

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड

राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

साप्ताहिक रिपोर्ट (25 नवम्बर से 01 दिसम्बर 2019 तक)

रिपोर्टिंग तिथि:-

4-Dec-19

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

1. अधिकतम मांग आपूर्ति और अधिकतम कमी (मे०वा०)

दिनांक	उत्तरी क्षेत्र		पश्चिमी क्षेत्र		दक्षिणी क्षेत्र		पूर्वी क्षेत्र		पूर्वोत्तर क्षेत्र		कुल	
	अधिकतम मांग आपूर्ति (मे०वा०)	अधिकतम कमी (मे०वा०)	अधिकतम मांग आपूर्ति (मे०वा०)	अधिकतम कमी (मे०वा०)	अधिकतम मांग आपूर्ति (मे०वा०)	अधिकतम कमी (मे०वा०)	अधिकतम मांग आपूर्ति (मे०वा०)	अधिकतम कमी (मे०वा०)	अधिकतम मांग आपूर्ति (मे०वा०)	अधिकतम कमी (मे०वा०)	अधिकतम मांग आपूर्ति (मे०वा०)	अधिकतम कमी (मे०वा०)
25-11-2019	43415	518	48575		38436		17964		2331	51	150721	569
26-11-2019	42015	464	48524		38032		18251		2383	35	149205	499
27-11-2019	42224	433	48291		38299		17805		2373	33	148992	466
28-11-2019	40821	509	48252		37475		18293		2328	40	147169	549
29-11-2019	42431	520	48284		37410		18552		2348	28	149025	548
30-11-2019	42371	510	47693		35990		18165		2356	39	146575	549
01-12-2019	38535	475	44946		32015		17649		2215	40	135360	515

2. ऊर्जा आपूर्ति और पनबिजली उत्पादन (मि०घ्०)

क्षेत्र / तिथि	उत्तरी क्षेत्र		पश्चिमी क्षेत्र		दक्षिणी क्षेत्र		पूर्वी क्षेत्र		पूर्वोत्तर क्षेत्र		कुल	
	ऊर्जा आपूर्ति (मि०घ्०)	पनबिजली उत्पादन (मि०घ्०)	ऊर्जा आपूर्ति (मि०घ्०)	पनबिजली उत्पादन (मि०घ्०)	ऊर्जा आपूर्ति (मि०घ्०)	पनबिजली उत्पादन (मि०घ्०)	ऊर्जा आपूर्ति (मि०घ्०)	पनबिजली उत्पादन (मि०घ्०)	ऊर्जा आपूर्ति (मि०घ्०)	पनबिजली उत्पादन (मि०घ्०)	ऊर्जा आपूर्ति (मि०घ्०)	पनबिजली उत्पादन (मि०घ्०)
25-11-2019	865	134	1137	44	892	88	333	40	40	10	3268	316
26-11-2019	861	132	1150	42	893	82	340	38	40	9	3284	304
27-11-2019	853	131	1146	41	888	91	343	38	41	9	3270	310
28-11-2019	813	141	1146	41	875	87	344	37	41	9	3219	316
29-11-2019	836	137	1147	47	878	92	344	40	41	9	3246	325
30-11-2019	835	134	1145	52	857	86	349	40	41	9	3227	320
01-12-2019	794	132	1102	42	755	74	336	34	38	10	3025	291

3. आवृत्ति (प्रतिशत समय में)

तिथि	49.8-49.9	<49.9	49.9-50.05	>50.05	Average	FVI
	ऑ० ई० घिड	ऑ० ई० घिड	ऑ० ई० घिड	ऑ० ई० घिड	ऑ० ई० घिड	ऑ० ई० घिड
25-11-2019	4.84	5.34	65.71	28.96	50.01	0.041
26-11-2019	2.50	2.51	64.79	32.70	50.02	0.039
27-11-2019	0.47	0.47	66.24	33.29	50.03	0.030
28-11-2019	0.41	0.41	69.79	29.80	50.03	0.030
29-11-2019	3.11	3.11	77.40	19.49	50.01	0.028
30-11-2019	4.05	4.11	77.75	18.14	50.00	0.030
01-12-2019	4.66	4.71	76.93	18.36	50.00	0.031

*NEW & SR grid running in synchronisation.

4. NEW ELEMENTS COMMISSIONED

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

Region	Date	25-11-2019		26-11-2019		27-11-2019		28-11-2019		29-11-2019		30-11-2019		01-12-2019	
	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	20-11-2019	Peak hr Shortage	Max. Demand Met during the day	Peak hr Shortage
NR	Punjab	5297	0	5202	0	5017	0	5053	0	5198	0	5067	0	4712	0
	Haryana	5926	0	5671	0	5494	0	5534	0	5780	0	5750	0	4894	0
	Rajasthan	11424	0	11863	0	11474	0	11445	0	11148	0	11158	0	11369	0
	Delhi	3329	0	3374	0	3457	0	3384	0	3508	0	3358	0	3249	0
	UP	14185	0	14101	0	14023	0	12448	0	13394	0	13704	0	12689	0
	Uttarakhand	1723	0	1735	0	1792	0	1548	0	1804	0	1818	0	1727	0
	HP	1589	0	1566	0	1567	0	1493	7	1599	0	1629	0	1462	0
	J&K	2187	547	2186	547	2043	511	2036	509	2283	571	2119	530	1979	495
Chandigarh	193	0	195	0	205	0	201	0	211	0	191	0	187	0	
WR	Chhattisgarh	3412	0	3444	0	3381	0	3389	0	3420	0	3377	0	3302	0
	Gujarat	15879	0	15992	0	15683	0	15753	0	15805	0	15605	0	14829	0
	MP	12889	0	13114	0	13101	0	13096	0	13003	0	13147	0	12884	0
	Maharashtra	20909	0	21075	0	21100	0	21191	0	21176	0	21471	0	20206	0
	Goa	541	0	541	0	541	0	594	0	541	0	541	0	541	0
	DD	321	0	324	0	328	0	326	0	332	0	320	0	292	0
	DNH	790	0	788	0	800	0	805	0	783	0	785	0	748	0
	Essar steel	342	0	342	0	288	0	346	0	333	0	268	0	302	0
SR	Andhra Pradesh	8195	0	8257	0	8178	0	7840	0	7880	0	8202	0	7090	0
	Telangana	8460	0	8590	0	8082	0	8267	0	8339	0	8171	0	7549	0
	Karnataka	10670	0	10081	0	9843	0	10190	0	10520	0	10490	0	8819	0
	Kerala	3617	0	3643	0	3687	0	3689	0	3627	0	3453	0	3179	0
	Tamil Nadu	13626	0	13256	0	13341	0	13178	0	12919	0	11781	0	10160	0
	Pondy	362	0	354	0	373	0	365	0	368	0	337	0	292	0
ER	Bihar	4023	0	4029	0	4115	0	4039	0	4066	0	3957	0	3751	0
	DVC	2983	0	3114	0	3040	0	3032	0	2964	0	2939	0	2839	0
	Jharkhand	1226	0	1247	0	1235	0	1300	0	1251	0	1187	0	1156	0
	Odisha	3838	0	3797	0	3903	0	3971	0	4089	0	4064	0	4488	0
	West Bengal	6162	0	6470	0	6461	0	6588	0	6474	0	6355	0	5716	0
Sikkim	100	0	97	0	100	0	100	0	100	0	100	0	99	0	
NER	Arunachal Pradesh	112	1	119	3	118	2	115	1	116	1	126	8	112	1
	Assam	1338	36	1389	27	1385	28	1408	25	1380	30	1390	32	1303	21
	Manipur	181	2	159	1	158	1	160	2	165	1	178	7	188	0
	Meghalaya	332	0	324	0	321	0	319	0	332	0	347	5	340	0
	Mizoram	98	1	104	3	98	2	99	1	101	2	108	6	98	1
	Nagaland	127	2	118	2	117	3	117	2	118	1	112	4	126	2
Tripura	222	4	257	9	254	8	220	1	223	1	242	9	218	0	

6. Energy Consumption in States (MUs)

Region	States	25-11-2019	26-11-2019	27-11-2019	28-11-2019	29-11-2019	30-11-2019	01-12-2019
NR	Punjab	101.7	100.3	98.0	99.4	102.8	101.4	92.9
	Haryana	114.5	114.2	108.2	100.3	109.9	108.5	97.7
	Rajasthan	216.7	214.5	218.6	213.0	212.3	213.3	210.3
	Delhi	62.5	63.5	62.6	62.4	63.5	60.4	57.2
	UP	260.8	258.2	258.4	238.2	236.2	240.5	232.6
	Uttarakhand	33.1	34.1	34.6	30.2	34.2	34.2	30.9
	HP	27.9	28.4	28.6	28.2	29.2	29.1	25.8
	J&K	44.5	44.2	40.1	37.9	44.3	44.1	43.8
	Chandigarh	3.2	3.4	3.5	3.5	3.5	3.3	3.1
WR	Chhattisgarh	71.6	72.8	71.5	71.4	71.9	71.7	70.5
	Gujarat	334.9	339.2	336.5	334.7	336.7	333.5	318.3
	MP	248.2	250.9	253.4	252.8	250.3	250.7	246.0
	Maharashtra	438.0	442.3	441.0	443.7	443.7	445.0	424.4
	Goa	12.3	12.3	12.3	12.5	12.9	12.9	12.9
	DD	7.0	7.3	7.4	7.4	7.4	7.3	6.5
	DNH	18.3	18.5	18.6	17.7	18.4	18.3	17.7
	Essar steel	6.3	6.5	5.6	5.7	5.9	5.4	5.3
SR	Andhra Pradesh	169.5	169.5	169.9	168.6	167.7	170.0	151.7
	Telangana	178.7	180.8	170.8	169.0	168.6	167.3	159.2
	Karnataka	196.3	182.1	185.8	190.8	195.3	190.9	162.3
	Kerala	72.0	73.0	73.5	73.8	74.2	72.0	64.2
	Tamil Nadu	269.1	280.8	280.3	265.8	264.7	250.0	211.8
	Pondy	6.8	7.0	7.2	7.1	7.3	6.9	5.8
ER	Bihar	66.6	68.3	68.7	69.3	69.0	69.0	66.8
	DVC	61.4	59.8	61.3	61.3	60.2	60.9	58.0
	Jharkhand	24.4	24.7	24.2	24.1	24.3	24.5	23.6
	Odisha	72.1	74.4	73.8	74.5	74.9	77.5	83.8
	West Bengal	107.5	110.8	113.4	113.0	114.1	115.6	102.1
	Sikkim	1.5	1.6	1.6	1.6	1.5	1.4	1.2
NER	Arunachal Pradesh	2.2	2.1	2.0	2.1	2.1	2.2	2.1
	Assam	22.6	22.7	23.3	23.1	22.9	23.0	20.4
	Manipur	2.5	2.4	2.6	2.6	2.4	2.5	2.6
	Meghalaya	5.9	5.7	5.8	5.5	5.5	6.0	5.9
	Mizoram	1.7	1.7	1.8	1.8	1.8	1.8	1.8
	Nagaland	2.1	2.1	2.2	2.2	2.2	2.2	2.1
	Tripura	3.5	3.4	3.6	3.6	3.9	3.4	3.4
ALL INDIA TOTAL		3267.9	3283.5	3270.5	3218.6	3245.7	3226.7	3024.6

पॉवर सिस्टम ऑपरेशन कारपोरेशन लिमिटेड
राष्ट्रीय भार प्रेषण केंद्र, नई दिल्ली

साप्ताहिक रिपोर्ट (25 नवम्बर से 01 दिसम्बर 2019 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	25-11-2019	26-11-2019	27-11-2019	28-11-2019	29-11-2019	30-11-2019	01-12-2019
East to North	-86.6	-75.6	-73.7	-68.0	-70.5	-75.0	-71.7
East to West	-0.8	6.5	-2.7	15.7	11.1	12.8	22.3
East to South	-87.9	-89.5	-88.0	-91.1	-87.4	-86.5	-89.3
East to North-East	11.3	9.2	9.4	11.2	11.7	10.7	10.4
North-East to North	9.4	9.2	9.4	11.4	11.6	11.7	8.9
West to North	-93.3	-123.1	-132.6	-113.6	-117.0	-125.3	-109.3
West to South	-50.3	-57.5	-59.0	-58.1	-59.1	-50.4	-53.0

**भूटान , नेपाल एव बाग्लादेश के साथ अंतरराष्ट्रीय विद्युत विनिमय INTERNATIONAL
EXCHANGE WITH BHUTAN, NEPAL AND BANGLADESH**

साप्ताहिक रिपोर्ट (25 नवम्बर से 01 दिसम्बर 2019 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			बाग्लादेश BANGLADESH		
	Energy Exchange	Day Average (MW)	Energy Exchange	Day Peak (MW)	Day Average (MW)	Energy Exchange	Day Peak (MW)	Day Average (MW)
25-11-2019	9.7	405	-2.1	-201	-87	-14.4	-921	-600
26-11-2019	8.8	368	-2.6	-204	-106	-14.0	-920	-585
27-11-2019	8.5	355	-2.9	-289	-121	-14.4	-783	-601
28-11-2019	6.8	282	-2.8	-292	-117	-14.4	-922	-601
29-11-2019	7.8	326	-3.2	-308	-132	-7.1	-548	-294
30-11-2019	7.2	300	-2.4	-100	-100	-6.4	-565	-265
01-12-2019	8.0	335	-3.7	-319	-154	-8.9	-565	-369
कुल Total	56.9		-19.6			-79.6		

8). Major Grid Incidences (Provisional)-

Sl.No.	Region	Name of Elements (Tripped/Manually opened)	District / Agency	Outage		Revised		Outage Duration	Event (As reported)	Generation Loss(MW)	Load Loss(MW)	Category as per CSA Grid Standards
				Date	Time	Date	Time					
1	NR	1) 400 kv Lucknow_3(pg) ktmn(su) (pg) ckt-1 2) 400 kv Gorakhpur(pg) lucknow_3(su) (pg) ckt-2	POWERGRID, POWERLINK	24-Nov-19	14:10	24-Nov-19	16:38	02:28	6 phase to earth fault in 400 KV Lucknow (PG) Utnao (UP) ckt-1. Line A/R from Lucknow end but failed to A/R from Utnao end. During failure of A/R at Utnao end of 400 KV Lucknow Utnao ckt-1, 400 KV Lucknow (PG) Gorakhpur (PG) ckt-2 also tripped on over voltage protection from Gorakhpur PG end	0	0	GI-2
2	NR	1) 68.67 mw rampur hep - unit 6 2) 400 kv natpaga (jhaki) rampur hep(s) (pg) ckt-2 3) 400kv bus 2 at natpaga (jhaki) (s) 4) 250 mw natpaga (jhaki) hps - unit 2 5) 250 mw natpaga (jhaki) hps - unit 3 6) 68.67 mw rampur hep - unit 1 7) 400 kv natpaga (jhaki) karcham wangoo(jw) (hepc) ckt-2	JSW, POWERGRID, SIVNL	24-Nov-19	20:43	25-Nov-19	04:41	07:58	Multiple element tripping at 400KV Jhaki HEP due to operation of bus bar protection and further SPS operation at 400KV Jhaki HEP. During opening of 400 KV Karcham (jhaki) ckt-2, Karcham end breaker opened properly but Jhaki end breaker didn't open properly. After some duration R-phase breaker at Jhaki end failed and resulted into 400 KV bus bar protection operation at 400 kv bus-2 of Jhaki HEP. It further resulted into tripping of 400 kv Bus Coupler and 400KV lines i.e. Nj Rampur-II & Utnao-II which were connected on the same bus bar - II. (Nj-Frenchchik-II) was already in open Condition). One unit of Rampur Hydro Power Station was also got tripped due to tandem operation. Consequences of tripping of two evacuation line from Jhaki HEP, Planned SPS (Case-3) at NHPS initiated trip command to Unit3 (Running) and Unit5 (Stopped) at NHPS and subsequently one Unit of Rampur Hydro.	600	0	GD-1
3	NR	1) 400 kv ur_2(jh) wagoora(pg) (pg) ckt-1 2) 400KV Ur_2(NH) Ur_1(NH) (PG) Ckt-1 3) 60 MW Ur-II HPS - UNIT 1 4) 60 MW Ur-II HPS - UNIT 2 5) 60 MW Ur-II HPS - UNIT 3 6) 60 MW Ur-II HPS - UNIT 4	NHPC, POWERGRID	27-Nov-19	09:07	27-Nov-19	10:04	00:57	During fault in 400 kv Ur2 Wagoora ckt, Ur-2 end breaker didn't operate. At the same time 400 kv Ur1-Ur2 ckt and all four running unit of Ur2 HEP tripped and resulted into generation loss of ~215MW. Complete station outage of 400 KV Ur2 HEP occurred during the incident. Energy loss was nil as there was no loss of water due to unit tripping	215	0	GD-1
4	NR	1) 400 kv neemrana(pg) babal(c) (pg) ckt-1, 2) 400 kv neemrana(pg) dhanoda(n) (pg) ckt-1	WERGRID, RAJASTHAN, HARYA	27-Nov-19	18:22	27-Nov-19	20:32	02:10	During fault in 400 KV Neemrana Dhanoda ckt-1, 400 KV Neemrana Babal ckt also tripped, which is on the other side of same dia. Reason of tripping of 400 KV Neemrana Babal yet to be ascertained. As per PMU data it seems fault was in blue-phase and A/R also operated in 400 KV Neemrana Dhanoda ckt-1. As per Rajasthan report, 400 KV Neemrana Babal ckt tripped from Babal end on DT received from Neemrana end.	0	0	GI-2
5	NR	1) 765kv bus 1 at agral(pg) 2) Main bay of 765 KV Agra PG (end) Gwalior ckt-1	POWERGRID	28-Nov-19	18:56	28-Nov-19	20:34	01:38	765 kv Bus bar protection operated at 765 kv Agra (PG) Bus-1. Main Bay of 765 kv Agra (end) Gwalior ckt-1 was still under outage. Reason of bus bar protection operation yet to be ascertained	0	0	GI-2
6	NR	1) 220KV bus 1 at samaypur(bb), 220 KV 2) Faridabad(PG) Samaypur(BB) (UNDER) Ckt-1, 3) 220KV Ballabgarh-Samaypur (BB) Ckt-2, 4) 220KV Ballabgarh-Samaypur (BB) Ckt-3, 5) 220KV Palwal(HV) Samaypur(BB) (UNDER) Ckt-1, 6) 220KV Samaypur(BB)-Badlihapur(HV) (UNDER) Ckt-2, 7) 400/220 kv 500 MVA ICT 1 at Ballabgarh(PG), 8) 400/220 kv 500 MVA ICT 2 at Ballabgarh(PG), 9) 400/220 kv 500 MVA ICT 4 at Ballabgarh(PG), 10) 220 kv Samaypur(BB) Palwal ckt-2	BBMB, HVNPL, POWERGRID	30-Nov-19	15:05	30-Nov-19	16:45	01:40	Multiple element tripping at 220 KV Samaypur (BBMB) due to bus bar protection(LBB) operation of 220 kv bus-1 at 220 kv Samaypur (BBMB). At 15:04 Hrs of 30.11.2019 a fault occurred on yellow phase of 220 kv Samaypur (BB) (PG) line at a distance of 2.292 Km in Zone-1. Fault current shown by relay is 36KA. Samaypur end Circuit Breaker could not clear the fault and its yellow phase bus and its LBB operated. Y phase LA also burnt and isolator also got damaged. All the elements connected on 220 kv Bus -1 also tripped due to operation of LBB protection of 220 kv Samaypur (end) Faridabad ckt-1	0	200	GD-1
7	NR	1) 400 kv Hapur-Dasna (up) ckt-2, 2) 400/220 kv 315 MVA ICT 1 at Dasna(UP), 3) 400/220 kv 315 MVA ICT 2 at Dasna(UP), 4) 400KV Bus 1 at Dasna(UP), 5) 400KV Hapur-Dasna (UP) Ckt-1	UPPTCL	30-Nov-19	15:08	30-Nov-19	18:08	03:00	In antecedent condition 400 kv Bus-2 of Dasna (UP) was under outage. Bus Bar Protection operated at 400 kv Bus-1 of 400/220 kv Dasna (UP). It further resulted into tripping of all the connected elements namely 400 kv Hapur-Dasna ckt-1 & 2, 400/220 kv 315 MVA ICT-1 & 2 at 400 kv Dasna (UP)	0	36	GD-1
8	WR	Tripping of 1. 400 KV Charanka - Varsana 2.400 KV Charanka - APJ, Muntra 3.400 KV Charanka - Kansari-2 4.400 KV Charanka - Kansari-1	GETCO	27-Nov-19	13:36	27-Nov-19	16:12	02:36	At 400 kv Charanka s/s, due to the operation of 86A and 86 B relays (master trip relay) 400 kv Varsana, APJ, Muntra and Kansari 1&2 tripped at Charanka end only .	Nil	Nil	GI-2
9	SR	i. 220KV Brahmapuram - Infospark ii. 220KV Brahmapuram - Cochin line-1&2 iii. 220KV Brahmapuram - Ambalamugall line 1&2 iv. 220KV Brahmapuram Lower Penjar line-1	KSEB	26-Nov-19	09:04	26-Nov-19	10:09	1 hr 5 mins	Tripping of Bus-1 at 220KV Brahmapuram station: Bus bar protection of Bus-1 operated resulting in tripping of all elements connected to Bus-1 at 220KV Brahmapuram.	----	----	GI-1
10	SR	i. 220KV Neyyeli - Karaikal ii. 220KV Karaikal - Bahour	Pondicherry	28-Nov-19	02:39	28-Nov-19	13:52	11 hrs 13 mins	Complete outage of 230V/110KV Karaikal station: 230KV Neyyeli-Karaikal line tripped at 01:52 hrs with Zone-1 Y Phase to earth fault. While test charging the 230KV karaikal-Neyyeli line, Single line to ground fault occurred in the 230KV Karaikal Bahour line and it tripped. This resulted in complete outage of 230KV karaikal station.	----	20 MW	GD-1
11	SR	i. 400KV Narnoor - Kurnool PG line-1&2 ii. 400KV Narnoor - Jantalamadugu line-1&2 iii. 400KV Narnoor - Gooty iv. 220KV Narnoor - Bahamankurkur	Andhra Pradesh	29-Nov-19	20:07	29-Nov-19	21:12	1 hr 5 mins	Complete loss of supply at 400/220KV Narnoor station: Triggering incident was fault in 400KV Narnoor - Srisaillam line. LBB of Bus-1 operated and all elements connected to Bus-1 tripped. Since there was no other infeed to Narnoor station, there was complete loss of supply at 400/220KV Narnoor station. In the antecedent, Main breaker of 400KV Narnoor-Srisaillam was in lockout condition and 220KV Narnoor -Somyapalli line-1 &2 was in idle charging condition.	----	300 MW	GD-1
12	ER	400KV Teesta-III-Gikhu S/C 400KV Teesta-III-Kishangunj S/C	ISTS	25-Nov-19	15:38	25-Nov-19	15:57	00:19	During synchronization of unit 5 of Teesta III, breaker got stuck and bus 1 at Teesta III tripped resulting tripping of 400KV Teesta-III-Gikhu S/C. At same time 400KV Teesta-III-Kishangunj S/C also tripped resulting tripping of both the evacuating lines from Teesta III and leading to generation loss of 903 MW at Teesta III.	303	0	GD-1
13	ER	400 KV Koderna-Biharsharif I 400 KV Koderna-Gaya I 400 KV Koderna-Bokaro I 315 MVA 400/220 kv ICT II at Koderna 50 MVA 400 KV Bus Reactor-II at Koderna	DVC	26-Nov-19	05:56	26-Nov-19	07:16	01:20	At 05:56 Hrs, R phase shunt capacitor of GCB burnt while synchronizing UR2 at Koderna, which is connected through Bus1. Subsequently, all elements connected to bus 1 tripped and bus 1 became dead.	0	0	GI-1
14	ER	132 KV Liluah-Howrah Q/C 132 KV Southern Howrah 132 KV Southern Botanical Howrah D/C	CESC	27-Nov-19	02:45	27-Nov-19	03:00	00:15	At 02:36 Hrs, 132 KV BUS PT at Liluah S/s burst resulting tripping of 132 KV Liluah-Howrah Q/C. At the time of incident, CESC system was synchronized to rest of the grid at Howrah point (132 KV Southern-Howrah, 132 KV Southern-Botanical-Howrah D/C) which got islanded as synchronization relay at Southern operated to disconnect CESC system from rest of the grid. CESC started running in island mode for 9 minutes. At 02:45 Hrs, when re-synchronization attempt was taken at Howrah, 2 running Units (UR1, UR3-264 MW generation) at BudgeBudge tripped, thereby around 260 MW load loss occurred in CESC area.	264	260	GD-1

Sl.No.	Region	Name of Elements (Tripped/Manually opened)	Owner / Agency	Outage		Recover		Outage Duration Time	Event (As reported)	Generation Loss(MW)	Load Loss(MW)	Category as per CEA Grid Standards
				Date	Time	Date	Time					
15	ER	220 KV Gaya Sonenagar D/C	BSPTCL	27-Nov-19	15:30	27-Nov-19	15:39	00:09	At 15:30 Hrs, 220 KV Gaya Sonenagar D/C tripped at Sonenagar end only due to DT receipt. No tripping was reported at gaya end. Load loss was at Aurangabad, Sonenagar and Iapla	0	53	GD-1
16	NER	132 KV Doyang Dimapur line I 132 KV Doyang Mokochung(NG) line 132 KV Doyang Saniis line	POWERGRID & DoP Nagaland	30-Nov-19	18:16	30-Nov-19	18:34	00:18	Doyang Power Station was connected with the rest of NER Grid through 132 KV Doyang Dimapur line I, 132 KV Doyang Mokochung(NG) line and 132 KV Doyang Saniis line. 132 KV Doyang Dimapur line II was under planned shutdown. At 18:16 Hrs on 30-11-19, 132 KV Doyang Dimapur line I, 132 KV Doyang Mokochung(NG) line and 132 KV Doyang Saniis line tripped. Due to tripping of these elements, Doyang Power Station was separated from the rest of NER Grid and subsequently collapsed due to load generation mis-match.	46	0	GD 1