

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिड की पूर्ण स्वामित्व प्राप्त सार्वजनिक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 30.07.2015
Date of Reporting : 31.07.2015

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
44483	2619	47102	50.06	41435	2042	43476	50.06	1011.7	56.47

* 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	75.78	22.13		97.91	131.35	130.81	-0.53	228.72	0.00
Haryana	49.10	0.66		49.76	124.62	124.71	0.08	174.46	0.00
Rajasthan	50.11	5.50	12.70	68.31	48.54	48.16	-0.38	116.46	0.00
Delhi	12.42			12.42	82.37	81.63	-0.74	94.06	0.11
UP	137.45	11.80		149.25	141.51	141.91	0.40	291.16	48.38
Uttarakhand		23.07		23.07	16.38	18.03	1.65	41.10	0.08
HP		25.30		25.30	0.50	0.93	0.43	26.23	0.01
J & K		13.41	0.00	13.41	19.71	19.85	0.15	33.27	7.90
Chandigarh				0.00	6.62	6.22	0.27	6.22	0.00
Total	324.87	101.86	12.70	439.43	571.59	572.25	1.33	1011.67	56.47

* 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	9671	0	-18	1398	8985	0	122	1527	10228
Haryana	8110	0	-105	1569	7477	0	220	1547	8304
Rajasthan	5625	0	29	-148	4696	0	75	132	5940
Delhi	4043	0	6	267	3770	0	122	77	4422
UP	12026	2195	-178	653	12621	1850	100	976	12796
Uttarakhand	1948	0	232	41	1632	0	74	-57	1948
HP	1093	0	32	-1419	944	0	3	-1590	1224
J&K	1697	424	222	-444	1086	192	-115	-807	1697
Chandigarh	270	0	-16	0	223	0	-23	-10	314
Total	44483	2619	204	1917	41435	2042	578	1794	44823

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

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 Net MU
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1833	1971	1658	43.30	1804	39.07	4.23
	Rihand I STPS (2*500)	1000	858	990	739	19.66	819	17.82	1.83
	Rihand II STPS (2*500)	1000	207	0	418	4.27	178	3.84	0.43
	Rihand III STPS (2*500)	1000	953	1010	744	21.01	875	19.50	1.51
	Dadri I STPS (4*210)	840	681	533	404	12.22	509	11.51	0.70
	Dadri II STPS (2*490)	980	976	732	664	17.27	720	17.09	0.18
	Unchahar I TPS (2*210)	420	400	419	270	7.95	331	7.77	0.18
	Unchahar II TPS (2*210)	420	400	414	297	7.50	312	7.31	0.19
	Unchahar III TPS (1*220)	210	200	190	142	3.54	147	3.62	-0.08
	ISTPP (Jhajhar) (3*500)	1500	1435	697	620	13.74	572	13.96	-0.23
	Dadri GPS (4*130.19+2*154.51)	830	800	241	261	6.10	254	6.04	0.06
	Anta GPS (3*88.71+1*153.2)	419	396	-1	-1	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	638	0	0	0.00	0	0.00	0.00
	Dadri Solar	5	1	0	0	0.01	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.02	1	0.06	-0.04
	Singrauli Solar	15	3	0	0	0.01	0	0.07	-0.07
	Sub Total (A)	12112	10603	8019	7035	176	7347	167	9
B. NPC	NAPS (2*220)	440	373	415	417	9.09	379	8.95	0.14
	RAPS- B (2*220)	440	388	435	435	9.32	388	9.31	0.01
	RAPS- C (2*220)	440	380	411	413	8.82	368	9.12	-0.30
	Sub Total (B)	1320	1141	1261	1265	27.23	1135	27.38	-0.15
C. NHPC	Chamera I HPS (3*180)	540	538	553	546	13.15	548	12.91	0.24
	Chamera II HPS (3*100)	300	300	301	302	7.21	300	7.20	0.01
	Chamera III HPS (3*77)	231	229	236	236	5.61	234	5.50	0.11
	Bairasui HPS (3*60)	180	179	185	124	3.39	141	3.33	0.05
	Salal-HPS (6*115)	690	518	460	575	13.10	546	12.45	0.65
	Tanakpur-HPS (3*40)	94	93	94	94	2.26	94	2.23	0.02
	Uri-I HPS (4*120)	480	473	472	470	11.30	471	11.34	-0.04
	Uri-II HPS (4*60)	240	180	183	183	4.32	180	4.32	0.00
	Dhauliganga-HPS (4*70)	280	280	285	285	6.78	282	6.72	0.06
	Dulhasti-HPS (3*130)	390	378	394	394	9.14	381	9.07	0.07
	Sewa-II HPS (3*40)	120	119	129	127	3.03	126	2.86	0.17
	Parbati 3 (4*130)	520	390	392	133	5.39	225	5.33	0.06
	Sub Total (C)	4065	3677	3685	3467	85	3528	83	1
	D.SJVNL	NJPC (6*250)	1500	1605	1620	1612	38.49	1604	38.52
Rampur HEP (6*68.67)		412	428	429	427	10.32	430	10.27	0.05
Sub Total (D)		1912	2033	2049	2039	48.82	2034	48.79	0.03
E. THDC	Tehri HPS (4*250)	1000	904	906	607	18.09	754	18.00	0.09
	Koteshwar HPS (4*100)	400	286	402	374	6.55	273	6.54	0.01
	Sub Total (E)	1400	1190	1308	981	24.64	1027	24.54	0.11
F. BBMB	Bhakra HPS (3*108+2*126+5*157)	1361	1431	1454	1458	34.69	1445	34.34	0.34
	Dehar HPS (6*165)	990	611	660	600	14.55	606	14.66	-0.11
	Pong HPS (6*66)	396	376	384	384	9.13	380	9.02	0.11
	Sub Total (F)	2747	2418	2498	2442	58.37	2432	58.03	0.34
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	227	221	4.66	194	4.36	0.30
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.71	1196	28.75	-0.04
	Malana Stg-II HPS (2*50)	100	0	111	111	2.62	109	2.46	0.16
	Shree Cement TPS (2*150)	300	0	292	271	6.79	283	6.66	0.13
	Budhil HPS(IPP) (2*35)	70	0	0	73	0.64	27	0.60	0.04
Sub Total (G)	1662	0	1830	1876	43.42	1809	42.84	0.58	
H. Total Regional Entities (A-G)	25219	21062	20649	19105	463.48	19312	452.21	11.27	

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	1260	870	22.96	957	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	170	170	3.87	161	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	611	675	13.59	566	
	Goindwal(GVK)	0	0	0	0.00	0	
	Rajpura (2*700)	1400	1118	716	26.74	1114	
	Talwandi Saboo (1*660)	660	351	342	8.62	359	
	Thermal (Total)	4700	3510	2773	75.78	3158	
	Total Hydro	1000	916	932	22.13	922	
	Total Punjab	5700	4426	3705	97.91	4080	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	451	457	10.28	428
DCRTPP (Yamuna nagar) (2*300)		600	493	471	11.43	476	
Faridabad GPS (NTPC)		432	0	0	0.00	0	
RGTPP (khedar) (IPP) (2*600)		1200	415	368	9.51	396	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	742	742	17.88	745	
Thermal (Total)		4944	2101	2038	49.10	2046	
Total Hydro		62	28	28	0.66	27	
Total Haryana		5006	2129	2066	49.76	2073	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	252	223	5.17	215
		suratgarh TPS (6*250)	1500	191	194	4.44	185
		Chabra TPS (4*250)	1000	118	148	2.92	122
		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	51	38	1.13	47	
	RAPS A (NPC) (1*100+1*200)	300	182	150	4.14	173	
	Barsingsar (NLC) (2*125)	250	94	96	2.12	89	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	457	378	9.07	378	
	V/S LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	460	435	10.64	443	
	Kawai(Adani) (2*660)	1320	446	438	10.47	436	
	Thermal (Total)	8876	2251	2100	50	2088	
	Total Hydro	550	237	226	5.50	229	
	Wind power	3214	759	208	12.10	504	
	Biomass	99	25	25	0.60	25	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	784	233	12.70	529	
	Total Rajasthan	13469	3272	2559	68.31	2846	
	UP	Anpara TPS (3*210+2*500)	1630	1378	1385	31.30	1304
Obra TPS (2*50+2*94+5*200)		1194	417	403	9.90	413	
Panicha TPS (2*110+2*220+2*250)		1140	751	739	18.10	754	
Panki TPS (2*105)		210	59	0	1.00	42	
Harduaganj TPS (1*60+1*105+2*250)		665	536	515	12.00	500	
Tanda TPS (NTPC) (4*110)		440	360	367	8.90	371	
Roza TPS (IPP) (4*300)		1200	819	824	19.80	825	
Anpara-C (IPP) (2*600)		1200	1071	1071	25.70	1071	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	405	403	9.30	388	
Anpara-D(1*500)		500	0	0	0.00	0	
Lalitpur TPS(1*660)		660	0	0	0.25	11	
Thermal (Total)		9289	5796	5707	136	5677	
Vishnuparyag HPS (IPP)(including Alakanada)		730	324	294	7.30	304	
Other Hydro		527	206	292	4.50	188	
Cogeneration		981	50	50	1.20	50	
Total UP		11527	6376	6343	149.25	5915	
Uttarakhand	Total Hydro	1398	975	964	23.07	961	
	Total Uttarakhand	1398	975	964	23.07	961	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.02	1	
	Delhi Gas Turbine (6x30 + 3x34)	282	71	71	1.68	70	
	Pragati Gas Turbine (2x104+ 1x122)	330	128	125	3.13	130	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	0	0	0.10	4	
	Badarpur TPS (NTPC) (3*95+2*210)	705	316	328	7.50	312	
	Thermal (Total)	2917	515	524	12.42	518	
	Total Delhi	2917	515	524	12.42	518	
HP	Baspa HPS (IPP) (3*100)	300	313	336	7.74	322	
	Malana HPS (IPP) (2*43)	86	102	102	2.44	101	
	Other Hydro	878	633	625	15.13	630	
	Total HP	1264	1048	1063	25.30	1054	
J & K	Baqilhar HPS (IPP) (3*150)	450	450	450	10.80	450	
	Other Hydro/IPP	560	111	111	2.61	109	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	561	561	13.41	559	
Total State Control Area Generation		42481	19302	17785	439.43	18005	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5899	6183	140.69	5862	
Total Regional Availability(Gross)		67700	45850	43073	1043.60	43179	

IV. Total Hydro Generation:

Regional Entities Hydro	12216	11900	11280	272.23	11343
State Control Area Hydro	5811	3971	4066	101.86	3940
Total Regional Hydro	18027	15871	15346	374.09	15283

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	MW	MW	Import	Export	Import	Export	
Vindhychal(HVDC B/B)	200	400	400	50	5.03	0.15	4.89		
765 KV Gwalior-Agra (D/C)	1872	2024	2514	0	45.35	0.00	45.35		
400 KV Zerda-Kankroli	-124	-141	0	221	0.00	3.83	-3.83		
400 KV Zerda-Bhinmal	-178	-124	0	281	0.00	4.37	-4.37		
220 KV Auraiya-Malanpur	-5	-13	0	51	0.00	0.27	-0.27		
220 KV Badod-Kota/Morak	23	34	41	26	0.03	0.00	0.03		
Mundra-Mohinderqarh(HVDC Bipole)	2399	2398	2406	0	58.03	0.00	58.03		
400 KV Vindhychal - Rihand	474	328	501	0	9.83	0.00	9.83		
Sub Total WR	4661	4906			118.27	8.61	109.65		
Pusaull Bypass/HVDC	400	400	400	0	9.40	0.00	9.40		
400 KV MZP- GKP (D/C)	208	199	380	0	6.08	0.00	6.08		
400 KV Patna-Balia(D/C) X 2	178	221	285	0	4.71	0.00	4.71		
400 KV B'Sharif-Balia (D/C)	-10	47	100	13	0.84	0.00	0.84		
765 KV Pusaull-Balia	-34	36	91	101	0.13	0.00	0.13		
765 KV Gaya-Fatehpur	137	71	162	0	2.40	0.00	2.40		
220 KV Pusaull-Sahupuri	171	176	204	0	4.15	0.00	4.15		
132 KV Knasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
132 KV Son Ngr-Rihand	-24	-34	0	40	0.00	0.70	-0.70		
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
765 KV Sasaram - Fatehpur	-27	-77	0	154	0.00	1.13	-1.13		
400 KV Barh -GKP (D/C)	239	238	254	0	5.16	0.00	5.16		
Sub Total ER	1238	1277			32.86	1.83	31.03		
Total IR Exch	5899	6183			151.13	10.44	140.69		

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
30.25	3.53	33.78	10.64	8.26	-0.39	-0.55	0.22	-0.22

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
44.24	96.16	140.40	31.03	109.65	140.69	-13.21	13.50	0.29

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	MW	MW	Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-28	-35	0	37	0	1	-0.64		

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	0.32	3.36	16.41	65.43	72.30	9.57	1.84	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	Hz	Index			
50.19	13.02	49.67	19.06	49.97	0.07	0.07	50.17	49.85

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	405	05:51	397	00:11	0.0	0.0	0.0	0.0
Gorakhpur	400	415	07:01	397	19:14	0.0	0.0	0.0	0.0
Bareilly	400	418	08:00	396	20:00	0.0	0.0	0.0	0.0
Kanpur	400	414	05:08	201	18:11	35.2	35.2	0.0	0.0
Dadri	400	413	07:01	398	14:39	0.4	0.4	0.0	0.0
Ballabgarh	400	420	05:23	404	11:25	0.0	0.0	0.0	0.0
Bawana	400	414	07:01	353	08:29	0.0	0.0	0.0	0.0
Bassi	400	430	04:00	409	19:39	0.0	0.0	55.0	0.0
Hissar	400	408	05:05	395	14:38	0.0	0.0	0.0	0.0
Moga	400	404	03:50	392	14:39	0.0	0.0	0.0	0.0
Abdullapur	400	405	07:01	390	18:54	0.0	0.0	0.0	0.0
Nalagarh	400	407	05:07	394	14:32	0.0	0.0	0.0	0.0
Kishenpur	400	410	04:00	400	20:09	0.0	0.0	0.0	0.0
Wagoora	400	404	03:17	386	20:10	0.0	4.2	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	17:03	751	19:19	0.0	0.0	0.0	0.0
Balia	765	757	00:00	757	00:00	0.0	0.0	0.0	0.0
Moga	765	777	05:06	747	14:40	0.0	0.0	0.0	0.0
Agra	765	784	05:07	753	19:22	0.0	0.0	0.0	0.0
Bhiwani	765	788	05:08	761	11:27	0.0	0.0	0.0	0.0
Unnao	765	755	08:03	734	00:24	0.0	13.7	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	502.41	1192.70	502.00	1179.55	1543.44	1163.82
Pong	426.72	384.05	415.63	705.67	406.49	388.64	1375.83	550.00
Tehri	829.79	740.04	793.30	502.00	790.65	461.00	593.25	460.00
Koteshwar	612.50	598.50	610.08	4.44	610.56	4.95	460.00	431.22
Chamera-I	760.00	748.75	757.17	0.00	0.00	0.00	452.03	356.16
Rihand	268.22	252.98	848.00	224.00	837.70	89.40	0.00	0.00
RPS	352.80	343.81	0.00	0.00	0.00	0.00	0.00	0.00
Jawahar Saagar	298.70	295.78	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	522.69	10.77	52.17	11.50	460.18	391.40

* 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	1418	109	0	1398	0	0	35.83	0.85	36.67
Delhi	308	-230	-2	339	-70	-2	8.13	-2.07	6.06
Haryana	1326	222	0	1360	210	0	32.32	3.45	35.76
HP	-1283	-308	0	-1080	-339	0	-27.54	-7.46	-35.00
J&K	-737	-70	0	-484	40	0	-13.18	-1.06	-14.24
CHD	0	-10	0	0	0	0	0.24	0.03	0.26
Rajasthan	-498	628	2	-494	344	2	-11.93	11.69	-0.24
UP	976	0	0	653	0	0	15.49	0.00	15.49
Uttarakhand	-57	0	0	-57	97	0	-1.36	0.27	-1.09
Total	1453	341	0	1635	282	0	37.99	5.69	43.68

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1705	1307	109	0	0	0
Delhi	601	65	192	-415	0	-2
Haryana	1401	1315	244	-156	0	0
HP	-1080	-1283	-216	-465	0	0
J&K	-484	-737	40	-121	0	0
CHD	29	0	34	-25	0	0
Rajasthan	-494	-498	629	251	2	0
UP	982	460	0	0	0	0
Uttarakhand	-57	-57	97	0	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 30.07.2015 :**

Normal/ Scattered rain in rajasthan

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 :**