

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 15.07.2015
Date of Reporting : 16.07.2015

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
44914	3394	48308	50.07	41731	2370	44101	50.02	1014.7	64.01

* 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	52.08	18.76		70.85	122.53	122.09	-0.44	192.94	0.00
Haryana	33.75	0.62		34.37	119.62	117.91	-1.71	152.28	0.21
Rajasthan	95.96	0.58	33.79	130.33	49.14	51.61	2.47	181.94	1.18
Delhi	20.88			20.88	80.90	81.75	0.85	102.63	0.09
UP	130.50	10.90		141.40	131.46	135.60	4.14	277.00	52.96
Uttarakhand		23.82		23.82	14.46	15.89	1.43	39.71	0.31
HP		22.01		22.01	2.47	4.41	1.94	26.41	0.95
J & K		15.04	0.00	15.04	20.81	20.48	-0.33	35.52	8.31
Chandigarh				0.00	5.93	6.28	0.27	6.28	0.00
Total	333.18	91.72	33.79	458.70	547.33	556.03	8.62	1014.73	64.01

* 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	8737	0	-29	1261	7487	0	-118	1612	8737
Haryana	7335	166	70	1592	6203	0	-44	1079	7495
Rajasthan	7456	0	98	-333	7501	0	354	-742	8171
Delhi	4528	4	75	221	3936	0	56	215	5163
UP	11794	2605	191	607	12155	2060	223	844	12155
Uttarakhand	1857	40	102	67	1494	0	-26	-55	1857
HP	1014	106	163	-1287	999	0	29	-1375	1295
J&K	1893	473	217	-237	1754	310	176	-338	1901
Chandigarh	299	0	24	-10	202	0	-9	-20	325
Total	44914	3394	910	1880	41731	2370	641	1219	45813

* 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))

III. Regional Entities :

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
				(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1720	1930	1860	42.29	1762	41.27	1.02
	Rihand I STPS (2*500)	1000	850	942	937	21.97	915	20.23	1.74
	Rihand II STPS (2*500)	1000	943	1015	1005	24.17	1007	22.46	1.71
	Rihand III STPS (2*500)	1000	943	992	1001	23.43	976	22.14	1.29
	Dadri I STPS (4*210)	840	800	416	390	9.14	381	8.67	0.47
	Dadri II STPS (2*490)	980	975	970	840	20.24	843	20.66	-0.42
	Unchahar I TPS (2*210)	420	402	432	403	9.81	409	9.38	0.43
	Unchahar II TPS (2*210)	420	200	220	218	4.82	201	4.59	0.23
	Unchahar III TPS (1*220)	210	200	219	200	4.17	174	4.54	-0.37
	ISTPP (Jhajjhar) (3*500)	1500	1437	405	445	8.11	338	9.22	-1.11
	Dadri GPS (4*130.19+2*154.51)	830	804	142	153	3.47	145	3.55	-0.07
	Anta GPS (3*88.71+1*153.2)	419	387	-1	-1	0.00	0	0.01	-0.01
	Auraiya GPS (4*111.19+2*109.30)	663	640	0	0	0.00	0	0.02	-0.02
	Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.02	1	0.06	-0.04
	Singrauli Solar	15	3	0	0	0.05	2	0.07	-0.03
	KHEP	800	0	805	808	19.25	802	0.00	19.25
Sub Total (A)	12112	10308	8487	8259	191	7957	167	24	
B. NPC	NAPS (2*220)	440	375	395	413	8.81	367	9.00	-0.19
	RAPS- B (2*220)	440	185	212	217	4.25	177	4.44	-0.19
	RAPS- C (2*220)	440	398	433	434	9.27	386	9.55	-0.28
	Sub Total (B)	1320	958	1040	1064	22.33	930	22.99	-0.66
C. NHPC	Chamera I HPS (3*180)	540	535	542	546	13.00	541	12.84	0.16
	Chamera II HPS (3*100)	300	300	303	307	7.26	302	7.20	0.06
	Chamera III HPS (3*77)	231	229	233	231	5.54	231	5.50	0.04
	Bairasuil HPS(3*60)	180	179	185	83	3.40	142	3.31	0.09
	Salal-HPS (6*115)	690	653	662	671	16.06	669	15.67	0.39
	Tanakpur-HPS (3*40)	94	92	93	93	2.25	94	2.21	0.03
	Uri-I HPS (4*120)	480	475	470	470	11.49	479	11.40	0.09
	Uri-II HPS (4*60)	240	125	120	120	2.96	123	2.97	-0.01
	Dhauliganga-HPS (4*70)	280	280	285	285	6.78	282	6.72	0.06
	Dulhasti-HPS (3*130)	390	386	396	397	9.35	389	9.26	0.08
	Sewa-II HPS (3*40)	120	119	129	130	3.03	126	2.86	0.17
	Parbati 3 (4*130)	520	390	396	393	6.97	290	6.91	0.06
	Sub Total (C)	4065	3764	3814	3726	88	3669	87	1
	D. SJVNL	NJPC (6*250)	1500	1605	1618	1621	38.66	1611	38.42
Rampur HEP (6*68.67)		412	364	375	375	8.77	365	8.74	0.03
Sub Total (D)		1912	1969	1993	1996	47.43	1976	47.16	0.27
E. THDC	Tehri HPS (4*250)	1000	708	713	181	6.82	284	6.70	0.11
	Koteshwar HPS (4*100)	400	129	398	92	3.13	131	3.10	0.03
	Sub Total (E)	1400	837	1111	273	9.95	415	9.80	0.15
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	981	1344	786	23.69	987	23.55	0.14
	Dehar HPS (6*165)	990	611	660	560	14.66	611	14.67	-0.01
	Pong HPS (6*66)	396	64	66	66	1.54	64	1.54	0.01
	Sub Total (F)	2900	1656	2070	1412	39.88	1662	39.76	0.13
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	232	231	5.51	230	5.36	0.14
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	26.56	1107	27.64	-1.08
	Malana Stg-II HPS (2*50)	100	0	56	112	2.21	92	2.31	-0.09
	Shree Cement TPS (2*150)	300	0	147	147	3.44	144	4.17	-0.72
	Budhil HPS(IPP) (2*35)	70	0	71	73	1.73	72	1.67	0.06
	Sub Total (G)	1662	0	1705	1763	39.46	1644	41.15	-1.69
H. Total Regional Entities (A-G)	25372	19492	20220	18492	438.09	18254	414.60	23.49	

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	585	210	8.03	335
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	100	80	2.13	89
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	693	404	11.66	486
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	1374	1003	30.26	1261
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	4700	2752	1697	52.08	2170
	Total Hydro	1000	802	774	18.76	782
	Total Punjab	5700	3554	2471	70.85	2952
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	0	0	0.00	0
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTPP (Khedar) (IPP) (2*600)		1200	373	377	9.70	404
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	798	910	24.06	1002
Thermal (Total)		4944	1171	1287	33.75	1406
Total Hydro		62	28	26	0.62	26
Total Haryana		5006	1199	1313	34.37	1432
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	615	623	14.61
	suratgarh TPS (6*250)	1500	395	448	10.04	418
	Chabra TPS (4*250)	1000	182	194	2.98	124
	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	187	201	4.68	195
	RAPS A (NPC) (1*100+1*200)	300	144	146	3.41	142
	Barsingar (NLC) (2*125)	250	181	173	4.11	171
	Giral LTPS (2*125)	250	62	33	0.61	25
	Rajwest LTPS (IPP) (8*135)	1080	947	831	20.96	873
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	462	0	8.80	366
	Kawai(Adani) (2*660)	1320	950	1185	25.78	1074
	Thermal (Total)	8276	4125	3834	96	3998
	Total Hydro	550	0	0	0.58	24
	Wind power	3214	1362	1459	32.75	1364
	Biomass	99	24	24	0.57	24
	Solar	730	2	0	0.47	20
	Renewable/Others (Total)	4043	1388	1483	33.79	1408
	Total Rajasthan	12869	5513	5317	130.33	5430
UP	Anpara TPS (3*210+2*500)	1630	1169	1030	25.80	1075
	Obra TPS (2*50+2*94+5*200)	1194	246	340	6.50	271
	Paricha TPS (2*110+2*220+2*250)	1140	743	718	17.80	742
	Panki TPS (2*105)	210	135	122	3.10	129
	Harduaganj TPS (1*60+1*105+2*250)	665	441	507	11.70	488
	Tanda TPS (NTPC) (4*110)	440	365	360	9.00	375
	Roza TPS (IPP) (4*300)	1200	819	729	18.70	779
	Anpara-C (IPP) (2*600)	1200	801	968	20.00	833
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	405	403	9.40	392
	Anpara-D(1*500)	500	0	0	0.00	0
	Lalitpur TPS(1*660)	660	198	272	5.60	233
	Thermal (Total)	9289	5322	5449	128	5317
	Vishnuparyag HPS (IPP)(including Alakanada)	730	245	244	5.90	246
	Other Hydro	527	230	279	5.00	208
	Cogeneration	981	120	120	2.90	121
	Total UP	11527	5917	6092	141.40	5646
Uttarakhand	Total Hydro	1398	995	984	23.82	992
	Total Uttarakhand	1398	995	984	23.82	992
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	66	69	1.64	68
	Pragati Gas Turbine (2x104+ 1x122)	330	261	146	4.04	168
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	270	273	6.43	268
	Badarpur TPS (NTPC) (3*95+2*210)	705	454	389	8.77	366
	Thermal (Total)	2917	1052	877	20.88	870
	Total Delhi	2917	1052	877	20.88	870
HP	Baspa HPS (IPP) (2*100)	300	0	330	5.60	234
	Malana HPS (IPP) (2*43)	86	97	97	2.33	97
	Other Hydro	878	599	584	14.07	586
	Total HP	1264	696	1011	22.01	917
J & K	Baglihar HPS (IPP) (3*150)	450	442	440	10.59	441
	Other Hydro/IPP	560	180	188	4.46	186
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	622	628	15.04	627
Total State Control Area Generation		41881	19548	18693	458.70	18867
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			7392	6222	155.45	6477
Total Regional Availability(Gross)		67253	47160	43408	1052.24	43597

IV. Total Hydro Generation:

Regional Entities Hydro	12369	11280	9757	238.87	9953
State Control Area Hydro	5811	3373	3702	91.72	3576
Total Regional Hydro	18180	14653	13459	330.59	13529

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	-50	-50	100	200	0.28	2.39	-2.11
Gwalior-Agra (D/C)	2576	2080	2576	0	49.83	0.00	49.83
Zerda-Kankroli	-77	-160	0	325	0.00	4.54	-4.54
Zerda-Bhinmal	-128	-164	0	323	0.00	4.48	-4.48
Malanpur-Auraiya	4	3	20	47	0.02	0.00	0.02
Badod-Kota/Morak	72	31	54	0	0.00	0.94	-0.94
Mundra-Mohinderqarh(HVDC)	2499	2502	2508	0	58.60	0.00	58.60
Vindhychal - Rihand	493	499	512	0	11.77	0.00	11.77
Sub Total WR	5389	4741			120.51	12.35	108.15
Pusauli Bypass	400	300	400	0	7.92	0.00	7.92
MZP- GKP (D/C)	215	328	568	0	9.87	0.00	9.87
Patna-Balia(D/C)	463	207	518	0	9.12	0.00	9.12
B'Sharif-Balia (D/C)	31	99	174	0	2.20	0.00	2.20
Pusauli-Balia	79	74	139	0	0.65	0.00	0.65
Gaya-Fatehpur (765 Kv)	289	137	381	0	5.95	0.00	5.95
Pusauli-Sahupuri	171	143	190	0	3.71	0.00	3.71
K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
Son Ngr-Rihand	-27	-40	0	49	0.00	0.87	-0.87
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	50	9	210	25	1.87	0.00	1.87
Barh -GKP (D/C)	332	224	332	0	6.41	0.00	6.41
Sub Total ER	2003	1481			48.17	0.87	47.30
Total IR Exch	7392	6222			168.67	13.22	155.45

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
34.16	3.35	37.51	9.42	8.26	-2.52	-2.51	1.66	-1.66
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
46.07	106.12	152.20	47.30	108.15	155.45	1.23	2.03	3.26

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	-25	-34	0	35	0	1	-0.61

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	10.35	60.12	74.97	9.17	4.04	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					
50.19	5.05	49.76	22.09	49.98	0.05	0.07	50.19	49.92

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	404	05:11	396	13:45	0.0	0.0	0.0	0.0
Gorakhpur	400	415	05:19	400	00:48	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	05:04	395	16:18	0.0	0.0	0.0	0.0
Dadri	400	415	05:05	393	14:38	0.0	0.0	0.0	0.0
Ballabhgarh	400	422	05:15	396	14:40	0.0	0.0	1.3	0.0
Bawana	400	418	05:06	395	14:27	0.0	0.0	0.0	0.0
Bassi	400	424	05:05	402	17:11	0.0	0.0	4.6	0.0
Hissar	400	412	05:05	390	14:35	0.0	0.0	0.0	0.0
Moga	400	408	05:03	390	14:17	0.0	0.0	0.0	0.0
Abdullapur	400	412	05:05	396	17:25	0.0	0.0	0.0	0.0
Nalagarh	400	410	05:02	392	14:23	0.0	0.0	0.0	0.0
Kishenpur	400	414	05:03	398	19:41	0.0	0.0	0.0	0.0
Wagoora	400	0	00:00	9999	00:00	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	05:06	733	16:53	0.0	3.2	0.0	0.0
Balia	765	773	05:19	743	14:40	0.0	0.0	0.0	0.0
Moga	765	787	05:05	750	14:24	0.0	0.0	0.0	0.0
Agra	765	788	05:05	750	20:30	0.0	0.0	0.0	0.0
Bhiwani	765	796	05:06	756	14:39	0.0	0.0	0.0	0.0
Unnao	765	766	05:15	732	14:41	0.0	34.1	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	495.46	926.03	494.28	880.64	1723.79	792.70
Pong	426.72	384.05	408.74	454.47	400.97	244.95	647.69	104.43
Tehri	829.79	740.04	769.55	207.00	761.00	130.00	599.70	200.00
Koteshwar	612.50	598.50	610.68	4.69	610.97	4.95	200.00	206.56
Chamera-I	760.00	748.75	756.40	0.00	0.00	0.00	572.57	352.08
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	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	523.29	10.76	519.37	11.51	666.79	419.07

* 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	1363	249	0	1195	66	0	32.74	3.68	36.42
Delhi	258	-41	-2	464	-216	-28	9.17	0.26	9.43
Haryana	1327	-248	0	1361	231	0	32.32	-0.75	31.56
HP	-1281	-94	0	-1078	-209	0	-27.50	-3.16	-30.66
J&K	-535	197	0	-434	197	0	-11.27	0.26	-11.01
CHD	0	-20	0	0	-10	0	0.24	-0.23	0.01
Rajasthan	-489	-255	2	-489	154	2	-11.74	1.34	-10.41
UP	844	0	0	607	0	0	14.32	0.00	14.32
Uttarakhand	-55	0	0	-55	98	25	-1.33	1.04	-0.29
Total	1431	-212	0	1570	311	-1	36.95	2.43	39.38

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1560	1195	262	66	0	0
Delhi	722	64	423	-222	0	-28
Haryana	1402	1316	251	-425	0	0
HP	-1078	-1281	-79	-310	0	0
J&K	-434	-535	246	-227	0	0
CHD	30	0	0	-41	0	0
Rajasthan	-489	-490	585	-463	2	0
UP	860	451	0	0	0	0
Uttarakhand	-55	-55	98	0	25	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 15.07.2015 :**

Normal

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

1. 500 MVA ICT -II first time charged at 1336 hrs of 15.07.2015 at no load and replaced by old 315 MVA ICT-II at Bamnauli DTL.

XVI. Tripping of lines in pooling stations :**XVII. Complete generation loss in a generating station :**