469.700	87.52002	-0.65758	86.86244
Dec-18	-70027.000	557.700	98.03780	0.78078	98.81858
Jan-19	-82903.900	214.500	116.06546	0.30030	116.36576
Feb-19	-72123.600	10.600	100.97304	0.01484	100.98788
Mar-19	-73947.600	7.500	103.52664	0.01050	103.53714
Total	**-425713.200**	**52315.200**	**595.99848**	**73.24128**	**669.23976**

BYPL					
Month	MVARh Drawal		Amount in Rs. Lacs		Net Amount in Rs. Lacs
	High Voltage	Low Voltage	High Voltage	Low Voltage	
Apr-18	-979.700	-3507.600	1.37158	-4.91064	-3.53906
May-18	48.400	57.700	-0.06776	0.08078	0.01302
Jun-18	1381.400	1884.900	-1.93396	2.63886	0.70490
Jul-18	3753.900	900.900	-5.25546	1.26126	-3.99420
Aug-18	239.300	1301.500	-0.33502	1.82210	1.48708
Sep-18	10358.800	-2656.200	-14.50232	-3.71868	-18.22100
Oct-18	12546.800	-4614.700	-17.56552	-6.46058	-24.02610
Nov-18	-22608.200	-1724.700	31.65148	-2.41458	29.23690
Dec-18	-34477.300	14.800	48.26822	0.02072	48.28894
Jan-19	-30584.900	-294.800	42.81886	-0.41272	42.40614
Feb-19	-25701.500	-31.700	35.98210	-0.04438	35.93772
Mar-19	-32232.200	-21.200	45.12508	-0.02968	45.09540
Total	**-118255.200**	**-8691.100**	**165.55728**	**-12.16754**	**153.38974**

NDMC					
Month	MVARh Drawal		Amount in Rs. Lacs		Net Amount in Rs. Lacs
	High Voltage	Low Voltage	High Voltage	Low Voltage	
Apr-18	104.300	2528.500	-0.14602	3.53990	3.39388
May-18	56.500	3865.400	-0.07910	5.41156	5.33246
Jun-18	-520.600	7230.000	0.72884	10.12200	10.85084
Jul-18	-186.100	7442.300	0.26054	10.41922	10.67976
Aug-18	-182.200	3534.600	0.25508	4.94844	5.20352
Sep-18	244.400	771.600	-0.34216	1.08024	0.73808
Oct-18	1485.300	-199.200	-2.07942	-0.27888	-2.35830
Nov-18	-5153.800	-66.600	7.21532	-0.09324	7.12208
Dec-18	-4916.500	-2.700	6.88310	-0.00378	6.87932
Jan-19	-5383.000	-78.000	7.53620	-0.10920	7.42700
Feb-19	-5844.800	177.100	8.18272	0.24794	8.43066
Mar-19	-5197.600	268.800	7.27664	0.37632	7.65296
Total	**-25494.100**	**25471.800**	**35.69174**	**35.66052**	**71.35226**

MES					
Month	MVARh Drawal		Amount in Rs. Lacs		
	High Voltage	Low Voltage	High Voltage	Low Voltage	Net Amount in Rs. Lacs
Apr-18	59.300	1314.200	-0.08302	1.83988	1.75686
May-18	-7.300	2107.800	0.01022	2.95092	2.96114
Jun-18	48.800	2019.000	-0.06832	2.82660	2.75828
Jul-18	196.200	1275.400	-0.27468	1.78556	1.51088
Aug-18	30.200	1312.900	-0.04228	1.83806	1.79578
Sep-18	-57.600	2085.700	0.08064	2.91998	3.00062
Oct-18	197.600	64.200	-0.27664	0.08988	-0.18676
Nov-18	109.800	102.800	-0.15372	0.14392	-0.00980
Dec-18	248.800	191.600	-0.34832	0.26824	-0.08008
Jan-19	-178.400	378.600	0.24976	0.53004	0.77980
Feb-19	267.700	247.500	-0.37478	0.34650	-0.02828
Mar-19	67.600	621.300	-0.09464	0.86982	0.77518
Total	**982.700**	**11721.000**	**-1.37578**	**16.40940**	**15.03362**

Northern Railways					
Month	MVARh Drawal		Amount in Rs. Lacs		
	High Voltage	Low Voltage	High Voltage	Low Voltage	Net Amount in Rs. Lacs
Apr-18	-428.800	-14.900	0.60032	-0.02086	0.57946
May-18	-483.200	-42.000	0.67648	-0.05880	0.61768
Jun-18	-106.300	-151.400	0.14882	-0.21196	-0.06314
Jul-18	-372.900	-95.800	0.52206	-0.13412	0.38794
Aug-18	-256.800	134.600	0.35952	0.18844	0.54796
Sep-18	-544.600	34.400	0.76244	0.04816	0.81060
Oct-18	66.000	0.000	-0.09240	0.00000	-0.09240
Nov-18	-110.200	0.000	0.15428	0.00000	0.15428
Dec-18	-193.000	1.200	0.27020	0.00168	0.27188
Jan-19	-540.500	0.000	0.75670	0.00000	0.75670
Feb-19	-960.300	0.000	1.34442	0.00000	1.34442
Mar-19	-992.300	0.000	1.38922	0.00000	1.38922
Total	**-4922.900**	**-133.900**	**6.89206**	**-0.18746**	**6.70460**

TOTAL DISCOMS					
Month	MVARh Drawal		Amount in Rs. Lacs		
	High Voltage	Low Voltage	High Voltage	Low Voltage	Net Amount in Rs. Lacs
Apr-18	-24372.500	-1704.730	34.12150	-2.38662	31.73488
May-18	-8914.700	3354.800	12.48058	4.69672	17.17730
Jun-18	-4683.900	17599.200	6.55746	24.63888	31.19634
Jul-18	-4809.600	28292.600	6.73344	39.60964	46.34308
Aug-18	-12395.400	21066.300	17.35356	29.49282	46.84638
Sep-18	-5666.500	5664.900	7.93310	7.93086	15.86396
Oct-18	-32855.300	-5951.300	45.99742	-8.33182	37.66560
Nov-18	-160685.900	-2545.800	224.96026	-3.56412	221.39614
Dec-18	-174527.900	828.900	244.33906	1.16046	245.49952
Jan-19	-190402.800	555.400	266.56392	0.77756	267.34148
Feb-19	-169204.300	575.600	236.88602	0.80584	237.69186
Mar-19	-181621.000	1067.900	254.26940	1.49506	255.76446
Total	**-970139.800**	**68803.770**	**1358.19572**	**96.32528**	**1454.52100**

Note : (+) incase of amount is payable by the utility to DTL.

17. TRANSMISSION SYSTEM AVAILABILITY OF DELHI TRANSCO LTD. FOR THE YEAR 2018-19

Elements	Apr-18		May-18		Jun-18		Jul-18	
	No of elements	Availability	No of elements	Availability	No of elements	Availability	No of elements	Availability
400kV, 220kV, 66kV, 33kV, 11kV AC Tx Lines	654	99.509	657	99.415	660	99.740	661	99.436
400/220kV, 220/66kV, 220/33kV, 66/33kV, 66/11kV, 33/11kV Power Transformer/ ICT	165	96.878	167	97.330	169	98.352	169	98.351
66kV, 33kV, 11kV Capacitor Banks	58	99.960	58	99.690	58	99.978	58	99.702
Total availability of the month	**99.044**		**99.038**		**99.491**		**99.247**	

Elements	Aug-18		Sep-18		Oct-18		Nov-18	
	No of elements	Availability	No of elements	Availability	No of elements	Availability	No of elements	Availability
400kV, 220kV, 66kV, 33kV, 11kV AC Tx Lines	667	99.469	670	99.563	680	99.152	678	99.406
400/220kV, 220/66kV, 220/33kV, 66/33kV, 66/11kV, 33/11kV Power Transformer/ ICT	169	98.737	167	97.990	168	97.404	169	97.809
66kV, 33kV, 11kV Capacitor Banks	58	98.207	58	97.299	58	97.288	58	97.182
Total availability of the month	**99.249**		**99.123**		**98.709**		**98.965**	

Elements	Dec-18		Jan-19		Feb-19		Mar-19	
	No of elements	Availability	No of elements	Availability	No of elements	Availability	No of elements	Availability
400kV, 220kV, 66kV, 33kV, 11kV AC Tx Lines	676	99.692	677	99.807	677	99.891	678	99.752
400/220kV, 220/66kV, 220/33kV, 66/33kV, 66/11kV, 33/11kV Power Transformer/ ICT	169	96.206	169	96.937	169	97.121	169	96.371
66kV, 33kV, 11kV Capacitor Banks	58	95.628	58	97.325	58	99.953	58	99.990
Total availability of the month	**98.779**		**99.111**		**99.377**		**99.136**	

Annual Transmission System Availability of DTL : 99.106 %

18. NEW ELEMENTS COMMISSIONED IN TRANSMISSION SYSTEM

The following transmission system elements added during the year 2018-19

S. No.	Name of Element	Date of Energization	Time of Energization
	400kV		
1	400kV Bamnauli-Tughlaqabad Ckt-1	10.10.2018	00:59hrs.
2	400kV Bamnauli-Tughlaqabad Ckt-2	10.10.2018	00:43hrs.
3	400kV Tughlaqabad-Ballabhgarh Ckt-1	10.10.2018	00:53hrs.
4	400kV Tughlaqabad-Ballabhgarh Ckt-2	10.10.2018	00:02hrs.
	220kV		
1	66kV Incomer-II of 160MVA Tx-II energized at 220kV PPK-III S/S	10.04.2018	21:19hrs.
2	220/66kV 160MVA Tx-1 at 220kV RK Puram S/S	21.05.2018	16:50hrs.
3	220/33kV 100MVA Tx-1 at 220kV RK Puram S/S	23.05.2018	15:25hrs.
4	220/66kV 160MVA Tx-2 (Incomer) at 220kV RK Puram S/S	09.06.2018	16:02hrs.
5	220/33kV 100MVA Tx-2 (Incomer) at 220kV RK Puram S/S	02.06.2018	17:28hrs.
6	220kV Mehrauli-Tughlaqabad Ckt-1	06.10.2018	20:00hrs.
7	220kV Mehrauli-Tughlaqabad Ckt-2	06.10.2018	15:14hrs.
8	220kV Tughlaqabad-BTPS Ckt-1	06.10.2018	18:18hrs.
9	220kV Tughlaqabad-BTPS Ckt-2	06.10.2018	18:26hrs.
10	220/66kV 160MVA TX-2 along with 66kV I/C-II at 220kV Tughlaqabad S/S	12.10.2018	19:50hrs.
11	220/66kV 160MVA Tx-1 at Tughlaqabad	05.11.2018	21:50hrs.
12	66kV Incomer-1 at Tughlaqabad	12.11.2018	15:20hrs.
13	220kV Tughlaqabad-Okhla Ckt-II	24.01.2019	17:07hrs.
	66kV		
1	66kV G-4 CKT-I at 220kV PPK-III S/S	09.05.2018	18:07hrs.
2	66kV G-4 CKT-II at 220kV PPK-III S/S	09.05.2018	18:12hrs.
3	66kV G-6 CKT at 220kV PPK-III S/S	02.06.2018	11:30hrs.
4	66kV G-7 CKT at 220kV PPK-III S/S	02.06.2018	11:30hrs.
5	66kV DMRC CKT at 220kV PPK-III S/S	15.06.2018	17:32hrs.
6	66kV DMRC CKT-I at 220kV RK Puram	06.07.2018	15:12hrs.
7	66kV DMRC CKT-1 at 220kV Gazipur	09.08.2018	16:10hrs.
8	66kV Khichripur CKT-2 at 220kV Patparganj	27.08.2018	19:15hrs.
9	66kV Mayur Vihar CKT-2 at 220kV Patparganj	29.08.2018	16:05hrs.
10	66kV DMRC CKT-1 at 400kV Harsh Vihar	28.08.2018	19:38hrs.
11	66kV DMRC CKT-2 at 400kV Harsh Vihar	28.08.2018	17:05hrs.
12	66kV DMRC CKT-2 at 220kV RK Puram	11.09.2018	12:42hrs.
13	66kV Batra Ckt at 220kV Tughlaqabad S/S	16.10.2018	15:15hrs.
14	66kV Malviya Nagar Ckt at 220kV Tughlaqabad S/S	16.10.2018	15:31hrs.

S. No.	Name of Element	Date of Energization	Time of Energization
	33kV		
1	33kV SAKARPUR CKT at 220kV Preet Vihar S/S	30.03.2018	12:38hrs.
2	33kV Shankar Road CKT-2 at 220kV Park Street	08.08.2018	21:51hrs.
3	33kV Tibia College Ckt-1 at 220kV Park street	08.09.2018	19:54hrs.
4	33kV Tibia College Ckt-2 at 220kV Park street	12.09.2018	19:32hrs.
5	33kV Bhikaji Cama Place ckt	05.09.2018	
6	33kV JNU Ckt	04.09.2018	
7	33kV Supreme Court Ckt (Bay No-38) at Indraprastha S/S	07.02.2019	18:15hrs.
8	33kV Prasad Nagar Ckt-2 at 220kV Park Street	27.03.2019	20:10hrs.

19 TRIPPINGS / BREAK-DOWNS IN 400/220KV SYSTEM FOR THE YEAR 2018-19

19.1 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH APRIL 2018

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	1.4.18	09:45	220kV KANJHAWALA-NAJAFGARH CKT	1.4.18	16:04	AT KHANJAWALA : REPLACEMENT OF DAMAGED CONDUCTOR.
2	2.4.18	13:05	220kV MEHRAULI - BTPS CKT. - I	2.4.18	14:20	AT MEHRAULI : DIST PROT, ZONE-I, DIST 9.469KM AT BTPS : DIST PROT, ZONE-I, DIST 13.3KM.
3	3.4.18	12:56	220kV KANJHAWALA-NAJAFGARH CKT	3.4.18	13:40	AT KHANJAWALA : DIST PROT, ZONE-I, B PHASE.
4	3.4.18	14:38	220kV BAMNAULI - DIAL CKT-I	3.4.18	16:17	AT DIAL : DIST PROT, ZONE-I, R PHASE, MAIN-II, DIST 8.9KM. AT BAMNAULI : DIST PROT, ZONE-I, DIST 6.189KM.
5	3.4.18	14:42	220kV PAPPANKALAN-I-NARAINA CKT-I	3.4.18	15:12	AT NARAINA : 186A&B, AUTO RE-CLOSE, A PHASE, LINE DIFFERENTIAL. AT PAPANKALAN-I : CKT. DID NOT TRIP.
6	4.4.18	13:13	220kV NARELA - MANDOLA CKT-I	4.4.18	13:46	AT NARELA : DIST PROT, DIST 2.093KM, R PHASE.
7	4.4.18	14:20	220kV GOPALPUR-MANDOLACKT-I	4.4.18	15:10	AT GOPALPUR : R PHASE, DIFFERENTIAL OPERATION, RYB PHASE,86. AT MANDOLA : DIST PROT, ZONE-I, DIST 18.7KM.
8	5.4.18	16:18	220kV PRAGATI - PARK STREET CKT-II	5.4.18	16:44	AT PRAGATI : CKT. TRIPPED WITHOUT INDICATION WHILE INSTALLATION OF LINE DIFFERENTIAL RELAY.
9	5.4.18	16:55	NARAINA 220/33kV 100MVA Tx-III	5.4.18	18:05	TRIPPED ON DIFFERENTIAL, 86A & 86B.
10	6.4.18	05:24	KASHMIRI GATE 33/11kV, 20MVA Tx	6.4.18	05:57	AT KASHMIRI GATE: TRIPPED ON DIFFERENTIAL RYB PHASE
11	6.4.18	05:24	KASHMIRI GATE 33/11kV, 20MVA Tx	18.4.18	23:53	AT KASHMIRI GATE: TRIPPED ON DIFFERENTIAL RYB PHASE
12	6.4.18	16:15	VASANT KUNJ 220/66kV 160MVA Tx-I	6.4.18	17:10	TRIPPED ON SUPERVISION RELAY.
13	6.4.18	17:20	NAJAFGARH 66/11kV, 20MVA Tx-I	6.4.18	17:25	I/C TRIPPED WITHOUT INDICATION.
14	6.4.18	17:26	220kV PAPPANKALAN-I-NARAINA CKT-I	6.4.18	23:07	AT NARAINA : DIST PROT, ABC, 186A. AT PPK-I : R PHASE CONDUCTOR SNAPPED.
15	6.4.18	17:27	220kV BAMNAULI-PAPPANKALAN-I CKT-I	6.4.18	18:41	R PHASE DIFFERENTIAL TRIP, 86ABC.
16	6.4.18	17:34	NARAINA 220/33kV 100MVA Tx-III	6.4.18	21:48	TR. TRIPPED ON 86B, I/C TRIPPED ON 86.
17	6.4.18	20:20	SARITA VIHAR 66/11kV, 20MVA Tx-II	6.4.18	23:10	86
18	6.4.18	20:55	NAJAFGARH 66/11kV, 20MVA Tx-II	6.4.18	22:30	86
19	6.4.18	21:12	SHALIMAR BAGH 33/11kV, 16MVA Tx-I	6.4.18	22:57	BUCHLLOZ, 86.
20	8.4.18	10:46	220kV MEHRAULI - BTPS CKT. - II	8.4.18	19:54	AT MEHRAULI : DIST PROT, DIST 12.2KM. AT BTPS : DIST PROT, ZONE-I, DIST 6.3KM.
21	9.4.18	08:36	NARELA 220/66kV 100MVA Tx-I	9.4.18	11:07	BUCHHLOZ RELAY 186.

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
22	9.4.18	13:13	220KV BAWANA-SHALIMARBAGH CKT-II	9.4.18	19:24	AT BAWANA : DIFFERENTIAL PROT, O/C, R PHASE TRIP., AT SHALIMAR BAGH : LINE DIFFERENTIAL R PHASAE, 186A&B.
23	11.4.18	10:36	220kV MAHARANI BAGH - SARITA VIHAR CKT	11.4.18	11:25	AT MAHARANI BAGH : DIST PROT, DIST 11.29KM, ZONE-II AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 1.2KM.
24	11.4.18	10:36	220kV MAHARANI BAGH - LODHI ROAD CKT-II	11.4.18	16:51	AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 0.7KM AT LODHI ROAD : A&B PHASE, 86.
25	12.4.18	05:02	NARAINA 33/11kV, 16MVA Tx-I	12.4.18	05:14	I/C TRIPPED ON 86, O/C.
26	12.4.18	09:08	NARAINA 220/33kV 100MVA Tx-II	12.4.18	12:41	O/C, E/F, 86.
27	12.4.18	11:56	220kV MAHARANI BAGH - PRAGATI CKT	12.4.18	13:58	AT PRAGATI : DIST PROT ZONE-I, R PHASE, DIST 7.047KM. AT MAHARANI BAGH : DIST PROT, DIST 3.8KM.
28	13.4.18	11:35	220kV MEHRAULI - BTPS CKT. - II	13.4.18	19:05	AT BTPS : DIST PROT, ZONE-I, DIST 4.3KM. AT MEHRAULI : CKT DID NOT TRIPPED.
29	15.4.18	08:20	RAJGHAT 220/33kV 100MVA Tx-2	15.4.18	11:09	TRIPPED WITHOUT INDICATION
30	16.4.18	12:37	MUNDKA 400/220kV 315MVA ICT-II	16.4.18	13:25	TR. TRIPPED ON 86, I/C TRIPPED ON 86.
31	16.4.18	12:37	220kV MUNDKA-NAJAFGARH CKT	16.4.18	13:48	AT MUNDKA : DIST PROT, ZONE-III, DIST 12.47KM. AT NAJAFGARH : CKT. DID NOT TRIPPED.
32	16.4.18	12:38	220KV PEERAGARHI-WAZIRPUR CKT-I	16.4.18	12:44	AT PEERAGARHI : 86, R PHASE O/C.
33	17.4.18	02:15	OKHLA 220/33kV 100MVA Tx-IV	17.4.18	13:15	TR. TRIPPED ON REF LV SIDE, I/C TRIPPED ON E/F, 86.
34	17.4.18	02:15	OKHLA 220/33kV 100MVA Tx-III	17.4.18	02:35	I/C TRIPPED ON E/F, 86.
35	17.4.18	11:00	OKHLA 33kV ALAKNANDA CKT-II	17.4.18	14:15	SPARKING AND FLASH ON R&Y PHASE CB JUMPERS.
36	18.4.18	01:28	220kV BAMNAULI-NAJAFGARH CKT-I	21.4.18	15:26	AT BAMNAULI : DIST PROT, ZONE-I, DIST 8.113KM. AT NAJAFGARH : R PHASE CONDUCTOR BROKEN ON 66KV BUS BAR.
37	18.4.18	07:26	220kV BAMNAULI-NAJAFGARH CKT-II	18.4.18	07:45	AT NAJAFGARH : SUPPLY FAIL
38	18.4.18	08:08	SARITA VIHAR 220/66kV 100MVA Tx-I	18.4.18	08:30	51AX, O/C, Y PHASE, BUS ISOLATOR FLASH.
39	18.4.18	08:08	SARITA VIHAR 220/66kV 100MVA Tx-II	18.4.18	08:30	51AX, O/C, E/F, 86.
40	18.4.18	13:35	220kV MEHRAULI - BTPS CKT. - II	18.4.18	16:57	AT MEHRAULI : DIST PROT, ZONE-I, DIST 13.27KM. AT BTPS : DIST PROT, ZONE-I, DIST 8.1KM
41	18.4.18	13:40	220kV MAHARANI BAGH - SARITA VIHAR CKT	18.4.18	15:36	AT SARITA VIHAR : DIST PROT, DIST 3.402KM, 186A&B AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 6.8KM.
42	19.4.18	14:03	220kV BAWANA-DSIIDC BAWANA CKT-I	19.4.18	16:47	AT DSIDC BAWANA : DIST PROT, AT BAWANA : DIST PROT, ZONE-I, DIST 2.5KM.
43	20.4.18	10:53	220kV BAMNAULI - DIAL CKT-I	20.4.18	14:37	AT DIAL : DIST PROT, ZONE-I, R PHASE FAULTY AT BAMNAULI : DIST PROT, ZONE-I, DIST 11.07KM, 186, A PHASE.
44	20.4.18	11:40	220kV GOPALPUR-MANDOLACKT-II	20.4.18	12:50	AT GOPALPUR : DIST PROT, B PHASE. AT MANDOLA : DIST PROT, ZONE-I, DIST 12.6KM.
45	21.4.18	15:02	400kV Dadri-Harsh Vihar Ckt-I	21.4.18	18:08	AT HARSH VIHAR : CKT. DID NOT TRIP. AT DADRI : DUE TO ICT-5 CT BLAST.

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
46	21.4.18	15:02	400kV Dadri-Harsh Vihar Ckt-I	21.4.18	18:08	AT HARSH VIHAR : CKT. DID NOT TRIP. AT DADRI : DUE TO ICT-5 CT BLAST.
47	24.4.18	14:35	220kV MEHRAULI - BTPS CKT. - I	24.4.18	16:18	AT BTPS : DIST PROT, ZONE-I, DIST 14KM, AT MEHRAULI : DIST PROT, ZONE-I, DIST 8.772KM.
48	24.4.18	16:20	PAPPANKALAN-II 220/66kV 160MVA Tx-III	24.4.18	16:28	TRIPPED WITHOUT INDICATION.
49	25.4.18	12:27	220kV BAMNAULI - DIAL CKT-II	25.4.18	14:30	AT DIAL : DIFFERENTIAL, B PHASE, MAIN -I. AT BAMNAULI : DIST PROT, ZONE-I, DIST 14.89KM.
50	25.4.18	13:33	220KV BAWANA-SHALIMARBAGH CKT-I	25.4.18	14:38	AT BAWANA : DIST PROT, MASTER TRIP, 86. AT SHALIMARBAGH : INTER-TRIPPING.
51	25.4.18	14:14	220kV OKHLA - BTPS CKT. - II	25.4.18	16:00	AT OKHLA : NO TRIPPING AT BTPS : DIST PROT, ZONE-I, DIST 5.1KM.
52	26.4.18	01:12	VASANT KUNJ 220/66kV 160MVA Tx-I	26.4.18	01:25	I/C TRIPPED ON WITHOUT INDICATION.
53	26.4.18	01:48	VASANT KUNJ 220/66kV 160MVA Tx-I	Still out		TRANSFORMER TRIPPED ON 295B, TROUBLE ALARM, OIL TEMP ALARM, 295CA, 295CC, 195CC, 195CB, TRANSFORMER BURNT DUE TO FIRE.
54	26.4.18	01:48	220kV BAWANA-DSIIDC BAWANA CKT-II	26.4.18	07:32	AT DSIDC BAWANA : DIST PROT, R PHASE, 86, 86. AT BAWANA : DIST PROT, ZONE-I, DIST 2.936KM.
55	26.4.18	02:10	VASANT KUNJ 220/66kV 100MVA Tx-II	26.4.18	10:45	TR. TRIPPED ON 295CA, 295CB, 295CC, 195CC, 86, 30D.
56	26.4.18	13:25	PAPPANKALAN-II 220/66kV 160MVA Tx-III	26.4.18	16:40	TR TRIPPED ON 86.
57	28.4.18	06:30	RAJGHAT 33kV JAMA MASJID CKT-2 (BAY-6)	28.4.18	06:48	33KV BUS-II TRIPPED DUE TO MONKEY JUMPER ON IT. ALL FEEDERS ON BUS-II AFFECTED.
58	28.4.18	06:30	RAJGHAT 33kV MOTIA KHAN CKT (BAY-1)	28.4.18	06:48	33KV BUS-II TRIPPED DUE TO MONKEY JUMPER ON IT. ALL FEEDERS ON BUS-II AFFECTED.
59	28.4.18	06:30	RAJGHAT 33kV JAMA MASJID CKT-1 (BAY-5)	28.4.18	06:48	33KV BUS-II TRIPPED DUE TO MONKEY JUMPER ON IT. ALL FEEDERS ON BUS-II AFFECTED.
60	28.4.18	06:30	RAJGHAT 33kV LAHORI GATE CKT (BAY-2)	28.4.18	06:48	33KV BUS-II TRIPPED DUE TO MONKEY JUMPER ON IT. ALL FEEDERS ON BUS-II AFFECTED.
61	28.4.18	11:45	NAJAFGARH 66/11kV, 20MVA Tx-I	28.4.18	11:50	86
62	29.4.18	12:38	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	29.4.18	12:54	O/C.
63	29.4.18	12:38	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	29.4.18	12:52	O/C.
64	29.4.18	12:59	220kV NARELA - MANDOLA CKT-II	29.4.18	17:00	AT NARELA :DIST PROT, DIST 5.391KM.
65	30.4.18	17:55	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	30.4.18	18:46	86
66	31.1.18	14:42	220kV MAHARANI BAGH-MASJID MOTH CKT-I	6.4.18	19:31	AT MASJID MOTH : DIST PROT, DIST 2.3KM.

19.2 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH MAY 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	2.5.18	12:45	VASANT KUNJ 220/66kV 100MVA Tx-II	2.5.18	19:05	86, I/C TRIPPED ON BUCHHOLZ.
2	2.5.18	17:21	400kV Ballabhgarh-Bamnauli Ckt-II	2.5.18	19:45	AT BAMNAULI : DIST PROT, ZONE-I, RYB PHASE, 186A&B.
3	3.5.18	02:50	SHALIMAR BAGH 220/33kV 100MVA Tx-III	3.5.18	03:25	AT SHALIMARBAGH: 33 kV I/C-III TRIPPED ON O/C, E/F.
4	3.5.18	02:50	SHALIMAR BAGH 33kV HAIDERPUR CKT-II	3.5.18	18:24	AT SHALIMARBAGH : E/F, 86. FLASH OCCURRED ON R PHASE CT.
5	3.5.18	03:54	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	3.5.18	17:58	86, 186, BUCHHOLZ.
6	3.5.18	07:15	220kV MAHARANI BAGH - PRAGATI CKT	3.5.18	08:03	AT PRAGATI : DIST PROT, ZONE-II, DIST 3.634KM, 86, 186.
7	3.5.18	07:15	220kV PRAGATI - SARITA VIHAR CKT - I	3.5.18	08:03	At Sarita Vihar : 186A&B. At Pragati : Ckt. did not trip.
8	3.5.18	19:00	220kV KANJHAWALA-NAJAFGARH CKT	4.5.18	00:55	R PHASE JUMPER SNAPPED.
9	5.5.18	10:18	RAJGHAT 33kV JAMA MASJID CKT-1 (BAY-5)	5.5.18	10:48	BUS BAR PROTECTION OPERATED. MONKEY JUMP ON BUS.
10	5.5.18	10:18	RAJGHAT 33kV MOTIA KHAN CKT (BAY-1)	5.5.18	10:48	BUS BAR PROTECTION OPERATED. MONKEY JUMP ON BUS.
11	5.5.18	10:18	RAJGHAT 33kV JAMA MASJID CKT-2 (BAY-6)	5.5.18	10:48	BUS BAR PROTECTION OPERATED. MONKEY JUMP ON BUS.
12	5.5.18	19:35	PATPARGANJ 33/11kV, 20MVA Tx	6.5.18	00:48	86, 87AX, SMOKE OBSERVED IN PANEL.
13	7.5.18	14:03	220kV NARELA - MANDOLA CKT-I	7.5.18	14:27	At Mandola: ckt tripped. AT Narela : Ckt. did not tripped.
14	7.5.18	23:09	220kV GOPALPUR-MANDOLACKT-II	7.5.18	13:16	86, 1.96MM, F/C 300.1 A
15	7.5.18	23:09	220kV GOPALPUR-MANDOLACKT-II	8.5.18	13:16	AT GOPALPUR : DIST PROT, ZONE-I, 86. AT MANDOLA DIST PROT, ZONE-I, II, III, DIST 17.17KM.
16	7.5.18	23:09	220kV GOPALPUR-MANDOLACKT-I	8.5.18	13:16	AT GOAPLPUR : 86. AT MANDOLA : DIST PROT, DIST 19.15KM.
17	7.5.18	23:09	220kV GOPALPUR-MANDOLACKT-I	7.5.18	13:16	AT MANDOLA: DIST. PROTECTION, 19.15 KM, 10KA TRIPPED ON 86 A& B.
18	7.5.18	23:09	220kV GOPALPUR-MANDOLACKT-II	9.5.18	13:16	AT GOPALPUR : 86,zone-1, Y phase
19	7.5.18	23:09	220kV GOPALPUR-MANDOLACKT-I	9.5.18	13:16	AT Gopalpur : 86, Dist. Protection
20	7.5.18	23:37	PATPARGANJ 66kV GH-I CKT-I	7.5.18	23:55	AT PATPARGANJ : DISTANCE PROTECTION, ZONE-I, RYB PHASE, 6 KM
21	8.5.18	00:35	OKHLA 66kV MALVIYA NAGAR CKT-I	8.5.18	03:09	E/F
22	8.5.18	00:52	220 KV GOPALPUR-WAZIRABAD CKT - 1	8.5.18	01:15	AT GOPALPUR : DIST PROT, 86.
23	8.5.18	00:54	220kV GOPALPUR-SUBZI MANDI CKT-II	8.5.18	01:17	AT SABZIMANDI: DISTANCE PROTECTION, ZONE-I
24	8.5.18	00:54	220kV GOPALPUR-SUBZI MANDI CKT-I	8.5.18	01:17	AT SUBZI MANDI : DIST PROT, ZONE-I.
25	8.5.18	00:54	220kV GOPALPUR-SUBZI MANDI CKT-II	8.5.18	01:17	AT SUBZI MANDI : DIST PROT, ZONE-I.
26	8.5.18	00:54	220kV GOPALPUR-SUBZI MANDI CKT-I	8.5.18	01:17	AT SABZIMANDI: DIST. PROT, ZONE-I

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
27	8.5.18	00:54	SUBZI MANDI 220/33kV 100MVA Tx-I	8.5.18	01:17	AT SABZI MANDI: 86 & 186
28	8.5.18	00:54	SUBZI MANDI 220/33kV 100MVA Tx-II	8.5.18	01:17	AT SABZIMANDI: 86 & 186
29	8.5.18	00:54	SUBZI MANDI 220/33kV 100MVA Tx-I	8.5.18	01:17	AT SABZIMANDI: 86 & 186
30	8.5.18	00:54	SUBZI MANDI 220/33kV 100MVA Tx-II	8.5.18	01:17	AT SABZIMANDI: 86 & 186
31	8.5.18	01:27	220kV GOPALPUR-MANDOLACKT-II	8.5.18	05:41	AT GOPALPUR : DIST PROT, DIST 17.77KM.
32	8.5.18	01:27	220 KV GOPALPUR-WAZIRABAD CKT - 1	8.5.18	01:42	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 1.054KM, 86ABC.
33	8.5.18	01:27	220 KV GOPALPUR-WAZIRABAD CKT - 1	8.5.18	02:28	AT WAZIRABAD: DISTANCE PROTECTION, ZONE-I, 86ABC,
34	8.5.18	01:27	220 KV GOPALPUR-WAZIRABAD CKT - 1	8.5.18	01:42	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 1.054KM, 86ABC.
35	8.5.18	01:27	220 KV GOPALPUR-WAZIRABAD CKT-2	8.5.18	03:49	AT WAZIRABAD: DIST PROT, ZONE-I, 14.7KM
36	8.5.18	01:45	SUBZI MANDI 220/33kV 100MVA Tx-II	8.5.18	04:38	E/F, Fault 186,86
37	8.5.18	12:01	RAJGHAT 220/33kV 100MVA Tx-I	9.5.18	00:27	AT RAJGHAT: TRIPPED ON BUS BAR PROT. ALONG WITH BAY-I
38	8.5.18	20:47	220kV GOPALPUR-MANDOLACKT-II	9.5.18	20:49	D/P, zone-1, 12.17km, Y phase,RYB
39	9.5.18	06:25	NARAINA 220/33kV 100MVA Tx-II	9.5.18	18:18	O/C, E/F. 86
40	9.5.18	06:25	NARAINA 33/11kV, 16MVA Tx-I	10.5.18	18:35	86,E/F.
41	9.5.18	06:25	NARAINA 220/33kV 100MVA Tx-III	9.5.18	07:32	E/F
42	9.5.18	17:05	WAZIRABAD 220/66kV 100MVA Tx-I	9.5.18	17:40	SPR,86
43	9.5.18	19:20	PATPARGANJ 33kV KARKADOOMA CKT-I	9.5.18	22:00	O/C
44	11.5.18	12:32	220kV OKHLA - BTPS CKT. - II	11.5.18	15:52	AT BTPS : DIST PROT, Z-1, DIST 5.88KM
45	11.5.18	12:50	GAZIPUR 66/11kV, 20MVA Tx-I	11.5.18	13:08	Y PHASE, DIFFERENTIAL, 86 ALONGWITH I/C
46	11.5.18	14:05	GAZIPUR 66/11kV, 20MVA Tx-I	11.5.18	14:28	Y PHASE DIFFERNTIAL, 86 ALONGWITH I/C.
47	12.5.18	09:17	220kV ROHINI-SHALIMARBAGH CKT-I	12.5.18	11:22	AT ROHINI : MAIN-II, 86ABC.
48	13.5.18	07:48	PARKSTREET 220/33kV 100MVA Tx-I	13.5.18	12:37	30G, 30A, 86A.
49	13.5.18	10:58	SARITA VIHAR 220/66kV 100MVA Tx-I	13.5.18	13:05	TRIP SUPERVISION RELAY.
50	13.5.18	16:35	220kV MEHRAULI - BTPS CKT. - I	13.5.18	21:21	At BTPS: Dist. Prot, Z-1, Dist-7.5 km, B-ph At Mehrauli : Dist. Prot, Z-1, Dist- 14.01 km, B-ph
51	13.5.18	16:40	220kV MEHRAULI - BTPS CKT. - II	13.5.18	18:54	At BTPS: Dist. Prot, Z-1, Dist- 9 km, R-ph At Mehrauli : Dist. Prot, Z-1, Dist -10.87 km, R-ph
52	13.5.18	16:43	NARAINA 220/33kV 100MVA Tx-III	13.5.18	17:45	E/F, 86, ABC.
53	13.5.18	16:44	220kV PAPPANKALAN-I-NARAINA CKT-I	13.5.18	19:27	At Naraina: Dist. Prot Zone -I, B phase, 86 ABC At PPK-I : Dist. Prot, Zone- I, Dist-5.840 km, B-ph, 186 A & B.
54	13.5.18	16:50	DIAL 220/66kV 160MVA Tx-I	13.5.18	19:15	86A, DIFFERENTIAL.
55	13.5.18	18:14	400kV Bamnauli-Jhatikara Ckt-I	13.5.18	18:45	AT BAMNAULI : DIST PROT, ZONE-I, RYB PHASE.

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
56	13.5.18	18:14	400kV Ballabhgarh-Bamnauli Ckt-I	13.5.18	18:35	AT BAMNAULI : SUPPLY FAILED AT BALLABHGARH : CKT. TRIPPED.
57	13.5.18	18:19	220kV BAMNAULI - DIAL CKT-I	13.5.18	18:48	At Bamnauli: Dist. Prot, Z-I, Dist-1.422 km, Line Differential, 186 A & B. At Dial: R- phase Line Differential
58	13.5.18	18:55	220 KV PATPARGANJ - I.P. CKT-I	14.5.18	07:25	At IP: Dist. Prot, Z-I, R & Y ph, 186, 86, ABC. At PPG: Dist. Prot, Z-I, R Y- ph trip, Auto Reclose
59	13.5.18	18:58	220kV MEHRAULI - BTPS CKT. - II	14.5.18	12:32	At BTPS: Ckt did not trip At Mehrauli : O/C, E/F
60	13.5.18	19:04	VASANT KUNJ 220/66kV 100MVA Tx-II	13.5.18	20:15	86, E/F, O/C.
61	13.5.18	19:04	VASANT KUNJ 220/66kV 100MVA Tx-III	13.5.18	20:23	O/C, E/F, 86.
62	13.5.18	19:41	220kV GOPALPUR-SUBZI MANDI CKT-II	13.5.18	22:21	At Gopalpur: Dist.Protn, Y ph, Dist.- 432.3 M,
63	13.5.18	19:42	220kV GOPALPUR-MANDOLACKT-I	13.5.18	22:26	At Gopalpur: Dist.Protn, Dist.- 2.205 km.
64	13.5.18	19:43	220KVBAWANA-ROHINI-2 CKT-II	14.5.18	07:43	At Bawana: E/F, Dist.Protn, Z-I, Dist.- 5.23 km,
65	13.5.18	19:43	BAWANA 400/220kV 315MVA ICT-V	13.5.18	23:38	E/F.
66	13.5.18	19:43	BAWANA 400/220kV 315MVA ICT-VI	13.5.18	23:25	E/F
67	13.5.18	19:45	220kV WAZIRABAD-GEETA COLONY CKT-I	13.5.18	23:42	At Wazirabad: Dist. Prot, Zone-II, Dist 6.57km, 86 At Geeta colony: Dist. Prot, Z-I, Dist1.592 km, 86
68	13.5.18	20:10	220kV WAZIRABAD-GEETA COLONY CKT-II	13.5.18	23:42	At Gita Colony: Dist. Protn, Zone-I, SOTF, 86. At Wazirabad: Dist. Prot, Zone-I,II, III, Auto Reclose Lock out.
69	13.5.18	20:37	220 KV GOPALPUR-WAZIRABAD CKT-2	14.5.18	07:44	At Wazirabad: Auto Reclose, Lock out, trip ph- N. At Gopalpur: CB is in off position
70	13.5.18	22:12	SHALIMAR BAGH 220/33kV 100MVA Tx-I	13.5.18	23:08	E/F, 86.
71	13.5.18	22:12	SHALIMAR BAGH 220/33kV 100MVA Tx-I	13.5.18	13:08	E/F, 86.
72	14.5.18	05:25	NARELA 220/66kV 100MVA Tx-I	14.5.18	06:25	86
73	14.5.18	05:25	NARELA 220/66kV 100MVA Tx-III	14.5.18	05:40	86
74	14.5.18	11:45	220kV MAHARANI BAGH - SARITA VIHAR CKT	14.5.18	22:12	At Sarita Vihar: Dist. Prot, Dist-6.9 km. At Maharani Bagh: Dist. Prot, Dist-1.4 km, R-Ph
75	15.5.18	02:54	220kV NARELA - MANDOLA CKT-II	16.5.18	21:27	At Narela: Dist Prot,dist.15.6Kms. , E/F. At Mandola: Dist Prot, Dist. 2.46 km.
76	15.5.18	11:20	220 KV GOPALPUR-WAZIRABAD CKT - 1	15.5.18	11:50	AT GOPALUR : POLE DISCRIPANCY.
77	15.5.18	16:23	220kV MEHRAULI - BTPS CKT. - II	15.5.18	19:30	AT MEHRAULI : DIST PROT, ZONE-I, DIST 1.8KM
78	16.5.18	02:50	400kV Mandola-Bawana Ckt-I	16.5.18	04:55	At Bawana: Dist. Prot, Z-I, C-N –Ph At Mandola: Dist. Prot, Dist-5.819 Kms
79	16.5.18	02:50	400kV Bamnauli-Jhatikara Ckt-I	16.5.18	03:48	At Bamnauli: Dist. Prot, Dist.5.618Km.
80	16.5.18	02:50	400kV Ballabhgarh-Bamnauli Ckt-I	16.5.18	03:40	AT Ballabgarh : Ckt. tripped At Bamnauli: Ckt did not trip.
81	16.5.18	02:54	220kV NARELA - MANDOLA CKT-I	16.5.18	06:41	At Mandola: Dist Prot, Z-III, Dist-32.5Kms, R-Ph. At Narela: Supply failed
82	16.5.18	02:57	220KV WAZIRABAD - MANDOLA CKT-I	16.5.18	03:52	At Mandola: Dist. Prot, Dist-14.65 Kms, Y-B-Ph. At Wazirabad: Supply failed
83	16.5.18	02:57	220KV WAZIRABAD - MANDOLA CKT-II	16.5.18	03:58	At Mandola: Dist. Prot, Dist-14.49 Kms, Y-B-PhAt Wazirabad: Supply failed

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
84	16.5.18	02:57	220KV WAZIRABAD - MANDOLA CKT-III	16.5.18	03:59	At Mandola: Dist. Prot, Dist-14.62 Kms, Y-B-Ph ,Z-I At Wazirabad: Supply failed.
85	16.5.18	02:57	220kV WAZIRABAD-GEETA COLONY CKT-I	16.5.18	06:06	At Wazirabad: Dist Prot, Z-I, B-Ph, SOTF. At Geeta Colony: Dist Prot,Z-II,R-Ph, E/F
86	16.5.18	02:57	220kV WAZIRABAD-GEETA COLONY CKT-II	16.5.18	06:06	At Wazirabad: Dist Prot, Z-I, R-Ph. At Geeta Colony: E/F, SOTF.
87	16.5.18	02:57	220kV GEETA COLONY-PATPARGANJ CKT-I	16.5.18	03:35	At Patparganj: 86ABC. At Geeta Colony: Did not trip.
88	16.5.18	02:57	220kV GEETA COLONY-PATPARGANJ CKT -II	16.5.18	03:32	At Patparganj: O/C, trip phase 86ABC. At Geeta Colony: Did not trip.
89	16.5.18	02:57	220kV PAPPANKALAN-I-NARAINA CKT-I	16.5.18	07:40	At Pappankalan-I: Dist. Prot, R ph, Zone-II, 86ABC At Naraina: Dist. Prot, Dist-4.77 Kms, 186AB&C.
90	16.5.18	02:57	GEETA COLONY 220/33kV 100MVA Tx-II	16.5.18	03:30	I/C tripped on 30 CB auto trip.
91	16.5.18	02:57	GEETA COLONY 220/33kV 100MVA Tx-I	16.5.18	03:30	I/C-tripped on 30 CB auto trip.
92	16.5.18	02:59	BAWANA 400/220kV 315MVA ICT-I	19.5.18	11:48	Tripped without indication.
93	16.5.18	03:00	220kV MEHRAULI - BTPS CKT. - II	16.5.18	11:15	At BTPS: Dist Prot., Z-II, Dist-14Kms.R-Ph, E/F. At Mehrauli: Dist Prot., Z-I, R-Ph.
94	16.5.18	03:04	220kV BAMNAULI - DIAL CKT-I	16.5.18	04:20	At Bamnauli: Dist Prot, Zone-I ,Dist.9.831km, R PHASE. At Dial: DIST PROT, ZONE-I, LINE DIFFERENTIAL.
95	16.5.18	03:07	220 KV GOPALPUR-WAZIRABAD CKT-2	16.5.18	13:05	At Wazirabad: Dist Prot, Z-I, Dist-1.361 Kms, B-Ph. At Gopalpur: : CB was in off position
96	16.5.18	03:09	BAWANA 220/66kV 100MVA Tx	16.5.18	04:23	Trip ckt supervision, 86B, I/C tripped on 195C.
97	16.5.18	03:13	220kV MAHARANI BAGH - SARITA VIHAR CKT	16.5.18	08:17	At Maharani Bagh: E/F At Sarita Vihar - Supply failed
98	16.5.18	03:13	220kV MAHARANI BAGH - SARITA VIHAR CKT	16.5.18	08:17	At Maharani Bagh: E/F At Sarita Vihar - Supply failed
99	16.5.18	03:15	220kV GAZIPUR - BTPS CKT	16.5.18	12:05	At BTPS: Dist Prot, Dist-7.3Kms E/F, R-Ph. At Gazipur : CB was in off position
100	16.5.18	04:06	220KV MUNDKA-PEERAGARHI CKT-II	16.5.18	04:34	At Mundka: Dist Prot, ZONE-I. B PHASE, At Peeragarhi: Supply failed
101	16.5.18	04:06	220KV MUNDKA-PEERAGARHI CKT-II	16.5.18	04:34	AT MUNDKA : DIST PROT, ZONE-I, 195, B PHASE.
102	16.5.18	12:18	400kV Dadri - Harsh Vihar Ckt. -II	16.5.18	20:59	AT HARSH VIHAR : CVT DISAPPEAR, RYB PHASE, MAIN -I, E/F, DIST PROT, DIST 43.2KM. ZONE-I. AT DADRI : E/F.
103	17.5.18	08:49	HARSH VIHAR 400/220kV 315MVA ICT-III	20.5.18	12:01	86, DIFFERENTIAL PROT.
104	17.5.18	10:47	220kV KANJHAWALA-NAJAFGARH CKT	17.5.18	11:02	AT KHANJAWALA : DIST PROT, ZONE-I, B PHASE.
105	17.5.18	11:00	GAZIPUR 220/66kV 100MVA Tx-I	17.5.18	16:45	TRIPPED WITHOUT INDICATION.
106	17.5.18	14:11	400kV Mandola-Bawana Ckt-I	17.5.18	18:44	AT BAWANA : DIST PROT, ZONE-II & III, DIST 38.14KM. AT MANDOLA : DIST PRO, DIST 4.9KM, B PHASE, TO GROUND
107	17.5.18	14:40	MUNDKA 220/66kV 160MVA Tx-II	17.5.18	16:30	86B, REF.

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
108	18.5.18	13:36	220kV DSIIDC BAWANA-NARELA CKT-II	18.5.18	15:10	186
109	20.5.18	05:30	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	20.5.18	09:57	DIFFERENTIAL.
110	20.5.18	09:54	220kV WAZIRABAD - KASHMEREGATE CKT-I	20.5.18	10:43	AT KASHMIRI GATE : DIST PROT, ZONE-I. AT WAZIRABAD : DIST PROT, ZONE-II, RYB PHASE.
111	20.5.18	09:55	GEETA COLONY 220/33kV 100MVA Tx-I	20.5.18	10:15	I/C TRIPPED ON CB AUTO TRIP.
112	20.5.18	14:38	220kV MEHRAULI - BTPS CKT. - II	20.5.18	16:58	AT MEHRAULI : DIST PROT, ZONE-I, DIST 5.809KM. AT BTPS : DIST PROT, ZONE-I, DIST 13.9KM.
113	21.5.18	01:47	220 KV GOPALPUR-WAZIRABAD CKT-2	21.5.18	07:44	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 1.624KM.
114	21.5.18	13:50	220KVBAWANA-ROHINI CKT-I	21.5.18	16:30	AT ROHINI : E/F, 86. AT BAWANA : CKT. DID NOT TRIP.
115	21.5.18	13:55	220kV GOPALPUR-MANDOLACKT-I	21.5.18	15:16	AT MANDOLA: DIST PROT, SOTF. AT GOPALPUR : SUPPLY FAILED.
116	21.5.18	13:58	220 KV GOPALPUR-WAZIRABAD CKT-2	21.5.18	16:15	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 1.664KM.
117	22.5.18	01:27	220kV Maharani Bagh-Electric Lane Ckt-II	22.5.18	02:19	AT MAHARANI BAGH : TRIPPED WITHOUT INDICATION.
118	22.5.18	01:27	220kV MAHARANI BAGH - PRAGATI CKT	22.5.18	02:15	AT MAHARANI BAGH : CKT. TRIPPED WITHOUT INDICATION.
119	22.5.18	01:27	220kV MAHARANI BAGH - SARITA VIHAR CKT	22.5.18	02:14	AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 1.6KM.
120	22.5.18	23:27	LODHI RD 220/33kV 100MVA Tx-I	23.5.18	17:26	86A, DIFFERENTIAL, R PHASE CABLE PUNTURE, I/C TRIPPED ON 86A&B.
121	25.5.18	11:53	220kV NARELA - MANDOLA CKT-I	25.5.18	13:20	AT NARELA : DIST PORT, DIST 2.8KM.
122	25.5.18	23:27	SUBZI MANDI 220/33kV 100MVA Tx-II	26.5.18	00:02	O/C, B PHASE, 86.
123	25.5.18	23:48	SUBZI MANDI 220/33kV 100MVA Tx-I	25.5.18	23:58	86, O/C.
124	26.5.18	04:20	VASANT KUNJ 66/11kV, 20MVA Tx-I	26.5.18	04:57	O/C, 86.
125	26.5.18	11:36	220kV MEHRAULI - BTPS CKT. - II	26.5.18	15:20	AT MEHRAULI : DIST PROT, ZONE-I, DIST 11.25KM. AT BTPS : DIST PROT, ZONE-I, DIST 9.2KM.
126	26.5.18	12:02	PAPPANKALAN-II 220/66kV 160MVA Tx-III	26.5.18	13:35	STR 3, 86.
127	26.5.18	14:27	400kV Ballabhgarh-Bamnauli Ckt-I	26.5.18	19:17	AT BAMNAULI : DIST PROT, ZONE-I, DIST 2.98KM.
128	26.5.18	16:50	OKHLA 220/66kV 100MVA Tx-II	26.5.18	21:55	E/F.
129	26.5.18	16:50	OKHLA 220/66kV 100MVA Tx-I	26.5.18	21:55	E/F.
130	27.5.18	12:05	PAPPANKALAN-II 220/66kV 160MVA Tx-III	27.5.18	12:43	86
131	27.5.18	12:20	220kV MUNDKA-KANJHAWALA CKT	27.5.18	13:18	AT MUNDKA : DIST PROT, ZONE-I, DIST 0.75KM.
132	27.5.18	13:15	220kV MEHRAULI - BTPS CKT. - II	27.5.18	20:47	AT MEHRAULI : DIST PROT, ZONE-I, DIST 14.28KM. AT BTPS : DIST PROT, ZONE-I.
133	27.5.18	13:36	220kV DIAL-MEHRAULI CKT-I	27.5.18	20:47	AT MEHRAULI : 86, DIFFERENTIAL. AT DIAL : MAIN-I, DIFFERENTIAL.

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
134	27.5.18	14:48	220kV KANJHAWALA-NAJAFGARH CKT	27.5.18	15:32	AT KHANJAWALA : DIST PROT, ZONE-I, DIST 7KM.
135	27.5.18	14:53	220kV MEHRAULI - BTPS CKT. - II	27.5.18	20:47	AT MEHRAULI: 186
136	27.5.18	14:53	220kV MEHRAULI - BTPS CKT. - I	27.5.18	20:47	AT BTPS : DIST PROT, ZONE-I, DIST 4.5KM. AT MEHRAULI : CVT DISAPPEAR.
137	27.5.18	14:59	BAMNAULI 400/220kV 315MVA ICT-I	27.5.18	19:46	BUCHHOLZ.
138	27.5.18	15:02	MEHRAULI 220/66kV 160MVA Tx-I	28.5.18	11:43	186
139	27.5.18	16:05	220kV PRAGATI - I.P.CKT - I	27.5.18	16:15	86
140	27.5.18	16:06	PRAGATI 220/66kV 160MVA Tx-II	28.5.18	07:15	86, DIFFERENTIAL.
141	27.5.18	18:00	220kV MEHRAULI - BTPS CKT. - II	26.5.18	20:47	AT MEHRAULI : DIST PROT, ZONE-I, AT BTPS : DIST PROT, ZONE-I.
142	28.5.18	10:29	220KV GAZIPUR - MAHARANIBAGH CKT. -I	28.5.18	11:21	AT GAZIPUR : 86.
143	29.5.18	12:10	220KV GAZIPUR - MAHARANIBAGH CKT. -II	29.5.18	12:30	AT GAZIPUR : TRIPPED WITHOUT INDICATION.
144	29.5.18	12:48	KANJHAWALA 66/11kV, 20MVA Tx-II	29.5.18	12:57	E/F, O/C.
145	29.5.18	14:14	220kV GOPALPUR-MANDOLACKT-I	29.5.18	15:23	AT GOPALPUR : DIST PROT, DIST 1.9KM. AT MANDOLA : DIST PROT, ZONE-I, DIST 17.31KM.
146	30.5.18	00:30	220KV GAZIPUR - MAHARANIBAGH CKT. -I	30.5.18	00:50	AT GAZIPUR : POLE DISCRIPANCY.
147	30.5.18	01:05	220KV GAZIPUR - MAHARANIBAGH CKT. -I	30.5.18	18:34	AT GAZIPUR : POLE DISCREPANCY.

19.3 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH JUNE 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	2.6.18	22:30	BAWANA 400/220kV 315MVA ICT-I	3.6.18	13:05	DUE TO SPARKING OBSERVED
2	3.6.18	06:50	SARITA VIHAR 220/66kV 100MVA Tx-II	3.6.18	11:54	FIRE REPORTED
3	9.6.18	16:55	400kV Ballabhgarh-Bamnauli Ckt-I	9.6.18	19:56	AT BAMNAULI : DIS PROT, DIS 7.82KM, ZONE-I
4	9.6.18	17:05	400kV Bamnauli-Jhatikara Ckt-II	9.6.18	18:55	AT BAMNAULI : DIST PROT, ZONE-I, DIST 0.5KM.
5	9.6.18	17:05	400kV Bamnauli-Jhatikara Ckt-I	9.6.18	18:55	AT BAMNAULI : Distance Protn, A&B ph; zone-1&4 , 594 m.
6	9.6.18	17:07	BAMNAULI 400/220kV 315MVA ICT-I	9.6.18	18:20	96 BB, OLTC B ph;
7	9.6.18	17:20	220KV WAZIRABAD - MANDOLA CKT-IV	9.6.18	20:07	Dist. Prot. Z-1, DIST. 821.1m.
8	9.6.18	17:20	220KV WAZIRABAD - MANDOLA CKT-III	9.6.18	20:07	At WZB: DIST PROT, Z-1, DIST 799.6m, BC Ph.
9	9.6.18	17:25	220kV MAHARANI BAGH - SARITA VIHAR CKT	9.6.18	21:10	At MBG: RY ph; Z-3, 7.9km At SVR: Z-1, 1.8 km

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
10	9.6.18	17:27	220kV GAZIPUR - BTPS CKT	10.6.18	00:09	At BTPS: Z-1, R ph; 7.3 km, 12.88 kA At Gazipur: already off.
11	9.6.18	17:28	220kV WAZIRABAD-GEETA COLONY CKT-II	9.6.18	20:27	At GEETA COLONY : DIST PROT, 86, Y ph; 5.476 km, IB = 10.47 kA, DIST PROT, Zone-2&3 At WZB: RY ph; Z-1, ABN ph; DIST. 328.8m
12	9.6.18	17:28	220kV PRAGATI - SARITA VIHAR CKT - I	9.6.18	21:47	At SVR: Z-1, 1.026 km, Y ph. At PGT: Y ph; E/F, 13.17 km.
13	9.6.18	17:29	220kV GOPALPUR-SUBZI MANDI CKT-II	9.6.18	18:06	AT GOPALPUR : B Ph; Z-1, 13.8 km, N to Y ph. No tripping at Sabzimandi
14	9.6.18	17:35	220 KV GOPALPUR-WAZIRABAD CKT - 1	9.6.18	18:35	At Gopalpur: W/o indication CVT available
15	9.6.18	17:35	220 KV I.P.- RPH CKT-I	9.6.18	22:18	At IP: 86 ABC, DIST PROT, Z-2, DIST. 1.4 km At RPH: Z-2 DIST PROT, .
16	9.6.18	17:40	GAZIPUR 66/11kV, 20MVA Tx-II	9.6.18	18:27	86, PRV.
17	10.6.18	07:31	220kV GOPALPUR-SUBZI MANDI CKT-II	10.6.18	11:47	AT GOPALPUR : DIST PROT, DIST 6.5KM.
18	10.6.18	13:11	220kV DIAL-MEHRAULI CKT-II	10.6.18	13:50	AT DIAL : DIFFERENTIAL , R PHASE FAULTY, RYB PHASE TRIP.
19	11.6.18	09:53	220kV DIAL-MEHRAULI CKT-I	11.6.18	09:56	AT DIAL : DIFFERENTIAL, BY PHASE.
20	12.6.18	02:59	LODHI RD 33/11kV, 20MVA Tx-I	12.6.18	08:40	E/F.
21	12.6.18	03:05	LODHI RD 33/11kV, 20MVA Tx-II	12.6.18	05:26	TR. TRIPPED ON BUCHHOLZ, PRV RELAY, I/C TRIPPED ON E/F.
22	16.6.18	00:08	220kV MUNDKA-KANJHAWALA CKT	16.6.18	00:40	AT KHANJAWALA : TRIPPED WITHOUT INDICATION.
23	16.6.18	14:02	MASJID MOTH 220/33kV 100MVA Tx-II	16.6.18	14:45	86
24	16.6.18	14:02	MASJID MOTH 220/33kV 100MVA Tr-III	16.6.18	14:45	86
25	16.6.18	14:02	MASJID MOTH 220/33kV 100MVA Tx-I	16.6.18	15:10	86
26	16.6.18	19:06	220kV MUNDKA-KANJHAWALA CKT	16.6.18	19:50	AT KHANJAWALA : DIST PROT, ZONE-I, DIST 7.07KM. AT MUNDKA : DIST PROT, ZONE-II, DIST 20KVM.
27	17.6.18	09:29	WAZIRABAD 220/66kV 160MVA Tx-I	17.6.18	10:58	HV, LV, REF.
28	18.6.18	06:30	SARITA VIHAR 66kV MATHURA ROAD CKT-II	18.6.18	12:17	FIRE IN CONTROL PANEL.
29	21.6.18	18:24	220 KV TRAUMA CENTER-RIDGE VALLEY CKT-2	21.6.18	19:18	AT RIDGE VALLEY : DIFFERENTIAL TRIP, GENERAL TRIP.
30	22.6.18	05:35	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	22.6.18	06:09	86
31	22.6.18	13:37	220kV PRAGATI - SARITA VIHAR CKT - I	22.6.18	15:15	AT PRAGATI : DIST PROT, ZONE-I, II, III, DIST 6.93KM. AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 6.642KM.
32	23.6.18	17:10	220kV GAZIPUR-PATPARGANJ CKT	23.6.18	17:10	AT GAZIPUR : B PHASE, GEN TRIP, O/C. AT PATPARGANJ : SUPPLY FAILED.
33	25.6.18	09:02	OKHLA 220/33kV 100MVA Tx-V	25.6.18	09:28	E/F.
34	25.6.18	17:31	400kV Bamnauli-Jhatikara Ckt-II	25.6.18	22:58	AT BAMNAULI : JUMPER SNAPPED.
35	26.6.18	03:34	PARKSTREET 220/66kV 100MVA Tx-II	26.6.18	03:52	86, E/F.
36	26.6.18	14:23	220kV GAZIPUR - NOIDA SEC.-62 CKT	26.6.18	17:25	AT BTPS : DIST PROT, ZONE-I, DIST 14.6KM.
37	27.6.18	00:27	VASANT KUNJ 66/11kV, 20MVA Tx-I	27.6.18	00:50	86

S.N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
38	27.6.18	07:56	BAWANA 400/220kV 315MVA ICT-I	27.6.18	14:49	B PHASE TRIP, 86, BUCHHOLZ.
39	27.6.18	16:25	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	27.6.18	16:30	O/C, 86
40	27.6.18	16:25	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	27.6.18	16:30	O/C, R PHASE.
41	27.6.18	16:25	INDRAPRASTHA POWER 33kV IG STADIUM CKT-II (BAY-33)	27.6.18	16:30	BIRDAGE.
42	28.6.18	01:30	GAZIPUR 220/66kV 100MVA Tx-II	28.6.18	08:23	DIFFERENTIAL PROT,RYB PHASE, 86.
43	28.6.18	02:40	TRAUMA CENTER 220/33kV 100MVA Tx-II	28.6.18	06:06	86A, 86B, SPR.
44	28.6.18	10:50	220kV GAZIPUR-PATPARGANJ CKT	28.6.18	11:37	AT GAZIPUR : Y PHSE, O/C.
45	28.6.18	10:52	BAWANA 220/66kV 100MVA Tx	28.6.18	11:31	86B.
46	28.6.18	11:46	TRAUMA CENTER 220/33kV 100MVA Tx-II	28.6.18	13:56	SPR, PRV, I/C TRIPPED ON 86A&B.
47	28.6.18	16:27	TRAUMA CENTER 220/33kV 100MVA Tx-II	28.6.18	18:25	SPR, I/C TRIPPED ON 86A&B.
48	29.6.18	09:48	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	29.6.18	10:58	R PHASE, O/C, E/F.
49	29.6.18	09:48	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	29.6.18	10:58	I/C TRIPPED ON R PHASE, O/C, E/F.
50	30.6.18	07:33	220 KV PATPARGANJ - I.P. CKT-II	30.6.18	16:07	At I.P. : Dist prot, Zone-II, ABC Phase, 186, 86 At Patparganj : Dist prot, zone-I, Dist 0.986km, RYB Phase.
51	30.6.18	07:33	220 KV PATPARGANJ - I.P. CKT-I	30.6.18	08:23	At I.P. : Dist prot, Zone-I, ABC Phase, 186, 86 At Patparganj : Ckt. did not trip.
52	30.6.18	08:04	RAJGHAT 220/33kV 100MVA Tx-I	30.6.18	08:28	86A, B &C, Auto reclose
53	30.6.18	08:32	RAJGHAT 220/33kV 100MVA Tx-I	30.6.18	10:14	Tripped without indication

19.4 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH JULY 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	01.07.18	06:14	VASANT KUNJ 220/66kV 160MVA Tx-I	01.07.18	13:45	86
2	01.07.18	06:27	LODHI RD 220/33kV 100MVA Tx-I	01.07.18	18:40	DIFFERENTIAL, RYB PHASE.
3	02.07.18	19:35	220kV WAZIRABAD-GEETA COLONY CKT-II	02.07.18	20:29	AT WAZIRABAD : DIST PROT, DIST 782 MTS. AT GEETA COLONY : DIST PROT, ZONE-II, III, DIST 23.43KM, 86ABC.
4	02.07.18	19:50	220kV GAZIPUR-PATPARGANJ CKT	02.07.18	20:50	AT GAZIPUR : O/C, RY PHASE, GENERAL TRIP. AT PATPARGANJ : CKT DID NOT TRIP.
5	02.07.18	20:21	220kV PRAGATI - SARITA VIHAR CKT - I	02.07.18	22:24	AT SARITA VIHAR : DIST PROT, ZONE-III , III, DIST 9.615KM. AT PRAGATI : DIST PROT, ZONE-I, DIST 2.896KM.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
6	02.07.18	20:30	SARITA VIHAR 66/11kV, 20MVA Tx-I	02.07.18	20:38	O/C
7	03.07.18	07:27	BAWANA 400/220kV 315MVA ICT-V	03.07.18	08:46	SPARKING ON BUSHING.
8	03.07.18	08:17	GAZIPUR 220/66kV 160MVA Tx-I	03.07.18	10:21	O/C & HEAVY JERK.
9	03.07.18	08:17	GAZIPUR 220/66kV 160MVA Tx-I	03.07.18	10:21	O/C & HEAVY JERK.
10	03.07.18	06:22	220kV GAZIPUR-PATPARGANJ CKT	03.07.18	12:55	AT GAZIPUR : LINE DIFFERENTIAL, O/C, MASTER TRIP.
11	03.07.18	16:36	220kV Harsh Vihar - Preet Vihar Ckt-II	04.07.18	18:48	AT HARSH VIHAR : MAIN-I, 86, RYB PHASE. AT PREET VIHAR : DIST PROT, ZONE-I.
12	03.07.18	20:48	220kV BAWANA-DSIIDC BAWANA CKT-II	03.07.18	21:52	AT DSIDC BAWANA : R PHASE, AT BAWANA : CKT DID NOT TRIPPED.
13	04.07.18	08:01	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	04.07.18	16:03	86, 186, BUCHHOLZ,
14	04.07.18	16:50	NAJAFGARH 66kV 20MVAR CAP. BANK-I	04.07.18	19:15	TRIPPED.
15	05.07.18	05:27	220KV SHALIMARBAGH-WAZIRPUR CKT-II	05.07.18	10:18	AT SHALIMARBAGH : DIST PROT, ZONE-I, SOTF, 86.
16	05.07.18	10:18	220KV SHALIMARBAGH-WAZIRPUR CKT-II	05.07.18	14:02	AT SHALIMARBAGH : DIST PROT, MAIN-I, SOTF.
17	05.07.18	14:49	NARAINA 220/33kV 100MVA Tx-II	05.07.18	16:51	SPARKING ON Y PHASE CB CLAMP.
18	05.07.18	15:53	220kV MAHARANI BAGH - SARITA VIHAR CKT	05.07.18	17:31	AT MAHARANI BAGH : DIST PROT, ZONE-I, RYB PHASE, DIST 7.2KM. AT SARITA VIHAR : DIST PROT, ZONE-I, R PHASE, DIST 3.701KM.
19	05.07.18	15:57	PARKSTREET 220/33kV 100MVA Tx-I	05.07.18	16:04	TRIPPED WITHOUT INDICATION.
20	05.07.18	17:55	SARITA VIHAR 220/66kV 100MVA Tx-II	05.07.18	21:20	ATTENDING OIL LEAKAGE ON B PHASE CT.
21	05.07.18	19:50	220kV MUNDKA-NAJAFGARH CKT	06.07.18	04:46	AT MUNDKA : DIST PROT, ZONE-I, II, DIST 11.4KM.
22	06.07.18	15:35	NARELA 66/11kV, 20MVA Tx-I	06.07.18	19:27	86, E/F.
23	07.07.18	22:02	MUNDKA 400/220KV 315MVA ICT-III	07.07.18	23:58	86A&B.
24	07.07.18	22:02	400kV Mundka-Jhatikara Ckt-I	08.07.18	00:10	AT MUNDKA : DIST PROT, ZONE-I, B PHASE.
25	07.07.18	23:15	220kV BAWANA - KANJHAWALA CKT - 1	07.07.18	23:27	AT KHANJAWALA : O/C, ACTIVE GROUP -I. AT BAWANA : CKT. DID NOT TRIPPED.
26	07.07.18	23:15	220kV BAWANA - KANJHAWALA CKT-2	07.07.18	23:57	AT BAWANA : O/C, RY PHSAE, DIST PROT, DIST 38.65KM, MASTER 86.
27	07.07.18	23:35	NAJAFGARH 220/66kV 100MVA Tx-IV	07.07.18	23:37	TRIPPED WITHOUT INDICATION.
28	07.07.18	23:35	NAJAFGARH 220/66kV 100MVA Tx-II	07.07.18	23:37	TRIPPED WITHOUT INDICATION.
29	08.07.18	17:38	PARKSTREET 66/33kV, 30MVA Tx-I	09.07.18	01:49	86, DIFFERENTIAL.
30	10.07.18	19:22	PEERA GARHI 220/33kV 100MVA Tx-III	11.07.18	03:01	DIFFERENTIAL, B PHASE, SUPERVISION RELAY, I/C ALSO TRIPPED ON 86B.
31	11.07.18	14:10	220kV BAMNAULI-NAJAFGARH CKT-I	12.07.18	05:35	AT BAMNAULI : DIST. PROT, ZONE-I, DIST 6.871KM.
32	12.07.18	14:15	MEHRAULI 220/66kV 100MVA Tx-II	12.07.18	14:35	ATTEND LEAKAGE.
33	12.07.18	17:10	220kV GAZIPUR - BTPS CKT	12.07.18	17:35	AT GAZIPUR : POLE DISCREPANCY.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
34	12.07.18	17:15	220kV MAHARANI BAGH - PRAGATI CKT	12.07.18	18:20	At Maharani Bagh: Dist prot, Zone-II, Dist-3.8Kms. At Pragati: Dist prot, Zone-I, Dist-2.483Kms, E/F.
35	12.07.18	17:15	220kV PRAGATI - SARITA VIHAR CKT - I	12.07.18	20:15	At Pragati: Dist prot, Zone-I, Dist-2.216Kms, C-Ph, 186, O/C, E/F. At Sarita Vihar: : Dist prot, Zone-II, Dist-10.52Kms, ABC Phase, 186,
36	13.07.18	15:16	R K PURAM 220/66kV 160MVA Tx-II	13.07.18	17:05	BUCHOLZ.
37	13.07.18	19:15	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	14.07.18	15:50	BUCHOLZ, 86.
38	14.07.18	00:56	SUBZI MANDI 220/33kV 100MVA Tx-II	14.07.18	16:34	REF.
39	16.07.18	03:50	NARAINA 220/33kV 100MVA Tx-III	16.07.18	04:17	I/C TRIPPED ON O/C, E/F.
40	16.07.18	14:13	GOPALPUR 220/33kV 100MVA Tx-I	16.07.18	14:58	O/C.
41	16.07.18	15:17	GOPALPUR 220/33kV 100MVA Tx-I	16.07.18	18:00	SPARKING ON B PHASE BUSHING CLAMP.
42	17.07.18	04:15	NARELA 66kV 20MVAR CAP. BANK-II	17.07.18	17:35	E/F.
43	17.07.18	09:40	RAJGHAT 220/33kV 100MVA Tx-I	17.07.18	10:12	PRV.
44	18.07.18	17:23	220KV WAZIRABAD - MANDOLA CKT-IV	18.07.18	17:36	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 4.367KM.
45	19.07.18	04:14	PEERA GARHI 220/33kV 100MVA Tx-II	19.07.18	10:16	86
46	19.07.18	11:57	PEERA GARHI 220/33kV 100MVA Tx-II	19.07.18	14:45	AT PEERA GARHI: 86, PRD
47	19.07.18	15:18	VASANT KUNJ 220/66kV 100MVA Tx-II	19.07.18	15:50	AT VASANT KUNJ: BUS BAR PROTECTION 96.
48	19.07.18	15:18	220kV MEHRAULI - VASANT KUNJ CKT.-II	19.07.18	19:15	AT VASANT KUNJ: B PHASE, Z-1, 186A & 186B, 96 AT MHL: DIST. PROT. Z-2, B PHASE, 7.54KM
49	19.07.18	21:45	220 KV GOPALPUR-WAZIRABAD CKT - 1	19.07.18	22:09	AT SOW: DC LEAKAGE
50	20.07.18	14:18	WAZIRABAD 220/66kV 160MVA Tx-I	20.07.18	20:02	I/C TRIPPED ON E/F, O/C.
51	21.07.18	10:12	220kV PRAGATI - SARITA VIHAR CKT - I	21.07.18	16:40	AT PRAGATI : DIST PROT, ZONE-I, DIST 1.592KM. AT SARITA VIHAR DIST PROT, ZONE-II, DIST 10.19KM.
52	21.07.18	15:03	GAZIPUR 220/66kV 100MVA Tx-I	21.07.18	15:35	SPR.
53	22.07.18	15:35	RIDGE VALLEY 220/66kV 160MVA Tx-I	22.07.18	19:30	86A&B, TROUBLE ALARM, DIFFERENTIAL PROT.
54	22.07.18	15:40	220KV BAWANA-SHALIMARBAGH CKT-II	22.07.18	16:48	AT SHALIMARBAGH : PD.CVT AVAILABLE.
55	22.07.18	23:36	WAZIRABAD 220/66kV 100MVA Tx-I	23.07.18	14:15	SPR, 86.
56	24.07.18	11:08	220kV MAHARANI BAGH - PRAGATI CKT	24.07.18	13:09	AT PRAGATI : DIST PROT, ZONE-I, DIST 1.518KM, AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 2.8KM.
57	24.07.18	14:55	BAWANA 220/66kV 100MVA Tx	24.07.18	15:15	WITHOUT INDICATION.
58	24.07.18	16:50	SHALIMAR BAGH 220/33kV 100MVA Tx-I	24.07.18	16:52	WITHOUT INDICATION.
59	25.07.18	16:27	220kV Harsh Vihar - Preet Vihar Ckt-I	25.07.18	16:30	AT PREET VIHAR : 86.
60	26.07.18	08:36	220kV SARITA VIHAR - BTPS CKT.-II	26.07.18	12:51	AT SARITA VIHAR : POLE DISCREPANCY.
61	26.07.18	08:41	KANJHAWALA 220/66kV 100MVA Tx-I	26.07.18	13:41	PRV, 86.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
62	26.07.18	11:02	HARSH VIHAR 400/220kV 315MVA ICT-III	26.07.18	14:12	OLTC OIL SURGE RELAY TRIP.
63	26.07.18	11:47	220kV DIAL-MEHRAULI CKT-I	26.07.18	17:15	AT MEHRAULI : 86. AT DIAL, MAIN-I, Y PHASE TRIP. DIST PROT, ZONE-I.
64	27.07.18	01:13	400kV Bawana-Mundka Ckt-I	27.07.18	01:30	AT MUNDKA : PD.
65	27.07.18	17:48	220kV PRAGATI - SARITA VIHAR CKT - I	27.07.18	19:30	AT SARITA VIHR : DIST PROT, ZONE-I, 86ABC, DIST 5.223KM. AT PRAGATI : DIST PROT, ZONE-I, DIST 7.317KM.
66	28.07.18	13:32	220kV Harsh Vihar - Preet Vihar Ckt-II	28.07.18	13:59	At Preet Vihar : Supply failed At Harsh Vihar : DT received, general trip, 86.
67	28.07.18	13:32	220kV Harsh Vihar - Preet Vihar Ckt-I	28.07.18	13:40	At Preet Vihar : Bus bar protection relay operated At Harsh Vihar : Ckt did not trip
68	28.07.18	13:32	220kV Preet Vihar-Patparganj Ckt-II	28.07.18	13:45	At Preet Vihar : Bus bar protection relay operated At Patparganj : supply failed
69	28.07.18	13:32	PREETVIHAR 220/33kV 100MVA Tx-II	28.07.18	14:16	Bus bar protection operated
70	28.07.18	15:01	220kV Harsh Vihar - Preet Vihar Ckt-II	28.07.18	19:23	AT HARSH VIHAR : DT RELAY, 86, GEN TRIP.
71	28.07.18	15:01	220kV Harsh Vihar - Preet Vihar Ckt-I	28.07.18	19:23	AT HARSH VIHAR : 86
72	29.07.18	11:47	MASJID MOTH 220/33kV 100MVA Tx-I	29.07.18	02:15	86
73	29.07.18	12:55	KANJHAWALA 66/11kV, 20MVA Tx-II	29.07.18	15:37	BUCHHOLZ.
74	29.07.18	16:01	220kV SARITA VIHAR - BTPS CKT.-II	29.07.18	19:35	CB FAULTY.
75	29.07.18	16:01	220kV MAHARANI BAGH - PRAGATI CKT	29.07.18	16:20	AT PRAGATI : DIST PROT, ZONE-I, DIST 2.692KM, E/F.
76	30.07.18	19:30	NAJAFGARH 220/66kV 100MVA Tx-II	30.07.18	19:35	186
77	30.07.18	19:50	NARAINA 220/33kV 100MVA Tx-III	31.07.18	00:17	RED HOT POINT ON CT CLAMP.
78	31.07.18	22:15	MUNDKA 400/220kV 315MVA ICT-II	01.08.18	06:57	POLE DISCREPANCY.

19.5 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH AUGUST 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	1.8.18	21:22	ROHINI 220/66kV 100MVA Tx-I	1.8.18	22:22	86
2	2.8.18	14:22	220kV MAHARANI BAGH - PRAGATI CKT	2.8.18	15:54	AT PRAGATI : DIST PROT, ZONE-I, DIST 12.64KM. AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 3.0KM.
3	2.8.18	15:06	PREETVIHAR 220/33kV 100MVA Tx-I	2.8.18	18:55	86
4	4.8.18	06:40	VASANT KUNJ 66kV 20MVAR CAP. BANK-II	4.8.18	11:30	86, E/F.
5	4.8.18	12:42	220kV MAHARANI BAGH - PRAGATI CKT	4.8.18	13:40	AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 2.9KM AT PRAGATI : DIST PROT, ZONE-I. DIST 5.54KM.
6	4.8.18	19:17	220kV PRAGATI - SARITA VIHAR CKT - I	4.8.18	19:52	AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 2.951 AT PRAGATI : DIST PROT, ZONE-I, DIST 9.474KM.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
7	5.8.18	06:55	PAPPANKALAN-II 220/66kV 100MVA Tx-II	5.8.18	07:35	O/C, E/F.
8	5.8.18	06:55	PAPPANKALAN-II 220/66kV 160MVA Tx-III	5.8.18	07:38	O/C, E/F.
9	5.8.18	06:55	PAPPANKALAN-II 220/66kV 100MVA Tx-I	5.8.18	07:37	O/C, E/F.
10	5.8.18	06:55	PAPPANKALAN-II 220/66kV 160MVA Tx-IV	5.8.18	07:27	O/C, E/F.
11	5.8.18	09:05	PARKSTREET 33kV 10MVAR CAP. BANK-II	5.8.18	11:40	HOT POINT.
12	6.8.18	04:45	NARELA 66/33kV, 30MVA Tx	6.8.18	18:26	E/F.
13	6.8.18	05:02	SHALIMAR BAGH 33/11kV, 16MVA Tx-I	6.8.18	07:50	86, BUCHHOLZ.
14	7.8.18	10:35	220kV MEHRAULI - VASANT KUNJ CKT.-II	7.8.18	12:56	AT MEHRAULI : DIST PROT, ZONE-I, R PHASE, DIST 0.226KM.
15	8.8.18	03:15	GOPALPUR 220/33kV 100MVA Tx-III	8.8.18	11:46	86, E/F.
16	8.8.18	03:16	SUBZI MANDI 220/33kV 100MVA Tx-I	8.8.18	03:45	186
17	8.8.18	03:16	SUBZI MANDI 220/33kV 100MVA Tx-II	8.8.18	03:45	186
18	8.8.18	03:16	220kV GOPALPUR-SUBZI MANDI CKT-II	8.8.18	03:45	AT SUBZI MANDI : DIST PROT, ZONE-I, R PHASE, R PHASE CVT AVAILABLE.
19	8.8.18	03:16	220kV GOPALPUR-SUBZI MANDI CKT-I	8.8.18	03:45	AT SUBZI MANDI : DIST PROT, ZONE-I, R PHASE, R PHASE CVT AVAILABLE.
20	9.8.18	17:20	220kV MEHRAULI - BTPS CKT. - I	9.8.18	20:55	AT MEHRAULI : DIST PROT, ZONE-I, DIST 6.735KM. AT BTPS : DIST PROT, ZONE-I, DIST 15.9KM.
21	10.8.18	14:51	PARKSTREET 220/33kV 100MVA Tx-I	14.8.18	23:54	86 A&B.
22	11.8.18	09:41	BAWANA 400/220kV 315MVA ICT-III	11.8.18	11:32	TRIPPED ON 86.
23	11.8.18	16:33	220kV GAZIPUR - BTPS CKT	11.8.18	19:05	AT GAZIPUR : CKT DID NOT TRIPPED. AT BTPS : DIST PROT, ZONE-I, DIST 16KM.
24	11.8.18	16:43	220kV GOPALPUR-MANDOLACKT-I	11.8.18	17:43	AT GOPALPUR : DIST PROT, 86.
25	11.8.18	18:18	NARELA 220/66kV 100MVA Tx-I	11.8.18	20:12	186
26	12.8.18	08:50	220KV WAZIRABAD - MANDOLA CKT-IV	12.8.18	15:22	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 6.439KM.
27	12.8.18	10:05	OKHLA 220/66kV 100MVA Tx-I	12.8.18	11:55	195
28	12.8.18	10:32	GEETA COLONY 33kV GEETA COLONY CKT-I	12.8.18	12:40	HOT POINT.
29	12.8.18	10:35	NARELA 66/33kV, 30MVA Tx	12.8.18	14:55	GEN MTC.
30	12.8.18	17:40	220kV GOPALPUR-MANDOLACKT-I	12.8.18	18:20	AT GOPALPUR : DIST PROT, ZONE-I, DIST 12.30KM. AT MANDOLA : DIST PROT.
31	13.8.18	20:10	220kV SARITA VIHAR - BTPS CKT.-I	14.8.18	10:57	AT SARITA VIHAR : WITHOUT INDICATION.
32	14.8.18	11:10	220 KV GOPALPUR-WAZIRABAD CKT-2	14.8.18	11:57	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 1.603KM.
33	14.8.18	12:57	KASHMIRI GATE 33/11kV, 16MVA Tx	15.8.18	01:00	O/C, 86.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
34	14.8.18	13:23	220kV GOPALPUR-SUBZI MANDI CKT-I	14.8.18	13:58	AT GOPALPUR : DIST PROT ZONE-I.
35	14.8.18	16:30	PAPPANKALAN-I 66/11kV, 20MVA Tx-III	14.8.18	17:15	86
36	14.8.18	19:30	220kV MAHARANI BAGH - SARITA VIHAR CKT	14.8.18	20:16	AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 1.986KM. AT MAHARANI BAGH : DIST PROT, ZONE-I
37	15.8.18	09:32	220kV GOPALPUR-SUBZI MANDI CKT-II	15.8.18	09:54	AT GOPALPUR : DIST PROT,ZONE-I, DIST 5.886KM.
38	15.8.18	10:05	220kV PRAGATI - SARITA VIHAR CKT - I	15.8.18	10:47	AT PRAGATI : DIST PROT, ZONE-III, DIST 12.37KM. AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 2.439KM.
39	15.8.18	12:59	220kV PRAGATI - SARITA VIHAR CKT - I	15.8.18	14:50	AT PRAGATI : DIST PROT, ZONE-II, DIST 10.79. AT SARITA VIHAR : DIST PROT,ZONE-I, DIST 2.116KM.
40	15.8.18	13:13	220kV GOPALPUR-MANDOLACKT-I	15.8.18	14:26	AT GOPALPUR : DIST PROT, DIST 39.28KM, LINE DIFFERENTIAL.
41	15.8.18	16:10	220KV WAZIRABAD - MANDOLA CKT-I	15.8.18	17:00	AT WAZIRABAD : DIST PROT, ZONE-I, DIST .9KM.
42	15.8.18	16:41	220KVBAWANA-ROHINI CKT-I	15.8.18	18:03	AT BAWANA : DIST PROT, ZONE-I, DIST 3.5KM.
43	15.8.18	16:57	220kV GOPALPUR-MANDOLACKT-II	15.8.18	17:40	AT GOPALPUR : DIST PROT, ZONE-I, DIST 1.671KM. AT MANDOLA : DIST PROT, ZONE-I, DIST 0.21KM.
44	15.8.18	17:04	220KV GAZIPUR - MAHARANIBAGH CKT. -I	15.8.18	18:03	AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 0.4KM.
45	15.8.18	18:07	220kV PRAGATI - SARITA VIHAR CKT - I	15.8.18	18:20	AT PRAGATI : DIST PROT, ZONE-I, DIST 6.693KM AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 5.88KM.
46	16.8.18	13:10	PAPPANKALAN-II 220/66kV 100MVA Tx-II	16.8.18	17:40	MASTER RELAY.
47	17.8.18	12:28	GEETA COLONY 220/33kV 100MVA Tx-I	17.8.18	21:16	ABC PHASE, AUTO TRIP.
48	18.8.18	13:02	220kV ROHINI-SHALIMARBAGH CKT-II	18.8.18	13:42	AT SHALIMARBAGH : DIST PROT, 86ABC.
49	18.8.18	16:06	220kV WAZIRABAD-GEETA COLONY CKT-II	19.8.18	00:10	AT GEETA COLONY : DIST PROT, ZONE-I, DIST 0.5KM. AT WAZIRABAD : DIST PROT, ZONE-I, DIST 5.596KM.
50	18.8.18	16:40	GEETA COLONY 220/33kV 100MVA Tx-II	18.8.18	20:06	E/F.
51	19.8.18	04:03	220kV ROHINI-SHALIMARBAGH CKT-I	19.8.18	08:38	AT ROHINI -I : 186A&B.
52	21.8.18	13:03	220kV MEHRAULI - BTPS CKT. - II	21.8.18	14:18	AT MEHRAULI : DIST PROT, ZONE-I, DIST 7.16KM. AT BTPS : DIST PROT, ZONE-I, DIST 14.1KM.
53	23.8.18	08:42	400kV Bawana-Mundka Ckt-II	23.8.18	13:07	AT BAWANA : DIST PROT, ZONE-I, DIST 6.18KM. AT MANDOLA : DIST PROT, DIST 15.77KM.
54	23.8.18	09:22	GAZIPUR 66/11kV, 20MVA Tx-I	23.8.18	11:25	86
55	23.8.18	12:04	220KV BAWANA-SHALIMARBAGH CKT-II	23.8.18	14:35	AT SHALIMARBAGH : DIST PROT. AT BAWANA : DIST PROT, DIST 9.44KM.
56	25.8.18	03:45	OKHLA 66/11kV, 20MVA Tx-II	25.8.18	09:20	O/C
57	26.8.18	03:19	220kV PAPPANKALAN-I-NARAINA CKT-I	26.8.18	05:40	AT NARAINA : DIST PROT, ZONE-III, O/, 86.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
58	26.8.18	09:22	WAZIRABAD 66/11kV, 20MVA Tx-III	26.8.18	20:23	DIFFERENTIAL RELAY.
59	28.8.18	05:40	220kV GEETA COLONY-PATPARGANJ CKT -II	28.8.18	09:30	AT PATPARGANJ : HOT POINT.
60	28.8.18	08:58	220kV MEHRAULI - VASANT KUNJ CKT.-II	28.8.18	14:35	AT MEHRAULI : DIST PROT, ZONE-I, DIST 613MTS. AT VASANT KUNJ : CKT. DID NOT TRIP.
61	28.8.18	06:46	KANJHAWALA 66/11kV, 20MVA Tx-II	30.8.18	12:25	BUCHOLLZ.
62	28.8.18	12:36	220kV MEHRAULI - BTPS CKT. - II	28.8.18	16:11	AT MEHRAULI : DIST PROT, ZONE-I, DIST 13.93KM, E/F.
63	29.8.18	08:47	MEHRAULI 66kV PALAM CKT	29.8.18	11:55	Palam tripped on Z-1, RYB phase, 0.1KM
64	29.8.18	10:25	MEHRAULI 66kV CDOT CKT-I	29.8.18	11:54	AT MEHRAULI:66KV C-DOT 1 TRIPPED ON 186 E/F.
65	29.8.18	12:21	220kV MUNDKA-KANJHAWALA CKT	29.8.18	14:05	AT MUNDAKA: ZONE-1, ZONE-2, ZONE-3, 86A&B, 10.58KM
66	29.8.18	23:00	OKHLA 220/33kV 100MVA Tx-III	30.8.18	02:10	O/C
67	29.8.18	23:00	OKHLA 220/33kV 100MVA Tx-V	30.8.18	02:10	E/F, 86.
68	29.8.18	23:00	OKHLA 33kV NEHRU PLACE CKT-I	30.8.18	08:15	AT OKHLA: TRIPPED ON O/C, 67CS.
69	29.8.18	23:00	OKHLA 220/33kV 100MVA Tx-IV	30.8.18	02:10	86
70	30.8.18	05:45	220kV MAHARANI BAGH - SARITA VIHAR CKT	30.8.18	06:21	RYB PHASE.
71	30.8.18	05:45	220kV MAHARANI BAGH - SARITA VIHAR CKT	30.8.18	06:21	AT MAHARANIBAGH: TRIPPED ON RYB PHASE, O/C.
72	30.8.18	06:30	SARITA VIHAR 66kV DMRC CKT-I	30.8.18	12:45	AT SARITA VIHAR: FOR REPAIRING B PHASE CT CABLE.
73	30.8.18	10:55	220KVBAWANA-ROHINI CKT-II	30.8.18	12:10	AT BAWANA : DIST PROT, DIST 8.22KM.

19.6 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH SEPTEMBER 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	1.9.18	08:15	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	1.9.18	18:25	BUCHOLLZ.
2	1.9.18	17:48	220KV WAZIRABAD - MANDOLA CKT-I	2.9.18	02:17	AT WAZIRABAD : DIST PROT, ZONE-II, DIST 15.85KM. AT MANDOLA : DIST PROT, DIST 0.8KM.
3	2.9.18	16:22	BAWANA 400/220kV 315MVA ICT-III	3.9.18	11:40	186A&B.
4	2.9.18	16:22	BAWANA 400/220kV 315MVA ICT-III	14.11.18	13:53	TRIPPED ON DIFFERENTIAL, Y PHASE BUSHING DAMAGED, BEING ATTENDED BY PGCIL STAFF.
5	3.9.18	12:24	220kV MAHARANI BAGH - SARITA VIHAR CKT	3.9.18	12:48	AT MAHARANI BAGH : GEN TRIP.
6	3.9.18	12:50	RAJGHAT 220/33kV 100MVA Tx-I	3.9.18	21:28	186
7	3.9.18	21:56	RAJGHAT 220/33kV 100MVA Tx-I	CONT.		TRIPPED ON BUCHLOZ RELAY.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
8	4.9.18	05:05	PATPARGANJ 33/11kV, 20MVA Tx	4.9.18	16:05	86
9	5.9.18	01:55	SUBZI MANDI 220/33kV 100MVA Tx-I	5.9.18	08:55	86, 186, DIFFERENTIAL PROT,.
10	5.9.18	07:02	PARKSTREET 220/33kV 100MVA Tx-I	5.9.18	07:42	TRIPPED WITHOUT INDICATION.
11	5.9.18	09:28	220KV GAZIPUR - MAHARANIBAGH CKT. -I	5.9.18	09:32	AT GAZIPUR : 86.
12	5.9.18	10:45	400kV Dadri - Harsh Vihar Ckt. -II	6.9.18	10:03	AT HARSH VIHAR : DIST PROT, ZONE-I, DIST 31.1KM.
13	5.9.18	14:50	220kV GAZIPUR - NOIDA SEC.-62 CKT	5.9.18	17:50	AT BTPS : DIST PROT, ZONE-I, DIST 13.4KM.
14	5.9.18	21:55	220kV SARITA VIHAR - BTPS CKT.-II	5.9.18	22:20	AT BTPS : NON AVAILABILITY OF CVT OF TWO PHASES.
15	6.9.18	11:35	220kV DIAL-MEHRAULI CKT-II	6.9.18	15:13	AT MEHRAULI : DIST PROT, ZONE-I, DIST 8.88KM. AT DIAL : DIST PROT, ZONE-I, DIST 10.94KM.
16	6.9.18	18:06	220kV BAWANA-DSIIDC BAWANA CKT-II	6.9.18	19:56	AT DSISC BAWANA : 86B.
17	6.9.18	18:19	SUBZI MANDI 220/33kV 100MVA Tx-I	6.9.18	22:52	186
18	6.9.18	20:15	220kV BAWANA-DSIIDC BAWANA CKT-II	6.9.18	21:45	AT DISDC BAWANA : DIFFERENTIAL, B PHASE.
19	7.9.18	00:53	220KV BAWANA-SHALIMARBAGH CKT-II	7.9.18	02:15	AT SHALIMARBAGH : TRIPPED AT BAWANA : DIST PROT, ZONE-I, DIST 11.6KM.
20	7.9.18	03:12	SUBZI MANDI 220/33kV 100MVA Tx-I	7.9.18	13:54	86, SPAR.
21	7.9.18	11:21	BAWANA 400/220kV 315MVA ICT-V	7.9.18	12:24	SPR.
22	7.9.18	14:50	220kV PAPPANKALAN-I-NARAINA CKT-I	7.9.18	17:33	AT NARAINA : DIST PROT, ZONE-I.
23	7.9.18	16:35	GEETA COLONY 220/33kV 100MVA Tx-I	7.9.18	17:10	DIFFERENTIAL.
24	8.9.18	01:48	BAWANA 400/220kV 315MVA ICT-V	8.9.18	03:37	86
25	8.9.18	11:07	PARKSTREET 220/33kV 100MVA Tx-I	8.9.18	16:51	E/F, 86.
26	9.9.18	09:41	400kV Ballabhgarh-Bamnauli Ckt-II	9.9.18	10:09	AT BAMNAULI : 186A&B.
27	10.9.18	12:55	GEETA COLONY 220/33kV 100MVA Tx-I	10.9.18	14:36	DIFFERENTIAL.
28	10.9.18	13:25	GEETA COLONY 220/33kV 100MVA Tx-II	10.9.18	13:43	SPS
29	11.9.18	08:57	DSIIDC Bawana 220/66kV 160MVA Tx-I	11.9.18	09:10	E/F, 86.
30	11.9.18	16:50	GAZIPUR 66/11kV, 20MVA Tx-II	11.9.18	17:50	AT GAZIPUR: MADE OFF DUE TO FIRE ON I/C CABLE.
31	11.9.18	16:50	GAZIPUR 66/11kV, 20MVA Tx-I	11.9.18	17:50	AT GAZIPUR: MADE OFF DUE TO FIRE ON I/C CABLE.
32	12.9.18	09:55	220kV BAMNAULI - DIAL CKT-II	12.9.18	13:06	AT DIAL : DIFFERENTIAL TRIP, GENERAL TRIP AT BAMNAULI : DIST PROT, ZONE-I, DIST 12.5KM.
33	12.9.18	11:51	HARSH VIHAR 220/66KV 160MVA ICT-3	12.9.18	12:27	86

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
34	12.9.18	11:51	HARSH VIHAR 220/66KV 160MVA ICT-2	12.9.18	12:13	86
35	13.9.18	08:43	HARSH VIHAR 220/66KV 160MVA ICT-1	13.9.18	20:20	86
36	13.9.18	10:27	400kV Ballabhgarh-Bamnauli Ckt-I	13.9.18	11:09	AT BAMNAULI : 186AB.
37	13.9.18	16:59	400kV Ballabhgarh-Bamnauli Ckt-II	13.9.18	17:38	AT BAMNAULI : 186A&B.
38	14.9.18	12:50	OKHLA 220/33kV 100MVA Tx-IV	14.9.18	14:11	86, SPR.
39	14.9.18	18:26	400kV Ballabhgarh-Bamnauli Ckt-I	14.9.18	19:11	AT BAMNAULI : CVT FAILED.
40	15.9.18	10:04	PARKSTREET 220/66kV 100MVA Tx-II	15.9.18	20:10	E/F, 86.
41	16.9.18	01:45	400kV Ballabhgarh-Bamnauli Ckt-II	16.9.18	13:14	AT BAMNAULI : DIST PROT, ZONE-I, 186A&B, RYB PHASE. AT BALLABGARH : TRIPPED WITHOUT INDICATION.
42	16.9.18	19:56	MUNDKA 220/66kV 160MVA Tx-II	17.9.18	08:39	86
43	17.9.18	15:17	220kV ROHINI-SHALIMARBAGH CKT-I	17.9.18	21:52	AT ROHINI -I: DIFFERENTIAL.
44	19.9.18	10:34	220kV MEHRAULI - BTPS CKT. - II	19.9.18	14:18	AT MEHRAULI : DIST PROT, ZONE-I, DIST 10.59KM. AT BTPS : DIST PROT,ZONE-I, DIST 9.3KM, E/F.
45	19.9.18	11:35	220 KV PATPARGANJ - I.P. CKT-II	19.9.18	11:43	AT I.P. 86 AT PPG : NO TRIPPING.
46	19.9.18	23:05	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	20.9.18	12:17	86
47	20.9.18	11:33	220kV MUNDKA-KANJHAWALA CKT	20.9.18	16:16	AT MUNDKA : DIST PROT, ZONE-I, 86.
48	22.9.18	06:55	220kV DIAL-MEHRAULI CKT-II	22.9.18	07:51	AT MEHRAULI : 86.
49	22.9.18	08:07	SHALIMAR BAGH 33/11kV, 20MVA Tx	22.9.18	08:21	O/C
50	23.9.18	06:06	220kV BAMNAULI-NAJAFGARH CKT-II	23.9.18	06:36	AT BAMNAULI : 86A&B. AT NAJAFGARH : CKT. DID NOT TRIPPED.
51	23.9.18	10:55	MEHRAULI 66/11kV, 20MVA Tx-II	23.9.18	18:55	O/C
52	25.9.18	10:55	220KV WAZIRABAD - MANDOLA CKT-IV	25.9.18	18:32	At Wazirabad : Ckt did not trip At Mandola : Supply fail
53	25.9.18	10:55	220KV WAZIRABAD - MANDOLA CKT-I	25.9.18	19:50	At Wazirabad : Dist prot, Zone-2, Dist 15.84Km. At Mandola : Dist prot, Zone-I, Dist 0.6kM.
54	25.9.18	10:55	220KV SHALIMARBAGH-WAZIRPUR CKT-II	25.9.18	18:32	At Wazirabad : Ckt did not trip At Mandola : Supply fail
55	26.9.18	13:15	PEERA GARHI 220/33kV 100MVA Tx-III	26.9.18	18:01	86
56	27.9.18	10:15	OKHLA 220/66kV 100MVA Tx-I	27.9.18	16:10	BUCHHOLZ.
57	27.9.18	15:14	WAZIRABAD 220/66kV 100MVA Tx-I	27.9.18	01:30	LA DAMAGED.
58	27.9.18	15:14	220KV WAZIRABAD - MANDOLA CKT-II	28.9.18	01:30	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 2.55KM.
59	29.9.18	06:55	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	29.9.18	07:20	DIFFERENTIAL RELAY.
60	30.9.18	13:13	220kV MAHARANI BAGH - PRAGATI CKT	30.9.18	15:36	AT PRAGATI : DIST PROT, ZONE-I,II, III. DIST 2.983KM. AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 4.2KM.

19.7 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH OCTOBER 201

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	4.10.18	16:45	SARITA VIHAR 220/66kV 100MVA Tx-I	4.10.18	19:25	I/C TRIPPED ON E/F.
2	5.10.18	16:10	220KVBAWANA-ROHINI-2 CKT-I	5.10.18	16:44	AT ROHINI -II : POLE DISCRIPENCY, TC FAULTY.
3	7.10.18	22:30	220kV GAZIPUR-PATPARGANJ CKT	7.10.18	23:07	AT GAZIPUR : O/C, YB PHASE, GEN TRIP. AT PATPARGANJ : CKT. DID NOT TRIPPED.
4	8.10.18	19:43	220kV BAWANA-DSIIDC BAWANA CKT-II	8.10.18	23:27	At Bawana : Ckt. did not trip. At DSIDC Bawana : 86 RYB, Dist prot, Dist 24.7km, Y phase, differential trip, SOTF.
5	8.10.18	19:43	BAWANA 400/220kV 315MVA ICT-I	8.10.18	23:25	ICT tripped on Group A, Group B, 86A & 86B, Auxiliary Buchholz Relay, 30K. 220kV I/C –I tripped without indication.
6	8.10.18	19:43	BAWANA 400/220kV 315MVA ICT-II	8.10.18	22:28	ICT tripped on 86B, Buchholz trip. 220kV I/C –I tripped without indication.
7	9.10.18	12:00	ROHINI 220/66kV 100MVA Tx-III	9.10.18	12:31	86, E/F.
8	9.10.18	12:00	ROHINI 220/66kV 100MVA Tx-IV	9.10.18	12:31	86, E/F.
9	9.10.18	12:00	220KVBAWANA-ROHINI CKT-II	9.10.18	12:31	AT ROHINI -I : AUTO RECLOSE. AT BAWANA : E/F.
10	10.10.18	12:21	BAWANA 400/220kV 315MVA ICT-VI	10.10.18	15:23	86A&B, OSR, B PHASE.
11	11.10.18	11:25	ROHINI 66/11kV, 20MVA Tx-II	11.10.18	15:40	E/F.
12	11.10.18	16:17	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	11.10.18	16:27	WITHOUT INDICATION.
13	11.10.18	16:17	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	11.10.18	16:27	E/F, 86.
14	12.10.18	06:45	MEHRAULI 220/66kV 100MVA Tx-III	12.10.18	11:25	CHANGING LINE ISOLATOR GEAR BOX.
15	12.10.18	17:20	220kV PAPPANKALAN-I-NARAINA CKT-I	12.10.18	19:22	AT PAPANKALAN-I : DIST PROT, ZONE-I, Y PHSE. AT NARAINA : 86ABC.
16	14.10.18	14:27	220kV KANJHAWALA-NAJAFGARH CKT	14.10.18	15:20	AT NAJAFGARH : DIFFERENTIAL.
17	12.10.18	18:45	BAWANA 220/66kV 100MVA Tx	12.10.18	19:07	75A, BUS BAR PROT.
18	12.10.18	19:08	ROHINI 66/11kV, 20MVA Tx-II	12.10.18	23:43	E/F.
19	13.10.18	08:29	SUBZI MANDI 220/33kV 100MVA Tx-I	13.10.18	10:39	186
20	13.10.18	09:46	SUBZI MANDI 220/33kV 100MVA Tx-II	13.10.18	11:03	186
21	14.10.18	02:55	SARITA VIHAR 220/66kV 100MVA Tx-I	14.10.18	08:15	86
22	14.10.18	08:17	MEHRAULI 66/11kV, 20MVA Tx-II	14.10.18	12:00	BUCHOOLZ,
23	14.10.18	16:29	PARKSTREET 220/33kV 100MVA Tx-II	14.10.18	16:50	ELECTROCUTION OF CAT.
24	15.10.18	04:13	220kV BAMNAULI-PAPPANKALAN-II CKT-II	15.10.18	06:20	AT PAPANKALAN-II : DIST PROT, ZONE-I, DIST 0.7KM.
25	16.10.18	03:30	NARAINA 33/11kV, 16MVA Tx-II	16.10.18	19:26	DIFFERENTIAL PROTECTION.
26	16.10.18	16:05	220KV BAWANA-SHALIMARBAGH CKT-I	16.10.18	17:56	AT SHALIMARBAGH : TRIP SUPERVISION RELAY.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
27	18.10.18	04:07	SARITA VIHAR 220/66kV 100MVA Tx-I	18.10.18	14:55	86, SUPERVISION RELAY.
28	19.10.18	16:30	MEHRAULI 66/11kV, 20MVA Tx-II	19.10.18	20:25	O/C
29	20.10.18	11:02	PAPPANKALAN-II 220/66kV 100MVA Tx-I	20.10.18	14:57	DIFFERENTIAL, 86.
30	21.10.18	12:37	220kV MEHRAULI - VASANT KUNJ CKT.-I	21.10.18	12:59	AT MEHRAULI : DIST PROT, R PHASE, DIST 1.653MM, 86ABC. AT VASANT KUNJ : CKT. DID NOT TRIP.
31	21.10.18	15:30	PATPARGANJ 220/66kV 100MVA Tx-II	21.10.18	18:50	86
32	27.10.18	07:40	VASANT KUNJ 66/11kV, 20MVA Tx-I	27.10.18	11:25	OLTC TEMP.
33	28.10.18	05:45	220kV WAZIRABAD-GEETA COLONY CKT-II	28.10.18	08:18	AT GEETA COLONY : DIST PROT, ZONE-I, DIST 3.463KM., E/F, O/C.
34	28.10.18	15:05	MEHRAULI 66/11kV, 20MVA Tx-I	28.10.18	19:09	TRIPPED WITHOUT INDICATION.
35	31.10.18	09:25	OKHLA 220/33kV 100MVA Tx-III	31.10.18	10:25	86, O/C.

19.8 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH NOVEMBER 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	2.11.18	01:20	PAPPANKALAN-III 220/66kV 160MVA Tx-I	2.11.18	03:19	86A&B.
2	2.11.18	12:50	OKHLA 220/33kV 100MVA Tx-V	2.11.18	12:55	TRIPPED ON BACKUP RELAY TESTING.
3	2.11.18	12:50	OKHLA 220/33kV 100MVA Tx-IV	2.11.18	00:00	TRIPPED ON BACKUP RELAY TESTING.
4	2.11.18	15:19	220kV BAMNAULI-PAPPANKALAN-II CKT-II	2.11.18	15:30	AT PAPANKALAN-II : MAIN-II, RYB PHASE TRIP.
5	3.11.18	07:52	KANJHAWALA 66/11kV, 20MVA Tx-I	3.11.18	08:00	86, ABC.
6	4.11.18	00:05	GEETA COLONY 220/33kV 100MVA Tx-I	4.11.18	02:35	AUTO TRIP RELAY.
7	9.11.18	11:36	220kV BAMNAULI-PAPPANKALAN-II CKT-II	9.11.18	11:47	AT PAPANKALAN-II : DIST PROT, TRIP ABC.
8	11.11.18	13:56	220KV BAWANA-SHALIMARBAGH CKT-II	11.11.18	22:00	AT BAWANA : 86, B PHASE DIFFERENTIAL, O/C, B PHASE LA DAMAGED AT BAWANA. AT SHALIMARBAGH : DIST PROT, B PHASE DIFFERENTIAL TRIP, AUTO RECLOSE.
9	13.11.18	15:59	220KV WAZIRABAD - MANDOLA CKT-I	13.11.18	16:22	AT MANDOLA : MALFUNCTIONING OF RELAY CB OPERATED. AT WAZIRABAD : CKT. DID NOT TRIP.
10	14.11.18	21:55	220kV WAZIRABAD-GEETA COLONY CKT-I	14.11.18	22:54	BUS BAR PROTECTION OPERATED.
11	14.11.18	21:55	220 KV PATPARGANJ - I.P. CKT-I	15.11.18	10:03	AT I.P. : DIST PROT, ZONE-I, DIST 1.88KM.
12	14.11.18	21:55	220kV GEETA COLONY-PATPARGANJ CKT-I	14.11.18	22:55	BUS BAR PROTECTION OPERATED.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
13	14.11.18	21:55	GEETA COLONY 220/33kV 100MVA Tx-II	14.11.18	23:49	BUS BAR PROTECTION OPERATED.
14	15.11.18	16:56	BAWANA 220/66kV 100MVA Tx	15.11.18	17:08	TRIPPED WHILE TAKING LOAD ON ICT-III.
15	18.11.18	16:47	RAJGHAT 220/33kV 100MVA Tx-2	18.11.18	17:06	I/C TRIPPED WITHOUT INDICATION.
16	18.11.18	16:47	RAJGHAT 220/33kV 100MVA Tx-I	18.11.18	17:06	I/C TRIPPED WITHOUT INDICATION.
17	19.11.18	10:24	220kV BAMNAULI-PAPPANKALAN-II CKT-II	19.11.18	12:30	AT PAPANKALAN-II : DIST PROT, ZONE-I, MAIN-I. AT BAMNAULI : 186A&B, RYB PHASE, DIST PROT, ZONE-I, DIST 7.75KM.
18	21.11.18	14:40	220kV PAPPANKALAN-III-PAPPANKALAN-I CKT-I	21.11.18	19:20	AT PPK-I : 295BC, TRIP CKT. FAULTY.
19	21.11.18	17:25	OKHLA 220/33kV 100MVA Tx-IV	21.11.18	17:58	86
20	22.11.18	02:20	220kV MAHARANI BAGH - ELECTRIC LANE CKT-I	22.11.18	07:20	AT ELECTRIC LANE : 86, O/C. AT MAHARANI BAGH : 86.
21	22.11.18	04:01	220kV MAHARANI BAGH - LODHI ROAD CKT-I	22.11.18	07:20	AT LODHI ROAD SUPPLY MAIL.
22	23.11.18	00:00	SUBZI MANDI 33/11kV, 16MVA Tx-I	23.11.18	12:15	87R.
23	23.11.18	10:00	NARAINA 33kV PAYAL (REWARI LINE-I) CKT	23.11.18	13:05	TRIPPED ON LOW GAS PRESSURE.
24	23.11.18	16:34	220kV VASANT KUNJ - R.K.PURAM CKT.-I	24.11.18	07:15	AT R.K.PURAM : TRIPPED WITHOUT INDICATION. SMOKE OCCURRED ON CONTROL PANEL.
25	25.11.18	07:38	220kV BAMNAULI-PAPPANKALAN-I CKT-I	25.11.18	11:45	AT PAPANKALAN-I : 195ABC, 295ABC. CB LOCK OUT.

19.9 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH DECEMBER 2018

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	3.12.18	05:00	220 KV PATPARGANJ - I.P. CKT-I	3.12.18	07:05	AT I.P. : DIST PROT ,ZONE-I, 186. AT PATPARGANJ : CKT. DID NOT TRIP.
2	4.12.18	11:00	OKHLA 33kV NEHRU PLACE CKT-I	4.12.18	13:00	Y PHASE CT FLASH.
3	5.12.18	08:30	220kV ROHINI-SHALIMARBAGH CKT-II	5.12.18	09:55	AT SHALIMARBAGH : TRIPPED WITHOUT INDICATION
4	6.12.18	11:11	SUBZI MANDI 220/33kV 100MVA Tx-II	6.12.18	11:55	186
5	6.12.18	11:55	SUBZI MANDI 33/11kV, 16MVA Tx-II	6.12.18	11:57	WITHOUT INDICATION.
6	7.12.18	23:59	ROHINI 220/66kV 100MVA Tx-IV	8.12.18	01:03	I/C TRIPPED ON INTERTRIPING.
7	7.12.18	23:59	ROHINI 220/66kV 100MVA Tx-III	8.12.18	01:03	86, O/C, E/F.
8	8.12.18	17:46	PREETVIHAR 220/33kV 100MVA Tx-II	9.12.18	14:06	86A & 86B.
9	9.12.18	19:35	220 KV I.P.- RPH CKT-II	9.12.18	23:10	AT RPH : WITHOUT INDICATION.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
10	10.12.18	15:30	PREETVIHAR 220/33kV 100MVA Tx-II	10.12.18	17:26	86A&B, PRV.
11	12.12.18	22:28	220KV BAWANA-SHALIMARBAGH CKT-II	12.12.18	22:57	AT SHALIMARBAGH : DIST PROT, R PHASE. AT BAWANA : CKT. DID NOT TRIP.
12	12.12.18	22:28	220kV BAWANA - KANJHAWALA CKT-2	12.12.18	23:14	AT BAWANA : DIS PROT, ZONE-I, DIST 6.57KM, O/C. AT KHANJAWALA : DIS PROT, ZONE-II, DIST 14.70KM, RYB PHASE, 86.
13	13.12.18	02:55	220KV WAZIRABAD - MANDOLA CKT-II	13.12.18	09:53	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 2.241KM. AT MANDOLA : DIST PORT , DIST 3.5KM.
14	13.12.18	05:42	220KV WAZIRABAD - MANDOLA CKT-III	13.12.18	16:35	AT WAZIRABAD :DIST PROT, ZONE-I, DIST 1.13KM. AT MANDOLA : NO INDICATION.
15	13.12.18	05:56	220KV WAZIRABAD - MANDOLA CKT-IV	13.12.18	11:23	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 6.743KM. AT MANDOLA : NO INDICATION.
16	14.12.18	04:28	220kV BAMNAULI - DIAL CKT-II	14.12.18	10:12	AT BAMNAULI : DIST PROT, DIST 4.82KM, ZONE-I. AT DIAL : B PHASE FAULTY.
17	16.12.18	04:35	SHALIMAR BAGH 220/33kV 100MVA Tx-III	16.12.18	15:58	BUCHOLZ.
18	17.12.18	18:43	PARKSTREET 220/66kV 100MVA Tx-I	17.12.18	20:52	86A, DIFFERENTIAL.
19	17.12.18	21:09	PARKSTREET 220/66kV 100MVA Tx-I	17.12.18	23:05	86A, DIFFERENTIAL.
20	18.12.18	07:03	BAMNAULI 400/220kV 315MVA ICT-I	18.12.18	11:35	30E
21	20.12.18	13:48	220kV WAZIRABAD - KASHMEREGATE CKT-I	20.12.18	17:18	AT KASHMIRI GATE : 86A&B
22	21.12.18	05:52	SUBZI MANDI 33/11kV, 16MVA Tx-II	21.12.18	09:40	BUCHOLZ, 86.
23	23.12.18	14:28	NAJAFGARH 66/11kV, 20MVA Tx-I	23.12.18	14:33	86
24	25.12.18	03:35	220kV ROHINI-SHALIMARBAGH CKT-II	25.12.18	03:53	AT SHALIMARBAGH : DIFFERENTIAL, 80C.
25	25.12.18	03:35	220KV BAWANA-SHALIMARBAGH CKT-II	25.12.18	03:53	AT SHALIMARBAGH : DIFFERENTIAL, B PHASE.
26	26.12.18	15:40	PATPARGANJ 220/33kV 100MVA Tx-I	27.12.18	11:25	BUCHOLZ, 86.HIGH ACTELYNE GAS FORMATION.
27	26.12.18	15:40	PATPARGANJ 220/33kV 100MVA Tx-IV	26.12.18	16:45	DIFFERENTIAL, I/C TRIPPED ON 86
28	26.12.18	15:40	PATPARGANJ 220/33kV 100MVA Tx-III	26.12.18	16:12	I/C TRIPPED ON DIFFERENTIAL, O/C.
29	28.12.18	11:30	SARITA VIHAR 66/11kV, 20MVA Tx-II	28.12.18	12:28	PRV, 86.
30	29.12.18	11:53	SUBZI MANDI 220/33kV 100MVA Tx-II	29.12.18	12:12	86
31	30.12.18	07:37	220kV PRAGATI - SARITA VIHAR CKT - I	30.12.18	11:41	AT PRAGATI : DIST PROT, ZONE-II, DIST 12.09KM, O/C, E/F AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 2.178KM.

19.10 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH JANUARY 2019

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	1.1.19	09:12	220KV PREET VIHAR-PATPARGANJ CKT-I	1.1.19	11:42	AT PREET VIHAR : POLE DISCREPANCY.
2	3.1.19	09:38	NARAINA 33KV PAYAL (REWARI LINE-I) CKT	3.1.19	17:15	LOW GAS PRESSURE.
3	4.1.19	06:01	220KV PRAGATI - SARITA VIHAR CKT - I	4.1.19	13:15	AT PRAGATI : DIST PROT, ZONE-I, O/C, E/F. AT SARITA VIHAR : IDST PROT, ZONE-I, DIST 2.556KM.
4	4.1.19	06:56	220KV MAHARANI BAGH - SARITA VIHAR CKT	4.1.19	07:43	AT SARITA VIHAR : DIST PORT, ZONE-I, DIST 5.287KM. AT MAHARANI BAGH : DIST PROT, 4.6KM.
5	4.1.19	07:58	220KV WAZIRABAD-GEETA COLONY CKT-I	4.1.19	10:18	AT WAZIRABAD : DIST PROT, ZONE-I AT GEETA COLONY : DIST PROT, ZONE-I, DIST 2.681KM.
6	6.1.19	03:41	HARSH VIHAR 220/66KV 160MVA ICT-1	6.1.19	11:02	OVER FLUX, 86.
7	6.1.19	02:54	220KV MAHARANI BAGH - ELECTRIC LANE CKT-I	6.1.19	08:05	AT ELECTRIC LANE : 86.
8	6.1.19	07:24	220KV PRAGATI - SARITA VIHAR CKT - I	6.1.19	14:12	AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 6.178KM, AT PRAGATI : DIST PROT, ZONE I, II & III, DIST 8.010KM.
9	7.1.19	02:42	HARSH VIHAR 220/66KV 160MVA ICT-2	7.1.19	03:30	OVERFLUX, 86.
10	7.1.19	03:33	SARITA VIHAR 220/66KV 100MVA TX-III	7.1.19	00:00	TRIPPED DUE TO FIRE IN 20MVA TR. -2
11	7.1.19	04:40	220KV MAHARANI BAGH - SARITA VIHAR CKT	7.1.19	05:30	AT SARITA VIHAR : LOW GAS PRESSURE.
12	7.1.19	04:40	220KV SARITA VIHAR - BTPS CKT.-I	7.1.19	05:30	AT SARITA VIHAR : LOW GAS PRESSURE.
13	10.1.19	08:16	220KV GOPALPUR-MANDOLACKT-I	10.1.19	11:10	AT GOPALPUR : R PHASE, DIST PROT, 86.
14	12.1.19	17:13	220 KV PATPARGANJ - I.P. CKT-II	12.1.19	21:38	AT PATPARGANJ : DIST PROT, DIST 1.452KM, 86, 186. AT I.P.STN : DIST PROT, ZONE-II, 86, 186.
15	13.1.19	17:11	220KV GAZIPUR - MAHARANIBAGH CKT. -II	13.1.19	17:45	AT GAZIPUR : 86.
16	13.1.19	17:11	220KV GAZIPUR - MAHARANIBAGH CKT. -I	13.1.19	17:58	AT GAZIPUR : 86.
17	13.1.19	17:11	GAZIPUR 220/66KV 100MVA TX-II	13.1.19	17:45	86
18	13.1.19	17:11	GAZIPUR 220/66KV 100MVA TX-I	13.1.19	17:45	86
19	13.1.19	18:07	GAZIPUR 220/66KV 100MVA TX-I	13.1.19	18:15	86
20	13.1.19	23:10	OKHLA 66/11KV, 20MVA TX-II	13.1.19	23:30	86
21	15.1.19	09:00	GEETA COLONY 220/33KV 100MVA TX-I	15.1.19	14:30	86
22	15.1.19	11:01	VASANT KUNJ 220/66KV 100MVA TX-II	15.1.19	11:08	96
23	15.1.19	11:01	VASANT KUNJ 220/66KV 100MVA TX-III	15.1.19	11:08	96

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
24	15.1.19	11:01	220KV MEHRAULI - VASANT KUNJ CKT.-I	15.1.19	11:23	AT VASANT KUNJ : 86
25	15.1.19	11:01	220KV MEHRAULI - VASANT KUNJ CKT.-II	15.1.19	11:08	AT VASANT KUNJ : 86
26	18.1.19	13:57	ELECTRIC LANE 220/33KV 100MVA TX-II	18.1.19	23:25	DIFFERENTIAL, 86.
27	20.1.19	13:05	OKHLA 220/33KV 100MVA TX-III	20.1.19	13:30	I/C TRIPPED ON E/F.
28	20.1.19	13:05	OKHLA 220/33KV 100MVA TX-IV	20.1.19	13:45	I/C TRIPPED ON E/F.
29	20.1.19	14:20	PATPARGANJ 33/11KV, 16MVA TX	20.1.19	19:00	DIFFERENTIAL.
30	20.1.19	19:39	400KV DADRI-HARSH VIHAR CKT-I	20.1.19	23:44	AT HARSH VIHAR : E/F, DIST PROT, DIST 21.3KM, ZONE-I.
31	20.1.19	21:48	220KV MAHARANI BAGH - LODHI ROAD CKT-I	21.1.19	00:05	AT MAHARANI BAGH : DIST PROT, ZONE-I, DIST 1.6KM.
32	22.1.19	01:59	220KV MAHARANI BAGH - ELECTRIC LANE CKT-I	22.1.19	12:58	AT MAHARANI BAGH : DIST PROT, ABC PHASE, 86A.
33	22.1.19	01:59	220KV MAHARANIBAGH-TRAUMA CENTER CKT-I	22.1.19	07:43	AT MAHARANI BAGH : CKT. TRIPPED WITHOUT INDICATION
34	22.1.19	01:59	220KV MAHARANI BAGH - ELECTRIC LANE CKT-I	22.1.19	12:58	AT MAHARANI BAGH : CKT. TRIPPED ON DIST PROT, ABC PHASE, 86A.
35	22.1.19	01:59	220KV MAHARANIBAGH-TRAUMA CENTER CKT-I	22.1.19	07:43	AT MAHARANI BAGH : TRIPPED WITHOUT INDICATION.
36	22.1.19	02:15	NARAINA 220/33KV 100MVA TX-I	22.1.19	07:17	OVER FLUX.
37	22.1.19	02:19	220KV GAZIPUR - NOIDA SEC.-62 CKT	23.1.19	12:01	AT BTPS : CKT. TRIPPED ON DIST PROT, ZONE-I, Y PHASE, DIST 7.8KM, GENERAL TRIP.
38	22.1.19	02:25	NARAINA 220/33KV 100MVA TX-I	22.1.19	07:17	TR. –I ALONGWITH 33KV I/C-I TRIPPED ON OVER FLUX, PROTECTION GROUP A&B. DC SUPPLY FAILED.
39	22.1.19	02:45	OKHLA 220/66KV 100MVA TX-II	22.1.19	11:45	TR. –II TRIPPED ON 30E, PVR, SUPERVISION RELAY.
40	22.1.19	03:33	HARSH VIHAR 220/66KV 160MVA ICT-1	22.1.19	06:28	220/66KV 160MVA TR. –I TRIPPED ON OVER FLUX, 86, Y PHASE, GROUP A.
41	22.1.19	03:38	HARSH VIHAR 220/66KV 160MVA ICT-2	22.1.19	06:28	220/66KV 160MVA TR. –II TRIPPED ON OVER FLUX, 86, Y PHASE, GROUP A.
42	22.1.19	07:50	PAPPANKALAN-I 66/11KV, 20MVA TX-II	22.1.19	10:37	TR. TRIPPED ON OLTC, BUCHHOLZ RELAY, 86.
43	22.1.19	20:58	PAPPANKALAN-I 66KV BINDAPUR CKT-II	22.1.19	15:15	AT PAPANKALAN-I : CKT. COULD NOT BE CHARGED DUE TO PROBLEM IN CKT. BREAKER. CKT. WAS MADE OFF TO AVOID OVER VOLTAGE.
44	22.1.19	21:18	220KV MAHARANI BAGH - SARITA VIHAR CKT	22.1.19	23:10	AT SARITA VIHAR : CKT. TRIPPED ON DIST PROT, ZONE-II, ABC PHASE, DIST 9.335KM AT MAHARANI BAGH : R-Y PHASE TRIP.
45	22.1.19	21:19	220KV MAHARANI BAGH - LODHI ROAD CKT-I	22.1.19	23:07	AT LODHI ROAD : CKT. TRIPPED ON DIST PROT, ZONE-I. AT MAHARANI BAGH : CKT. DID NOT TRIP.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
46	22.1.19	23:10	220KV MAHARANI BAGH - PRAGATI CKT	23.1.19	09:19	AT PRAGATI : CKT. TRIPPED ON DIST PROT, DIST 2.022MTS, AUTO RECLOSE. AT MAHARANI BAGH : CKT. DID NOT TRIP. CKT. TRIED AT 00.19HRS., DID NOT HOLD. FINALLY AFTER PROTECTION CLEARANCE CKT. CHARGED AT 09.19HRS.
47	23.1.19	05:37	220KV MAHARANI BAGH - SARITA VIHAR CKT	23.1.19	06:32	AT SARITA VIHAR : TRIPPED ON 186A&B, 188AS.
48	23.1.19	09:15	220KV MAHARANI BAGH - SARITA VIHAR CKT	23.1.19	19:15	AT SARITA VIHAR : MANUALLY TRIPPED DUE TO NON AVAILABILITY OF B PHASE CVT.
49	24.1.19	13:10	220 KV PATPARGANJ - I.P. CKT-I	24.1.19	00:00	AT PATPARGANJ: DIST PROT, ZONE-I, YB PHASE, DIST 0.553KM., BIRDAGE REPORTED AT PATPARGANJ. AT I.P. : DIST PROT, ZONE-I, ABC PHASE, 186, 86
50	24.1.19	14:42	PARKSTREET 220/33KV 100MVA TX-II	24.1.19	23:58	AT PARK STREET : O/C.
51	24.1.19	23:35	NARAINA 220/33KV 100MVA TX-I	25.1.19	06:40	TRIPPED ON OVER FLUX.
52	24.1.19	23:37	400KV BAWANA-MUNDKA CKT-I	25.1.19	00:16	AT BAWANA : 186A&B, 295ABC, B PHASE, O/V.
53	24.1.19	23:37	400KV BAWANA-MUNDKA CKT-I	25.1.19	00:16	AT BAWANA : 186A&B, B PHASE, O/V.
54	24.1.19	23:47	220KV PEERAGARHI-WAZIRPUR CKT-II	25.1.19	00:04	AT WAZIRPUR : TRIPPED ON 86A&B.
55	24.1.19	23:47	220KV SHALIMARBAGH-WAZIRPUR CKT-I	25.1.19	00:24	AT SHALIMARBAGH: TRIPPED WITHOUT INDICATION. AT WAZIRPUR : TRIPPED ON 86A&B
56	25.1.19	07:00	220KV PREET VIHAR-PATPARGANJ CKT-I	25.1.19	09:00	AT PREET VIHAR : WHILE PUTTING ON, TRIPPED ON F-87L, TRIP PHASE BC, 86. CKT. PUT OFF IN NIGHT DUE TO O/V CORRECTION ALONGWITH 220KV PATPARGANJ CKT-II.
57	25.1.19	08:21	KANJHAWALA 220/66KV 100MVA TX-I	25.1.19	00:00	I/C –I TRIPPED ON E/F.
58	25.1.19	09:06	220KV PAPPANKALAN-III-PAPPANKALAN-I CKT-I	25.1.19	11:59	AT PAPANKALAN-I: DIST PROT, AUTO RECLOSE, ABC PHASE, LINE DFF. AT PAPANKALAN-III : DIST PROT, ZONE-II, B PHASE, DIST 4.30KM, LINE DFFERENTIAL.
59	26.1.19	03:12	HARSH VIHAR 220/66KV 160MVA ICT-1	26.1.19	07:53	TRIPPED ON OVER FLUX.
60	26.1.19	03:20	HARSH VIHAR 220/66KV 160MVA ICT-2	26.1.19	07:52	TRIPPED ON OVER FLUX.
61	26.1.19	07:42	SHALIMAR BAGH 220/33KV 100MVA TX-III	26.1.19	12:27	TRIPPED ON 195, POLE DISCREPANCY RELAY.
62	26.1.19	15:06	HARSH VIHAR 220/66KV 160MVA ICT-1	26.1.19	15:53	TRIPPED ON OVER FLUX AND 86.
63	26.1.19	15:14	HARSH VIHAR 220/66KV 160MVA ICT-2	26.1.19	15:52	TRIPPED ON OVER FLUX AND 86.
64	27.1.19	11:10	OKHLA 220/33KV 100MVA TX-III	27.1.19	19:47	TRIPPED ON E/F, O/C
65	27.1.19	11:10	OKHLA 220/33KV 100MVA TX-IV	27.1.19	19:47	TR. TRIPPED ON 86, I/C TRIPPED ON 86.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
66	28.1.19	01:15	HARSH VIHAR 220/66KV 160MVA ICT-1	28.1.19	01:55	TRIPPED ON OVERFLUX, 86, CB TROUBLE, GEN TRIP, MASTER RELAY (LV SIDE)
67	28.1.19	11:58	RAJGHAT 33KV LAHORI GATE CKT (BAY-2)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
68	28.1.19	11:58	RAJGHAT 33KV G B PANT HOSPITAL CKT (BAY-13)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
69	28.1.19	11:58	RAJGHAT 33KV FOUNTAIN CKT (BAY-16)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
70	28.1.19	11:58	RAJGHAT 33KV DDU MARG / KAMLA MARKET CKT (BAY-20)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
71	28.1.19	11:58	RAJGHAT 33KV KAMLA MARKET CKT (BAY-19)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
72	28.1.19	11:58	RAJGHAT 33KV JAMA MASJID CKT-2 (BAY-6)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
73	28.1.19	11:58	RAJGHAT 33KV MOTIA KHAN CKT (BAY-1)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
74	28.1.19	11:58	RAJGHAT 33KV JAMA MASJID CKT-1 (BAY-5)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
75	28.1.19	11:58	RAJGHAT 33KV IG STADIUM CKT (BAY-12)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
76	28.1.19	11:58	RAJGHAT 33KV MINTO ROAD CKT (BAY-17)	28.1.19	13:00	MONKEY ELECTROCUTED AT 33KV BUS COUPLER BAY.
77	29.1.19	04:07	HARSH VIHAR 220/66KV 160MVA ICT-1	29.1.19	08:10	TR. TRIPPED ON OVERFLUX
78	31.1.19	14:20	NARAINA 220/33KV 100MVA TX-I	31.1.19	14:40	O/C, 86.

19.11 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH FEBRUARY 2019

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	1.2.18	12:22	220kV PRAGATI - SARITA VIHAR CKT - I	1.2.18	13:33	AT PRAGATI : DIST PROT, ZONE-II, DIST 12.92KM. AT SARITA VIHAR : DIST PROT, DIST 1.856KM.
2	3.2.18	06:52	220kV GOPALPUR-MANDOLACKT-I	3.2.18	07:24	AT GOPALPUR : 86.
3	3.2.18	12:30	220kV GOPALPUR-MANDOLACKT-I	3.2.18	14:14	AT GOPALPUR : DIST PROT, DIST 4.053KM. AT MANDOLA : DIST PROT, DIST 19.81KM.
4	3.2.18	15:15	NARAINA 220/33kV 100MVA Tx-III	3.2.18	15:38	I/C TRIPPED WITHOUT INDICATION
5	4.2.18	08:25	220kV GEETA COLONY-PATPARGANJ CKT -II	4.2.18	08:32	At Patparganj : 186, 86A&B. At Geeta Colony : No tripping
6	4.2.18	08:25	220KV WAZIRABAD - MANDOLA CKT-III	4.2.18	09:35	At Wazirabad : Supply fail. At Mandola : Tripped on Dist prot, Zone-II, Dist 15Km.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
7	4.2.18	08:25	220kV GEETA COLONY-PATPARGANJ CKT-I	4.2.18	08:39	At Patparganj : 186, 86A&B, Dist prot, Zone-III, Dist 9.354Km. At Geeta Colony : No tripping.
8	4.2.18	08:25	220KV WAZIRABAD - MANDOLA CKT-I	4.2.18	09:35	At Wazirabad : Supply fail. At Mandola : Tripped on Dist prot, Zone-II, Dist 15Km.
9	4.2.18	14:24	220kV GOPALPUR-SUBZI MANDI CKT-II	4.2.18	15:29	AT GOPALPUR : DIST PROT, ZONE-I, DIST 6.208, 86, ABC PHASE.
10	7.2.18	07:32	OKHLA 220/66kV 100MVA Tx-II	7.2.18	16:50	TRIPPED ON DIFFERENTIAL.
11	7.2.18	12:30	GOPALPUR 220/33kV 100MVA Tx-I	7.2.18	13:55	TRIPPED ON 86.
12	8.2.18	15:50	GAZIPUR 220/66kV 160MVA Tx-I	8.2.18	15:57	AT GAZIPUR : BUS BAR PROT. OPERATED.
13	8.2.18	15:50	GAZIPUR 220/66kV 100MVA Tx-I	8.2.18	15:57	AT GAZIPUR : BUS BAR PROT. OPERATED.
14	8.2.18	15:50	GAZIPUR 220/66kV 100MVA Tx-II	8.2.18	15:57	AT GAZIPUR : BUS BAR PROT. OPERATED.
15	8.2.18	15:50	220KV GAZIPUR - MAHARANIBAGH CKT. -II	8.2.18	15:57	AT GAZIPUR : BUS BAR PROT. OPERATED.
16	9.2.18	18:29	220KV GAZIPUR - MAHARANIBAGH CKT. -II	9.2.18	19:24	AT GAZIPUR : WITHOUT INDICATION AT MAHARANI BAGH : 86.
17	11.2.18	19:00	LODHI RD 220/33kV 100MVA Tx-I	12.2.18	19:22	86
18	12.2.18	01:34	400kV Bawana-Mundka Ckt-I	12.2.18	08:19	AT BAWANA : TRIPPED ON OVER VOLTAGE.
19	12.2.18	11:20	220kV BAWANA - KANJHAWALA CKT - 1	12.2.18	18:09	AT KHANJAWALA : Y PHASE JUMPER BROKEN ON TOWER NO. 6 AT BAWANA :TRIPPED ON DIFFERENTIAL.
20	12.2.18	11:20	220kV BAWANA - KANJHAWALA CKT-2	12.2.18	18:09	AT KHANJAWALA : Y PHASE JUMPER BROKEN ON TOWER NO. 6 AT BAWANA :TRIPPED ON DIFFERENTIAL.
21	12.2.18	14:20	220KV GAZIPUR - MAHARANIBAGH CKT. -I	12.2.18	14:45	AT GAZIPUR : TRIPPED WITHOUT INDICATION.
22	12.2.18	14:20	GAZIPUR 220/66kV 100MVA Tx-II	12.2.18	14:45	86
23	12.2.18	14:20	GAZIPUR 220/66kV 100MVA Tx-I	12.2.18	14:45	TRIPPED WITHOUT INDICATION.
24	12.2.18	14:20	GAZIPUR 220/66kV 160MVA Tx-I	12.2.18	14:45	TRIPPED WITHOUT INDICATION.
25	12.2.18	14:54	220kV BAWANA-DSIIDC BAWANA CKT-II	12.2.18	19:44	TRIPPED ON 86A&B.
26	12.2.18	14:54	BAWANA 400/220kV 315MVA ICT-VI	12.2.18	19:44	TRIPPED ON 86A&B.
27	13.2.18	12:10	PATPARGANJ 220/33kV 100MVA Tx-III	13.2.18	12:30	TRIPPED ON 195CB.
28	13.2.18	13:10	GAZIPUR 66/11kV, 20MVA Tx-II	13.2.18	13:30	86, RLV.
29	14.2.18	08:49	PRAGATI 220/66kV 160MVA Tx-I	14.2.18	15:14	R PHASE JUMPER OF 220KV BUS COUPLER CONNECTING 220KV BUS-II SNAPPED AT PRAGATI.
30	14.2.18	08:49	PRAGATI 220/66kV 160MVA Tx-II	14.2.18	08:58	R PHASE JUMPER OF 220KV BUS COUPLER CONNECTING 220KV BUS-II SNAPPED AT PRAGATI.
31	14.2.18	08:49	220kV PRAGATI - PARK STREET CKT-II	14.2.18	09:17	R PHASE JUMPER OF 220KV BUS COUPLER CONNECTING 220KV BUS-II SNAPPED AT PRAGATI.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
32	14.2.18	08:49	220kV MAHARANI BAGH - PRAGATI CKT	14.2.18	09:04	R PHASE JUMPER OF 220KV BUS COUPLER CONNECTING 220KV BUS-II SNAPPED AT PRAGATI.
33	14.2.18	08:49	220kV PRAGATI - SARITA VIHAR CKT - I	14.2.18	09:03	
34	14.2.18	08:49	220kV PRAGATI - PARK STREET CKT-I	14.2.18	09:08	
35	14.2.18	08:49	220kV PRAGATI - I.P.CKT - II	14.2.18	08:54	
36	14.2.18	08:49	220kV PRAGATI - I.P.CKT - I	14.2.18	08:54	
37	14.2.18	12:47	220kV BAMNAULI-PAPPANKALAN-I CKT-I	14.2.18	17:38	AT PAPANKALAN-I : ISOLATOR REPLACEMENT.
38	14.2.18	17:46	220kV MAHARANI BAGH-MASJID MOTH CKT-II	14.2.18	18:28	AT MAHARANI BAGH : 86
39	14.2.18	17:46	220kV MAHARANI BAGH - SARITA VIHAR CKT	14.2.18	17:48	AT MAHARANI BAGH : 86
40	14.2.18	17:46	220kV Maharani Bagh-Electric Lane Ckt-II	14.2.18	19:48	AT MAHARANI BAGH : 86
41	14.2.18	17:50	220KV GAZIPUR – MAHARANIBAGH CKT. -I	14.2.18	18:01	AT MAHARANI BAGH : 86
42	14.2.18	09:00	PARKSTREET 220/66kV 100MVA Tx-II	14.2.18	11:35	E/F.
43	14.2.18	17:50	GAZIPUR 220/66kV 100MVA Tx-I	14.2.18	18:01	86
44	15.2.18	04:35	GAZIPUR 66/11kV, 20MVA Tx-II	15.2.18	18:45	86
45	15.2.18	11:55	220kV PRAGATI - I.P.CKT - II	15.2.18	12:08	AT PARGATI : TRIPPED WITHOUT INDICATION.
46	15.2.18	15:05	220kV NARAINA-RIDGE VALLEY CKT-I	15.2.18	15:46	AT NARAINA : SPS OPERATED, 186. AT RIDGE VALLEY : CKT. DID NOT TRIP.
47	15.2.18	15:05	220 KV TRAUMA CENTER-RIDGE VALLEY CKT-1	15.2.18	15:10	AT TRAUMA CENTER : LINE DIFFERENTIAL. AT RIDGE VALLEY : NO TRIPPING.
48	15.2.18	15:05	220 KV TRAUMA CENTER-RIDGE VALLEY CKT-2	15.2.18	15:10	AT TRAUMA CENTER : 86B, DIST PROT, ZONE-I. AT RIDGE VALLEY : DIFFERENTIAL.
49	16.2.18	06:13	GOPALPUR 220/33kV 100MVA Tx-I	16.2.18	07:10	186
50	18.2.18	00:40	PARKSTREET 220/66kV 100MVA Tx-II	18.2.18	05:37	E/F.
51	18.2.18	12:07	OKHLA 220/66kV 100MVA Tx-II	18.2.18	18:43	TRIPPED ON DIFFERENTIAL RELAY.
52	18.2.18	12:10	220kV GAZIPUR - BTPS CKT	18.2.18	17:33	AT BTPS: DIST PROT, ZONE-I, DIST 16.5KM.
53	18.2.18	20:30	MASJID MOTH 220/33kV 100MVA Tx-II	18.2.18	21:32	E/F, O/C, 86
54	19.2.18	11:35	220kV DSIIDC BAWANA-NARELA CKT-II	19.2.18	17:08	AT NARELA : TRIPPED WITHOUT INDICATION.
55	19.2.18	12:52	GOPALPUR 220/33kV 100MVA Tx-I	19.2.18	16:46	186, PRV.
56	19.2.18	14:05	220kV WAZIRABAD - KASHMEREGATE CKT-II	19.2.18	17:49	AT WAZIRABAD : DIST PROT, ZONE-II, DIST 4.945KM, R PHASE.
57	20.2.18	18:20	220kV NARELA - MANDOLA CKT-II	20.2.18	18:26	AT NARELA : 86.
58	20.2.18	18:21	220kV NARELA - MANDOLA CKT-I	20.2.18	18:31	AT NARELA : OVERLOAD.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
59	21.2.18	12:28	220kV MEHRAULI - BTPS CKT. - II	21.2.18	20:27	At BTPS : Dist prot, Zone-I, dist 5.5Kms., RY Phase. At Mehrauli :ckt. did not trip
60	21.2.18	12:28	220kV MAHARANIBAGH-MASJID MOTH CKT-II	21.2.18	14:10	At Maharani Bagh : Y&B Phase trip, O/V,
61	21.2.18	12:28	220kV OKHLA - BTPS CKT. - II	21.2.18	13:41	At BTPS : E/F. At Okhla : ckt. did not trip
62	21.2.18	12:28	220kV MEHRAULI - BTPS CKT. - I	21.2.18	20:03	At BTPS : RYB Phase, Zone-III. At Mehrauli : ckt. did not trip
63	21.2.18	12:29	220kV PRAGATI - SARITA VIHAR CKT - I	21.2.18	12:59	At Sarita Vihar : Dist prot, Zone-I, 186A&B. At Pragati : Ckt. did not trip.
64	21.2.18	12:30	220kV MAHARANI BAGH - SARITA VIHAR CKT	21.2.18	15:52	At Sarita Vihar: RYB Phase trip, Dist prot, Zone-I, Dist 4.667Kms. At Maharani Bagh: RYB Phase trip.
65	23.2.18	20:46	PARKSTREET 220/33kV 100MVA Tx-I	24.2.18	00:38	DIFFERENTIAL.
66	24.2.18	04:30	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	24.2.18	14:40	86, 186
67	24.2.18	12:57	220kV MAHARANI BAGH - PRAGATI CKT	24.2.18	15:47	AT PRAGATI : DIST PROT, ZONE-I, ACTIVE GROUP -I, DIST 5.548KM. AT MAHARANI BAGH : DIST PROT, DIST 5.7KM, R PHASE.
68	24.2.18	12:58	OKHLA 220/66kV 100MVA Tx-II	24.2.18	15:16	TRIPPED ON DIFFERENTIAL, 86, RYB PHASE.
69	25.2.18	06:32	NARAINA 33kV MAYAPURI CKT-II	26.2.18	14:15	CT BLAST.
70	25.2.18	15:43	220kV WAZIRABAD - KASHMEREGATE CKT-II	25.2.18	21:40	AT WAZIRABAD : DIST PROT, ZONE-I, DIST 4.859KM AT KASHMIRI GATE : CKT .DID NOT TRIP.
71	25.2.18	19:20	220kV PRAGATI - SARITA VIHAR CKT - I	25.2.18	22:05	AT SARITA VIHAR : POLE DISCRIPANCY, CVT AVAILABLE.
72	26.2.18	11:35	220kV MAHARANI BAGH - SARITA VIHAR CKT	26.2.18	11:59	AT SARITA VIHAR : DIST PROT, ZONE-I, DIST 4.979KM AT MAHARANI BAGH : DIST PROT, RY PHASE, DIST 4.8KM.
73	28.2.18	06:50	INDRAPRASTHA POWER 220/33kV 100MVA Tx-III	28.2.18	07:26	I/C TRIPPED ON O/C
74	28.2.18	06:50	INDRAPRASTHA POWER 220/33kV 100MVA Tx-II	28.2.18	07:25	I/C TRIPPED ON 86
75	28.2.18	06:50	INDRAPRASTHA POWER 220/33kV 100MVA Tx-I	28.2.18	07:23	I/C TRIPPED ON E/F
76	28.2.18	06:50	INDRAPRASTHA POWER 33kV KILOKRI CKT (BAY-1)	28.2.18	13:20	R PHASE COMMON JUMPER INSULATOR DISC BROKEN.
77	28.2.18	14:10	220kV PRAGATI - SARITA VIHAR CKT - I	28.2.18	17:23	AT SARITA VIHAR : POLE DISCREPANCY.

19.12 DETAILS OF 400/220KV BREAKDOWN/TRIPPINGS OCCURRED IN DTL SYSTEM DURING THE MONTH MARCH 2019

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
1	1.3.19	10:25	220KV BAWANA-SHALIMARBAGH CKT-I	1.3.19	11:03	AT BAWANA : TRIPPED DURING PROT. TESTING.
2	1.3.19	10:25	220kV BAWANA - KANJHAWALA CKT-2	1.3.19	00:00	AT BAWANA : TRIPPED DURING PROT. TESTING.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
3	1.3.19	10:25	220KV BAWANA-SHALIMARBAGH CKT-II	1.3.19	11:03	AT BAWANA : TRIPPED DURING PROT. TESTING.
4	1.3.19	10:25	220kV BAWANA - KANJHAWALA CKT - 1	1.3.19	00:00	AT BAWANA : TRIPPED DURING PROT. TESTING.
5	2.3.19	14:30	KASHMIRI GATE 33/11kV, 20MVA Tx	2.3.19	18:00	DIFFERENTIAL.
6	2.3.19	19:41	220kV WAZIRABAD-GEETA COLONY CKT-I	2.3.19	00:00	AT WAZIRABAD TRIPPED ON DISTANCE PROTECTION ,Z-1 ,AUTO RECLOSE, R PHASE ,86ABC, AN PHASE , 4.395KM AT GEETA COLONY TRIPPED ON HT GROUP I , EARTH FAULT DISTANCE PROTECTION ,Z-1,APHASE ,2.127KM
7	3.3.19	02:42	MEHRAULI 66/11kV, 20MVA Tx-I	3.3.19	00:00	TRIPPED ON 64RLV ,E/F , DIFFERNTIAL ,87
8	3.3.19	02:59	220kV OKHLA - BTPS CKT.- I	3.3.19	08:33	AT OKHLA TRIPPED ON 86B
9	3.3.19	03:57	220KV SHALIMARBAGH-WAZIRPUR CKT-II	3.3.19	08:16	AT WAZIRPUR GENERAL TRIPPED , 86
10	3.3.19	03:57	220KV SHALIMARBAGH-WAZIRPUR CKT-II	3.3.19	08:16	AT WAZIRPUR GENERAL TRIPPED , 86
11	3.3.19	04:00	220 KV TRAUMA CENTER-RIDGE VALLEY CKT-1	3.3.19	04:30	AT RIDGE VALLEY TRIPPED 86 A& B
12	3.3.19	04:00	220kV MAHARANI BAGH - ELECTRIC LANE CKT-I	3.3.19	07:01	AT ELECTRIC LANE TRIPPED ON DIST PROTATION ,RYB PHASE, 86 A&B, OVER VOLTAGE
13	3.3.19	04:00	220kV MAHARANIBAGH-MASJID MOTH CKT-I	3.3.19	07:11	AT MASJID MOTH TRIPPED ON OVER VOLTAGE DIST PROTACTION ,2.3KM
14	3.3.19	04:00	220kV MAHARANI BAGH - SARITA VIHAR CKT	3.3.19	06:42	AT SARITA VIHAR TRIPPED ON L3E DIST PROTECTION , 19.7KM, OVER VOLTAGE
15	3.3.19	04:00	220kV MAHARANI BAGH - LODHI ROAD CKT-I	3.3.19	07:11	AT LODHI ROAD TRIPPED ON L3E DIST PROTECTION
16	3.3.19	04:10	220kV VASANT KUNJ - R.K.PURAM CKT.-I	3.3.19	04:45	At Vasant kunj tripped on over voltage RYB phase ,differencial
17	3.3.19	04:50	KANJHAWALA 220/66kV 100MVA Tx-I	3.3.19	07:12	86A , O/C
18	3.3.19	04:51	400kV Bawana-Mundka Ckt-I	3.3.19	07:23	At Bawana tripped on over voltage ,186 A & B, 295A2
19	3.3.19	14:35	GOPALPUR 220/33kV 100MVA Tx-I	3.3.19	16:50	TRIPPED ON 186 , BPHASE
20	4.3.19	21:13	400kV Bawana-Mundka Ckt-I	4.3.19	21:42	AT BAWANA : 86.
21	5.3.19	04:45	NARELA 66/11kV, 20MVA Tx-I	5.3.19	19:20	DIFFERENTIAL & E/F.
22	8.3.19	10:22	220KV GAZIPUR - MAHARANIBAGH CKT. -II	8.3.19	00:00	AT GAZIPUR : TRIPPED WITHOUT INDICATION.
23	8.3.19	12:46	PEERA GARHI 220/33kV 100MVA Tx-I	8.3.19	00:00	TRIPPED WITHOUT INDICATION.
24	11.3.19	14:51	BAWANA 400/220kV 315MVA ICT-II	11.3.19	15:29	86
25	12.3.19	15:03	RAJGHAT 220/33kV 100MVA Tx-2	12.3.19	19:47	DIFFERENTIAL
26	16.3.19	05:45	PREETVIHAR 220/33kV 100MVA Tx-II	19.3.19	19:33	86A&B
27	18.3.19	05:56	220KV WAZIRABAD - MANDOLA CKT-IV	18.3.19	08:14	AT WAZIRABAD : 86.

S. N.	OCCURRENCE OF BREAK-DOWN		DETAILS OF THE BREAKDOWN	TIME OF RESTORATION		REMARKS
	DATE	TIME (HRS)		DATE	TIME (HRS)	
28	19.3.19	07:48	220kV MAHARANI BAGH - LODHI ROAD CKT-I	19.3.19	10:43	AT LODHI ROAD : DIST PROT, ZONE-I, GROUND DISTANCE. AT MAHARANI BAGH : GEN TRIP, DIST PROT, ZONE-I, DIST 3.3KM, Y PHSAE.
29	19.3.19	12:54	400kV Mandola-Bawana Ckt-II	19.3.19	13:54	AT BAWANA : DIST PROT, ZONE-I, 86. AT MANDOLA, A/R OPERATED, RN PHASE OPERATED.
30	20.3.19	11:10	400kV Bamnauli-Jhatikara Ckt-I	20.3.19	13:36	AT BAMNAULI: RYB PHASE, 186, DISTANCE PROTECTION.
31	20.3.19	13:10	220kV NARELA - MANDOLA CKT-I	20.3.19	18:15	AT NARELA: R-PH, DIFFERENTIAL PROTECTION. AT MANDOLA: R-PH, DISTANCE PROTECTION, DIST-12.652KM, E/F.
32	20.3.19	13:28	400kV Mandola-Bawana Ckt-II	20.3.19	19:01	AT BAWANA: DISTANCE PROTECTION, ZONE-1, DIST-13.97KM.
33	20.3.19	13:30	400kV Mandola-Bawana Ckt-I	20.3.19	18:25	AT BAWANA: DISTANCE PROTECTION, ZONE-1, DIST-13.59KM.
34	23.3.19	13:34	220kV BAMNAULI-NAJAFGARH CKT-I	23.3.19	00:00	AT BAMNAULI : DIST PROT, ZONE-I, DIST 4.494KM.
35	23.3.19	15:00	220KV GAZIPUR - MAHARANIBAGH CKT. -II	23.3.19	17:50	AT GAZIPUR : DIRECTIONAL RELAY.
36	24.3.19	03:20	MEHRAULI 220/66kV 100MVA Tx-II	24.3.19	04:10	TRIPPED WITHOUT INDICATOIN.
37	24.3.19	03:20	MEHRAULI 220/66kV 100MVA Tx-III	24.3.19	04:10	I/C TRIPPED ON E/F
38	24.3.19	03:20	MEHRAULI 220/66kV 100MVA Tx-I	24.3.19	04:10	I/C TRIPPED ON E/F
39	24.3.19	07:07	220kV GOPALPUR-MANDOLACKT-II	24.3.19	11:44	AT GOPALPUR : CONDUCTOR SNAPPED.
40	24.3.19	17:40	220kV WAZIRABAD-GEETA COLONY CKT-I	24.3.19	19:50	AT GEETA COLONY : DIST PROT, ZONE-I , DIST 4.25KM. AT WAZIRBAD : DIST PROT, ZONE-I, IDST 5.380KM.
41	25.3.19	10:18	220kV NARELA - MANDOLA CKT-II	25.3.19	15:37	SUPPLY FAILED FROM MANDOLA.
42	25.3.19	10:18	220kV NARELA - MANDOLA CKT-I	25.3.19	15:37	SUPPLY FAILED FROM MANDOLA.
43	25.3.19	10:18	220kV GOPALPUR-MANDOLACKT-II	25.3.19	15:37	SUPPLY FAILED FROM MANDOLA.
44	25.3.19	10:18	220kV GOPALPUR-MANDOLACKT-I	25.3.19	00:00	SUPPLY FAILED FROM MANDOLA.
45	27.3.19	01:40	GOPALPUR 220/66kV 100MVA Tx-II	27.3.19	17:46	86, 186
46	28.3.19	12:10	220kV BAWANA - KANJHAWALA CKT - 1	28.3.19	15:28	AT BAWANA : DIST PROT, DIST 14.8KM. AT KHANJAWALA : RYB PHASE.
47	28.3.19	15:22	MASJID MOTH 220/33kV 100MVA Tx-I	28.3.19	20:30	DIFFERENTIAL
48	29.3.19	13:01	220KV WAZIRABAD - MANDOLA CKT-I	29.3.19	18:36	AT WAZIRABAD : DIST PROT, ZONE-I. AT MANDOLA 86.
49	29.3.19	15:14	MASJID MOTH 220/33kV 100MVA Tr-III	29.3.19	15:33	E/F
50	29.3.19	15:14	MEHRAULI 220/66kV 160MVA Tx-I	29.3.19	15:33	B PHASE CT BLAST.
51	29.3.19	16:19	220KV BAWANA-SHALIMARBAGH CKT-I	29.3.19	16:35	O/C
52	30.3.19	13:54	220KV WAZIRABAD - MANDOLA CKT-I	30.3.19	19:47	AT WAZIRABAD : DIST POR, ZONE-II, R PHASE.

20 Details of major Grid Disturbances occurred in 2018-19.

1 Report on tripping occurred in Delhi system on 05.04.2018

The 220/33kV 100MVA Tr. tripped on 05.04.2018 at 16:55 hrs at 220kV Naraina S/Stn. & full load of Naraina was affected.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	220/33kV 100MVA Tx-III	86A, 86B, Differential 87A, 87PC.	16.55	18.05	The Tx was tripped on differential and it was loaded to 89MW at the time of tripping. R phase CT of I/C-III secondary terminals were heated due to sparking. The transformer was re-energized at 17.10hrs. However, smoke on LV side R Phase CT was observed and accordingly the transformer was made off at 17.11hrs. After rectification of R Phase CT secondary fault 100MVA -III Tx charged at 18.05hrs.

100MVA-II was under Shutdown from 04.04.18 at 10.11hrs for Tan Delta testing and because of high Tan Delta of Bushing, the transformer charged on 05.04.18 at 17:39hrs after replacement of B Phase LV Bushing.

100MVA –I is under breakdown because of fire since 26.07.2017.

DETAILS OF LOAD SHEDDING :

DURATION (Hrs)		LOAD IN MW	GRID / AREAS AFFECTED
FROM	TO		
TPDDL			
16:55	16:59	7	INDER PURI
16:55	17:35	16	PAYAL GRID
16:55	18:04	7	PANDAV NAGAR
16:55	18:04	6	11kV LOAD AT NARAINA
BRPL			
16:55	18.00	26	MAYA PURI
16.55	18.04	11	DMS
16.55	18.04	2	11kV LOAD AT NARAINA
MES			
16:55	17:39	13	SHEKHAWATI, KRIBI PLACE

2 Report on tripping occurred in Delhi system on 21.04.18 at 400kV Harsh Vihar S/Stn..

The following tripping occurred in Delhi system on 21.04.2018 at 15.02 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	400kV Dadri-Harsh Vihar Ckt. -I	At Harsh Vihar : Ckt. did not trip. At Dadri : Bus bar protection operated.	15.02	18.08	400kV Dadri – Harsh Vihar Ckt. –I tripped at Dadri end. A Blast was reported on B ph CT of 500 MVA ICT-5 at Dadri Stn.

During the tripping, 400kV Dadri – Harsh Vihar Ckt. –II was under shutdown for safety reasons to perform erection works of 125MVAR Shunt Reactor at NTPC Dadri S/Stn.

Details of Loss of Generation : Nil

Details of load affected:

DURATION		LOAD IN MW	GRID / AREAS AFFECTED
FROM	TO		
BYPL			
15:02	15:04	12	GH-I
15:02	15:05	9	MAYUR VIHAR PH-I
15:02	15:06	14	KHICHIRIPUR
15:02	15:07	142	VIVEK VIHAR, CBD-I, GURU ANGAD N AGAR, GEETA COLONY, JHILMIL DSIDC, G.T.ROAD, DILSHAD GARDEN, SHAKARPUR, 11kV LOAD AT PATPARGANJ
15:02	15:08	23	KARAWAL NAGAR, BHAGIRATI
15:02	15:10	12	SEELAMPUR
15:02	15:12	49	NAND NAGRI, GHONDA, DILASHAD GARDEN
TOTAL		**261**	

3 Preliminary report on tripping occurred on 26.04.18 at 220kV Vasant Kunj S/Stn.

The following tripping occurred at 220kV Vasant Kunj on 26.04.2018 at 01.48 hrs.

S. No	Name of the Elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	220/66kV 160MVA Tr. –III	Tr. tripped on 295B, Tx Trouble Alarm, oil temperature Alarm, PRV, Buchholz, 295CA, 295CB, 295CC, 195CC, 195CB, 195CA, 30ABCD, 30EFGH, 99 overflux	01.48	Still - out	220/66kV 160MVA Tr. –III caught fire and completely burnt and damaged.
2	220/66kV 100MVA Tr. –II	Tr. tripped on 295CA, 295CB, 295CC, 195CC, 86,30D.	02.10	10.30	

At 02.20 hrs. 220kV Mehrauli- Vasant Kunj ckt - I & II made off manually at both end for safety reason. At 08.57 hrs. 220kV Mehrauli- Vasant Kunj ckt - I energized at Vasant Kunj. At 09.20 hrs. 220kV Mehrauli- Vasant Kunj ckt - II energized at Vasant Kunj.

Prior to the incident , load at 220kV Vasant kunj s/stn was 91 MW.

4 Preliminary report on 220kV tripping occurred in Delhi system on 03.05.2018 at 07.15hrs.

The following tripping occurred in Delhi system on 03.05.2018 at 07:15hrs while availing shutdown on 220kV Maharani Bagh – Pragati Ckt.

S. No	Name of the elements tripped	Relay indications	Tripping Time (in Hrs.)	Restoration Time of (in Hrs.)	Remarks
1	220 kV Maharani Bagh-Pragati Ckt.	At Pragati : Dist prot, Zone-II, Dist 3.634Km, 86, 186. At Maharani Bagh : Manually made off.	07:15	07:20	At 07:15hrs, 220kV Maharani Bagh – Pragati Ckt made off at Maharani Bagh end to start the process to avail shutdown for cleaning of LA Bushings.
2	220 kV Sarita Vihar -Pragati Ckt	At Sarita Vihar : 186A&B. At Pragati : Ckt. did not trip.	07:15	08:03	

System configuration during the incident

Prior to the incident Pragati GT-II & STG units and 220kV Pragati – Park Street Ckts were on 220kV Bus-I of 220kV I.P.Extn (Pragati) which further connected to Grid through 220kV IP Ext (Pragati) – Maharani Bagh ckt. and 220kV IP Ext (Pragati) –Sarita Vihar-Maharani Bagh link whereas 220kV Bus Coupler at 220kV I.P.Extn (Pragati) was in off position.

Due to tripping of 220 kV Sarita Vihar -Pragati Ckt at Sarita Vihar end, the 220kV Bus-I at I.P.Extn (Pragati) got dead and GT-II and STG of Pragati got desynchronized.

Generation loss

Sr No	Name of Unit	Generation (in MW)	Tripping Time (Hrs.)	Synchronizing Time (Hrs.)	Reason
1	Pragati GT II	77	07:15	09:07	
2	Pragati STG	104	07:15	10.48	
	Total	**181**			

Details of Load shedding

Duration		Load (in MW)	Areas / Grid affected	Remarks
From	To			
07:15	07:20	133	PARK STREET 220kV	Supply failed

5 Preliminary report on trippings occurred in Delhi system starting from 22.59 hrs. on 07.05.2018 due to thunderstorm.

The following tripping occurred in Delhi system starting from 22.59 hrs of 07.05.2018 to 01.51 hrs of 08.05.2018 due to thunderstorm.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
	400kV System				
1	400kV Bawana – Abdullapur Ckt.	At Bawana : Over Voltage, Dist prot.	23.17	23.35	
2	400kV Mundka-Jhatikalan Ckt.-I	At Mundka : Manually made off	01.13	15.59	Heavy sparking on R phase Wave trap at 400kV Mundka Stn.
	220kV System				
3	220kV Narela – Panipat Ckt. –II	At Narela : Dist prot, Zone-I, Dist 20.84km, RYB Phase.	22.59	07.01	
4	220kV Mandola-Gopalpur ckt.-I	At Gopalpur : Dist prot, dist 1.96mts., 86. At Mandola : Dist prot, dist 19.15km,	23.09	08.40	Y Phase jumper snapped at tower no 69.
5	220kV Mandola-Gopalpur ckt.-II	At Gopalpur : 86, Zone-1, Y phase. At Mandola : 86 A&B.	23.09	00.01	
6	220kV Mandola-Gopalpur ckt.-II	At Gopalpur : Dist prot, Zone-I,II&III, Dist 17.17km.,Y&B Phase, 86	00.52	05.41	
7	220kV Wazirabad - Gopalpur ckt.-I	At Gopalpur : 86, Dist prot, Dist 1.2km At Wazirabad : Dist prot, ABC Phase.	00.52	01.15	
8	220kV Wazirabad - Gopalpur ckt.-I	At Wazirabad : Dist prot, Zone-I. 86ABC At Gopalpur : Supply fail	01.27	01.42	
9	220kV Wazirabad - Gopalpur ckt.-II	At Wazirabad : Dist prot, zone-I, broken conductor trip Phase N At Gopalpur : Supply fail	01.27	03.49	
10	220kV Wazirabad - Gopalpur ckt.-I	At Wazirabad : Ph N, 86 ABC. At Gopalpur: 220KV CVT disappeared	01.51	13.16	Bottom phase jumper snapped at tower no 14.
11	220/33kV 100MAV Tr. –I at Subzi Mandi	86, 186.	00.54	01.17	Supply fail from Gopal Pur end.
12	220/33kV 100MAV Tr. –II at Subzi Mandi	86, 186.	00.54	01.17	
13	220/33kV 100MAV Tr. –II at Subzi Mandi	E/F, 86, 186.	01.45	04.38	

Contd. 2

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
66kV System					
14	66kV Najafgarh - Bodella-II Ckt. I&II	At Najafgarh : Dist prot, Zone –I, RB Phase, Dist 8.8km.	23.00	01.25	
15	66kV Gazipur – Patparganj Ind. Area Ckt.	At Gazipur : Dist prot, Zone – I, & IV, Dist 2.4km, R phase E/F.	23.15	00.42	
16	66kV Najafgarh-Nangloi Water Works Ckt.	At Najafgarh : Dist prot, Zone –I, Dist 4.7km.	23.13	05.46	
17	66kV Patparganj-GH-I Ckt.	At Patparganj : Dist prot, Zone –I, Dist 6.0km, RYB Phase.	23.37	23.55	
18	66kV Okhla – Malviya Nagar Ckt. -I	At Okhla : E/F	00.35	03.09	
19	66kV Okhla – Malviya Nagar Ckt. -I	At Okhla : Dist prot, Zone –II	00.35	08.25	
20	66kV Papankalan-I – Bodela –I Ckt. –II	At Papankalan-I : O/C, R phase. 86	01.25	01.55	
21	66kV Najafgarh – Jaffarpur Ckt. –I	At Najafgarh : Zone-I, B phase.	01.28	04.08	

AREA/GRID AFFECTED

The load of 220kV Gopalpur & 220kV Subzi Mandi S/Stn got affected due to repeated trippings on 220kV Gopalpur –Wazirabad Ckts. & 220kV Gopalpur – Mandola Ckts.

TIME		AREA/GRID AFFECTED	REMARKS
FROM (HRS.)	**TO (HRS.)**		
23.10	23.19	220kV Gopalpur & 220kV Subzi Mandi	Power supply to Wazirabad water work and Chandrawal water treatment plant got affected due to supply failure at 220kV Gopalpur
00.52	00.53	220kV Gopalpur & 220kV Subzi Mandi	
01.27	01.42	220kV Gopalpur & 220kV Subzi Mandi	
01.51	04.01	220kV Gopalpur & 220kV Subzi Mandi	A back feed arrangement was done at 33kV Wazirbad ckt-II from 33kv Model Town ckt at 220kV Gopalpur S/stn. to give power supply to Wazirabad water treatment plant from 02.57 hrs. to 04.01hrs.

6 Preliminary report on trippings occurred in Delhi system on 13.05.2018 due to thunderstorm.

Following tripping occurred in Delhi system on 13.05.2018 due to thunderstorm.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
	400kV System				
1	400/220kV 315MVA ICT No- 5 at Bawana	ICT tripped on E/F.	19:43	23:38	
2	400/220kV 315MVA ICT No- 6 at Bawana	ICT tripped on E/F. GRB / BB also appeared.	19:43	23:25	
3	400kV Bamnauli - Jhatikara Ckt- I	At Bamnauli: Dist. Protn, Zone- I, RYB-ph.	18:14	18:45	
4	400kV Bamnauli - Ballabhgarh Ckt- I	At Bamnauli: Supply failed. Ckt tripped at Ballabhgarh	18:14	18:35	
	220kV System				
5	220kV Mehrauli – BTPS Ckt–I	At BTPS: Dist. Prot, Z-1, Dist-7.5 km, B-ph At Mehrauli : Dist. Prot, Z-1, Dist- 14.01 km, B-ph	16.35	21.21	
6	220kV Mehrauli – BTPS Ckt–II	At BTPS: Dist. Prot, Z-1, Dist- 9 km, R-ph At Mehrauli : Dist. Prot, Z-1, Dist -10.87 km, R-ph	16:40	18:54	
7	220kV Naraina – PPK- I Ckt	At Naraina: Dist. Prot Zone -I, B phase, 86 ABC At PPK-I : Dist.Prot,Zone-I, Dist-5.840 km,B-ph, 186A&B.	16:44	19:27	
8	33kV I/C–III of 220/33kV100MVA Tx at Naraina:	33kV I /C – III tripped on E/F, 86, ABC	16:43	17:45	
9	220kV Sarita vihar - Maharani Bagh Ckt	At Sarita Vihar - Dist. Prot, Dist-6.9 km. At Maharani Bagh: - Dist. Prot, Dist-1.4 km, R-Phase.	11:45 14.5.18	22:12	Ckt could not be closed at Maharanibagh due to problem in CB.
10	220kV Dial: 160 MVA Tr- I	At Dial : R- ph, Differential, 86 A.	16:50	19:15	
11	220kV Dial-Bamnauli Ckt –I	At Bamnauli: Dist. Prot, Z-I, Dist-1.422 km, Line Differential, 186 A & B. At Dial: R- Ph. Line Differential	18:19	18:48	
12	220kV IP:- Patparganj Ckt -I	At IP: Dist. Prot, Z-I, R & Y ph, 186, 86, ABC. At PPG: Dist. Prot, Z-I, R Y- ph trip, Auto Reclose	19:55	07:25 (14.05.18)	Problem in line isolator alignment at Patparganj.
13	220kV Wazirabad - Gopalpur Ckt- II	At Wazirabad: Auto Reclose, Lock out, trip ph- N. At Gopalpur: CB is in off position	20:37	07:44 (14.05.18)	

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
14	220kV Mehrauli – BTPS Ckt–II	At BTPS: Ckt did not trip At Mehrauli : O/C, E/F.	18:58	12:32 14.5.18	R-Ph jumper snapped at tower no-43.
15	220/66kV 100MVA Tx-1 at 220kV Vasant kunj	At Vasant Kunj: 51N, E/F, 86	19:04	20:15	
16	220/66kV 100MVA Tx-2 at 220kV Vasant kunj	At Vasant Kunj: 51N, O/C E/F, 86	19:04	20:23	
17	33kV I /C – I of 220/33kV 100MVA Tx-I at 220kV Shalimar bagh	At Shalimar bagh: E/F, 86	22:12	23:08	
18	220kV Wazirabad – Gita Colony Ckt- I	At Wazirabad:Dist. Prot, Zone-II, distance 6.57km,trip ph ABC, 86 At Gita colony: Dist. Prot, Zone-I, distance 1.592 km, R & B ph, 86	19:45	23:42	
19	220kV Wazirabad – Gita Colony Ckt - II	At Gita Colony: Dist. Prot, Zone-I, SOTF, trip ph ABC, 27, 86. At Wazirabad: Dist. Prot, Zone-I, II, III, A-N-Ph, Auto Reclose Lock out.	20:10	23:42	
20	220kV Bawana-Rohini- II Ckt - II	At Bawana: 67 N(E/F) Dist.Protn, Zone –I, Dist.- 5.23 km,	19:43	07:43 (14.05.18)	
21	220kV Gopalpur - Subzi Mandi Ckt- II	At Gopalpur: Dist.Protn, Y ph, Dist.- 432.3 M,	19:41	22:21	
22	220kV Gopalpur – Mandola Ckt- I	At Gopalpur: Dist.Protn, Dist.- 2.205 km.	19:42	22:26	

DETAILS OF LOAD SHEDDING:

DURATION		***LOAD IN MW***	***GRID / AREAS AFFECTED***
FROM	TO		
TPDDL			
16:43	17:13	11	INDER PURI
16:43	17:40	9	A-21 NARAINA GRID,PAYAL GRID
19:42	19:45	31	DHEERPUR GRID,JAHANGIR PURI
19:42	19:50	45	220 KV SUBZI MANDI,D.U. GRID,GULABI BAGH,SHAHZADA BAGH,TRIPOLIA
22:14	22:19	5	RANI BAGH
22:14	22:25	10	220 KV SHALIMAR BAGH,SMB - KHOSLA
22:14	22:56	4	SMB - KHOSLA
BRPL			
19:04	19:25	10	V. KUNJ C BLK CKT-I
19:04	19:25	20	V. KUNJ C BLK CKT-II
19:04	19:41	7	VASANT KUNJ D BLOCK CKT.-I
19:04	19:38	10	66kV PALAM
19:04	20:26	5	VASANT KUNJ INSTL. AREA

DURATION		*LOAD IN MW*	*GRID / AREAS AFFECTED*
BYPL			
07:48	07:55	11	FAIZ ROAD
07:48	07:57	20	MOTIA KHAN
07:48	08:00	12	PRASAD NAGAR
07:48	07:54	10	SHANKAR ROAD
19:40	19:50	6	B.G.ROAD
19:40	19:50	6	FAIZ ROAD
19:45	19:49	14	KAMLA MARKET
19:45	20:00	22	NAND NAGRI
19:45	20:00	17	GURU ANGAD NAGAR
19:45	20:01	2	220 kV PATPARGANJGRID
19:45	19:48	1	FOUNTAIN
19:45	19:58	19	KAILASH NAGAR
19:45	20:20	24	GEETA COLONY
19:45	20:20	8	C-BLOCK KRISHNA NAGAR
19:45	20:00	17	SHAKARPUR
19:45	20:20	23	KANTI NAGAR
19:45	20:00	17	VIVEK VIHAR
19:45	20:00	24	DILSHAD GARDEN
19:45	20:00	7	CBD-I
19:45	20:01	2	220 kV PATPARGANJGRID
19:46	19:48	6	DELHI GATE
19:46	20:00	2	TOWN HALL
19:46	19:48	5	KARKARDOOMA
19:46	19:48	12	CBD-II
19:46	19:48	13	G.B. PANT
19:46	19:48	6	MINTO ROAD
19:46	19:48	5	DEEN DYAL UPADHAYA MARG
19:46	19:47	4	JAMA MASJID
19:46	19:48	7	PREET VIHAR
19:46	19:47	2	I.G. STADIUM

7 Preliminary report on trippings occurred in Delhi system on 16.05.2018 due to thunderstorm.

The following tripping occurred in Delhi system starting from 02.50 Hrs of 16.05.18 due to thunderstorm.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
	400kV System				
1	400kV Bamnauli - Jhatikara Ckt- I	At Bamnauli: Dist. Prot, Dist.5.618Km.	02.50	03.48	
2	400kV Bamnauli - Ballabhgarh Ckt- I	At Bamnauli: Ckt did not trip.	02.50	03.40	Supply fail from Ballabgarh end.
3	400kV Bawana - Mandola Ckt- I	At Bawana: Dist. Prot, Z-I, C-N –Ph At Mandola: Dist. Prot, Dist-5.819 Kms, C-N –Ph	02.50	04.55	
4	400/220kV 315MVA ICT-1 at Bawana	Tripped without indication.	02.59	21.48	
	220kV System				
5	220kV Mandola-Wazirabad Ckt–I	At Wazirabad: Supply failed At Mandola: : Dist. Prot, Dist-14.65 Kms, Y-B-Ph	02.57	03.52	
6	220kV Mandola-Wazirabad Ckt–II	At Wazirabad: Supply failed At Mandola: : Dist. Prot, Dist-14.49 Kms, Y-B-Ph	02.57	03.58	
7	220kV Mandola-Wazirabad Ckt–III	At Wazirabad: Supply failed At Mandola: : Dist. Prot, Dist-14.62 Kms, Y-B-Ph ,Z-I	02.57	03.59	
8	220kV Sarita Vihar - Maharani Bagh Ckt	At Sarita Vihar - Supply failed At Maharani Bagh: E/F	03.13	08.17	
9	220Kv Wazirabad-Geeta Colony Ckt–I	At Wazirabad: Dist Prot, Z-I, B-Ph, SOTF. At Geeta Colony: Dist Prot, Z-II, R-Ph, E/F,C-N-Ph.	02.57	06.06	
10	220Kv Wazirabad-Geeta Colony Ckt–II	At Wazirabad: Dist Prot, Z-I, R-Ph. At Geeta Colony: E/F, SOTF.	02.57	06.06	
11	220kV Mehrauli – BTPS Ckt–II	At BTPS: Dist Prot., Z-II, R-Ph, E/F, Dist-14Kms. At Mehrauli: Dist Prot., Z-I, R-Ph.	03.00	11.15	R-Ph conductor strained damaged between Tower No.-54 and 55.
12	220kV BTPS-Gazipur Ckt	At BTPS: Dist Prot, Dist-7.3Kms E/F, R-Ph. At Gazipur : CB was in off position	03.15	12.05	
13	220kV Wazirabad-Gopalpur Ckt–II	At Wazirabad: Dist Prot, Z-I, Dist-1.361 Kms, B-Ph. At Gopalpur: : CB was in off position	03.07	13.05	
14	220kV Geeta Colony-Patparganj Ckt–I	At Patparganj: C-Ph, 86-A B & C. At Geeta Colony: Did not trip.	02.57	03.35	

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
15	220kV Geeta Colony-Patparganj Ckt–II	At Patparganj: O/C, trip phase AB& C, 86-A B & C. At Geeta Colony: Did not trip.	02.57	03.32	
16	220kV Dial-Bamnauli Ckt –I	At Bamnauli: Dist Prot, R ph, Zone-I ,Dist.9.831km At Dial: R–Ph trip, line Differential, Dist. Prot, Zone-I.	03.04	04.20	
17	220kV Pappankalan-I-Naraina Ckt	At Pappankalan-I: Dist. Prot, R ph, Zone-II ,86AB&C At Naraina: Dist. Prot, Dist-4.77 Kms, A/R, 186AB&C, SOTF.	02.57	07.40	
18	220kV Bus coupler at Geeta Colony	E/F, 86, SPS.	02.57	04.15	
19	220/66kV 100MVA Tx-1 at Bawana	Tx Tripped on trip ckt supervision, 86B and 66kV I/C tripped on 195C.	03.09	04.23	
20	220kV Mandola-Narela Ckt- I	At Narela: Supply failed At Mandola: Dist Prot, Z-III, Dist-32.5Kms, R-Ph.	02.54	06.41	
21	220kV Mandola-Narela Ckt- II	At Narela: Y-Ph, E/F, Dist Prot,dist.15.6Kms. At Mandola: Y-Ph, dist Prot, Dist. 2.46 km.	02.54	06.41	Jumper snapped at Tower No.9
22	220kV Mundka-Peeragarhi Ckt- II	At Mundka: B-Ph, Dist Prot, Z-I.195,295,86B At Peeragarhi: Supply failed	04.06	04.34	
23	33kV I/C-I&II of 220/33kV 100MVA Tx-1 & 2 at Geeta Colony	33kV I/C-I&II tripped on 30 CB auto trip.	02.57	03.30	

System configuration during the incident

Prior to the incident, GT Station and PPCL Unit #1 were connected to Grid at 220kV Bus-II of IP Ext(Pragati) through 220kV IP Ext (Pragati) -IP -Patparganj - Geeta Colony-Wazirabad - Mandola Ckts . 220kV Bus Coupler was in off position at Pragati and Patparganj S/stn.

Due to tripping of 220kV Patparganj - Geeta Colony ckt.-I&II and 220kV Geeta Colony – Wazirabad ckts. Generating units connected to 220kV Bus-II of IP Extn (Pragati) got desynchronized.

Generation loss

Sr No	Name of Unit	Generation (MW)	Tripping Time(Hrs)	Synchronizing Time (Hrs)
1	GTPS, GT#2	25	02.58	04.00
2	GTPS,STG#1	10	02.58	04.52
3	Pragati#1	80	02.58	04.49
	Total	**115**		

Details of Under Frequency Relay operation

Time (Hrs)		Load affected in MW	Name of the Grid
From	To		
IP			
02:58	03:30	1	33kV Bay-7 ,Exhibition-I
02:58	03:30	1	33kV Bay-9 , Exhibition-II
02:58	03:30	7	33kV Bay-24,J.N stadium
02:58	03:30	14	33kV Bay-30, Kamla Market
RPH			
02:58	03:36	0	33kV Bay-5, Jama Masjid
02:58	03:36	0	33kV Bay-13 , GB Pant,
02:58	03:36	2	33kV Bay-16, Fountain
Patparganj			
02:57	03:35	48	66kV Vivek Vihar-I II
02:57	03:35	6	33kV CBD sahadra
02:57	03:35	20	33kVGuru Angad Nagar-I &II
02:57	03:35	9	33kV Sakarpur
02:57	03:35	4	3 no. 11kV feeders
	Total	112	

Details of Load shedding :

Duration		Load (in MW)	Areas / Grid affected	Remarks
From (Hrs)	To (Hrs)			
02.57	03..35	71	220kV Geeta Colony S/stn	Supply failed
02.57	03.35	87	Part load at 220kV Patparganj	
02.57	03.27	134	220kV IP S/stn	
02.58	03.28	20	220kV RPH S/stn	
02.57	03.24	28	66kV load at GTPS	
	Total	**340**		

8 Preliminary report on tripping occurred in Delhi system on 27.05.2018.

The following elements tripped in Delhi system on 27.05.2018 at 13:36 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	220kV BTPS – Mehrauli Ckt. –2	Distance, Z-1, 14.28km, I_A=7.221 kA, At BTPS: R ph, Dist. 6 km, Zone-1, I_R=15kA	13:15	15:01	Tried from Mehrauli after occurrence of following line trippings (Sno. 2&3). But tripped after closing at BTPS end. (S no. 4)
2	220kV BTPS – Mehrauli Ckt. –1	Zone-1, B Ph, 17.9 kA, 4.5 km	13:36	20:38	All load came upon Mehrauli Dial ckt-2
3	220kV Mehrauli – DIAL Ckt. – 1	Differential, R Ph, 86 At Dial: R Ph. Differental	13:36	18:25	
4	220kV BTPS – Mehrauli Ckt. –2	186	15:02	20:45	See S.no. 1 also
5	220kV Mehrauli – DIAL Ckt. – 2 (upon try of BTPS 2 at 15:01 hrs)	86X	15:02	15:06	Energized after putting off following 220kV elements: Vasant Kunj 1 & 2, B/C & BTPS 1
6	220/66kV 160MVA Tx#4 with 66kV I/C#4	186 and I/C without indication	15:02	11.10 28.05.18	Under PTW

System configuration during the incident

Prior to the incident, 220kV B/C was closed (both 220kV buses parallel) at Mehrauli with BTPS 1&2 along with Vasant Kunj 1&2 and 160 MVA Tx 4 were on 220kV Bus 2, whereas DIAL 1&2 with 100 MVA Tx 1,2 &3 were on 220kV Bus 1. Trippings occurred as mentioned in Table above.

At max around 130 MW load was affected due to Load shedding (for line loading control of DIAL-2) and complete blackout of Mehrauli and Vasant Kunj S/Stns at different instances. All load was normalized at 18:40 Hrs upon taking load on 100MVA-2 at 18:37Hrs after restoration of DIAL -1 at 18:25 Hrs

Following actions taken for restoring the system

Partial load of Mehrauli and Vasant Kunj was managed on DIAL ckt 2 and that of 66kV C Block 1&2 at Vasant Kunj (around 45 MW) was taken on 66kV Ridge Valley ckt 1 which was backfed by BRPL. Still rendering around 23 MW load effected, which was normalized eventually at 18:40 Hrs upon taking load on 100MVA-2 at 18:37Hrs after restoration of DIAL-1 at 18:25 Hrs

9 Preliminary report on tripping occurred in Delhi system on 26.05.2018 at 12:20 hrs.

The following elements tripped in Delhi system on 26.05.2018 at 12:20 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	400kV Dadri-Harsh Vihar Ckt-2.	**At Harsh Vihar :** Dist 17.1 km, 86, Zone-1, E/F. CVT available. **At Dadri** : Z-1, C PH., 30km. relays appeared, No tripping.	12:20	12:54	400kV Dadri-Harsh Vihar Ckt-1 was already under planned S/D

System configuration during the incident

Prior to the incident:

i) GT Station and GT#1 of Pragati Stn. were connected to Grid through 220kV IP Ext (Pragati) - IP -Patparganj - Geeta Colony –Wazirabad - Mandola Ckts. parallel with Patparganj – Preet Vihar – Harsh Vihar – Dadri.

ii) GT#2 & STG of Pragati Stn. were connected to Maharani Bagh through 220kV Pragati – Maharani Bagh Ckt. and through Pragati – Sarita Vihar – Maharani Bagh catering the load of 220kV Park Street and 220kV Sarita Vihar.

iii) 220kV Bus coupler was open at Pragati s/stn.

During Fault conditions:

i) Tripping of 400kV Dadri Harsh-Vihar ckt 2 at 12:20 hrs. reversed the flow on Patparganj – Preet Vihar in direction of Harsh Vihar resulting in overloading of 220kV B/C at Patparganj, 220kV Geeta-Colony –Patparganj Ckt 1&2 and 220 kV Mandola-Wazirabad Ckt 1.2.3.& 4.

ii) Resulted in tripping of 220kV B/C at Patparganj

iii) The above caused formation of the islanding of GT-1 of Pragati Stn. and full Generation of GTPS from Grid and subsequent collapse of generation of ~ 280MW and Load Loss of ~330 MW at Harsh Vihar, Preet Vihar, Patparganj, IP, RPH and GTPS.

Revival of system:

220kV IP ckt 1&2 were put off and B/C at 220kV Pragati was put on at 12:30 hrs and supply was given to GTPS and PPCL (for GT-1) to bring back generation. Also, 220kV Preet Vihar 1&2 were put off and B/C put on at Patparganj to normalize load. At 12:54, load was taken on 400kV Dadri-2, as CVT was available at Harsh Vihar, and all load normalized.

Generation Loss during disturbance :

Name of Stn.	Generation prior to the incident in MW	Time		Remarks
		Tripping	Restoration	
Pragati Stn	135	12:20	19.25	Due to islanding
GTPS	130	12:20	13.22	Due to islanding
Total (MW)	**265**			

10 Preliminary report on tripping occurred in Delhi system on 26.05.2018 at 13:49 hrs.

The following elements tripped in Delhi system on 26.05.2018 at 13:49 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	400kV Dadri-Harsh Vihar Ckt-2.	At Harsh Vihar : B Ph. Zone1, 86,dist. 6.6 km. At Dadri : Z-1, C PH., 28.9 km.	13:49	16:30	400kV Dadri-Harsh Vihar Ckt-1 was already under planned S/D

System configuration during the incident

Prior to the incident, GT Station and GT#1, GT#2, STG of Pragati Stn. were connected to Grid through 220kV IP Ext (Pragati) -IP -Patparganj - Geeta Colony –Wazirabad - Mandola Ckts. parallel with Patparganj – Preet Vihar – Harsh Vihar – Dadri, catering the load of 220kV Parkstreet through 220kV Bus coupler of Pragati s/stn. 220 kV Maharanibagh-Pragati ckt was under B/D and 220kV Pragati-Sarita Vihar was off.

Tripping of 400kV Dadri Harsh-Vihar ckt 2 at 13:49 hrs. reversed the flow on Patparganj – PreetVihar in direction of Harshvihar resulting in overloading of 220kV B/C at Patparganj and 220 kV Geeta-colony –Patparganj ckts 1&2 and 220 kV Mandola-Wazirabad Ckts 1.2.3.& 4. Resultant tripping of 220kV B/C at Patparganj caused the islanding of Full Generation of Pragati Stn. and GTPS from Grid and subsequent collapse of generation of ~ 200 + MW (GTPS and GT-1 of Pragati were not fully synchronized yet after tripping of 12:20 Hrs) and Load Loss of ~550 MW at Harsh Vihar, Preet Vihar, Patparganj, IP, RPH, Parkstreet and GTPS.

However, 220kV B/C was put on and 220 kV Preet Vihar were put off at Patparganj and Loads at Patparganj and ParkStreet were shed to revive supply for important Loads and instructions were given to GTPS and PPCL to bring back generation.

Meanwhile, 400kV Harsh Vihar Dadri ckt-1 was energized after receiving clearance at 14:29 and loads were normalized priority wise turn by turn.

Generation Loss during disturbance :

Name of Stn.	Generation prior to the incident in MW	Time (hrs)		Remarks
		Tripping	Restoration	
Pragati stn	150+	13:49	15:40	Due to islanding
GTPS	~	13:49	~	Due to islanding
Total (MW)	**~200 MW**			

11 Preliminary report on tripping occurred in Delhi system on 27.05.2018.

The following elements tripped in Delhi system on 27.05.2018 at 07:39 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.
1	220kV Narela – Panipat Ckt. –I	At Narela : Dist prot, zone-I, Dist 45.3Km.	07:39	09:12
2	220kV Narela – Panipat Ckt. –II	At Narela : Dist prot, Dist 44.15Km. At Panipat : Ckt. did not trip.	07:39	09:12
3	220kV Narela – Panipat Ckt. –III	At Narela : Ckt. did not trip. At Panipat : Supply fail.	07:39	09:12

System configuration during the incident

220kV Mandola ckt-I 220kV Mandola ckt-II , 100MVA –I, 100MVA-II & 100MVA –III were connected to 220kV Bus-I. 220kV Panipat ckt-I , 220kV Panipat ckt-II ,220kV Panipat –III, 220kV Rohtak Road –I & 220kV Rohtak Road –II were connected to 220kV Bus-II whereas 220kV Bus coupler at 220kV Narela was in Off position. Due to tripping of 220kV Panipat – Narela Ckt. I, II & III the load of 220kV Rohtak Road S/stn got affected.

At 07.43hrs. 220kV Bus coupler at 220kV Narela made ON to restore the load of 220kV Rohtak Road S/stn.

Details of Load shedding

Duration		Load (in MW)	Areas / Grid affected	Remarks
From (Hrs)	To (Hrs)			
TPDDL			**220kV BBMB**	Due to tripping of 220kV Panipat – Narela Ckt. I, II & III.
07:39	07:43	33	Kirti Nagar, Rama Road, Rampura, Rohtak Road, Sudarshan Park.	

12 Preliminary report on tripping occurred in Delhi system on 27.05.2018.

The following elements tripped in Delhi system on 27.05.2018 at 07:25 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	220kV Papankalan-I-Bamnauli Ckt –I	At Papankalan-I : Dist prot, Zone-IV, At Bamnauli : no tripping	07.25	07.50	Blast on Y Phase PT of 220kV Bus –II at 220kV Papankalan-I
2	220kV Papankalan-I-Bamnauli Ckt –II	At Papankalan-I : Dist prot, Zone-IV, 86ABC, At Bamnauli : Dist prot, dist 13.89km, 86Tm RYB Phase.	07.25	11.15	
3	220kV Papankalan-I-Papankalan –III Ckt	At Papankalan-I : Dist prot, Zone-IV, 86ABC, ABC Phase. At Papankalan-III : Ckt. did not trip.	07.25	07.50	

System configuration during the incident:

220kV Bus Arrangement at Papankalan-I :

220kV Bamnauli ckt-I , 220kV Papankalan-III ckt , 220kV Naraina ckt (no load), 100MVA –II & 160MVA –III were connected to 220kV Bus-I. 220kV Bamnauli ckt-II , 100MVA–IV & 160MVA Tr.–V were connected to 220kV Bus-II whereas 220kV Bus coupler at Papankalan-I was in ON position.

Due to Tripping of 220kV Papankalan-I-Bamnauli Ckt –I, 220kV Papankalan-I-Bamnauli Ckt –II & 220kV Papankalan-I-Papankalan –III Ckt, the load of 220kV Papankalan-I S/stn got affected.

Details of Load shedding :

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BRPL			**220kV PAPANKALAN -I**
07:25	07:45	44	Bodela-I, Choukhandi
07:25	07:32	8	Vishal
07:25	07:52	80	Bindapur, G-II, Hari Nagar
07:25	07:47	13	Sagarpur
07:25	07:37	21	Pankha Road
07:25	07:35	10	Rewari Line
07:25	07:52	16	11kV Load
08:02	08:07	93	G-2, Sagarpur, Bindapur, Hari Ngr
TPDDL			**220kV PAPANKALAN -I**
07:25	07:31	6	Rewari Line

Following actions taken for restoring the system

At 07.50hrs. Load of Bus-I was normalized through 220kV Papankalan-III & 220kV Bamnauli Ckt. –I and later 100MVA –IV & 160MVA –V shifted from 220kV Bus –II to 220kV Bus-I at Papankalan-I.

13 Preliminary report on tripping occurred in Delhi system on 29.05.2018.

The following elements tripped in Delhi system at 220kV Gazipur Stn. on 29.05.2018 at 06:32 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks
1	220kV Gazipur-Maharani Bagh Ckt. -I	At Gazipur : O/C, E/F,86 At Maharani Bagh : Ckt did not trip.	06.32	11.45	
2	220kV Gazipur-Maharani Bagh Ckt.-II	At Gazipur :Ckt did not trip. At Maharani Bagh : 86A&B ,RYB Phase.	06.32	07.10	
3	220kV Gazipur-Patparganj Ckt.	At Gazipur :O/C,R&B Phase, General trip. At Patparganj : Ckt. was in off position.	06.32	06:40	Ckt. charged at Patparganj end.

System configuration during the incident:

220kV Bus Arrangement at 220kV Gazipur :

220kV Maharani Bagh Ckt. –I, 220kV BTPS Ckt (No load, CB off at Gazipur end), 220/66kV 100MVA Tr. I & II were connected to 220kV Bus-I. 220kV Maharani Bagh Ckt. –II, 220kV Patparganj Ckt. (No load, CB off at Patparganj end) & 220/66kV 160MVA Tr. were connected to 220kV Bus-II whereas 220kV Bus coupler at Gazipur was in On position.

Due to Tripping of 220kV Maharani Bagh–Gazipur Ckt–I at Gazipur end and 220kV Maharani Bagh –Gazipur Ckt.–II at Maharani Bagh end, the load of 220kV Gazipur S/stn got affected.

Details of Load shedding

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BYPL			
06.32	06.48	140	**220kV Gazipur S/Stn.**

Following actions taken for restoring the system

At 06.48hrs, 220kV BTPS – Gazipur ckt. closed at Gazipur end to normalize the entire load of Gazipur S/Stn.

14 **Preliminary report on tripping occurred in Delhi system on 09.06.2018.**

The following elements tripped in Delhi system on 09.06.2018 at 16:55 hrs. onwards due to thunderstorm.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs.	Time of Restoration in Hrs.	Remarks/Actions taken
1	400kV Bamnauli-Ballabhgarh Ckt-1	At Bamnauli : RYB phase, Z-1, 186A, 186B, Dist protection At BLB: B ph. Dist. 48.8 km	16:55	19:56	Load managed on other 400kV Jhatikra Ckt 1
2	400kV Bamnauli-Ballabhgarh Ckt-2	At Bamnauli : No tripping At Ballabhgarh: RY ph. Dist. 52.8 km	17:05	19:06	Load managed on other 400kV Jhatikra Ckt 1
3	400kV Bawana-Abdullapur Ckt.	At Bawana : B phase, Z-1, 186A, 186B, 12.69 km, I_C =20.14 kA.	17:03	18:04	Load managed on other 400kV lines
4	400kV Bamnauli-Jhatikara Ckt-2	Distance Protn, A&B ph; zone-1&4 , 594 m.	17:05	18:55	
5	400/220kV 315 MVA ICT#1 at 400kV Bawana	96 BB, OLTC B ph;	17:07	18:20	Load managed through 220kV B/C on other five ICTs
6	220kV Narela-Panipat ckt-3	At Narela: Distance Prot; zone-1, 1.5 km	17:08	18:52	Load managed on Narela-Panipat ckt-1 & 2
7	220kV Gopalpur-Sabzimandi ckt-2	B Ph; Z-1, 13.8 km, N to Y ph. No tripping at Sabzimandi	17:29	18:06	Load managed on 220kV Gopalpur-Sabzimandi ckt-1
8	220kV IP-RPH ckt-1	At IP: 86 ABC, Z-2, 1.4 km At RPH: Z-2 dist.	17:35	22:18	Load managed on 220kV IP-RPH ckt-2
9	220kV Wazirabad-Geeta Col ckt-2	At G Col: 86, Y ph; 5.476 km, I_B = 10.47 kA, Zone-2&3 At WZB: RY ph; Dist. Z-1, ABN ph; 328.8m	17:28	20:27	Load managed on 220kV Wazirabad-Geeta Col ckt-2 and putting on 220kV B/C at Patparganj
10	220kV BTPS-Noida-Gazipur	At BTPS: Z-1, R ph; 7.3 km, 12.88 kA At Gazipur: already off.	17:27	00:09	Was already on no load
11	220kV Gopalpur-Wazirabad ckt-1	At Gopalpur: W/o indication CVT available	17:35	18:35	Was already on no load
12	220kV Maharanibagh Sarita Vihar	At MBG: RY ph; Z-3, 7.9km At SVR: Z-1, 1.8 km	17:25	21:50	Load managed on 220 kV BTPS-Sarita Vihar 1&2
13	220kV Mandola-Wazirabad Ckt. –3	At WZB: Z-1, 799.6m, BC Ph. At Mndola: -	17:20	20:07	Partial Load managed on 220kV Wazirabad-Mandola Col ckt- 1&2 and putting on 220kV B/C at Patparganj
14	220kV Mandola-Wazirabad Ckt. –4	Dist. Prot. Z-1, 821.1m,	17:20	20:07	
15	220kV Sarita Vihar-Pragati ckt.	At SVR: Z-1, 1.026 km, Y ph. At PGT: Y ph; E/F, 13.17 km.	17:28	21:47	Load and 220 kV Pragati Bus-1 connectivity maintained on 220kV Pragati-Maharanibagh ckt.

System configuration during the incident

1 At Patparganj: 220kV B/C off. IP ckts 1&2 on Bus- 2 with Preet Vihar 1&2 and 220/66kV 100 MVA 1&2 While 220kV Geeta colony 1&2 feeding 100 MVA Tx (220/33 kV 3,5&6) on Bus-1

2 At Pragati: 220kV B/C off. 220kV IP 1&2, All GTPS generation and GT#1 of Pragati on 220kV Bus-2. While Sarita Vihar, Maharani Bagh, Parkstreet-1&2, Pragati GT#2 and STG connected on 220 kV Bus-1

3 At Sarita Vihar: 220kV BTPS-1&2 closed. 220kV B/C closed. Pragati and BTPS-1 with 100MVA Tx# 1&3 on 220kV Bus-1. While Maharanibagh, BTPS-2 and 100MVA Tx#2 on 220kV Bus.

Generation Loss during disturbance : None

Details of Load shedding :

Duration		Load (in MW)	Areas / Grid affected	REMARKS
From (Hrs)	To (Hrs)			
BYPL				
17:27	17:32	**12**	BG ROAD	DUE TO TRIPPING OF 220KV GOPALPUR - SUBZI MANDI CKT-II
TPDDL				
17:27	17:35	**21**	SHAHZADA BAGH	DUE TO TRIPPING OF 220KV GOPALPUR - SUBZI MANDI CKT-II
17:27	17:45	**7**	GULABI BAGH	

Total Load Loss during disturbance : Approx 1000 MW (Load crash due to drip in temp. + Shedding due to faults caused by storm)

15 Preliminary report on tripping occurred in Delhi system on 30.06.2018.

The following elements tripped in Delhi system on 30.06.2018 at 07.33 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV I.P. – Patparganj Ckt. –I	At I.P. : Dist prot, Zone-I, ABC Phase, 186, 86 At Patparganj : Ckt. did not trip.	07:33	08:23	
2	220kV I.P. – Patparganj Ckt. –II	At I.P. : Dist prot, Zone-II, ABC Phase, 186, 86 At Patparganj : Dist prot, zone-I, Dist 0.986km, RYB Phase.	07:33	16:07	'R' Phase LA surge counter damaged at Patparganj end.
3	220/33kV 100MVA Tr. –I at RPH	86A, B &C, Auto reclose	08:04	08:28	
4	220/33kV 100MVA Tr. –I at RPH	Tripped without indication	08:32	10:14	

System configuration at the time of incident

1. At Patparganj: 220kV Bus coupler was in off position. 220kV Bus-II was fed through 220kV Preet Vihar - Patparganj Ckt. –I& II. 220kV Patparganj -IP ckt I&II was also connected with 220kV Bus-II and was catering load 220/66kV 100 MVA 1&2. While 220kV Bus-I was fed through 220kV Gazipur-Patparganj Ckt. and was catering load of 220/33kV 100 MVA Tx-III, IV &V. 220kV Geeta Colony - Patparganj Ckt.-I& II was in off position at Patparganj as operation philosophy.

2. At Pragati: 220kV Bus coupler was off. 220kV IP 1&2, All GTPS generation and GT#1 of Pragati on 220kV Bus-2. While Sarita Vihar, Maharani Bagh, Parkstreet-1&2, Pragati GT#2 and STG connected on 220 kV Bus-1

3. Tripping of 220kV I.P. – Patparganj Ckt. –I &II at I.P. caused islanding of Pragati stn units and GTPS units from the grid and island collapsed at 08.14hrs.

Generation Loss during disturbance:

Sr No	Name of Unit	Generation (in MW)	Tripping Time (Hrs.)	Synchronizing Time (Hrs.)
1	PRAGATI # I	81	08:14	12:57
2	PRAGATI # II	82	08:14	09:35
3	PRAGATI STG	100	08:14	11:50
4	GTPS# I	22	08:14	08:35
5	GTPS# III	26	08:14	08:30
6	GTPS# IV	24	08:14	08:46
7	GTPS STG# I	21	07:34	18:40
8	GTPS STG# II	14	08:14	13.30
	Total	**370**		

Load Generation Balance prior to incidence:

Name of Stn.	Unit No.	Generation prior to the incident in MW	Connected load prior to incident in MW
G.T. Stn.	GT- I, III, IV, STG-I & II	107	65
PRAGATI Stn.	GT- I, II, STG-I	263	--
I.P.Stn.	--	--	51
RPH	--	--	66
Total	**--**	**370**	**182**

Details of Under frequency relay operation :-

Name of the Grid	Time		Load in MW
	From	To	
I.P.STN.			
33kV Bay No. 7 (Exhib. Gr.-I)	08:13	08:33	0.5
33kV Bay No.9 (Exhib. Gr.-II)	08:13	08:33	0.5
33kV Bay No. 24 (JLN Stadium)	08:13	08:33	12
33kV Bay No. 30 (Kamla Market)	08:13	08:33	17
RPH			
33kV Bay No. 5 (Jama Masjid-I)	08:13	09:45	ON
33kV Bay No. 13 (G B Pant)	08:13	09:40	13
33kV Bay No. 16 (Fountain)	08:13	09:45	03
Total (in MW)			**46**

System Restoration

At 08.33hrs. 220kV Patparganj -IP ckt I charged from Patparganj S/stn and supply was extended to GTPS and Pragati generation station for startup power to generating units. Subsequently load at I.P. and RPH was also normalized.

Details of Load shedding :

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BYPL			***220kV IP STN.***
08:17	*08:23*	*66*	*DDU MARG, KAMLA MARKET, G.B.PANT, I.G.STADIUM, DELHI GATE, MINTO ROAD, TOWN HALL, MOTIA KHAN.*
08:17	*09:04*	*1*	*FOUNTAIN*
BRPL			***220kV IP STN.***
08:17	*08:34*	*1*	*EXB-1& II*
08:17	*08:24*	*9*	*LAJPAT NAGAR, KILOKARI, NIZAMUDDIN & JAMIA*
08:17	*08:30*	*4*	*DEFENCE COLONY*
08:17	*08:27*	*4*	*KILOKARI*
NDMC			***220kV IP STN.***
08:17	*08:20*	*4.5*	*NIRMAN BHAWAN BAY -2, 16 & C. PLACE BAY -28*
08:17	*08:22*	*25*	*ELECTRIC LANE BAY -10, C. PLACE BAY -42, GT - SCHOOL LANE CKT.-I & II, VIDYUT BHAWAN CKT. I& II*
08:17	*09:58*	*3*	*TILAK MARG BAY – 6*

16 Preliminary report on tripping occurred in Delhi system on 07.07.2018.

The following elements tripped at 400kV MUNDKA stn. on 07.07.2018 at 22.02 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.
1	400kV Mundka – Jhatikara Ckt. –I	At Mundka : Dist Prot, Zone-I, Dist. 7.5kM, C ph= 19.6kA At Jhatikara : Ckt. did not trip.	22.02	00.10
2	400/220kV 315MVA ICT-III	86A&B , 295 RYB	22.02	23.58

System configuration at the time of incident:

There is double breaker scheme at 400kV MUNDKA stn. 400kV Mundka- Jhatikara ckt-I & II, 400kV Mundka- Jhajjar ckt I & II and 400kV Mundka-Bawana ckt I &II were in service. 400/220kV 315MVA, ICT-II, ICT-III and ICT-IV were running parallel.

System Restoration

At 23.58hrs. 400/220kV 315MVA ICT-III normalized.
At 00.10hrs, 400kV Mundka – Jhatikara Ckt. –I normalized at 400kV Mundka Stn.

Shedding : Nil.

16 Preliminary report on tripping occurred in Delhi system on 12.07.2018.

The following elements tripped in Delhi system on 12.07.2018 at 17:15 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.
1	220kV Pragati – Sarita Vihar Ckt	At Pragati: Dist prot, Zone-I, Dist-2.216Kms, C-Ph, 186, O/C, E/F. At Sarita Vihar: : Dist prot, Zone-II, Dist-10.52Kms, ABC Phase, 186,	17:15	20:15
2	220kV Maharani Bagh - Pragati Ckt	At Maharani Bagh: Dist prot, Zone-II, Dist-3.8Kms. At Pragati: Dist prot, Zone-I, Dist-2.483Kms, E/F.	17:15	18:20

System configuration during the incident

Prior to the incident, Pragati Station (Unit-2 and STG) was connected to Grid through 220kV Maharani Bagh - Pragati Ckt and 220kV Pragati - Sarita Vihar - Maharani Bagh Ckt. 220kV Bus coupler was open at Pragati S/Stn.

Tripping of 220kV Pragati –Sarita Vihar Ckt. & 220kV Maharani Bagh -Pragati Ckt. at both end caused islanding of Pragati-2&STG units from the grid and units tripped at 17:15 hrs.

Normalization

System was normalized by closing 220kV Bus coupler at 220kV Pragati S/Stn at 17:29hrs and 220kV supply was extended Pragati generating Station and 220kV Park Street and Sarita Vihar S/Stns. 220kV Pragati – Sarita Vihar Ckt normalized at 20.16hrs.

Generation Loss during disturbance:

Name of Stn.	Unit No.	Generation prior to the incident in MW	Time (hrs)	
			Tripping	Restoration
Pragati Stn.	Unit-2	80	17:15	18:20
	STG	98	17:15	18:27
Total (MW)		**178**		

Load Generation Balance prior to incidence:

Name of Stn.	Unit No.	Generation prior to the incident in MW	Connected load prior to incident in MW	Load disconnected due to operation of UFR
Pragati	II & STG	178	--	--
Park Street	--	--	265	146
Total		**183**	**265**	**146**

Details of Under frequency relay operation :-

Name of the Grid	Time (hrs)		Load in MW
	From	To	
Park street			
66kV Shastri Park Ckt 1&2	17:15	17:38	80.5
66kV Ridge Valley Ckt	17:15	17:51	ON
33kV Faiz Road Ckt 1&2	17:15	17:51	24
33kV Prasad Nagar	17:15	17:52	21.5
Total (in MW)			**126**

Details of load affected:

Time (Hrs)		Load affected in MW	Name of the Grid
From	To		
BYPL			
17:15	17:38	53	SHASTRI PARK CENTRAL, ANAND PARVAT
17:15	17:22	10	ANAND PRABAT
17:15	17:30	13	FAIZ ROAD
17:15	17:38	11	FAIZ ROAD
17:15	17:27	15	SHANKAR ROAD
17:15	17:57	21	PRASHAD NAGAR
17:15	17:38	15	PRASHAD NAGAR
17:15	17:32	26	TIBIA COLLEGE, MOTIA KHAN
TPDDL			
17:15	17:24	3	PUSA
17:15	18:35	6	FAIZ ROAD

17 **Preliminary report on tripping occurred in Delhi system on 28.07.2018.**

The following elements tripped in Delhi system on 28.07.2018 at 13.32 hrs. at 220kV Preet Vihar S/Stn due to operation of Bus bar protection relay.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.
1	220kV Harsh Vihar – Preet Vihar Ckt. –I	At Preet Vihar : Bus bar protection relay operated At Harsh Vihar : Ckt did not trip	13.32	13.40
2	220kV Harsh Vihar – Preet Vihar Ckt. –II	At Preet Vihar : Supply failed At Harsh Vihar : DT received, general trip, 86.	13.32	13.59
3	220/33kV 100MVA Tr.-I	Bus bar protection operated	13.32	13.45
4	220/33kV 100MVA Tr.-II	Bus bar protection operated	13.32	14.16
5	220kV Bus coupler at Preet Vihar	Bus bar protection operated	13.32	13.40
6	220kV Preet Vihar-Patparganj Ckt. –II	At Preet Vihar : Bus bar protection relay operated At Patparganj : supply failed	13.32	13.45

System configuration at the time of incident

Prior to the incident, GT Station Unit #1, II & STG -I were connected to Grid through Harsh Vihar – Preet Vihar - Patparganj – I.P. Ckts. 220kV Bus Coupler was in off position at Pragati and Patparganj S/stn. Bus coupler was on at Preet Vihar S/Stn. Pragati unit –I was not in operation due to low load demand since 23.23hrs. of 27.07.2018.

Tripping of 220kV Harsh Vihar – Preet Vihar Ckt. –I at Preet Vihar S/stn due to operation of Bus bar protection relay & 220kV Harsh Vihar – Preet Vihar Ckt. –II at Harsh Vihar caused islanding of G.T. Stn from the grid and subsequently caused the tripping of all running units at G.T. Stn.

Generation Loss during disturbance:

Sr No	Name of Unit	Generation (in MW)	Tripping Time (Hrs.)	Synchronizing Time (Hrs.)
1	GTPS# I	23	13.32	13.45
2	GTPS# II	25	13.32	17.50
3	GTPS STG# I	25	13.32	13.45
	Total	**73**		

Load Generation Balance prior to incidence:

Name of Stn.	Unit No.	Generation prior to the incident in MW	Connected load prior to incident in MW
G.T. Stn.	GT- I, II & STG-I	73	57
I.P.Stn.	--	--	95
RPH	--	--	43
Total		**73**	**185**

Details of Under frequency relay operation

Name of the Grid	Time (hrs)		Load in MW
	From	To	
I.P.STN.			
33kV Bay No. 7 (Exhib. Gr.-I)	13.32	13.40	1
33kV Bay No.9 (Exhib. Gr.-II)	13.32	13.40	5
33kV Bay No. 24 (JLN Stadium)	13.32	13.40	No load
33kV Bay No. 30 (Kamla Market)	13.32	13.40	8
RPH			
33kV Bay No. 5 (Jama Masjid-I)	13.32	13.43	ON
33kV Bay No. 13 (G B Pant)	13.32	13.43	11
33kV Bay No. 16 (Fountain)	13.32	13.43	06
Total (in MW)			**31**

Details of Load shedding

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BRPL			220kV IP
13:32	13:39	22	KILOKARI(BAY25 & 37), EXHB. I, EXHB-II
BYPL			-
13:32	13:37	59	KAMLA MARKET, DDU MARG, I.G.STADIUM, MINTO ROAD, DELHI GATE, MOTIA KHAN, FOUNTAIN
13:32	13:38	15	GB PANT
13:32	13:34	3	AKSHARDHAM
13:32	13:35	20	CBD-1, SHAKARPUR
13:32	13:36	8	PREET VIHAR

18 **Preliminary report on tripping occurred in Delhi system on 25.09.2018.**

The following elements tripped in Delhi system on 25.09.2018 at 10.55 hrs. at 220kV Wazirabad S/Stn.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Mandola – Wazirabad Ckt-I	At Wazirabad : Dist prot, Zone-2, Dist 15.84Km. At Mandola : Dist prot, Zone-I, Dist 0.6kM.	10.55	19.50.	220kV Bus-bar tripped at Mandola end. 220kV Mandola – Wazirabad Ckt-III was under shutdown for replacement of porcelain insulator with polymer insulator rod.
2	220kV Mandola – Wazirabad Ckt-II	At Wazirabad : Ckt did not trip At Mandola : Supply fail	10.55	18.32	
3	220kV Mandola – Wazirabad Ckt-IV	At Wazirabad : Ckt did not trip At Mandola : Supply fail	10.55	18.32	

System configuration at the time of incident

Prior to the incident, 220kV Mandola –Wazirabad Ckts. I, II & IV were feeding the load of 220kV Wazirabad, 220kV Kashmiri gate, 220kV Geeta Colony & 220kV Patparganj and this system was further connected to 220kV Preet Vihar – Harsh Vihar and 220kV I.P.& 220kV Pragati Stn with GTPS Generation.

During the tripping 220kV Mandola – Wazirabad Ckt. –III was under shutdown for replacement of porcelain insulator with polymer insulator rod. 220kV Bus-II was also under shutdown to attend hot point on Bus isolators at 220kV Wazirabad S/Stn. 220kV Bus Coupler was in off position at Patparganj & Pragati end.

System Normalization:
At 12.30hrs, 220kV Bus-II of Wazirabad was energized and part load of 220kV Wazirabad Stn taken on 220kV Gopalpur–Wazirabad Ckts. At 18.32hrs, 220kV Mandola – Wazirabad Ckt-II & IV energized. At 19.50hrs, 220kV Mandola – Wazirabad Ckt-I & III energized.

Details of Load shedding

Duration		Load (in MW)	Areas / Grid affected (BYPL)
From (Hrs)	To (Hrs)		
11.01	11.45	23	Geeta colony
11.01	12.14	19	Kanti Nagar
11.01	11:45	22	Kailash Nagar
11.01	11:45	08	Krishna Nagar
11.08	11.09	11	GH-1
11.08	11.23	10	Mayur Vihar Phase-1
11.10	11.18	05	Karkardoma
11.10	11.18	03	Akshardham
11.10	11.11	11	Preet Vihar
11.10	11.21	13	CBD Shahadra
11.10	11.16	09	CBD-2
11.12	11.16	05	11kV feeders at Patparganj
	Total	**139**	

19 **Preliminary report on tripping occurred in Delhi system on 08.10.2018.**

The following elements tripped in Delhi system on 08.10.2018 at 19.43 hrs. at 400kV Bawana S/Stn.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	400/220kV 315MVA ICT-I	ICT tripped on Group A, Group B, 86A & 86B, Auxiliary Buchholz Relay, 30K. 220kV I/C –I tripped without indication.	19.43	23.25	Load shared to 315MVA ICT-IV, V & VI.
2	400/220kV 315MVA ICT-II	ICT tripped on 86B, Buchholz trip. 220kV I/C –I tripped without indication.	19.43	22.28	
3	220kV Bawana - DSIDC Bawana Ckt. –II	At Bawana : Ckt. did not trip. At DSIDC Bawana : 86 RYB, Dist prot, Dist 24.7km, Y phase, differential trip, SOTF.	19.43	23.27	

System configuration at the time of incident:

Prior to the incident, 400/220kV 315MVA ICT I, II, IV, V & VI was running parallel and 400/220kV315MVA ICT III was under breakdown.

Generation Loss : NIL
Details of Load shedding: NIL

20 Preliminary report on tripping occurred in Delhi system on 22.11.2018.

The following elements tripped in Delhi system on 22.11.2018 at 08.15hrs. at 220kV Patparganj S/Stn.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Patparganj-Preet Vihar Ckt. -II	At Patparganj : Ckt. did not trip. At Preet Vihar :86A & B , Fault A & B, Zone-II, Dist 3.6 Km	08.15	11.02	Flash occurred at Patparganj while opening the Isolator of 220kV Patparganj – Preet Vihar Ckt. –I
2	220kV Patparganj-Geeta Colony Ckt. -I	At Patparganj : Ckt. did not trip. At Geeta Colony :Trip ABC, O/C D/P, Zone-II, Fault- 4.588Km.	08.15	08.32	
3	220kV Patparganj-Geeta Colony Ckt. -II	At Patparganj : At Geeta Colony :Trip ABC, O/C, Dist Prot., Zone –II, Dist 4.685 Km.	08.15	08.32	
4	220kV Patparganj-I.P.STN. Ckt. -I	At Patparganj : Ckt. did not trip. At I.P.Stn. : Dist prot, zone-I, 86, 186.	08.15	08.40	
5	220kV Patparganj-I.P.STN. Ckt. -II	At Patparganj : Ckt. did not trip. At I.P.Stn. : 86, 186.	08.15	08.40	

System configuration at the time of incident

220kV Bus-II at Patparganj was fed through 220kV Preet Vihar - Patparganj Ckt. – II, 220kV Patparganj -IP ckt I&II and 220kV Geeta Colony - Patparganj Ckt.-I& II. 220kV Patparganj – Preet Vihar Ckt. –I was made off at 22.00hrs. of 21.11.2018 due to High Voltage. While 220kV Bus-I was feeding supply to 220kV Gazipur S/Stn through 220kV Gazipur-Patparganj U/G Cable. 220kV Bus coupler was in ON position at Patparganj.

At Pragati: 220kV Bus coupler was in OFF position. 220kV IP Ckt. I & II, all GTs generation and GT#2 of Pragati and 220kV Pragati – Park Street Ckt-I was on 220kV Bus-II while 220kV Pragati- Sarita Vihar Ckt., 220kV Pragati- Maharani Bagh Ckt., 220kV Pragati- Park Street-Ckt.II, and Pragati STG connected on 220kV Bus-I.

Due to tripping of 220kV Geeta Colony- Patparganj I&II at Geeta Colony end and 220kV Preet Vihar – Patparganj Ckt. –II at Preet Vihar end, an island was formed between GTPS, Pragati & Park Street, Rajghat and I.P. Stn which was collapsed between 08.27hrs.-08.29hrs.

Generation Loss during disturbance

Sr No	Name of Unit	Generation (in MW)	Tripping Time (Hrs.)	Synchronizing Time (Hrs.)
1	GT# II Pragati	105	08.29	09.34
2	STG at Pragati	56	08.29	13.18
3	G.T. #5	30	08.27	08.45
4	G.T.#6	30	08.27	08.52
5	STG #3	20	08.27	10.20
	Total	**241**		

Details of Under Frequency relay operation

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
			220kV PARK STREET STN.
08.15	08.23	28	66kV Shastri Park Ckt. I&II
08.15	08.24	ON	66kV Ridge Valley Ckt. I
08.15	08.25	6.5	33kV Prashad Nagar Ckt.
08.26	08.37	28	66kV Shastri Park Ckt. I&II
08.26	08.37	ON	66kV Ridge Valley Ckt. I
08.26	08.40	6.5	33kV Prashad Nagar Ckt.
08.26	08.40	8	33kV Faiz Road Ckt. I&II
		77	
			220kV I.P. STN.
08.15	08.55	0.2	33kV Bay No. 7 (Exhibition Ground-I)
08.15	08.50	1.5	33kV Bay No. 9 (Exhibition Ground –II)
08.15	08.45	5	33kV Bay No. 24 (Defence Colony)
08.15	08.45	ON	33kV Bay No. 30 (Kamla Market)

Load shedding of about 200MW occurred due to above grid incident.

21 Preliminary report on tripping occurred in Delhi system on 14.12.2018.

The following elements tripped in Delhi system on 14.12.2018 at 09.20 hrs at 220kV Mehrauli S/Stn.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Mehrauli – Tuglakabad Ckt-I	At Mehrauli : Line Differential R&Y Ph, 186, 86X At Tuglakabad : No tripping	09.20	09.25	At 09.25hrs, 220kV Vasant Kunj – Mehrauli Ckt -I& II made off at Mehrauli to control loading of 220kV Bamnauli-Dial ckt-I.
2	220kV Mehrauli – Tuglakabad Ckt-I	At Mehrauli : Special Prot, O/L, 186, 186 At Tuglakabad : No tripping	10.05	10.08	66kV Vasant Kunj C Blk Ckt-I & II tripped at Mehrauli (special protection).
3	220kV Mehrauli – Tuglakabad Ckt-I	At Mehrauli : Line Differential Y Ph, 186, At Tuglakabad : No tripping	10.29	12.15	

System configuration at the time of incident

220kV Bus-I at Mehrauli was connected through 220kV Tuglakabad Ckt-I, 220kV Dial Ckt-I and 220kV Vasant Kunj Ckt-I & II. 220kV Bus-II at Mehrauli was connected with 220kV Dial Ckt-II and 220/66kV 100MVA Tx-I, II & III and 160MVA Tx. whereas 220kV Bus coupler was in OFF position.

At the time of incident the following elements are not available:

1. 220kV Mehrauli – Tuglakabad Ckt-II was under shut-down for HTLS reconductoring work.
2. 400kV Maharanibagh-Ballabgarh ckt was under shutdown.
3. 220kV Bamnauli-Dial ckt-II tripped at 04.28hrs and charged at 10.12hrs on 14.12.18.
4. 66kV Bus-I of 220kV Mehrauli was under shutdown for project works.
5. Shutdown of 500MVA ICT-2 was being facilitated at Bamnauli 400kV.

Generation Loss : NIL
System Load: : 3606 MW at 09.20hrs.

Details of load shedding

Duration (Hrs)		Load (in MW)	Areas / Grid affected
From	To		
BRPL			
09.28	09.33	58	Vasant Kunj C Block I&II, Vasant Kunj D Block I&II, Ambiance Mall, Andheria Bagh & JNU.
09.37	10.15	48	Vasant Kunj C Block I&II, Vasant Kunj D Block I&II, &Andheria Bagh.

22 **Preliminary report on tripping occurred in Delhi system on 20.12.2018.**

The following elements tripped on 20.12.2018 at 09.16hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Mandola-Wazirabad Ckt-I	At Wazirabad :No Tripping At Mandola : Dist prot, Zone-II, RY Phase, dist 14km.	09:16	10:45	Birdage/ Wire found near Y Ph 220kV Bus-II and Dropper Jumper of 100MVA-III at Wazirabad Stn.
2	220kV Mandola-Wazirabad Ckt-II	At Wazirabad: No Tripping At Mandola : Dist prot, Zone-II, RY Phase, dist 14km.	09:16	10:45	
3	220kV Mandola-Wazirabad Ckt-III	At Wazirabad : No Tripping At Mandola : Dist prot, Zone-II, RY Phase, dist 14km.	09:16	10:45	
4	220kV Mandola-Wazirabad Ckt- IV	At Wazirabad : No Tripping At Mandola : Dist prot, Zone-II, dist 15.6km.	09:16	10:45	
5	220kV Patparganj-Geeta Colony ckt-I	At Patparganj: dist relay, 86 At Geeta Colony: No tripping.	09:16	09.25	
6	220kV Patparganj-Geeta Colony ckt-II	At Patparganj: dist relay, 86 At Geeta Colony: No tripping.	09:16	09.25	
7	220kV Wazirabad-Kashmiri Gate ckt-I	At Wazirabad: No Tripping At Kashmiri Gate: Line differential, 87L A & B ,Auto Reclose,186A & B.	09:16	09.45	
8	220kV Wazirabad-Kashmiri Gate ckt-II	At Wazirabad: No Tripping At Kashmiri Gate:87ABC ,Dist .Protection, Auto Reclose	09:16	09.45	
9	220kV Wazirabad-Geeta colony ckt-I	At Wazirabad: No Tripping At Geeta Colony: Dist prot, Zone-II, dist 5.578km. Trip Ph ABC,	09:16	10.47	
10	220kV Wazirabad-Geeta colony ckt-II	At Wazirabad: No Tripping At Geeta Colony: Dist prot, dist 6.47km, Trip Ph ABC, O/C.	09:16	10.47	
11	220/66kV, 100MVA-III at Wazirabad 220kV	E/F	09:16	10.00	
12	66/11 kV,20MVA-III at Wazirabad 220kV	REF.	09:16	12.22	

System configuration at the time of incident

220kV Wazirabad station was connected to 400/220kV Mandola S/Stn. through 220kV Mandola-Wazirabad Ckt-I, II, III & IV and further connected to 220kV Geeta Colony -220kV Patparganj – I.P. and 220kV Patparganj – 220kV Preet Vihar – Harsh Vihar Link.

.At 09.43hrs, the load of 220kV Wazirabad & Kashmiri Gate Stns restored through 220kV Gopalpur – Wazirabad Ckts. At 09.25hrs, the load of 220kV Geeta Colony Stn restored through 220kV Patparganj – Geeta Colony Ckts.

Generation Loss : NIL

System Load : 3617 MW at 09.15.30hrs.

Details of load shedding

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BYPL			
09.16	09.43	132	220kV Wazirabad
09.16	09.28	51	220kV Geeta Colony
09.16	09.28	68	220kV Kashmiri Gate

23 Preliminary report on tripping occurred in Delhi system on 01.01.2019.

The following elements tripped at 400kV MUNDKA stn. on 01.01.2019 at 10.17 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	400kV 406 & 407 Bays (spare) dedicated for future 315MVA ICT-I at Mundka	Tripped on LBB trip, Differential, B phase trip, 395.	10.17	11.58	400kV Bus bar operated and all the 400kV Main CBs tripped on 96 relay while facilitating the Shutdown of 400kV Mundka – Jhatikara ckt. –II.
2	220kV Bay No 208 (spare) dedicated for future 220kV I/C of 315MVA ICT-I at Mundka	Tripped on 86A, LBB.	10.17	11.58	
3	400kV Mundka – Jhatikara Ckt. –I (400kV CB 40152 & 40252)	At Mundka : Tripped on 96.	10:17	11.30	
4	400kV Mundka – Jhatikara Ckt. –II (400kV CB 40352 & 40452)	At Mundka : Tripped on 96.	10:17	11.30	
5	400kV Mundka – Bawana Ckt. –I (400kV CB 41952 & 42052)	At Mundka : Tripped on 96.	10:17	11.23	
6	400kV Mundka – Bawana Ckt. –II (400kV CB 41752 & 41852)	At Mundka : Tripped on 96.	10:17	11.25	
7	400kV Mundka – Jhajjar Ckt.-I (400kV 41452 Main CB)	At Mundka : Tripped on 96.	10:17	11.43	
8	400kV Mundka – Jhajjar Ckt. – II (400kV 41152 Main CB)	At Mundka :Tripped on 96	10:17	11.43	
9	400/220kV 315MVA ICT-II at Mundka (400kV CB 40952 & 41052)	At Mundka :Tripped on 96	10:17	11:57	

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
10	400/220kV 315MVA ICT-III at Mundka (400kV CB 41352)	At Mundka :Tripped on 96	10:17	12:05	
11	400/220kV 315MVA ICT-IV at Mundka (400kV CB 41652)	At Mundka :Tripped on 96	10:17	12:06	

System configuration at the time of incident:

There is a double breaker scheme on 400kV ckts & 315MVA ICT II whereas one and half breaker scheme on 315MVA ICT III & IV at 400kV MUNDKA stn. 400kV Mundka-Jhatikara ckt-I & II, 400kV Mundka- Jhajjar ckt I & II and 400kV Mundka-Bawana ckt I &II were in service. 400/220kV 315MVA, ICT-II, III & IV were running parallel.

While facilitating the Shutdown of 400kV Mundka – Jhatikara ckt. –II, the CB's of this ckt made off at Mundka at 10.17Hrs At the same time, all the 400kV Main CB's got tripped because of Bus Bar operation except the following

1) 400kV Tie CB 41252 between 400kV Jhajjar -II & 315MVA ICT-III
2) 400kV Tie CB 41552 between 400kV Jhajjar- I & 315MVA ICT IV.

At 12:06 Hrs. 400kV Mundka station got normalized.

Generation Loss : NIL
System Load : 4339MW at 10:17:00HRS.
Details of load shedding : NIL

24 Preliminary report on tripping occurred in Delhi system on 15.01.2019.

The following elements tripped at 220kV Vasantkunj stn. on 15.01.2019 at 11.01 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Vasantkunj-Mehrauli ckt-1	At Vasantkunj: 96, 86C At Mehrauli:No tripping	11:01	11:23	220kV Bus bar operated and all the connected 220kV elements tripped on 96 relay.
2	220kV Vasantkunj-Mehrauli ckt-2	At Vasantkunj: 96, 86C At Mehrauli:No tripping	11:01	11:08	
3	220kV Vasantkunj-R.K.Puram ckt-1	At Vasantkunj: LBB 3 Phase, 86 A & B ,96 At R.K.Puram:No tripping	11:01	11:20	
4	220/66kV 100MVA Tx-1 at Vasantkunj	Tripped on 96	11:01	11:10	
5	220/66kV 100MVA Tx-2 at Vasantkunj	Tripped on 96	11:01	11:10	

System configuration at the time of incident:

During the incident 220kV Bus-II of Vasantkunj was connected to Mehrauli through 220kV Mehrauli-Vasantkunj ckt-I&II and feeding the 220kV R.K.Puram s/stn. through 220kV Vasantkunj-R.K.Puram ckt-I. 220/66kV 100MVA Tx-I & II was also connected to 220k Bus-II at Vasantkunj s/stn.

220kV Bus-I & 220kV Bus coupler at Vsantkunj s/stn was under shutdown for preventive maintenance.

At 11:01 hrs , all the 220kV elements tripped due to Bus Bar operation at Vasantkunj s/stn.
At 11:08 hrs , Vasantkunj S/stn load got normalized.
At 11:20 hrs , R.K.Puram S/stn load got normalized.

Generation Loss : NIL
System Load : 4184 MW at 11:00HRS.

Details of load shedding:-

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
11:01	11:08	72	220kV Vasantkunj
11:01	11:20	38	220kV R.K.Puram

25 **Preliminary report on tripping occurred in Delhi system on 24.01.2019.**

The following elements tripped in Delhi system on 24.01.2019 at 13.10 hrs..

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV I.P. – Patparganj Ckt. – I	IP : Dist prot, Zone-I, ABC Phase, 186, 86 At Patparganj : Dist prot, Zone-I, YB Phase, Dist 0.553KM.	13:10	15.10	220kV Patparganj – I.P. Ckt. –II along with 220kV Bus—II was under shutdown. Birdage reported at Patparganj

System configuration at the time of incident

1. 220kV Patparganj -IP ckt I was connected with 220kV Bus-I. 220kV Bus-I was connected to 220kV Patparganj – Preet Vihar Ckt. I &II , 220kV Patparganj – Geeta Colony Ckt. I & II and 220kV Gazipur-Patparganj Ckt,

2. At Patparganj: 220kV Bus-II and 220kV I.P. -Patparganj Ckt–II was under shutdown.

3. At Pragati: 220kV Bus coupler was off.

4. Tripping of 220kV I.P. – Patparganj Ckt–I caused desynchronization of Pragati and GTPS generating Stns. Units from the grid.

5. At the time of incident 400kV Dadri-Maharanibagh ckt was under shutdown.

System Restoration

220kV Bus Coupler at Pragati closed at 13.12hrs. and supply was extended to GTPS and Pragati generation. Subsequently load at I.P. and RPH was also normalized.

System Load: 3263MW at 13:08HRS.

Generation Loss during disturbance:

Sr No	Name of Unit	Generation (in MW)	Tripping Time (Hrs.)	Synchronizing Time (Hrs.)
1	PRAGATI GT Unit #I	104	13:13	13:53
2	PRAGATI STG	55	13:13	15:08
3	GTPS, GT Unit #II	27	13.07	Unit not synchronized due to less demand
7	GTPS, GT Unit #V	18	13.07	13.18
5	GTPS, STG# III	9	13.07	13.52
	Total	**213**		

Details of Under frequency relay operation

Name of the Grid	Time (hrs)		Load in MW
	From	To	
I.P.STN.			
33kV Exhb Ground -1 (BAY-7)	13.10	13.12	No load
33kV Lajpat Nagar (BAY-5)	13.10	13.12	No load
33kV Defence Colony (BAY-24)	13.10	13.12	No load
33kV Kamla Market (BAY-30)	13.10	13.12	No load
RPH			
33kV Jama Masjid -I (BAY-5)	13.10	13.15	No load
33kV Fountain (BAY-16)	13.14	13.15	6
33kV G.B.Pant Hospital (BAY-13)	13.10	13.15	No load
PARK STREET			
66kV Ridge Valley Ckt.	13.10	13.14	No load
66kV Shastri Park Ckt-I	13.11	13.12	11
66kV Shastri Park Ckt-II	13.11	13.12	31
33kV Faiz Road Ckt-I	13.10	13.14	No load
33kV Faiz Road Ckt-II	13.11	13.12	12
33kV Prashad Nagar	13.10	13.14	3.3

Details of Load shedding

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
TPDDL			
13.11	13.13	6	PUSA
BYPL			
13:11	13:13	13	SHASTRI PARK (C)
13:11	13:13	10	ANAND PARBAT
13:11	13:13	16	PRASAD NAGAR
13:11	13:13	12	SHANKAR ROAD
13:11	13:13	15	MOTIA KHAN
13:11	13:13	7	MINTO ROAD
13:11	13:13	9	DELHI GATE
13:11	13:19	12	KAMLA MARKET
13:11	13:13	3	DEEN DYAL UPADHAYA MARG
13:11	13:13	12	FAIZ ROAD
13:11	13:13	5	FOUNTAIN
13:11	13:13	9	G.B. PANT
13:11	13:13	2	I.G. STADIUM
13:11	13:13	13	TOWN HALL
TOTAL (IN MW)		**144**	

26 Preliminary report on tripping occurred in Delhi system on 05.02.2019.

The following elements tripped in Delhi system on 05.02.2019 at 12:01 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Pragati – Sarita Vihar Ckt	At Sarita Vihar: Dist prot, Zone-IV, Dist -596.5mtrs, Fault Current: I_A- 3.928 kA, I_B-74.83 amp, I_C 3.947 kA, I_N- 64.78 amp, 186A, 186B, 186 X,86 ABC At Pragati: Ckt did not trip.	12:01	12:12	Birdage occurred at Sarita Vihar
2	220kV Maharani Bagh - Sarita Vihar Ckt	At Sarita Vihar: Dist prot, Zone-IV, ABC-ph , Dist -134.5 mtrs, Fault Current: I_A- 6.310 kA, I_B-122.7 amp, I_C 6.485 kA, I_N- 77.02 amp, 186A, 186B, 186 X,86 ABC At Maharani Bagh: Ckt did not trip.	12:01	12:12	
3	220kV Sarita Vihar-BTPS Ckt I	At Sarita Vihar: Dist prot, Zone-IV, ABC-ph , Dist -317.7 mtrs, Fault Current: I_A- 10.61 kA, I_B-162.6 amp, I_C-10.51 kA, I_N- 263.8 amp, 186A, 186B, Auto Reclose lock out At BTPS: Ckt did not trip	12:01	17.40	Tried at 12:12 but Ckt trip flash occurred on Y-ph CT clamp CB side and Y-ph Bus -1 isolator
4	220kV Sarita Vihar-BTPS Ckt II	At Sarita Vihar: Dist prot, Zone-IV, Dist -74.61 mtrs, Fault Current: I_A- 10.71 kA, I_B-29.04 amp, I_C-11.03 kA, I_N-330.7 amp, 186A, 186B, Auto Reclose lock out At BTPS: Ckt did not trip	12:01	12:12	Birdage occurred at Sarita Vihar

Normalization

System was normalized by closing 220kV Pragati – Sarita Vihar Ckt, 220kV Maharani Bagh - Sarita Vihar Ckt, 220kV Sarita Vihar-BTPS Ckt II at Sarita Vihar.

Generation Loss during disturbance : NIL

Load affected : 111MW

27 **Preliminary report on tripping occurred in Delhi system on 15.02.2019.**

The following elements tripped in Delhi system on 15.02.2019 at 04.20 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Maharani Bagh – HCML Ckt. –I	At Maharani Bagh : Trip O/V, General Trip. At HCML: O/V, 86A&B.	04.20	04.46	Supply failed at 220kV Maharani Bagh due to tripping of 400kV Maharani Bagh-Dadri Ckt. & 400kV Maharani Bagh-Ballabgarh Ckt.
2	220kV Maharani Bagh – Trauma Centre Ckt. –I	At Maharani Bagh : Trip O/V, General Trip. At Trauma Centre : 186A&B.	04.20	04.50	
3	220kV Maharani Bagh – Trauma Centre Ckt. –II	At Maharani Bagh : No tripping At Trauma Centre: 186 A&B.	04.20	04.50	
4	220kV Maharanibagh-Masjid Moth ckt-I	At Maharani Bagh : Trip O/V, General Trip. At Masjid Moth: No tripping	04:20	04:40	
5	220kV Maharanibagh-Lodhi Road ckt-I	At Maharani Bagh : Trip O/V, General Trip. At Lodhi Road: No tripping	04:20	05:00	

System configuration during the incident

1. 400kV Maharani Bagh s/stn was connected to the grid through 400kV Ballabhgarh and 400kV Dadri.

2. 400kV Maharani Bagh s/stn was feeding the radial load of 220kV s/stn. such as 220kV Masjid Moth, 220kV Lodhi Road, HCM Lane and also connected to 220kV Sarita Vihar, 220kV Pragati (Bus-I), 220kV Gazipur.

3. STG unit of PPCL was connected to the 220kV Bus-1 Pragati and was synchronized to the grid through Maharani-Bagh. 220kV Bus coupler at Pragati was in off position.

4. 220kV BTPS – Sarita Vihar Ckt. I & II was in off position.

Normalization

1. At 04:22hrs: BTPS-Sarita Vihar ckt-I & ckt-II were charged and supply extended to 220kV Pragati (Bus-I).

2. At 04.25hrs 220kV Load of Trauma Center and Ridge Valley was normalized through 220kV Naraina – Ridge Valley Ckt.

3. At 04.33hrs. Load of Gazipur was normalized through 220kV Patparganj – Gazipur Ckts.

4. At 06:08: 400kV Dadri & Ballabhgarh ckts were charged.

Delhi Load : 1557MW at 04:18hrs.

Generation Loss during disturbance:

Name of Stn.	Unit No.	Generation prior to the incident in MW	Time (hrs)	
			Tripping	Restoration
Pragati Stn.	STG	54	04:22	05:40
Total (MW)		**54**		

Details of Under frequency relay operation :-

Name of the Grid	Time (hrs)		Load in MW
	From	To	
At Sarita Vihar			
66kV Mathura Road ckt-II	04:21	04:22	No load
11kV Ali Village ckt	04:21	04:22	1.5
11kV Jaitpur ckt	04:21	04:22	No load
Total (in MW)			**1.5**

Details of load affected:

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BYPL			-
04:22	04:24	4	DMS
BRPL			-
04:22	04:38	2	DEFENCE COLONY
04:22	04:27	5	EOK
04:22	04:38	8	NEHRU STADIUM
04:22	04:38	4	HUDCO
04:22	04:38	11	220KV LODHI ROAD
04:22	04:33	5	NHP
04:22	04:27	8	BALAJI ESTATE
04:22	04:33	6	ALN
04:22	04:33	3	DC SAKET
04:22	04:33	7	MASJID MOTH
04:22	04:33	4	VSNL
04:22	04:33	4	PUSP VIHAR
04:22	04:33	5	SHIVALIK
04:22	04:33	8	SIRIFORT
04:22	04:35	8	BHIKAJI KAMA
04:22	04:42	3	IIT
04:22	04:38	26	66KV RIDGE VALLEY
04:22	04:28	0.35	HABITAT CENTRE
TPDDL			-
04:22	04:25	13	NARAINA, A-21 NARAINA ,INDERPURI, PANDAV NAGAR,PAYAL,SARASWATI GARDEN
TOTAL		**134.35**	

28 Preliminary report on tripping occurred in Delhi system on 15.02.2019.

The following elements tripped in Delhi system on 15.02.2019 at 04.20 hrs.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.	Remarks
1	220kV Maharani Bagh – HCML Ckt. –I	At Maharani Bagh : Trip O/V, General Trip. At HCML: Dist prot, ABC Phase, O/V, 86A&B.	04.20	04.46	Supply failed at 220kV Maharani Bagh due to tripping of 400kV Maharani Bagh-Dadri Ckt. & 400kV Maharani Bagh-Ballabgarh Ckt.
2	220kV Maharani Bagh – Trauma Centre Ckt. –I	At Maharani Bagh : Trip O/V, General Trip. At Trauma Centre : Dist prot, Zone-I, RYB Phase, 186A&B.	04.20	04.50	
3	220kV Maharani Bagh – Trauma Centre Ckt. –II	At Maharani Bagh : No tripping At Trauma Centre: Dist prot, Zone-I, RYB Phase, 186A&B.	04.20	04.50	
4	220kV Maharanibagh-Masjid Moth ckt-I	At Maharani Bagh : Trip O/V, General Trip. At Masjid Moth: No tripping	04:20	04:40	
5	220kV Maharanibagh-Lodhi Road ckt-I	At Maharani Bagh : Trip O/V, General Trip. At Lodhi Road: No tripping	04:20	05:00	

System configuration during the incident

1. 400kV Maharani Bagh Stn was connected to the grid through 400kV Ballabhgarh and 400kV Dadri.

2. 400kV Maharani bagh s/stn was feeding the radial load of 220kV s/stn. such as 220kV Masjid Moth, 220kV Lodhi Road, HCM Lane and also connected to 220kV Sarita Vihar, 220kV Pragati (Bus-I), 220kV Gazipur.

3. STG unit of PPCL was connected to the 220kV Bus-1 Pragati and was synchronized to the grid through Maharani-Bagh. 220kV Bus coupler at Pragati was in off position.

4. 220kV BTPS – Sarita Vihar Ckt. I & II was in off position.

Normalization

1. At 04:22hrs: BTPS-Sarita Vihar ckt-I & ckt-II were charged and supply extended to 220kV Pragati (Bus-I).

2. At 04.25hrs 220kV Load of Trauma Center and Ridge Valley was normalized through 220kV Naraina – Ridge Valley Ckt.

3. At 04.33hrs. Load of Gazipur was normalized through 220kV Patparganj – Gazipur Ckts.

4. At 06:08: 400kV Dadri & Ballabhgarh ckts were charged.

Delhi Load : 1557MW at 04:18hrs.

Generation Loss during disturbance

Name of Stn.	Unit No.	Generation prior to the incident in MW	Time(hrs)	
			Tripping	Restoration
Pragati Stn.	STG	54	04:22	05:40
Total (MW)		**54**		

Details of Under frequency relay operation

Name of the Grid	Time (hrs)		Load in MW
	From	To	
At Sarita Vihar			
66kV Mathura Road ckt-II	04:21	04:22	No load
11kV Ali Village ckt	04:21	04:22	1.5
11kV Jaitpur ckt	04:21	04:22	No load
Total (in MW)			**1.5**

Details of load affected:

Name of the Grid	Time(hrs)		Load in MW
	From	To	
220kV Sarita Vihar	04:21	04:22	32
220kV Park Street (66kV)	04:23	04:25	37
220kV Lodhi Road	04:20	04:22	34
220kV Electric Lane	04:20	04:46	18
220kV Trauma Centre	04:20	04:50	31
220kV Masjid moth	04:20	04:40	42
220kVGhazipur	04:20	04:33	25
220kV Ridge Valley	04:20	04:35	30
220kV Naraina	04:20	04:25	42
Total (in MW)			**291**

29 **Preliminary report on tripping occurred in Delhi system on 03.03.2019.**

The following elements tripped in Delhi system on 03.03.2019 due to high voltage.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restoration in Hrs.
1	220kV Okhla-Tughlakabad ckt-II	At Okhla: 86, RYB Phase At Tughlakabad: Gen. Trip	02:59	05:22
2	220kV Okhla-BTPS ckt-I	At Okhla: 86 B. At BTPS: No tripping	02:59	08:33
3	220kV Wazirpur Shalimarbagh ckt-II	At Wazirpur: Gen Trip,86. At Shalimarbagh: No tripping	03:57	08:16
4	220kV Maharani Bagh – Sarita Vihar Ckt	At Maharani Bagh : Trip O/V, General Trip. At Sarita Vihar: No tripping	04.00	06.42
5	220kV Maharani Bagh – Pragati Ckt	At Maharani Bagh : Trip O/V, General Trip. At Pragati:No tripping	04.00	06.43
6	220kV Maharani Bagh – HCML Ckt. –I	At Maharani Bagh : Trip O/V, General Trip. At HCML: O/V, RYB Phase, 86A&B.	04.00	04.43
7	220kV Maharani Bagh – Trauma Centre Ckt. –I	At Maharani Bagh : Trip O/V, General Trip. At Trauma Centre : O/V	04.00	07.10
8	220kV Maharani Bagh – Trauma Centre Ckt. –II	At Maharani Bagh Trip O/V, General Trip. At Trauma Centre: O/V	04.00	07.10
9	220kV Maharanibagh-Masjid Moth ckt-I	At Maharani Bagh : Trip O/V, General Trip. At Masjid Moth:No Tripping	04:00	07.10
10	220kV Maharanibagh-Lodhi Road ckt-I	At Maharani Bagh : Trip O/V, General Trip. At Lodhi Road: No tripping	0400	06.44
11	220kV Ridge Valley-Trauma Centre ckt-I	At Ridge Valley: 86 A&B. At trauma Centre:No tripping	04:00	04:30
12	220kV Ridge Valley-Trauma Centre ckt-II	At Ridge Valley: O/V, 86 A&B. At trauma Centre: No tripping	04:00	04:30
13	220kV Tughlakabad-Mehrauli ckt-I	At Tughlakabad: 86 A&B. At Mehrauli:186, 186.	04:00	05:16
14	220kV Tughlakabad-Mehrauli ckt-II	At Tughlakabad: 86 A&B, O/V. At Mehrauli:186, 186.	04:00	05:17
15	220kV Tughlakabad-BTPS ckt-II	At Tughlakabad: 86 A&B, O/V. At BTPS: No tripping	04:00	06:34
16	220kV Tughlakabad-Okhla ckt-I	At Tughlakabad: Gen. Trip At Okhla: 86T, 86T, 86X.	04:00	05:15
17	220kV Tughlakabad-Okhla ckt-II	At Tughlakabad: Gen. Trip At Okhla: 86, RYB Phase Dist. Protection.	04:00	05:16
18	220kV VasantKunj-R.K.Puram-I	At VasantKunj:O/V,RYB Phase. At R.K.Puram: No tripping	04:10	04:43
19	100MVA Trx-I at Kanjhawala	Tripped on 86A, O/C.	04:50	07:12
20	400kV Bawana-Mundka ckt-I	At Bawana: O/V, 186, A&B, 295A3. At Mundka: No Tripping	04:51	07:23

Delhi Load **:** 1368MW at 03:00hrs.

Generation loss **:** Nil

Details of load affected:

Duration		Load (in MW)	Areas / Grid affected
From (Hrs)	To (Hrs)		
BYPL			
04:00	*04:06*	*3*	*KONDLI*
04:00	*04:06*	*1*	*NEW KONDLI*
04:00	*04:06*	*4*	*DALLUPURA*
04:00	*04:06*	*3*	*PATPARGANJ INDUSTRIAL AREA*
04:00	*04:06*	*4*	*KHICHRIPUR*
04:00	*04:06*	*8*	*DSIDC JHILMIL*
04:00	*04:06*	*5*	*CBD2*
04:00	*04:06*	*2*	*GT ROAD*
04:00	*04:06*	*2*	*GAZIPUR*
BRPL			
03:00	*03:10*	*3*	*66kV OKHLA PH-1*
03:00	*03:10*	*9*	*66kV BATRA*
03:00	*03:10*	*7*	*33kV BALAJI*
03:00	*03:10*	*3*	*220KV OKHLA - 11kV LOAD*
03:00	*03:54*	*8*	*33kV OKHLA PH-2*
03:00	*03:15*	*4*	*33kV NEHRU PLACE*
03:00	*03:38*	*2*	*33kV TUGLAKABAD*
03:58	*04:13*	*5*	*A-4 PASCHIM VIHAR*
03:58	*04:13*	*1*	*DLF*
03:58	*04:13*	*1*	*DLF MALL*
03:58	*04:13*	*8*	*UDYOG NAGAR*
03:58	*04:13*	*7*	*MUKHARJI PARK*
04:00	*04:39*	*5*	*DEFENCE COLONY*
04:00	*04:46*	*3*	*EOK*
04:00	*04:39*	*4*	*LAJPAT NAGAR*
04:00	*04:39*	*1*	*CBI*
04:00	*05:37*	*5*	*ALN*
04:00	*04:47*	*5*	*BALAJI*
04:00	*04:05*	*3*	*D C SAKET*
04:00	*04:26*	*33*	*RIDGE VALLEY*
04:00	*04:31*	*4*	*HUDCO*
04:00	*04:35*	*5*	*MASJID MOTH*
04:00	*05:20*	*9*	*NHP*
04:00	*04:47*	*1*	*NSIC*
04:00	*04:38*	*6*	*BHIKAJI*
04:00	*04:39*	*4*	*IIT*
04:00	*04:39*	*4*	*NDSE*
04:00	*04:26*	*3*	*RKP-1*
04:00	*04:26*	*3*	*RKP-2*
04:00	*04:26*	*7*	*VASANT VIHAR*
04:00	*05:22*	*8*	*OKHLA PH-1*
04:00	*04:57*	*2*	*PUSP VIHAR*
04:00	*04:42*	*4*	*SHIVALIK*
04:00	*04:43*	*4*	*SIRIFORT*
04:00	*05:46*	*3*	*TCIL*
04:00	*05:46*	*7*	*VSNL*
TPDDL			
03:58	*04:14*	*18*	*ASHOK VIHAR,TRI NAGAR,WAZIR PUR – I & II*
03:58	*04:10*	*6*	*AZAD PUR,G.T.K. ROAD*
03:58	*04:03*	*4*	*SARASWATI GARDEN,SUDARSHAN PARK*
03:58	*04:14*	*4*	*RANI BAGH,RANIBAGH CC*

30 Preliminary report on tripping occurred in Delhi system on 11.03.2019.

The following elements tripped in Delhi system on 11.03.2019 Bus Bar protection operated at 220kV Tuglakabad.

S. No	Name of the elements tripped	Relay indications	Time of tripping in Hrs	Time of Restor-ation in Hrs.	Remarks
1	220kV TUGLAKABAD-MEHRAULI CKT.-I	At TUGLAKABAD :186, 96, DIST PROT, ZONE-I, GAS PRESSURE LOW, R PHASE. At MEHRAULI : 186,186, LINE DIFFERENTIAL, R PHASE.	13.00	08.56 18.03.59	Bus Bar protection operation on Bus-IA at Tuglakabad.
2	220kV TUGLAKABAD-BTPS CKT.-I	At TUGLAKABAD : 96 At BTPS : NO TRIPPING	13.00	13.39	
3	220kV TUGLAKABAD-OKHLA CKT.-I	At TUGLAKABAD : 96 At OKHLA : NO TRIPPING	13.00	14.25	
4	220kV BUS COUPLER (207) AT TUGLAKABAD	At TUGLAKABAD : 96	13.00	18.54 18.03.19	
5	220kV BUS SECTION (212) AT TUGLAKABAD	At TUGLAKABAD : 96	13.00	14.41	
6	220kV BUS –I A AT TUGLAKABAD	At TUGLAKABAD : 96	13.00	18.54 18.03.19	
7	220kV TUGLAKABAD-MEHRAULI CKT.-II	At TUGLAKABAD : 96 At MEHRAULI: 186,186, 86X.	14.41	18.34	While charging Bus-1A Bus Bar protection operated ON Bus-II A at Tuglakabad.
8	220kV TUGLAKABAD-OKHLA CKT.-II	At TUGLAKABAD : 96 At OKHLA : NO TRIPPING	14.41	18.31	
9	220kV TUGLAKABAD-BTPS CKT.-I	At TUGLAKABAD : 96 At BTPS :ZONE-I ,R-PH ,DIST.5KM	14.41	18.50	
10	220kV TUGLAKABAD-OKHLA CKT.-I	At TUGLAKABAD : 96 At OKHLA : NO TRIPPING	14.41	18.33	
11	220/66KV 160MVA TR. – II AT TUGLAKABAD	96	14.41	18.19	

System configuration of Tuglakabad 220kV during the incident

220kV Tuglakabad-BTPS-II was under shutdown for re-conductoring works.

220kV Meharuli-I, BTPS-I & Oklha-I was on 220kVBus-IA and 220kV Mehrauli-II, 220/66kV 160MVA Pr. Tr. -II & Okhla-II was on 220kV Bus-II A.

At 13.00hrs : Bus bar protection operated on Bus-IA and it is informed that Diaphragm ruptured for R-Ph CB of 220kV Tuglakabad –Mehrauli ckt-I.

At 14.41hrs: During charging of 220kV Bus-IA through 220kV Bus Section (212), 220kV Bus-bar operated on 220kV Bus-bar-II.it is informed that Diaphragm ruptured for 220kV Bus coupler.

Delhi Load : 2943MW at 12.59hrs, 2764MW at 14.40hrs

Generation loss : Nil
Details of load affected : Nil