

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 25.07.2015
Date of Reporting : 26.07.2015

I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
44080	2725	46805	50.08	42718	2096	44814	50.11	1031.3	55.40

* 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	74.94	21.43		96.37	125.19	124.40	-0.79	220.77	0.00
Haryana	42.74	0.65		43.39	127.87	127.14	-0.73	170.53	0.00
Rajasthan	90.78	0.35	4.33	95.47	58.26	59.22	0.96	154.69	0.00
Delhi	18.46			18.46	86.12	85.31	-0.81	103.76	0.26
UP	118.90	12.40		131.30	143.05	144.11	1.07	275.41	46.48
Uttarakhand		23.39		23.39	16.78	16.64	-0.14	40.02	0.00
HP		24.23		24.23	0.71	1.03	0.31	25.26	0.34
J & K		14.88	0.00	14.88	20.42	20.02	-0.39	34.91	8.32
Chandigarh				0.00	6.28	5.91	0.27	5.91	0.00
Total	345.82	97.34	4.33	447.49	584.67	583.78	-0.26	1031.27	55.40

* 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	9577	0	-96	1269	8458	0	62	1608	10236
Haryana	7914	0	-281	1761	7240	0	-15	1614	8010
Rajasthan	6072	0	46	32	6815	0	67	-234	7085
Delhi	4349	0	-38	340	4514	0	86	389	5042
UP	11220	2260	-250	631	11829	1900	45	1019	12231
Uttarakhand	1881	0	144	6	1690	0	-81	-57	1881
HP	1019	20	-22	-1344	845	0	-90	-1513	1243
J&K	1780	445	168	-445	1108	196	-91	-783	1822
Chandigarh	268	0	-7	0	219	0	-14	-10	290
Total	44080	2725	-336	2251	42718	2096	-30	2033	45316

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

figures may not be at simultaneous hour.

UI/OA/PX (OD/Import: (+ve), UD/Export: (-ve))

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 Net MU
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1801	1916	1975	43.03	1793	42.53	0.49
	Rihand I STPS (2*500)	1000	881	880	782	21.33	889	19.51	1.82
	Rihand II STPS (2*500)	1000	446	478	381	11.06	461	9.96	1.11
	Rihand III STPS (2*500)	1000	953	934	943	21.18	883	20.10	1.08
	Dadri I STPS (4*210)	840	810	636	598	14.68	612	13.85	0.83
	Dadri II STPS (2*490)	980	976	725	702	17.13	714	16.89	0.24
	Unchahar I TPS (2*210)	420	400	372	306	7.79	325	7.82	-0.03
	Unchahar II TPS (2*210)	420	321	297	163	5.84	243	5.75	0.09
	Unchahar III TPS (1*220)	210	200	163	171	3.63	151	3.60	0.03
	ISTPP (Jhajjhar) (3*500)	1500	1450	718	603	13.80	575	14.59	-0.79
	Dadri GPS (4*130.19+2*154.51)	830	800	187	248	5.97	249	6.21	-0.24
	Anta GPS (3*88.71+1*153.2)	419	396	0	0	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	0.02	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03
	Singrauli Solar	15	3	0	0	0.05	2	0.07	-0.02
	KHEP	800	0	819	819	19.98	833	19.40	0.58
Sub Total (A)	12112	10079	8125	7691	186	7730	180	5	
B. NPC	NAPS (2*220)	440	367	403	415	8.87	370	8.81	0.06
	RAPS- B (2*220)	440	200	210	212	4.15	173	4.80	-0.65
	RAPS- C (2*220)	440	385	426	419	9.09	379	9.24	-0.15
	Sub Total (B)	1320	952	1039	1046	22.11	921	22.85	-0.74
C. NHPC	Chamera I HPS (3*180)	540	537	550	546	13.07	545	12.89	0.19
	Chamera II HPS (3*100)	300	200	201	201	4.82	201	4.80	0.02
	Chamera III HPS (3*77)	231	229	237	235	5.61	234	5.50	0.11
	Bairasuil HPS(3*60)	180	179	185	183	4.31	180	4.29	0.02
	Salal-HPS (6*115)	690	649	0	0	0.00	0	15.58	-15.58
	Tanakpur-HPS (3*40)	94	91	93	92	2.23	93	2.19	0.04
	Uri-I HPS (4*120)	480	475	472	470	11.48	478	11.40	0.08
	Uri-II HPS (4*60)	240	180	183	183	4.34	181	4.32	0.02
	Dhauliganga-HPS (4*70)	280	280	285	282	6.76	282	6.72	0.05
	Dulhasti-HPS (3*130)	390	386	398	393	9.29	387	9.26	0.03
	Sewa-II HPS (3*40)	120	119	130	126	3.01	126	2.86	0.15
	Parbati 3 (4*130)	520	372	392	260	6.69	279	6.63	0.06
	Sub Total (C)	4065	3698	3126	2974	72	2984	86	-15
D. SJVNL	NJPC (6*250)	1500	1605	1619	1610	38.26	1594	38.52	-0.26
	Rampur HEP (6*68.67)	412	433	441	440	10.44	435	10.39	0.05
	Sub Total (D)	1912	2038	2060	2050	48.71	2029	48.91	-0.20
E. THDC	Tehri HPS (4*250)	1000	844	844	633	17.12	714	17.00	0.12
	Koteshwar HPS (4*100)	400	272	398	382	6.20	258	6.40	-0.20
	Sub Total (E)	1400	1116	1242	1015	23.33	972	23.40	-0.07
F. BBMB	Bhakra HPS (3*108+2*126+5*157)	1361	1431	1461	1447	34.56	1440	34.34	0.22
	Dehar HPS (6*165)	990	606	660	600	14.61	609	14.54	0.07
	Pong HPS (6*66)	396	334	384	384	7.90	329	8.02	-0.12
	Sub Total (F)	2747	2371	2505	2431	57.08	2378	56.90	0.17
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	232	230	5.51	229	5.31	0.19
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.64	1193	28.51	0.13
	Malana Stg-II HPS (2*50)	100	0	111	111	2.63	110	2.47	0.16
	Shree Cement TPS (2*150)	300	0	297	297	6.43	268	6.65	-0.21
	Budhil HPS(IPP) (2*35)	70	0	21	21	0.51	21	0.44	0.07
	Sub Total (G)	1662	0	1860	1859	43.71	1821	43.38	0.33
H. Total Regional Entities (A-G)	25219	20254	19956	19066	452.07	18836	462.25	-10.18	

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	900	920	21.10	879
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	80	80	1.76	73
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	789	796	18.64	777
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	1382	714	24.76	1032
	Talwandi Saboo (1*660)	660	321	348	8.68	362
	Thermal (Total)	4700	3472	2858	74.94	3122
	Total Hydro	1000	932	779	21.43	893
	Total Punjab	5700	4404	3637	96.37	4015
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	399	611	12.75
DCRTPP (Yamuna nagar) (2*300)		600	526	447	10.87	453
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTTP (Khedar) (IPP) (2*600)		1200	563	381	9.43	393
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	502	373	9.69	404
Thermal (Total)		4944	1990	1812	42.74	1781
Total Hydro		62	29	27	0.65	27
Total Haryana		5006	2019	1839	43.39	1808
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	572	604	13.92
	suratgarh TPS (6*250)	1500	400	398	9.44	393
	Chabra TPS (4*250)	1000	364	279	8.22	342
	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	159	162	3.83	160
	RAPS A (NPC) (1*100+1*200)	300	171	174	3.92	163
	Barsingar (NLC) (2*125)	250	95	95	2.22	92
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	497	811	14.01	584
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	414	480	13.12	547
	Kawai(Adani) (2*660)	1320	867	1089	22.11	921
	Thermal (Total)	8276	3539	4092	91	3783
	Total Hydro	550	0	0	0.35	15
	Wind power	3214	70	102	3.80	158
	Biomass	99	22	22	0.53	22
	Solar	730	0	0	0.00	0
	Renewable/Others (Total)	4043	92	124	4.33	181
	Total Rajasthan	12869	3631	4216	95.47	3978
UP	Anpara TPS (3*210+2*500)	1630	1224	1128	28.70	1196
	Obra TPS (2*50+2*94+5*200)	1194	291	344	7.40	308
	Paricha TPS (2*110+2*220+2*250)	1140	588	672	14.30	596
	Panki TPS (2*105)	210	117	135	2.90	121
	Harduaganj TPS (1*60+1*105+2*250)	665	419	405	10.20	425
	Tanda TPS (NTPC) (4*110)	440	365	360	8.90	371
	Roza TPS (IPP) (4*300)	1200	738	540	15.70	654
	Anpara-C (IPP) (2*600)	1200	810	896	20.20	842
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	405	404	9.40	392
	Anpara-D(1*500)	500	0	0	0.00	0
	Lalitpur TPS(1*660)	660	0	0	0.00	0
	Thermal (Total)	9289	4957	4884	118	4904
	Vishnuparyag HPS (IPP)(including Alakanada)	730	291	257	6.30	263
	Other Hydro	527	260	265	6.10	254
	Cogeneration	981	50	50	1.20	50
Total UP	11527	5558	5456	131.30	5208	
Uttarakhand	Total Hydro	1398	1016	1002	23.39	974
	Total Uttarakhand	1398	1016	1002	23.39	974
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	-1
	Delhi Gas Turbine (6x30 + 3x34)	282	69	69	1.68	70
	Pragati Gas Turbine (2x104+ 1x122)	330	126	127	3.13	130
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	269	269	5.62	234
	Badarpur TPS (NTPC) (3*95+2*210)	705	387	368	8.06	336
	Thermal (Total)	2917	851	833	18.46	769
	Total Delhi	2917	851	833	18.46	769
HP	Baspa HPS (IPP) (2*100)	300	305	305	7.52	313
	Malana HPS (IPP) (2*43)	86	94	97	2.28	95
	Other Hydro	878	647	624	14.43	601
	Total HP	1264	1046	1026	24.23	1010
J & K	Baglihar HPS (IPP) (3*150)	450	450	450	10.80	450
	Other Hydro/IPP	560	164	196	4.08	170
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	614	646	14.88	620
Total State Control Area Generation		41881	19139	18655	447.49	18383
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			7172	5835	149.14	6214
Total Regional Availability(Gross)		67100	46267	43556	1048.70	43433

IV. Total Hydro Generation:

Regional Entities Hydro	12216	11294	10830	257.48	10728
State Control Area Hydro	5811	3897	3745	97.34	3793
Total Regional Hydro	18027	15191	14575	354.83	14522

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 B/B	300	-50	300	-150	2.59	0.80	1.78
Gwalior-Agra (D/C)	2293	1591	2293	0	40.21	0.00	40.21
Zerda-Kankroli	33	-64	33	155	0.00	1.48	-1.48
Zerda-Bhinmal	25	-79	69	198	0.00	1.36	-1.36
Malanpur-Auraiya	-20	24	61	24	0.00	0.24	-0.24
Badod-Kota/Morak	72	8	61	20	0.74	0.00	0.74
Mundra-Mohinderqarh(HVDC)	2503	2297	2505	0	56.44	0.00	56.44
Vindhychal - Rihand	463	367	463	0	9.22	0.00	9.22
Sub Total WR	5669	4094			109.20	3.89	105.30
Pusauli Bypass	400	400	400	0	9.46	0.00	9.46
MZP- GKP (D/C)	160	456	552	0	10.31	0.00	10.31
Patna-Balia(D/C)	182	221	322	0	5.53	0.00	5.53
B'Sharif-Balia (D/C)	44	126	192	30	2.83	0.00	2.83
Pusauli-Balia	45	30	78	53	0.33	0.00	0.33
Gaya-Fatehpur (765 Kv)	235	170	378	0	5.67	0.00	5.67
Pusauli-Sahupuri	177	155	188	0	3.66	0.00	3.66
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	0	-42	0	43	-0.49	0.49	-0.98
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	28	33	217	96	2.09	0.00	2.09
Barh -GKP (D/C)	232	192	261	0	4.95	0.00	4.95
Sub Total ER	1503	1741			44.32	0.49	43.83
Total IR Exch	7172	5835			153.52	4.38	149.14

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

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
32.30	3.91	36.21	9.15	16.87	0.39	-0.15	2.30	-2.30

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
48.05	96.64	144.69	43.83	105.30	149.14	-4.22	8.66	4.44

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 - Mahendamaagar	-23	-25	0	34	0	1	-0.56

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	0.57	9.63	54.92	74.61	11.86	3.62	0.32	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.27	17.05	49.77	0.37	49.99	0.05	0.07	50.24	49.95

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	403	03:00	398	19:49	0.0	0.0	0.0	0.0
Gorakhpur	400	415	18:03	402	00:20	0.0	0.0	0.2	0.0
Bareilly	400	418	08:00	396	20:00	0.0	0.0	0.0	0.0
Kanpur	400	420	18:02	403	14:47	0.0	0.0	0.0	0.0
Dadri	400	411	06:02	396	12:10	0.0	0.0	0.0	0.0
Ballabgarh	400	419	06:04	401	14:43	0.0	0.0	0.0	0.0
Bawana	400	413	06:02	354	06:34	0.0	0.0	0.0	0.0
Bassi	400	422	18:01	406	11:16	0.0	0.0	1.7	0.0
Hissar	400	407	18:04	396	19:27	0.0	0.0	0.0	0.0
Moga	400	406	04:04	395	11:21	0.0	0.0	0.0	0.0
Abdullapur	400	408	17:05	396	23:51	0.0	1.8	0.0	0.0
Nalagarh	400	404	02:58	394	14:18	0.0	0.0	0.0	0.0
Kishenpur	400	411	04:03	403	14:15	0.0	0.0	0.0	0.0
Wagoora	400	408	23:56	387	21:02	0.0	6.0	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	790	18:05	756	14:48	0.0	0.0	0.0	0.0
Balia	765	782	18:04	750	00:21	0.0	0.0	0.0	0.0
Moga	765	778	05:02	758	12:11	0.0	0.0	0.0	0.0
Agra	765	790	18:03	760	14:49	0.0	0.0	0.0	0.0
Bhiwani	765	787	18:01	766	12:16	0.0	0.0	0.0	0.0
Unnao	765	772	18:04	742	14:47	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	500.87	1127.29	499.03	1053.16	1747.03	1170.08
Pong	426.72	384.05	413.68	622.40	404.28	320.26	1016.32	485.41
Tehri	829.79	740.04	788.30	429.69	781.04	333.61	811.22	472.00
Koteshwar	612.50	598.50	610.23	4.69	611.00	5.10	472.00	408.76
Chamera-I	760.00	748.75	0.00	0.00	0.00	0.00	575.78	354.12
Rihand	268.22	252.98	848.50	231.70	837.20	83.40	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	523.07	9.90	519.53	11.54	927.61	346.91

* 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	1290	318	0	1122	147	0	30.90	5.55	36.45
Delhi	259	132	-2	548	-180	-27	11.07	-0.28	10.79
Haryana	1379	236	0	1560	201	0	33.86	3.43	37.29
HP	-1201	-312	0	-998	-345	0	-25.58	-8.43	-34.02
J&K	-687	-96	0	-484	40	0	-12.98	-0.92	-13.90
CHD	0	-10	0	0	0	0	0.24	-0.02	0.22
Rajasthan	-495	259	2	-495	525	2	-11.88	12.11	0.23
UP	1019	0	0	631	0	0	15.54	0.00	15.54
Uttarakhand	-57	0	0	-116	97	24	-1.53	1.19	-0.34
Total	1507	526	0	1767	485	-1	39.64	12.63	52.26

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1489	1080	324	147	0	0
Delhi	890	65	351	-231	0	-27
Haryana	1565	1379	236	-61	0	0
HP	-998	-1201	-308	-498	0	0
J&K	-484	-687	40	-96	0	0
CHD	29	0	20	-20	0	0
Rajasthan	-494	-495	658	155	2	0
UP	1035	460	0	0	0	0
Uttarakhand	-57	-116	108	0	24	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 25.07.2015 :**
Normal**XIV. Synchronisation of new generating units :****XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**
220 kV Manesar-mau 1 & 2 (LILO of 220kV Badshahpur-mau D/c at manesar) first time synchronized from manesar end at 11:15 hrs on 25-07-2015**XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**