

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्ट की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GO1188682

Power Supply Position in Northern Region for 27.10.2015

Date of Reporting : 28.10.2015

I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
39385	727	40112	50.12	30819	1745	32563	50.08	830.7	40.66

* Half hourly (two 15 minutes block—one block each before and after the designated time) average frequency

II. A. State's Load Details (At States periphery) in MUs:

State	State's Control Area Generation (Net MU)				Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages* (MU)	UI (OD:(+ve), UD: (-ve))
	Thermal	Hydro	Renewable/others \$	Total						
Punjab	34.56	10.98		45.54	47.78	47.48	-0.30	93.01	0.00	
Haryana	59.98	0.53		60.51	60.49	58.91	-1.58	119.43	0.00	
Rajasthan	131.67	3.79	15.60	151.05	59.20	60.55	1.35	211.60	0.16	
Delhi	14.31			14.31	57.01	55.99	-1.02	70.29	0.05	
UP	116.76	8.60		125.36	113.37	112.24	-1.13	237.60	33.69	
Uttarakhand		9.96		9.96	20.76	23.40	2.64	33.36	0.00	
HP		7.26		7.26	16.83	16.99	0.16	24.25	0.00	
J & K		11.61	0.00	11.61	26.49	26.08	-0.40	37.70	6.77	
Chandigarh				0.00	3.37	3.45	0.27	3.45	0.00	
Total	357.28	52.73	15.60	425.61	405.29	405.07	-0.03	830.68	40.66	

* Shortage furnished by the respective constituent. \$ Others include UP Co-generation and JK Diesel

II. B. State's Demand Met in MWs:

State	Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				# Max(hourly) Demand Met of Day (MW)	UI (OD:(+ve), UD/Export: (-ve))
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction		
Punjab	4412	0	-37	-447	3273	0	-3	-480	4412	
Haryana	6724	0	-143	-311	3846	0	-223	-413	6724	
Rajasthan	8661	0	-24	-622	8768	0	134	617	9499	
Delhi	3596	12	70	-76	2349	0	-186	-219	3596	
UP	11359	330	-71	45	9816	1620	204	140	11458	
Uttarakhand	1702	0	169	303	1172	0	101	201	1702	
HP	1204	0	-67	-402	785	0	5	143	1246	
J&K	1540	385	-13	68	708	125	-185	110	1540	
Chandigarh	187	0	26	-80	102	0	-5	-15	187	
Total	39385	727	-89	-1523	30819	1745	-158	84	39385	

* STOA figures are at sellers boundary & PX figures are at regional boundary.

figures may not be at simultaneous hour.

Diversity is 1.02

III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI (OG:(+ve), UG: (-ve))	
								Net MU	Net MU
A. NTPC									
Singrauli STPS (5*200+2*500)	2000	1900	2012	2022	45.08	1878	44.65	0.44	
Rihand I STPS (2*500)	1000	853	804	726	18.61	775	18.15	0.46	
Rihand II STPS (2*500)	1000	960	858	731	19.31	804	18.85	0.46	
Rihand III STPS (2*500)	1000	480	399	374	10.14	423	9.84	0.30	
Dadri I STPS (4*210)	840	805	190	149	3.54	148	3.54	0.00	
Dadri II STPS (2*490)	980	975	725	663	16.02	668	16.83	-0.81	
Unchahar I TPS (2*210)	420	200	137	151	3.84	160	4.03	-0.20	
Unchahar II TPS (2*210)	420	400	273	296	7.14	297	7.53	-0.39	
Unchahar III TPS (1*220)	210	200	136	142	3.62	151	3.84	-0.22	
ISTPP (Jhajjar) (3*500)	1500	1436	625	638	13.80	575	14.04	-0.24	
Dadri GPS (4*130.19+2*154.51)	830	670	303	452	8.79	366	8.87	-0.08	
Anta GPS (3*88.71+1*153.2)	419	409	0	0	0.00	0	0.00	0.00	
Auraiya GPS (4*111.19+2*109.30)	663	650	222	206	5.23	218	5.21	0.02	
Dadri Solar	5	1	0	0	0.02	1	0.02	0.00	
Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.04	
Singrauli Solar	15	1	0	0	0.03	1	0.03	0.00	
KHEP	800	822	655	0	4.45	186	4.37	0.08	
Sub Total (A)	12112	10763	7339	6550	160	6652	160	0	
B. NPC									
NAPS (2*220)	440	399	442	443	9.60	400	9.58	0.02	
RAPS- B (2*220)	440	398	442	443	9.54	397	9.55	-0.01	
RAPS- C (2*220)	440	400	447	450	9.66	403	9.60	0.06	
Sub Total (B)	1320	1197	1331	1336	28.80	1200	28.73	0.07	
C. NHPC									
Chamera I HPS (3*180)	540	540	468	0	4.89	204	4.71	0.18	
Chamera II HPS (3*100)	300	300	276	0	2.14	89	2.00	0.14	
Chamera III HPS (3*77)	231	229	229	0	1.35	56	1.28	0.06	
Bairasuli HPS(3*60)	180	179	174	0	1.00	42	0.96	0.04	
Saikal-HPS (6*115)	690	324	450	293	8.65	360	7.74	0.91	
Tanakpur-HPS (3*40)	94	40	39	37	1.06	44	0.96	0.10	
Uri-I HPS (4*120)	480	351	357	357	8.69	362	8.43	0.26	
Uri-II HPS (4*60)	240	238	243	241	5.76	240	5.72	0.05	
Dhauliganga-HPS (4*70)	280	280	272	0	1.66	69	1.44	0.22	
Dulhasti-HPS (3*130)	390	387	397	113	6.12	255	5.60	0.52	
Sewa-II HPS (3*40)	120	119	124	121	2.38	99	2.19	0.19	
Parbati 3 (4*130)	520	260	0	0	0.81	34	0.59	0.22	
Sub Total (C)	4065	3248	3028	1162	45	1855	42	3	
D.SJVNL									
NJPC (6*250)	1500	1605	1258	0	12.58	524	12.48	0.09	
Rampur HEP (6*68.67)	412	405	332	0	3.59	150	3.47	0.12	
Sub Total (D)	1912	2010	1590	0	16.17	674	15.95	0.21	
E. THDC									
Tehri HPS (4*250)	1000	1080	1003	0	6.93	289	6.80	0.13	
Koteshwar HPS (4*100)	400	92	91	92	2.25	94	2.20	0.05	
Sub Total (E)	1400	1172	1094	92	9.18	383	9.00	0.18	
F. BBMB									
Bhakra HPS (2*108+3*126+5*157)	1379	525	1064	390	13.21	550	12.61	0.60	
Dehar HPS (6*165)	990	222	660	145	5.30	221	5.33	-0.04	
Pong HPS (6*66)	396	172	324	66	4.19	175	4.13	0.07	
Sub Total (F)	2765	919	2048	601	22.69	946	22.07	0.63	
G. IPP(s)/JV(s)									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	40	0	0.80	33	0.77	0.03	
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	800	0	6.78	282	6.96	-0.18	
Malana Stg-II HPS (2*50)	100	0	0	0	0.33	14	0.31	0.02	
Shree Cement TPS (2*150)	300	0	258	262	6.20	259	6.23	-0.03	
Budhil HPS(IPP) (2*35)	70	0	75	0	0.34	14	0.34	0.00	
Sub Total (G)	1662	0	1173	262	14.45	602	14.61	-0.15	
H. Total Regional Entities (A-G)	25237	19309	17602	10002	295.45	12311	291.83	3.62	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	160	160	3.45	144
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	180	180	4.05	169
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	204	205	4.40	183
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	350	358	8.10	337
	Talwandi Saboo (2*660)	1320	667	692	14.57	607
	Thermal (Total)	5360	1561	1595	34.56	1440
Total Hydro	1000	487	401	10.98	458	
Total Punjab	6360	2048	1996	45.54	1897	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	439	439	10.33	430
	DCRTPP (Yamuna nagar) (2*300)	600	483	455	11.29	470
	Faridabad GPS (NTPC)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	870	778	19.87	828
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	978	740	18.50	771
	Thermal (Total)	4944	2770	2412	59.98	2499
	Total Hydro	62	18	20	0.53	22
	Total Haryana	5006	2788	2432	60.51	2521
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	841	1011	23.88
suratgarh TPS (6*250)		1500	950	998	24.56	1023
Chabra TPS (4*250)		1000	396	400	9.27	386
Dholpur GPS (3*110)		330	0	0	0.00	0
Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)		271	66	70	1.64	68
RAPS A (NPC) (1*100+1*200)		300	159	159	3.93	164
Barsingar (NLC) (2*125)		250	186	187	4.37	182
Giral LTPS (2*125)		250	82	72	1.54	64
Rajwest LTPS (IPP) (8*135)		1080	808	805	17.96	749
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(2*600)		1200	1069	787	22.26	928
Kawati(Adani) (2*660)		1320	1069	787	22.26	928
Thermal (Total)		8876	5626	5276	132	5486
Total Hydro		550	153	165	3.79	158
Wind power		3214	458	878	14.85	619
Biomass		99	31	31	0.75	31
Solar		730	0	0	0.00	0
Renewable/Others (Total)		4043	489	909	15.60	650
Total Rajasthan		13469	6268	6350	151.05	6294
UP		Anpara TPS (3*210+2*500)	1630	1369	1316	32.50
	Obra TPS (2*50+2*94+5*200)	1194	469	420	10.90	454
	Paricha TPS (2*110+2*220+2*250)	1140	582	571	13.30	554
	Panki TPS (2*105)	210	122	104	2.90	121
	Harduaganj TPS (1*60+1*105+2*250)	665	527	515	11.30	471
	Tanda TPS (NTPC) (4*110)	440	360	272	7.05	294
	Roza TPS (IPP) (4*300)	1200	522	388	9.94	414
	Anpara-C (IPP) (2*600)	1200	1080	644	17.95	748
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	58	58	1.10	46
	Anpara-D(1*500)	500	0	0	0.00	0
	Lalitpur TPS(1*660)	660	416	406	9.83	410
	Thermal (Total)	9289	5505	4694	117	4865
	Vishnuparyag HPS (IPP)(4*110)	440	152	147	3.51	146
	Alakanada(4*82.5)	330	84	87	2.21	92
	Other Hydro	527	134	111	2.88	120
	Cogeneration	981	0	0	0.00	0
	Total UP	11567	5875	5039	125	5223
Uttarakhand	Total Hydro	1398	466	368	9.96	415
	Total Uttarakhand	1398	466	368	9.96	415
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	35	37	0.93	39
	Pragati Gas Turbine (2x104+ 1x122)	330	151	154	3.68	153
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	252	265	6.12	255
	Badarpur TPS (NTPC) (3*95+2*210)	705	162	164	3.58	149
	Thermal (Total)	2917	600	620	14.31	596
	Total Delhi	2917	600	620	14.31	596
HP	Baspa HPS (IPP) (3*100)	300	57	57	1.96	82
	Malana HPS (IPP) (2*43)	86	0	0	0.38	16
	Other Hydro	878	234	203	4.92	205
	Total HP	1264	291	260	7.26	303
J & K	Baglihar HPS (IPP) (3*150)	450	290	550	9.26	386
	Other Hydro/IPP	560	112	84	2.35	98
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	402	634	11.61	484
Total State Control Area Generation		43181	18738	17699	425.61	17734
J. Net Inter Regional Exchange (Import +ve)/Export (-ve))			3262	4653	126.82	5284
Total Regional Availability(Gross)		68418	39602	32354	847.88	35328

IV. Total Hydro Generation:

Regional Entities Hydro	12234	9255	1854	104.92	4372
State Control Area Hydro	6581	2187	2193	53	2197
Total Regional Hydro	18815	11442	4047	157.65	6569

V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal(HVDC B/B)	-250	-250	0	250	0.00	6.09	-6.09
765 KV Gwalior-Agra (D/C)	1239	1939	2215	0	45.92	0.00	45.92
400 KV Zerda-Kankrol	-237	-215	0	326	0.00	3.95	-3.95
400 KV Zerda-Bhinmal	-217	-175	65	342	0.00	2.35	-2.35
220 KV Auraiya-Malanpur	-112	-106	0	127	0.00	2.11	-2.11
220 KV Badoh-Kota/Morak	-103	-147	4	111	3.04	3.04	0.00
Mundra-Mohindergarh(HVDC Bipole)	2301	1600	2306	0	48.98	0.00	48.98
400 KV Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	474	598	484	0	16.54	0.00	16.54
Sub Total WR	3095	3244			114.48	17.54	96.94
Pusaali Bypass/HVDC	400	400	400	0	8.96	0.00	8.96
400 KV MZP- GKP (D/C)	-166	144	224	166	2.07	0.00	2.07
400 KV Patna-Balia(D/C) X 2	205	403	484	0	9.38	0.00	9.38
400 KV B'Shanif-Balia (D/C)	-190	-3	116	190	0.00	0.05	-0.05
765 KV Gaya-Balia	-83	73	164	83	0.92	0.00	0.92
765 KV Gaya-Fatehpur	-82	45	196	98	1.26	0.00	1.26
220 KV Pusaali-Sahupuri	122	156	185	0	3.27	0.00	3.27
132 KV K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
132 KV Son Ngr-Rihand	-27	-28	0	32	0.00	0.65	-0.65
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-262	-115	32	275	0.00	2.71	-2.71
400 KV Barh -GKP (D/C)	250	334	348	0	6.96	0.00	6.96
Sub Total ER	167	1409			33.30	3.41	29.89
+/- 800 KV BiswanathChariali-Agra	0	0	0	0	0.00	0.00	0.00
Sub Total NEH	0	0			0.00	0.00	0.00
Total IR Exch	3262	4653			147.78	20.95	126.82

V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdi (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
27.97	1.47	29.44	3.15	-21.02	10.51	1.05	1.37	-1.37
Total IR Schedule (MU)								
Through ER	Through WR Incids Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
44.48	83.90	128.37	29.89	96.94	126.82	-14.59	13.04	-1.55

V(C). Inter National Exchange with Nepal [Import (+ve)/Export (-ve)] [Linkwise]

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	0	0	0	0	0	0	0.00

VI. Frequency Profile <----- % of Time Frequency ----->

<49.2	<49.7	<49.8	<49.9	<50.0	49.9-50.05	50.05-50.10	50.10-50.20	>50.20	>50.50
0.00	0.00	0.75	16.25	60.02	66.05	13.82	3.45	0.00	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	(Hz)	(Hz)	(Hz)	(Hz)
50.17	13.04	49.74	18.08	49.98	0.059	0.073	50.19	49.90

VII. Voltage profile 400 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV
Rihand	400	408	01:57	400	09:34	0.0	0.0	0.0	0.0
Gorakhpur	400	420	07:28	404	18:03	0.0	0.0	0.0	0.0
Bareilly	400	417	01:29	396	18:11	0.0	0.0	0.0	0.0
Kanpur	400	411	02:59	403	18:11	0.0	0.0	0.5	0.0
Dadri	400	421	01:46	401	18:13	0.0	0.0	5.3	0.0
Ballabhgarh	400	426	01:57	404	18:12	0.0	0.0	34.1	0.0
Bawana	400	424	02:00	404	18:10	0.0	0.0	24.7	0.0
Bassi	400	425	21:33	397	06:42	0.0	0.0	6.7	0.0
Hissar	400	419	21:54	399	18:11	0.0	0.0	0.0	0.0
Moga	400	423	02:31	405	18:14	0.0	0.0	12.3	0.0
Abdullapur	400	424	02:57	402	18:22	0.0	0.0	15.6	0.0
Nalagarh	400	432	02:31	409	18:41	0.0	0.0	38.6	7.4
Kishenpur	400	427	03:41	397	18:33	0.0	0.0	17.6	0.0
Wagoora	400	415	03:44	376	18:47	4.4	20.4	0.0	0.0
Amritsar	400	429	01:29	410	18:11	0.0	0.0	35.8	0.0
Kashipur	400	419	00:59	412	15:35	0.0	0.0	0.0	0.0
Hamirpur	400	423	00:27	406	09:16	0.0	0.0	39.8	0.0
Rishikesh	400	396	12:56	396	12:56	0.0	0.0	0.0	0.0

VIII. Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	778	21:54	746	18:12	0.0	0.0	0.0	0.0
Balia	765	775	07:30	748	18:14	0.0	0.0	0.0	0.0
Moga	765	802	21:51	771	18:12	0.0	0.0	1.1	0.0
Agra	765	794	21:51	763	18:08	0.0	0.0	0.0	0.0
Bhiwani	765	803	21:33	772	18:10	0.0	0.0	2.4	0.0
Unnao	765	766	03:00	736	18:12	0.0	3.5	0.0	0.0
Lucknow	765	777	03:00	747	18:13	0.0	0.0	0.0	0.0
Meerut	765	809	21:50	772	18:12	0.0	0.0	22.2	0.0
Jhatikara	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Anta	765	781	19:56	762	11:01	0.0	0.0	0.0	0.0
Phagi	765	793	21:33	762	05:30	0.0	0.0	0.0	0.0

IX. Reservoir Parameters:

Name of Reservoir	Parameters		Present Parameters		Last Year		Last day	
	FRL (m)	MDDL (m)	Level (m)	Energy (MU)	Level (m)	Energy (MU)	Inflow (m ³ /s)	Usage (m ³ /s)
Bhakra	513.59	445.62	509.58	1530.03	507.50	1426.07	264.37	347.02
Pong	426.72	384.05	418.89	834.82	414.16	644.91	80.53	245.08
Tehri	829.79	740.04	818.40	970.00	823.90	1080.00	84.56	157.00
Koteshwar	612.50	598.50	610.76	4.69	608.72	3.98	157.00	148.49
Chamera-I	760.00	748.75	755.99	0.00	0.00	0.00	125.18	133.10
Rihand	268.22	252.98	850.90	269.90	854.00	321.50	0.00	0.00
RPS	352.80	343.81	0.00	0.00	0.00	0.00	0.00	0.00
Jawahar Sagar	298.70	295.78	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	511.96	4.71	510.21	3.10	205.24	192.24

* NA: Not Available

X(A). Short-Term Open Access Details:

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (19:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	-695	215	0	-700	253	0	-13.46	5.86	-7.60
Delhi	-186	-31	-2	-135	59	0	-2.37	0.77	-1.59
Haryana	-560	147	0	-544	233	0	-13.33	2.68	-10.65
HP	-50	193	0	127	-529	0	1.33	-0.92	0.40
J&K	171	-60	0	154	-86	0	3.98	-1.09	2.89
CHD	0	-15	0	0	-80	0	0.00	-0.65	-0.65
Rajasthan	-5	623	0	-5	-617	0	1.62	10.96	12.58
UP	140	0	0	45	0	0	2.04	0.00	2.04
Uttarakhand	196	4	0	196	107	0	4.71	0.90	5.60
Total	-989	1075	-2	-864	-659	0	-15.48	18.51	3.04

X(B). Short-Term Open Access Details:

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-296	-700	295	177	0	0
Delhi	38	-186	217	-176	0	-2
Haryana	-544	-560	258	-330	0	0
HP	127	-50	193	-666	0	0
J&K	171	154	-10	-111	0	0
CHD	0	0	0	-80	0	0
Rajasthan	189	-5	623	-665	0	0
UP	187	3	0	0	0	0
Uttarakhand	196	196	116	0	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 27.10.2015 :

Normal.

XIV. Synchronisation of new generating units :

XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / substation :

80MVAR B/R at 400kV Rampur first time charged at 1804 Hrs.

XVI. Tripping of lines in pooling stations :

XVII. Complete generation loss in a generating station :