National Load Despatch Centre
पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
POWER SYSTEM OPERATION CORPORATION LIMITED
(A Govt. of India Enterprise)
CIN No.: U40105DL2009GOI188682
B-9, QUTUB INSTITUTIONAL AREA, KATWARIA SARAI, NEW DELHI -110016

Ref:POSOCO/NLDC/SO/Weekly Report Date: 3rd August 2018

To,

1. कार्यपालक निदेशक, पू. क्षे. भा. प्रे. के., 14, गोल्फ क्लब रोड , कोलकाता - 700033
   Executive Director, ERLDC, 14 Golf Club Road, Tolleygunge, Kolkata, 700033
2. महाप्रबंधक, ऊ. क्षे. भा. प्रे. के., 18/ ए , शहीद जीत सिंह सनसनवाल मार्ग, नई दिल्ली - 110016
   General Manager, NRLDC, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016
3. कार्यपालक निदेशक, प. क्षे. भा. प्रे. के., एफ-3, एम आई डी सी क्षेत्र , अंधेरी, मुंबई - 400093
   Executive Director, WRLDC, F-3, M.I.D.C. Area, Marol, Andheri (East), Mumbai-400093
4. कार्यपालक निदेशक, ऊ. पू. क्षे. भा. प्रे. के., डोंगतिएह, लोअर नोंग्रह , लापलंग, शिलोंग - 793006
   Executive Director, NERLDC, Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya
5. महाप्रबंधक, द. क्षे. भा. प्रे. के., 29, रेस कोर्स क्रॉस रोड, बंगलुरु - 560009
   General Manager, SRLDC, 29, Race Course Cross Road, Bangalore-560009

Sub: Weekly Status Report 23rd July to 29th July 2018.

महोदय/Dear Sir,

आई०ई०जी०सी०-2010 की धारा स.- 5.5.1 के प्रावधान के अनुसार, 23 जुलाई से 29 जुलाई 2018, सप्ताह की अखिल भारतीय प्रणाली की ग्रिड निष्पादन रिपोर्ट रा०भा०प्रे०के० की वेबसाइट पर उप्लब्ध है

As per article 5.5.1 of the Indian Electricity Grid Code, the weekly status report pertaining power supply position report of All India Power System for the week 23rd July to 29th July 2018, is available at the NLDC website.

Thanking you,

Yours faithfully,

DGM (SO)

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

साप्ताहिक रिपोर्ट (23 जुलाई से 29 जुलाई 2018 तक) **रिपोर्टिंग तिथि:- 3-Aug-18**

(आई० ई० जी० सी० की धारा संख्या-5.5.1 के अंतर्गत)

1. अधिकतम मांग आपूर्ति और अधिकतम कमी (मे०वा०)

क्षेत्र	उत्तरी क्षेत्र		पश्चिमी क्षेत्र		दक्षिणी क्षेत्र		पूर्वी क्षेत्र		पूर्वोतर क्षेत्र		कुल	
दिनांक	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी	अधिकतम मांग आपूर्ति	आधिकतम कमी
	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)	(मे०वा०)
23-07-2018	51541	1205	41153		40783		19392	200	2464	269	155333	1674
24-07-2018	54053	685	42282		41477	30	19965	200	2471	280	160249	1195
25-07-2018	49075	693	41660		42301		19795		2688	116	155519	809
26-07-2018	46394	962	41581		41914	230	19306		2669	142	151864	1334
27-07-2018	45518	1288	42005		41882	20	19626		2701	167	151733	1475
28-07-2018	47143	1257	43440		42367		20106	100	2663	165	155720	1522
29-07-2018	46955	887	42088	197	40183		19121		2623	71	150970	1155

2. ऊर्जा आपूर्ति और पनबिजली उत्पादन (मि०यू०)

क्षेत्र / तिथि	उत्तरी क्षेत्र		पश्चिमी क्षेत्र		दक्षिणी क्षेत्र		पूर्वी क्षेत्र		पूर्वोतर क्षेत्र		कुल	
	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन	ऊर्जा आपूर्ति	पनबिजली उत्पादन
	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)	(मि०यू०)
23-07-2018	1156	328	939	21	927	108	410	97	49	29	3482	583
24-07-2018	1213	337	955	26	947	109	422	105	49	27	3585	603
25-07-2018	1168	326	955	21	957	115	425	103	50	26	3553	591
26-07-2018	1016	299	939	21	965	113	409	106	50	25	3379	564
27-07-2018	1002	304	950	20	969	120	412	108	52	24	3385	577
28-07-2018	1020	295	979	25	970	123	418	107	52	24	3439	574
29-07-2018	1060	323	988	21	937	106	413	103	49	25	3447	578

3. आवृत्ति (प्रतिशत समय में)

तिथि	49.8-49.9	<49.9	49.9-50.05	>50.05	Average	FVI
	ऑ० इं० ग्रिड	ऑ० इं० ग्रिड	ऑ० इं० ग्रिड	ऑ० इं० ग्रिड	ऑ० इं० ग्रिड	ऑ० इं० ग्रिड
23-07-2018	11.12	12.78	76.37	10.86	49.97	0.050
24-07-2018	5.60	5.60	81.54	12.86	49.99	0.031
25-07-2018	5.73	6.57	69.85	23.58	50.00	0.041
26-07-2018	3.97	4.78	74.59	20.63	50.00	0.033
27-07-2018	11.97	13.62	77.74	8.63	49.97	0.053
28-07-2018	12.14	12.72	80.71	6.57	49.97	0.046
29-07-2018	6.35	6.93	83.94	9.13	49.98	0.034

***NEW & SR grid running in synchronisation.**

4. NEW ELEMENTS COMMISSIONED

5. Maximum Demand Met during the day & Peak Hour Shortage in States (in MW)

Region	Date	23-07-2018		24-07-2018		25-07-2018		26-07-2018		27-07-2018		28-07-2018		29-07-2018	
	States	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage
NR	Punjab	10301	0	10719	0	10500	0	8769	0	8873	0	9316	0	9275	0
	Haryana	8078	0	8793	0	8611	0	7542	0	6995	0	7139	0	7665	0
	Rajasthan	7723	0	7829	0	8033	0	7925	0	8175	0	8746	0	9009	0
	Delhi	5556	0	5990	0	5734	0	5307	0	4811	0	4424	0	5290	0
	UP	17974	0	18544	100	18065	0	15309	0	14613	0	15140	0	14739	0
	Uttarakhand	1999	35	2001	0	1932	0	1885	0	1679	0	1530	0	1681	0
	HP	1326	0	1268	0	1305	0	1133	0	1181	0	1164	0	1131	0
	J&K	1881	470	2089	522	2006	501	2046	511	1975	494	2024	506	2578	455
	Chandigarh	313	0	303	0	301	0	257	0	254	0	232	0	253	0
WR	Chhattisgarh	3132	0	3429	0	3499	0	3432	0	3549	0	3546	0	3714	0
	Gujarat	13146	0	12677	0	12229	0	12460	0	12468	0	13140	0	12917	0
	MP	6764	0	7148	0	7000	0	6883	0	7297	0	7656	0	7602	0
	Maharashtra	18062	0	18072	0	18172	0	17978	0	18137	0	17917	0	18140	0
	Goa	486	0	440	0	440	0	440	0	444	0	444	0	444	0
	DD	326	0	333	0	329	0	295	0	315	0	309	0	290	0
	DNH	747	0	751	0	730	0	710	0	684	0	699	0	684	0
	Essar steel	585	0	612	0	667	0	609	0	520	0	496	0	516	0
SR	Andhra Pradesh	7800	0	8148	0	8000	0	8273	0	8244	0	8250	0	8163	0
	Telangana	8707	0	8824	0	9162	0	9220	0	9497	0	9528	0	9470	0
	Karnataka	8998	0	8754	0	8683	0	9083	0	9128	0	8856	0	8297	0
	Kerala	3233	0	3015	0	3197	0	3233	0	3224	0	3273	0	3104	0
	Tamil Nadu	14822	0	14892	0	14632	0	14668	0	14860	0	14762	0	13346	0
	Pondy	360	0	360	0	360	0	344	30	352	0	367	0	346	0
ER	Bihar	4775	0	4720	0	4532	0	4599	0	4785	0	4609	0	4279	0
	DVC	3002	0	3016	0	2999	0	3026	0	2852	0	3499	0	2908	0
	Jharkhand	1079	0	1148	0	1072	0	1180	0	1144	0	1178	0	1029	0
	Odisha	4382	0	4354	0	4367	0	4332	0	4374	0	4896	0	4515	0
	West Bengal	7906	0	8201	0	8169	0	7704	0	7662	0	7988	0	7649	0
	Sikkim	92	0	97	0	97	0	96	0	97	0	90	0	77	0
NER	Arunachal Pradesh	99	5	106	3	103	2	107	1	117	3	106	4	100	2
	Assam	1542	215	1574	218	1756	65	1713	112	1713	147	1745	76	1662	38
	Manipur	162	4	161	2	160	3	160	3	142	9	167	1	172	0
	Meghalaya	294	2	296	0	297	0	306	0	303	3	312	0	310	0
	Mizoram	81	2	83	0	83	2	81	0	79	2	84	0	73	2
	Nagaland	115	1	114	2	116	2	115	2	115	2	108	4	114	1
	Tripura	259	2	248	2	258	1	255	1	261	8	247	3	254	2

6. Energy Consumption in States (MUs)

Region	States	23-07-2018	24-07-2018	25-07-2018	26-07-2018	27-07-2018	28-07-2018	29-07-2018
NR	Punjab	228.5	238.1	231.7	193.2	195.9	209.0	212.5
	Haryana	163.6	183.0	183.0	148.3	140.7	142.3	152.0
	Rajasthan	165.6	170.3	176.9	171.7	180.0	188.1	198.9
	Delhi	112.5	120.2	118.1	104.9	100.0	95.1	94.6
	UP	372.7	384.4	344.3	290.9	280.5	286.1	300.3
	Uttarakhand	43.2	44.8	43.3	40.4	37.8	32.5	32.3
	HP	26.8	27.2	27.0	24.0	23.3	24.2	23.6
	J&K	37.1	39.3	37.3	37.0	39.0	38.1	40.6
	Chandigarh	5.7	5.9	5.9	5.6	5.1	4.7	4.8
WR	Chhattisgarh	69.3	75.9	79.1	77.5	79.8	82.9	85.4
	Gujarat	281.0	283.3	277.6	280.4	282.5	290.0	288.2
	MP	151.2	152.4	153.5	143.5	153.4	161.5	165.7
	Maharashtra	391.3	394.4	396.1	392.5	392.7	402.4	406.8
	Goa	9.6	10.2	10.1	10.1	8.9	8.9	8.9
	DD	7.1	7.4	7.3	6.4	7.0	7.0	6.4
	DNH	17.5	17.5	17.1	16.7	16.0	16.2	16.1
	Essar steel	12.0	13.6	13.8	12.3	10.0	9.8	10.2
SR	Andhra Pradesh	174.6	179.3	181.7	185.6	182.5	182.0	179.4
	Telangana	186.8	192.0	195.7	197.5	203.9	208.2	210.3
	Karnataka	176.5	177.0	180.3	183.1	183.0	180.4	172.5
	Kerala	62.3	62.4	62.8	63.4	64.0	64.8	60.4
	Tamil Nadu	319.6	327.9	328.2	327.8	327.3	328.1	307.0
	Pondy	7.7	8.0	7.9	7.6	7.8	6.8	7.4
ER	Bihar	83.2	88.7	79.2	82.8	86.8	80.0	72.4
	DVC	67.2	67.4	69.0	66.8	66.1	66.9	67.7
	Jharkhand	20.8	22.2	21.6	22.4	22.3	22.3	21.9
	Odisha	82.7	81.8	86.0	82.7	84.8	90.2	91.7
	West Bengal	155.1	160.4	167.7	153.4	150.9	157.3	158.1
	Sikkim	1.2	1.2	1.2	1.3	1.5	1.4	1.5
NER	Arunachal Pradesh	2.2	2.3	2.1	2.0	2.2	2.2	2.4
	Assam	31.0	31.4	32.5	32.0	33.5	33.8	31.0
	Manipur	2.3	2.2	2.2	2.3	2.1	2.1	2.2
	Meghalaya	5.8	5.5	5.8	5.7	5.7	5.9	5.8
	Mizoram	1.5	1.6	1.5	1.4	1.5	1.2	1.2
	Nagaland	2.1	2.1	2.1	2.2	2.1	2.2	2.2
	Tripura	4.5	4.1	3.8	4.1	4.5	4.4	4.6
ALL INDIA TOTAL		**3481.5**	**3585.1**	**3553.3**	**3379.3**	**3385.3**	**3439.0**	**3446.8**

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

साप्ताहिक रिपोर्ट (23 जुलाई से 29 जुलाई 2018 तक)
(आई० ई० जी० सी० की धारा संख्या-5.5.1 के अंतर्गत)

7. अंतर्क्षेत्रीय विनिमय [प्रथम क्षेत्र से द्वितीय क्षेत्र को आयात (+) / निर्यात (-)]

दिनांक	23-07-2018	24-07-2018	25-07-2018	26-07-2018	27-07-2018	28-07-2018	29-07-2018
East to North	-83.7	-82.0	-78.5	-68.2	-71.8	-75.5	-80.8
East to West	63.7	50.0	61.0	57.4	71.8	67.7	48.3
East to South	-52.6	-52.0	-49.8	-57.4	-65.3	-60.6	-51.5
East to North-East	-8.8	-6.4	-7.4	-5.7	-9.5	-11.2	-11.0
North-East to North	-14.9	-13.4	-12.1	-11.2	-13.3	-14.4	-14.3
West to North	-153.6	-189.2	-167.2	134.4	-138.8	-150.2	-154.9
West to South	-23.0	-15.1	-16.8	-30.8	-2.4	-26.7	-26.3

भूटान , नेपाल एवं बांग्लादेश के साथ अंतरराष्ट्रीय विद्युत विनिमय INTERNATIONAL EXCHANGE WITH BHUTAN, NEPAL AND BANGLADESH

साप्ताहिक रिपोर्ट (23 जुलाई से 29 जुलाई 2018 तक)

अंतरराष्ट्रीय विद्युत विनिमय [भारत से दूसरे देश को आयात (+) / निर्यात (-)] Transnational Exchange from India (Import=(+ve) /Export =(-ve))

दिनांक Date	भूटान BHUTAN		नेपाल NEPAL			बांग्लादेश BANGLADESH		
	Energy Exchange (In MU)	Day Average (MW)	Energy Exchange (In MU)	Day Peak (MW)	Day Average (MW)	Energy Exchange (In MU)	Day Peak (MW)	Day Average (MW)
23-07-2018	33.5	1398	-7.8	-407	-326	-14.1	-642	-587
24-07-2018	32.9	1371	-6.5	-459	-269	-15.1	-649	-627
25-07-2018	33.5	1394	-6.4	-425	-268	-14.6	-649	-608
26-07-2018	32.8	1368	-5.2	-431	-217	-13.8	-659	-574
27-07-2018	32.5	1355	-5.7	-256	-238	-14.8	-660	-615
28-07-2018	32.1	1338	-5.4	-265	-224	-14.7	-658	-611
29-07-2018	31.4	1308	-4.7	-305	-197	-15.4	-651	-640
कुल Total	**228.8**		**-41.7**			**-102.3**		

8). Major Grid Incidences (Provisional):-

S.No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Revival		Outage Duration	Event *(As reported)*	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid Standards
				Date	Time	Date	Time	Time				
1	NR	1) 400kV Bhiwani (BBMB)-Rajpura(PSTCL) 2) 400kV Rajpura(PSTCL)-Rajpura(TH)-1 3) 400kV Rajpura(PSTCL)-Rajpura(TH)-2 4) 400kV Dehar(BBMB)-Rajpura(PSTCL) 5) 700MW Unit#1 at Rajpura(TH) 6) 700MW Unit#2 at Rajpura(TH) 7) 500MVA ICT 3 at Rajpura(PSTCL) 8) 500MVA ICT 4 at Rajpura(PSTCL) 9) 400kV Bus 2 at Rajpura(PSTCL)	Punjab	23-07-2018	3:15	23-07-2018	06:20	3:05	OPGW cable joint broken and fell on 400 kV Bus bar-2 and bus bar protection operated at 400kV Bus 2 of Rajpura(PSTCL) leading to tripping of 400kV Rajpura(PSTCL)-Rajpura(TH)-1 & 2, 400kV Bhiwani (BBMB)-Rajpura(PSTCL), 400kV Dehar(BBMB)-Rajpura(PSTCL), 400 kV Rajpura unit-1 & 2 of 700MW capacity also tripped. As per PMU, three phase fault is observed. At the time of tripping, 400kV Rajpura(PSTCL)-Rajpura(TH)-1 & 2 carrying 269 MW & 281 MW; 500MVA ICT 3 & 4 carrying 215 MW each.	660		GD-1
2	NR	1) 220 kV Dhauliganga HEP-Pithoragarh (PG) ckt 2) 220 kV Dhauliganga HEP-CB Ganj (UP) ckt 3) 220 kV 70 MW Unit-1, 2, 3 & 4 at Dhauliganga HEP	Uttarakhand	25-07-2018	14:49	25-07-2018	17:30	2:41	After tripping of 220 kV Dhauliganga-Pithoragarh line, all 290MW generation of Dhauliganga HEP shifted to only line avaiable 220 kV Dhauliganga-CB Ganj (UP). It resulted into severe oscillation in the system. Oscillation sustained for ~24second. As per DR details, B-phase to earth fault in 220 kV Dhauliganga-Pithoragarh ckt. It seems line auto reclosed from Pithoragarh end only and line tripped from Dhauliganga end with out auto reclosing in the line. Fault again occurred in the breaker reclaim time of 25 second and breaker of Pithoragarh endof 220 kV DHauliganga-Pithoragarh ckt tripped. As per PMU data, oscillation of 0.8Hz mode observed in the system and Phase shift also observed between CB Ganj (UP) and Balia (PG) PMU plot of frequency due to oscillaiton in the system.	285		GD-1
3	NR	1) 220 kV Delina (J&K)-Zainakote (J&K) ckt 2) 220 kV Delina (J&K)-Amargarh (NRSS-29) ckt 3) 220 kV Delina (J&K)-Kishanganga (NHPC) ckt-1 4) 220 kV Delina (J&K)-Kishanganga (NHPC) ckt-2 5) 220/132 kV 160MVA ICT at Delina (J&K) 6) 3*110 MW units at Kishanganga HEP (NHPC)	Jammu & Kashmir	25-07-2018	20:31	25-07-2018	22:41	2:10	R-Y phase to phase fault observed through PMU data. 220 kV bus fault resulted into tripping of all the connected elements from 220 kV Delina (J&K). All three running unit of 110MW at 220 kV Kishanganga HEP was also tripped due to evacuation constraints.	245		GD-1
4	NR	1) 240 MVA 400/220 kV ICT-1 at Panki (UP) already tripped at 01:35hrs 2) 400 kV Panki (UP)-Kanpur (PG) ckt-1 3) 400 kV Panki (UP)-Kanpur (PG) ckt-2 4) 400 kV Panki (UP)-Unnao (UP) ckt 5) 400 kV Panki-Aligarh ckt 6) 400 kV Panki-Rewa Road (UP) ckt	Uttar Pradesh	26-07-2018	2:38	26-07-2018	07:21	4:43	400/220 kV ICT-2 at Panki (UP) was already under long outage from 17.06.2018 due to blast in the ICT-2. 400/220 kV ICT-1 also tripped at 01:35hrs of 26th July 2018. At 02:38hrs, all 400 kV lines from 400 kV Panki (UP) tripped due to DC earth fault at the station.			GI-2
5	NR	1) 240 MVA 400/220 kV ICT-1 at Panki(UP) 2) 400 kV Panki(UP)-Kanpur(PG) ckt-1 3) 400 kV Panki(UP)-Aligarh(UP) 4) 400 kV Panki(UP)-Rewa Road(UP)	Uttar Pradesh	26-07-2018	8:32	27-07-2018	09:04	583:40	At 0832Hrs 400/220 kV ICT-1 & 400 kV Panki(UP)-Kanpur(PG) ckt-1 tripped on DC Earth fault. At 1559hrs, remaining two elements charged at 400kV Panki(UP) i.e 400 kV Panki(UP)-Aligarh(UP) & 400 kV Panki(UP)-Rewa Road(UP) tripped due to DC earth fault at the station. As per PMU data, No fault observed in the system.			GI-2

S.No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Revival		Outage Duration	Event *(As reported)*	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid Standards
				Date	Time	Date	Time	Time				
6	NR	1) 220kV Bus 2 at 400/220kV Bhiwadi(PG) 2) 315MVA ICT 2 at 400/220kV Bhiwadi(PG) 3) 220kV Bhiwadi(PG)-Bhiwadi(Raj) Ckt-2 4) 220kV Bhiwadi(PG)-Rewari(HVPNL) Ckt-2 5) 220kV Bhiwadi(PG)-Mau(HVPNL) 6) 220kV Bhiwadi(PG)-Bawal(HVPNL) 7) 220kV Bhiwadi(PG)-Khush Ckt-2	Rajasthan	26-07-2018	17:48	26-07-2018	19:08	1:20	220kV Bhiwadi(PG)-Khushkhera(Raj) tripped in Zone-1 from Bhiwandi(PG) end on Y-B phase to phase fault. During fault detected in 220kV Bhiwadi(PG)-Khushkhera(Raj), mal-operation of Bus bar protection of 220kV Bus 2 at 400/220kV Bhiwadi(PG) leading to tripping of 315MVA ICT 2, 220kV Bhiwadi(PG)-Bhiwadi(Raj) Ckt-2, 220kV Bhiwadi(PG)-Rewari(HVPNL) Ckt-2 & 220kV Bhiwadi(PG)-Mau(HVPNL). In antecedent condition, 315MVA ICT 2 carrying 139 MW. As per SCADA data it seems that 315MVA ICT 3 carrying 129 MW also tripped. As per PMU, Y-B fault observed.		210	GD-1
7	NR	1) 450MVA ICT 1 at 400kV Panipat(BBMB) 2) 450MVA ICT 2 at 400kV Panipat(BBMB)	Haryana	27-07-2018	17:59	27-07-2018	20:15	2:16	450MVA ICT 1 at 400kV Panipat(BBMB) tripped on PRD (Pressure Relief Device). At the same time, 450MVA ICT 2 at 400kV Panipat(BBMB) tripped on overloading. In antecedent condition, both the ICTs are carrying around 175 MW each.As per PMU, Fluctuations observed in the phase voltages.			GI-2
8	NR	1) 200 MVA ICT1 at 400/220kV Rosa(UP) 2) 200 MVA ICT2 at 400/220kV Rosa(UP)	Uttar Pradesh	27-07-2018	16:55	27-07-2018	17:46	0:51	200 MVA ICT1 & ICT2 at 400/220kV Rosa(UP) tripped on DEF (back up earth fault) protection. In antecedent condition, both ICTs carrying 120MW each. As per PMU, Delayed clearance is observed with maximum dip in R phase voltage. It seems fault was in downward 220 kV network at 400/220 kV Roa TPS which have cleared with time delay and resulted into operation of back up earth fault protection of ICTs at 400/220 kV Rosa TPS.		216	GD-1
9	NR	1) 400kV Allahabad(PG)-Meja TPS(UP) Ckt-1 2) 400kV Allahabad(PG) - Kanpur New(PG) Ckt-2	Uttar Pradesh	28-07-2018	18:25	28-07-2018	18:44	0:19	400kV Allahabad(PG)-Meja TPS(UP) ckt-1 & 400kV Allahabad(PG) - Kanpur New(PG) ckt-2 tripped due to lockout of tie breaker. As per PMU, fluctutations observed in the phase voltages. In antecedent condition, 400kV Allahabad(PG)-Meja TPS(UP) Ckt-1 & 400kV Allahabad(PG) - Kanpur New(PG) Ckt-2 carrying 118 MW & 133 MW respectively.			GI-2
10	NR	1) 220kV Dhauliganga(NHPC)-Pithoragarh (PG) ckt 2) 220kV Dhauliganga(NHPC)-CB Ganj (UP) ckt 3) 70 MW Unit-1, 2, 3 & 4 at 220kV Dhauliganga(NHPC)	Uttarakhand	29-07-2018	16:56	29-07-2018	17:54	0:58	After tripping of 220 kV Dhauliganga-Pithoragarh line, all 285 MW generation of Dhauliganga HEP shifted to only line avaiable 220 kV Dhauliganga(NHPC)-CB Ganj(UP). It resulted into severe oscillation in the system. Oscilaltion sustained for ~14second. R-phase to earth failt in 220 kV Dhauliganga-Pithoragarh ckt. In antecedent conditions, 220kV Dhauliganga(NHPC)-Pithoragarh (PG) ckt carrying 150 MW. As per PMU data, oscillation of 0.8Hz mode observed in the system and Phase shift also observed between CB Ganj (UP) and Balia (PG) PMU plot of frequency due to oscillaiton in the system.	285		GD-1
12	WR	Tripping of 1.400/132 kV 200MVA Vindhyachal ICTs 1,2&3 2.132 kV Vindhyachal-Morwa 3.132 kV Vindhyachal-Waidhan 4.132 kV Morwa-Bina 5.132 kv Morwa-Anpara 6. +/- 500 kV HVDC Vindhyachal pole-1	NTPC/MPPTCL	23-07-2018	19:57	23-07-2018	21:00	1:03	At Vindhyachal S/s, all the 132 kV elements tripped due to the delayed clearance of fault on 132 kV Vindhyachal-Waidhan.	Nil	80	GI-1

S.No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Revival		Outage Duration	Event *(As reported)*	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid Standards
				Date	Time	Date	Time	Time				
13	WR	Tripping of 1.400 kV Bhusawal-Akola 2.400 kV Bhusawal-Deepnagar 2 3.400/132 kV 200 MVA Bhusawal ICT 1 4.400 kV Bhusawal Bus coupler	MSETCL	24-07-2018	20:38	25-07-2018	02:10	557:32	At Bhusawal S/s, 400 KV Bhusawal-Deepnagar ckt-2(the line was on Bus-1) Main Bus-2 side Pentograph Isolator corona ring damaged and flashover at support insulator occurred.This resulted in 400 kV Bus bar protection operation and tripping of all the elements connected to 400 kV Bus 1.	Nil	Nil	GI-2
15	SR	1. 400kV HNPCL - KV Kota line-1 2. 400kV HNPCL - KV Kota line-2 3. 400kV HNPCL - Kalpakka line-1 4. 400kV HNPCL - Kalpakka Line-2	APTRANSCO	29-07-2018	13:20	29-07-2018	16:24	3:04	Complete Outage of 400kV HNPCL (Hinduja) station : Triggering incident was Yph-Bph fault in 400kV HNPCL- KV Kota Line-2. Simultaneously, 400kV HNPCL-KV Kota line-1 and 400kV HNPCL – Kalpakka Line-1&2 also tripped due to tripping of remote breakers at KV Kota and Kalpakka end. As verbally informed, the relays at KV Kota and Kalpakka end maloperated due to improper configuration. This resulted in complete outage of 400kV HNPCL Station since all the evacuating lines tripped.	-----	----	GD-1
17	ERLDC	220 KV Mejia-Waria I 220 KV Mejia Kalyaneshwari T/c 220 KV Mejia-Barjora II 220/132 kV ICT II & III 220 KV Maithon-Kalyaneshwari I 220 KV Kalyaneshwari-CTPS I	DVC	27-07-2018	01:42	27-07-2018	02:30	0:48	220 kV main bus II at Kalyaneswari and Mejia tripped resulting tripping of all elements connected to these buses due to LBB operation after non-opening of breakers at both ends on R-N fault at 220 kV Mejia - Kalyaneswari - I	328	0	GI-I
18	ERLDC	400 kV Andal Jamshedpur D/C	DVC	28-07-2018	21:07	28-07-2018	22:46	1:39	400 kV Andal – Jamshedpur D/C tripped at 21:07 hrs on R-N fault. At same time, unit II at Andal tripped on stator E/F protection.	360	0	GI-II