

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 15.09.2015
Date of Reporting : 16.09.2015

I. Regional Availability/Demand:

Evening Peak (20:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
49440	2732	52171	49.90	48238	2642	50880	50.06	1147.1	75.63

* 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)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	100.13	19.37		119.50	106.78	106.24	-0.54	225.73	0.00
Haryana	57.37	0.71		58.09	131.71	129.27	-2.44	187.36	0.00
Rajasthan	134.42	4.83	16.63	155.88	70.93	71.00	0.07	226.88	0.00
Delhi	20.17			20.17	91.01	90.52	-0.49	110.69	0.27
UP	125.93	19.66		145.59	136.09	142.69	6.60	288.28	65.91
Uttarakhand		20.99		20.99	17.32	19.67	2.34	40.65	0.00
HP		18.21		18.21	6.19	7.10	0.92	25.31	0.91
J & K		13.26	0.00	13.26	22.59	22.91	0.32	36.17	8.54
Chandigarh				0.00	6.22	6.00	0.22	6.00	0.00
Total	438.01	97.04	16.63	551.68	588.84	595.40	7.04	1147.08	75.63

* 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 (20:00 Hrs) MW				Off Peak (03:00 Hrs) MW				# Max(hourly) Demand Met of Day (MW)
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	9572	0	-131	898	9004	0	61	886	9770
Haryana	8994	0	-115	1926	8000	0	100	1939	8994
Rajasthan	9095	0	-213	205	10218	0	4	949	10450
Delhi	4703	172	-195	574	4576	88	77	251	5428
UP	11949	2140	-12	498	12386	2310	-82	1580	13178
Uttarakhand	1944	0	132	93	1535	0	76	205	1948
HP	1226	0	68	-1058	924	0	15	-875	1248
J&K	1680	420	19	-232	1382	244	0	-381	1836
Chandigarh	276		-5	0	213	0	10	20	316
Total	49440	2732	-452	2903	48238	2642	261	4574	50103

* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.06

III. Regional Entities :

Entity	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	1718	1546	1809	41.62	1734	40.91	0.70	
	Rihand I STPS (2*500)	1000	783	865	845	18.82	784	18.67	0.14	
	Rihand II STPS (2*500)	1000	882	947	850	20.38	849	20.49	-0.12	
	Rihand III STPS (2*500)	1000	480	505	477	11.39	474	11.37	0.02	
	Dadri I STPS (4*210)	840	600	537	569	13.60	567	14.34	-0.74	
	Dadri II STPS (2*490)	980	970	892	902	20.35	848	21.96	-1.61	
	Unchahar I TPS (2*210)	420	395	416	418	9.23	385	9.37	-0.14	
	Unchahar II TPS (2*210)	420	400	422	425	9.22	384	9.36	-0.15	
	Unchahar III TPS (1*220)	210	200	203	197	4.61	192	4.67	-0.07	
	ISTPP (Jhajjar) (3*500)	1500	1436	706	714	16.15	673	15.28	0.87	
	Dadri GPS (4*130.19+2*154.51)	830	800	384	361	8.47	353	8.66	-0.19	
	Anta GPS (3*88.71+1*153.2)	419	366	209	0	1.49	62	1.56	-0.07	
	Auraiya GPS (4*111.19+2*109.30)	663	635	0	0	0.00	0	0.00	0.00	
	Dadri Solar	5	1	0	0	0.02	1	0.03	0.00	
	Unchahar Solar	10	3	0	0	0.04	2	0.06	-0.03	
	Singrauli Solar	15	3	0	0	0.01	0	0.08	-0.07	
	KHEP	800	845	848	198	11.17	465	11.15	0.03	
	Sub Total (A)	12112	10517	8480	7765	187	7772	188	-1	
	B. NPC	NAPS (2*220)	440	373	405	417	8.92	372	8.95	-0.03
RAPS- B (2*220)		440	185	185	185	4.44	185	4.44	0.00	
RAPS- C (2*220)		440	410	410	410	9.84	410	9.84	0.00	
Sub Total (B)		1320	968	1000	1012	23.20	967	23.23	-0.03	
C. NHPC	Chamera I HPS (3*180)	540	534	534	0	6.78	282	6.50	0.28	
	Chamera II HPS (3*100)	300	300	301	200	5.63	234	5.49	0.14	
	Chamera III HPS (3*77)	231	229	231	80	3.93	164	3.78	0.15	
	Bairasui HPS(3*60)	180	179	60	0	1.28	53	1.18	0.10	
	Salal-HPS (6*115)	690	592	675	641	15.13	630	14.13	1.00	
	Tanakpur-HPS (3*40)	94	38	0	90	0.93	39	0.91	0.02	
	Uri-I HPS (4*120)	480	180	209	155	4.76	198	4.36	0.40	
	Uri-II HPS (4*60)	240	107	93	92	2.75	115	2.59	0.16	
	Dhauliganga-HPS (4*70)	280	276	280	218	4.98	208	4.69	0.29	
	Dulhasti-HPS (3*130)	390	386	405	400	9.47	394	9.26	0.20	
	Sewa-II HPS (3*40)	120	119	125	0	0.34	14	0.37	-0.03	
	Parbati 3 (4*130)	520	390	261	0	2.07	86	2.02	0.06	
	Sub Total (C)	4065	3331	3172	1876	58	2419	55	3	
	D. SJVNL	NJPC (6*250)	1500	1350	1350	1350	30.89	1287	30.78	0.11
Rampur HEP (6*68.67)		412	442	376	375	8.70	362	8.37	0.33	
Sub Total (D)		1912	1792	1726	1725	39.59	1650	39.15	0.44	
E. THDC	Tehri HPS (4*250)	1000	1080	1003	233	6.66	277	6.50	0.16	
	Koteshwar HPS (4*100)	400	92	100	90	2.23	93	2.20	0.03	
	Sub Total (E)	1400	1172	1103	323	8.89	370	8.70	0.19	
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	982	1301	669	23.43	976	23.57	-0.15	
	Dehar HPS (6*165)	990	588	825	560	14.21	592	14.11	0.10	
	Pong HPS (6*66)	396	345	384	324	8.30	346	8.28	0.01	
	Sub Total (F)	2765	1915	2510	1553	45.93	1914	45.97	-0.04	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	109	76	1.76	73	1.73	0.03	
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1050	850	18.25	761	18.00	0.25	
	Malana Stg-II HPS (2*50)	100	0	110	70	1.63	68	1.53	0.10	
	Shree Cement TPS (2*150)	300	0	148	147	3.49	146	3.58	-0.09	
	Budhil HPS(IPP) (2*35)	70	0	45	37	0.98	41	0.87	0.10	
Sub Total (G)	1662	0	1462	1180	26.11	1088	25.71	0.40		
H. Total Regional Entities (A-G)	25237	19695	19454	15433	388.30	16179	386.00	2.31		

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	1080	1260	25.87	1078	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	260	299	6.15	256	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	843	936	20.00	833	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura (2*700)	1400	1385	1376	31.62	1318	
	Talwandi Saboo (1*660)	660	661	662	16.49	687	
	Thermal (Total)	4700	4229	4533	100.13	4172	
	Total Hydro	1000	882	801	19.37	807	
	Total Punjab	5700	5111	5334	119.50	4979	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	230	229	5.00	209
DCRTPP (Yamuna nagar) (2*300)		600	552	558	12.35	515	
Faridabad GPS (NTPC)		432	375	323	8.18	341	
RGTPP (khedra) (IPP) (2*600)		1200	1135	745	21.98	916	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	541	373	9.86	411	
Thermal (Total)		4944	2833	2228	57.37	2391	
Total Hydro		62	32	27	0.71	30	
Total Haryana		5006	2865	2255	58.09	2420	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	996	975	23.83	993
		suratgarh TPS (6*250)	1500	1289	1139	29.29	1220
		Chabra TPS (4*250)	1000	395	383	9.20	383
		Dholpur GPS (3*110)	330	87	87	2.33	97
	Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	179	223	4.49	187	
	RAPS A (NPC) (1*100+1*200)	300	159	161	3.93	164	
	Barsingar (NLC) (2*125)	250	184	180	4.20	175	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	831	759	19.27	803	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	1005	1009	24.21	1009	
	Kawai(Adani) (2*660)	1320	610	501	13.67	570	
	Thermal (Total)	8876	5735	5417	134	5601	
	Total Hydro	550	212	227	4.83	201	
	Wind power	3214	129	1394	15.81	659	
	Biomass	99	34	34	0.83	34	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	163	1428	16.63	693	
	Total Rajasthan	13469	6110	7072	155.88	6455	
	UP	Anpara TPS (3*210+2*500)	1630	1363	1319	31.86	1328
Obra TPS (2*50+2*94+5*200)		1194	467	441	10.96	457	
Paricha TPS (2*110+2*220+2*250)		1140	638	650	15.31	638	
Panki TPS (2*105)		210	63	63	1.50	62	
Harduaganj TPS (1*60+1*105+2*250)		665	527	518	11.59	483	
Tanda TPS (NTPC) (4*110)		440	188	187	4.56	190	
Roza TPS (IPP) (4*300)		1200	1103	1107	26.57	1107	
Anpara-C (IPP) (2*600)		1200	536	542	12.93	539	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	405	403	9.46	394	
Anpara-D(1*500)		500	0	0	0.00	0	
Lalitpur TPS(1*660)		660	0	0	0.00	0	
Thermal (Total)		9289	5290	5230	125	5197	
Vishnuparyag HPS (IPP)(4*110)		440	435	435	10.47	436	
Alaknanda(4*82.5)		330	265	292	6.92	288	
Other Hydro		527	110	64	2.28	95	
Cogeneration		981	50	50	1.20	50	
Total UP		11567	6150	6071	146	6066	
Uttarakhand	Total Hydro	1398	924	781	20.99	875	
	Total Uttarakhand	1398	924	781	20.99	875	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	37	36	0.83	35	
	Prahati Gas Turbine (2x104+ 1x122)	330	265	261	6.38	266	
	Rihala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	264	249	6.15	256	
	Badarpur TPS (NTPC) (3*95+2*210)	705	320	322	6.81	284	
	Thermal (Total)	2917	886	868	20.17	840	
	Total Delhi	2917	886	868	20.17	840	
HP	Baspa HPS (IPP) (3*100)	300	334	304	7.01	292	
	Malana HPS (IPP) (2*43)	86	86	75	1.40	58	
	Other Hydro	878	427	418	9.80	408	
	Total HP	1264	847	797	18.21	759	
J & K	Baqilhar HPS (IPP) (3*150)	450	450	450	10.80	450	
	Other Hydro/IPP	560	120	92	2.46	102	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	570	542	13.26	552	
Total State Control Area Generation		42521	23463	23720	551.68	22987	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			8274	9237	220.83	9201	
Total Regional Availability(Gross)		67758	51191	48390	1160.82	48367	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	10628	6671	185.27	7719
State Control Area Hydro	6581	4277	3966	97	4043
Total Regional Hydro	18815	14905	10637	282.30	11763

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

Element	Peak(20:00 Hrs)		Off Peak(03:00 Hrs)		Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export			
Vindhychal(HVDC B/B)	100	-200	250	200	1.40	1.22	0.18		
765 KV Gwalior-Agra (D/C)	2855	3351	3351	0	68.78	0.00	68.78		
400 KV Zerda-Kankroli	-21	25	34	122	0.00	0.96	-0.96		
400 KV Zerda-Bhinmal	18	58	124	84	0.32	0.00	0.32		
220 KV Auraiya-Malanpur	-21	-32	0	17	0.00	0.48	-0.48		
220 KV Badod-Kota/Morak	-22	57	78	66	0.27	0.00	0.27		
Mundra-Mohindergarh(HVDC Bipole)	2500	2497	2549	0	60.50	0.00	60.50		
400 KV Vindhychal - Rihand	495	407	506	0	11.47	0.00	11.47		
765 KV Phagi-Gwalior (D/C)	1081	1387	697	0	28.21	0.00	28.21		
Sub Total WR	6985	7550			170.94	2.65	168.29		
Pusauli Bypass/HVDC	400	400	400	0	8.99	0.00	8.99		
400 KV MZP- GKP (D/C)	-264	-462	578	0	10.26	0.00	10.26		
400 KV Patna-Balia(D/C) X 2	351	505	513	0	9.83	0.00	9.83		
400 KV B'Sharif-Balia (D/C)	197	294	326	0	6.16	0.00	6.16		
765 KV Pusauli-Balia	183	267	274	0	2.49	0.00	2.49		
765 KV Gaya-Fatehpur	103	242	327	0	4.93	0.00	4.93		
220 KV Pusauli-Sahupuri	188	143	234	0	3.79	0.00	3.79		
132 KV Knasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
132 KV Son Ngr-Rihand	-37	-30	0	44	0.00	0.89	-0.89		
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
765 KV Sasaram - Fatehpur	-57	70	197	57	1.19	0.00	1.19		
400 KV Barh -GKP (D/C)	225	258	286	0	5.79	0.00	5.79		
Sub Total ER	1289	1687			53.43	0.89	52.54		
+/- 800 KV BiswanathChariali-Agra	0	0	0	0	0	0	0		
Sub Total NER	0	0			0	0	0		
Total IR Exch	8274	9237			224.37	3.54	220.83		

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

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
40.82	3.50	44.32	11.44	23.46	9.34	29.16	2.28	-2.28
Total IR Schedule (MU)								
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
67.38	151.38	218.76	52.54	168.29	220.83	-14.84	16.90	2.07

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

Element	Peak(20:00 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	7	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	1.88	27.50	74.24	66.60	6.74	2.29	0.00	0.00

Frequency (Hz)					Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum						MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Time					
50.19	10.03	49.72	18.43	49.95	0.086	0.076	50.15	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	400	00:00	398	13:11	0.0	0.0	0.0	0.0
Gorakhpur	400	416	09:45	401	05:55	0.0	0.0	0.0	0.0
Barilly	400	413	18:05	396	00:11	0.0	0.0	0.0	0.0
Kanpur	400	419	08:02	400	00:07	0.0	0.0	0.0	0.0
Dadri	400	415	04:03	397	14:50	0.0	0.0	0.0	0.0
Ballabgarh	400	420	08:01	401	14:48	0.0	0.0	0.0	0.0
Bawana	400	417	06:02	400	14:50	0.0	0.0	0.0	0.0
Bassi	400	422	04:02	394	00:10	0.0	0.0	0.4	0.0
Hissar	400	412	06:02	396	14:14	0.0	0.0	0.0	0.0
Moga	400	411	04:01	395	14:48	0.0	0.0	0.0	0.0
Abdullapur	400	419	06:01	402	11:27	0.0	0.0	0.0	0.0
Nalagarh	400	420	04:02	403	14:46	0.0	0.0	0.0	0.0
Kishenpur	400	419	04:03	400	19:23	0.0	0.0	0.0	0.0
Wagoora	400	411	04:00	382	20:00	0.0	11.9	0.0	0.0
Amritsar	400	414	04:00	395	14:49	0.0	0.0	0.0	0.0
Kashipur	400	416	18:02	408	00:08	0.0	0.0	0.0	0.0
Hamirpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Rishikesh	400	399	08:06	382	00:09	0.0	45.8	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	788	08:02	741	00:07	0.0	0.5	0.0	0.0
Balia	765	779	09:44	753	00:10	0.0	0.0	0.0	0.0
Moga	765	795	04:02	764	14:51	0.0	0.0	0.0	0.0
Agra	765	791	08:01	747	00:10	0.0	0.0	0.0	0.0
Bhiwani	765	795	08:00	763	00:10	0.0	0.0	0.0	0.0
Unnao	765	762	08:02	735	00:09	0.0	2.8	0.0	0.0
Lucknow	765	783	21:35	747	00:08	0.0	0.0	0.0	0.0
Meerut	765	800	08:02	764	00:09	0.0	0.0	0.0	0.0
Jhatikara	765	794	04:03	762	23:20	0.0	0.0	0.0	0.0
Barilly	765	770	08:02	0	11:12	2.7	2.7	0.0	0.0
Anta	765	768	00:00	768	00:00	0.0	0.0	0.0	0.0
Phagi	765	787	17:40	748	00:06	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	511.29	1605.30	511.53	1620.46	655.56	683.11
Pong	426.72	384.05	421.57	961.02	416.76	743.22	132.18	486.00
Tehri	829.79	740.04	821.85	1042.00	820.40	1010.00	254.00	147.00
Koteshwar	612.50	598.50	610.87	5.01	611.68	5.46	147.00	147.00
Chamera-I	760.00	748.75	753.10	0.00	0.00	0.00	161.70	183.69
Rihand	268.22	252.98	851.80	284.70	856.50	364.10	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	512.67	8.89	518.35	5.44	174.04	365.58

* NA: Not Available

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

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (20:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	857	29	0	855	43	0	20.55	4.02	24.58
Delhi	259	-8	0	644	-70	0	9.88	2.47	12.35
Haryana	1755	184	0	1755	171	0	42.15	0.60	42.74
HP	-868	-7	0	-691	-368	0	-17.99	-3.49	-21.48
J&K	-446	65	0	-446	214	0	-10.71	3.99	-6.72
CHD	0	20	0	0	0	0	0.00	0.60	0.60
Rajasthan	-573	1520	2	-577	780	2	-13.77	26.04	12.27
UP	597	983	0	498	0	0	11.96	8.31	20.27
Uttarakhand	-94	299	0	-249	341	0	-3.21	5.94	2.73
Total	1488	3084	2	1790	1111	2	38.85	48.47	87.33

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	857	855	782	29	0	0
Delhi	818	38	410	-201	0	0
Haryana	1758	1754	184	-425	0	0
HP	-691	-868	10	-494	0	0
J&K	-446	-446	339	-35	0	0
CHD	0	0	59	0	0	0
Rajasthan	-573	-577	1687	477	2	2
UP	600	416	983	0	0	0
Uttarakhand	-80	-249	347	155	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 15.09.2015 :

Normal

XIV. Synchronisation of new generating units :

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

XVI. Tripping of lines in pooling stations :

XVII. Complete generation loss in a generating station :