

पावर 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 20.07.2015
Date of Reporting : 21.07.2015

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
41851	2743	44594	50.06	40104	2386	42490	50.20	976.2	51.06

* 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	51.31	19.07		70.38	119.55	118.26	-1.29	188.64	0.00
Haryana	24.27	0.61		24.88	124.66	123.12	-1.53	148.00	0.00
Rajasthan	103.15	0.04	8.50	111.69	55.73	58.09	2.36	169.78	0.00
Delhi	12.07			12.07	84.15	82.55	-1.60	94.62	0.06
UP	125.00	11.20		136.20	133.94	135.67	1.72	271.87	42.45
Uttarakhand		24.64		24.64	13.23	13.42	0.19	38.06	0.12
HP		23.75		23.75	0.56	0.81	0.25	24.55	0.06
J & K		13.48	0.00	13.48	20.60	21.77	1.17	35.25	8.36
Chandigarh				0.00	5.69	5.48	0.27	5.48	0.00
Total	315.79	92.78	8.50	417.08	558.11	559.16	1.53	976.24	51.06

* 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	7725	0	92	1342	7890	0	-42	1598	8479
Haryana	7074	0	-173	1949	5995	0	-64	1625	7392
Rajasthan	7120	0	-19	-45	6904	0	262	34	7842
Delhi	4053	0	-44	344	3984	74	90	102	4639
UP	11141	2285	-32	623	11660	2100	128	836	12001
Uttarakhand	1764	40	26	21	1427	0	62	-57	1769
HP	1052	0	-37	-1329	841	0	21	-1524	1210
J&K	1672	418	213	-519	1202	212	-27	-721	1869
Chandigarh	249	0	3	0	201	0	-12	-28	256
Total	41851	2743	31	2386	40104	2386	419	1864	43619

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

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

Diversity is 1.04

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	1767	1978	1883	44.90	1871	41.59	3.31
	Rihand I STPS (2*500)	1000	870	968	830	21.62	901	19.97	1.65
	Rihand II STPS (2*500)	1000	460	524	399	10.56	440	9.98	0.58
	Rihand III STPS (2*500)	1000	953	994	639	20.64	860	20.02	0.62
	Dadri I STPS (4*210)	840	800	407	397	11.47	478	10.78	0.69
	Dadri II STPS (2*490)	980	980	743	687	17.58	733	17.50	0.08
	Unchahar I TPS (2*210)	420	400	396	358	7.82	326	8.10	-0.28
	Unchahar II TPS (2*210)	420	200	160	109	3.48	145	3.67	-0.19
	Unchahar III TPS (1*220)	210	200	179	123	3.35	140	3.43	-0.08
	ISTPP (Jhajhar) (3*500)	1500	1500	623	601	14.08	587	14.87	-0.79
	Dadri GPS (4*130.19+2*154.51)	830	800	189	189	4.51	188	4.57	-0.06
	Anta GPS (3*88.71+1*153.2)	419	387	-2	-1	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	640	0	0	0.00	0	0.00	0.00
	Dadri Solar	5	1	0	0	0.01	0	0.02	0.00
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03
	Singrauli Solar	15	3	0	0	0.00	0	0.07	-0.07
	KHEP	800	0	816	802	19.57	815	19.40	0.17
Sub Total (A)	12112	9963	7975	7016	180	7484	174	6	
B. NPC	NAPS (2*220)	440	370	416	415	8.95	373	8.88	0.07
	RAPS- B (2*220)	440	185	209	211	4.23	176	4.44	-0.21
	RAPS- C (2*220)	440	400	431	433	9.30	388	8.11	1.19
	Sub Total (B)	1320	955	1056	1059	22.48	937	21.43	1.05
C. NHPC	Chamera I HPS (3*180)	540	534	544	530	13.01	542	12.82	0.19
	Chamera II HPS (3*100)	300	300	302	304	7.22	301	7.20	0.02
	Chamera III HPS (3*77)	231	229	232	231	5.52	230	5.50	0.01
	Bairasuil HPS(3*60)	180	129	0	184	3.07	128	3.03	0.04
	Salal-HPS (6*115)	690	648	671	665	15.86	661	15.55	0.31
	Tanakpur-HPS (3*40)	94	91	94	94	2.22	92	2.18	0.03
	Uri-I HPS (4*120)	480	475	471	465	11.51	480	11.40	0.11
	Uri-II HPS (4*60)	240	180	183	183	4.36	182	4.32	0.04
	Dhauliganga-HPS (4*70)	280	280	291	272	6.67	278	6.72	-0.04
	Dulhasti-HPS (3*130)	390	386	395	382	9.30	388	9.26	0.04
	Sewa-II HPS (3*40)	120	119	130	122	3.03	126	2.86	0.17
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	4065	3371	3312	3431	82	3407	81	1
D. SJVNL	NJPC (6*250)	1500	1605	1626	1561	38.71	1613	38.52	0.19
	Rampur HEP (6*68.67)	412	428	450	442	10.29	429	10.27	0.02
	Sub Total (D)	1912	2033	2076	2003	49.00	2042	48.79	0.21
E. THDC	Tehri HPS (4*250)	1000	772	777	0	8.28	345	8.20	0.08
	Koteshwar HPS (4*100)	400	138	391	89	3.31	138	3.30	0.01
	Sub Total (E)	1400	910	1168	89	11.60	483	11.50	0.10
F. BBMB	Bhakra HPS (3*108+2*126+5*157)	1361	1177	1340	1074	28.50	1187	28.26	0.24
	Dehar HPS (6*165)	990	604	660	600	14.73	614	14.50	0.23
	Pong HPS (6*66)	396	62	132	0	1.49	62	1.50	-0.01
	Sub Total (F)	2747	1844	2132	1674	44.71	1863	44.26	0.45
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	231	232	5.51	230	5.37	0.14
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.68	1195	28.51	0.17
	Malana Stg-II HPS (2*50)	100	0	111	111	2.63	110	2.49	0.15
	Shree Cement TPS (2*150)	300	0	208	149	4.03	168	4.47	-0.44
	Budhil HPS(IPP) (2*35)	70	0	74	74	1.76	73	1.68	0.09
	Sub Total (G)	1662	0	1824	1766	42.61	1775	42.50	0.11
H. Total Regional Entities (A-G)	25219	19075	19543	17038	431.78	17991	423.34	8.44	

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	740	650	16.12	672
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	80	80	1.73	72
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	677	588	13.57	565
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	355	671	12.96	540
	Talwandi Saboo (1*660)	660	341	320	6.93	289
	Thermal (Total)	4700	2193	2309	51.31	2138
	Total Hydro	1000	805	783	19.07	795
	Total Punjab	5700	2998	3092	70.38	2933
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	445	223	6.65	277
Faridabad GPS (NTPC)		432	0	0	0.00	0
RGTPP (Khedar) (IPP) (2*600)		1200	358	368	8.67	361
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	373	376	8.95	373
Thermal (Total)		4944	1176	967	24.27	1011
Total Hydro		62	25	24	0.61	25
Total Haryana		5006	1201	991	24.88	1037
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	863	862	20.74
	suratgarh TPS (6*250)	1500	998	939	23.26	969
	Chabra TPS (4*250)	1000	367	380	9.06	378
	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	189	191	4.98	207
	RAPS A (NPC) (1*100+1*200)	300	151	149	3.37	140
	Barsingar (NLC) (2*125)	250	94	97	2.27	94
	Giral LTPS (2*125)	250	69	73	1.41	59
	Rajwest LTPS (IPP) (8*135)	1080	697	588	14.48	603
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	4	0	0.65	27
	Kawai(Adani) (2*660)	1320	895	870	22.93	955
	Thermal (Total)	8276	4327	4149	103	4298
	Total Hydro	550	0	0	0.04	2
	Wind power	3214	254	257	8.01	334
	Biomass	99	20	20	0.49	20
	Solar	730	0	0	0.00	0
	Renewable/Others (Total)	4043	274	277	8.50	354
	Total Rajasthan	12869	4601	4426	111.69	4654
	UP	Anpara TPS (3*210+2*500)	1630	1169	1210	27.70
Obra TPS (2*50+2*94+5*200)		1194	406	325	8.90	371
Paricha TPS (2*110+2*220+2*250)		1140	754	747	17.70	738
Panki TPS (2*105)		210	68	99	2.40	100
Harduaganj TPS (1*60+1*105+2*250)		665	496	470	11.50	479
Tanda TPS (NTPC) (4*110)		440	264	360	9.00	375
Roza TPS (IPP) (4*300)		1200	549	824	17.10	713
Anpara-C (IPP) (2*600)		1200	801	792	19.10	796
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	405	403	9.20	383
Anpara-D(1*500)		500	0	0	0.00	0
Lalitpur TPS(1*660)		660	0	0	0.00	0
Thermal (Total)		9289	4912	5230	123	5108
Vishnuparyag HPS (IPP)(including Alakanada)		730	256	247	5.70	238
Other Hydro		527	279	279	5.50	229
Cogeneration		981	100	100	2.40	100
Total UP		11527	5547	5856	136.20	5438
Uttarakhand	Total Hydro	1398	1036	979	24.64	1027
	Total Uttarakhand	1398	1036	979	24.64	1027
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	69	69	1.75	73
	Pragati Gas Turbine (2x104+ 1x122)	330	144	146	3.54	148
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	0	0	0.00	0
	Badarpur TPS (NTPC) (3*95+2*210)	705	324	327	6.78	283
	Thermal (Total)	2917	537	542	12.07	503
	Total Delhi	2917	537	542	12.07	503
HP	Baspa HPS (IPP) (2*100)	300	305	305	7.41	309
	Malana HPS (IPP) (2*43)	86	98	98	2.35	98
	Other Hydro	878	582	586	13.99	583
	Total HP	1264	985	989	23.75	989
J & K	Baglihar HPS (IPP) (3*150)	450	450	450	10.80	450
	Other Hydro/IPP	560	112	112	2.68	112
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	562	562	13.48	562
Total State Control Area Generation		41881	17467	17437	417.08	17141
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			7381	6298	151.68	6320
Total Regional Availability(Gross)		67100	44391	40773	1000.53	41451

IV. Total Hydro Generation:

Regional Entities Hydro	12216	11046	9542	243.45	10144
State Control Area Hydro	5811	3692	3616	92.78	3629
Total Regional Hydro	18027	14738	13158	336.24	13772

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 B/B	50	-350	300	350	1.67	2.16	-0.48	
Gwalior-Agra (D/C)	2482	2145	2610	0	47.98	0.00	47.98		
Zerda-Kankroli	-47	-93	0	272	0.00	3.40	-3.40		
Zerda-Bhinmal	-8	9	129	165	0.00	0.60	-0.60		
Malanpur-Auraiya	-5	-10	0	42	0.01	0.01	0.00		
Badod-Kota/Morak	118	119	177	0	0.00	2.60	-2.60		
Mundra-Mohinderqarh(HVDC)	2503	2201	2518	0	52.71	0.00	52.71		
Vindhychal - Rihand	504	437	504	0	11.08	0.00	11.08		
Sub Total WR	5597	4458			113.45	8.77	104.69		
Pusauli Bypass	400	400	400	0	9.20	0.00	9.20		
MZP- GKP (D/C)	300	434	560	0	10.44	0.00	10.44		
Patna-Balia(D/C)	220	258	348	0	6.49	0.00	6.49		
B'Sharif-Balia (D/C)	70	153	219	0	3.53	0.00	3.53		
Pusauli-Balia	108	122	158	0	1.20	0.00	1.20		
Gaya-Fatehpur (765 Kv)	232	159	294	0	5.41	0.00	5.41		
Pusauli-Sahupuri	186	138	209	0	4.70	0.00	4.70		
K'nasa-Sahupuri	0	0	1	0	0.00	0.00	0.00		
Son Ngr-Rihand	-44	-43	0	46	0.00	0.91	-0.91		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	32	-5	141	9	1.57	0.00	1.57		
Barh -GKP (D/C)	280	224	280	0	5.36	0.00	5.36		
Sub Total ER	1784	1840			47.90	0.91	46.99		
Total IR Exch	7381	6298			161.35	9.68	151.68		

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
32.44	3.84	36.29	8.31	15.17	2.12	-0.03	9.60	-9.60

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
56.31	99.48	155.79	46.99	104.69	151.68	-9.33	5.21	-4.12

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 - Mahendamaagar	-24	-31	0	33	0	1	-0.57	

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	0.07	4.45	38.56	71.24	20.34	4.09	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)
50.19	3.02	49.79	19.14	50.01	0.04	0.06	50.23	49.96

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	05:03	397	21:05	0.0	0.0
Gorakhpur	400	415	18:00	399	22:09	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	416	03:59	397	21:18	0.0	0.0	0.0	0.0
Dadri	400	415	06:49	398	14:17	0.0	0.0	0.0	0.0
Ballabgarh	400	421	05:07	401	14:40	0.0	0.0	1.8	0.0
Bawana	400	418	06:49	400	14:46	0.0	0.0	0.0	0.0
Bassi	400	426	04:02	404	14:47	0.0	0.0	28.1	0.0
Hissar	400	410	03:51	396	14:15	0.0	0.0	0.0	0.0
Moga	400	408	04:03	396	14:16	0.0	0.0	0.0	0.0
Abdullapur	400	403	05:28	396	14:11	0.0	19.2	0.0	0.0
Nalagarh	400	409	03:02	398	14:20	0.0	0.0	0.0	0.0
Kishenpur	400	412	02:57	404	20:11	0.0	0.0	0.0	0.0
Wagoora	400	406	03:03	390	20:16	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	773	04:03	748	11:21	0.0	0.0
Balia	765	772	18:01	739	22:37	0.0	5.1	0.0	0.0
Moga	765	786	06:50	760	14:20	0.0	0.0	0.0	0.0
Agra	765	779	18:00	749	20:24	0.0	0.0	0.0	0.0
Bhiwani	765	796	18:01	764	14:38	0.0	0.0	0.0	0.0
Unnao	765	767	04:30	733	21:21	0.0	14.8	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	498.66	1041.47	496.99	983.40	1724.52	989.70
Pong	426.72	384.05	411.85	555.85	403.36	296.79	832.37	97.24
Tehri	829.79	740.04	778.00	297.05	775.30	264.00	778.51	245.00
Koteshwar	612.50	598.50	610.26	4.69	610.85	5.00	245.00	218.32
Chamera-I	760.00	748.75	756.08	0.00	0.00	0.00	615.39	325.35
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	523.50	10.78	519.96	11.40	625.76	420.58

* 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	1417	181	0	1249	94	0	34.01	3.41	37.42
Delhi	357	-254	-2	475	-129	-2	12.13	-2.63	9.50
Haryana	1433	192	0	1748	200	0	35.36	2.01	37.36
HP	-1284	-241	0	-1081	-248	0	-27.56	-5.58	-33.13
J&K	-687	-35	0	-484	-35	0	-12.93	-0.73	-13.66
CHD	0	-28	0	0	0	0	0.24	-0.03	0.21
Rajasthan	-494	526	2	-494	448	2	-11.99	11.55	-0.45
UP	836	0	0	623	0	0	14.30	0.00	14.30
Uttarakhand	-57	0	0	-57	78	0	-1.37	0.64	-0.73
Total	1522	343	0	1979	407	0	42.19	8.65	50.84

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1615	1249	214	94	0	0
Delhi	887	65	232	-505	0	-2
Haryana	1748	1394	222	-314	0	0
HP	-1081	-1284	-211	-248	0	0
J&K	-484	-687	-20	-35	0	0
CHD	29	0	0	-28	0	0
Rajasthan	-494	-528	579	148	2	0
UP	862	427	0	0	0	0
Uttarakhand	-57	-57	78	0	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 20.07.2015 :**
Scattered Rainfall in NR region**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 :**