

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 07.05.2015
Date of Reporting : 08.05.2015

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
40189	3704	43893	50.03	39297	2366	41663	49.95	914.6	76.98

* 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	29.32	13.31		42.63	82.06	83.16	1.10	125.78	19.23
Haryana	48.33	0.67		49.00	85.07	84.22	-0.85	133.22	0.01
Rajasthan	90.32	0.00	18.25	108.57	72.23	75.49	3.26	184.06	0.00
Delhi	24.17			24.17	74.64	73.28	-1.36	97.45	0.90
UP	137.40	8.40		145.80	122.79	124.29	1.50	270.09	47.88
Uttarakhand		12.65		12.65	23.29	24.22	0.93	36.87	1.00
HP		18.56		18.56	7.35	6.78	-0.57	25.34	0.00
J & K		13.83	0.00	13.83	22.66	22.53	-0.13	36.36	7.97
Chandigarh				0.00	5.31	5.43	0.27	5.43	0.00
Total	329.54	67.40	18.25	415.19	495.40	499.41	4.16	914.60	76.98

* 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	5399	261	92	123	5311	0	-19	368	5733
Haryana	6217	0	-280	320	6165	0	5	268	6771
Rajasthan	8163	0	110	522	7375	0	9	530	8163
Delhi	4358	0	9	489	3999	16	165	78	4928
UP	11184	2900	-49	411	12530	2055	103	831	12530
Uttarakhand	1686	135	25	421	1503	0	116	328	1686
HP	1114	0	-127	-952	881	0	-8	-767	1197
J&K	1816	408	137	-295	1352	295	39	-476	1816
Chandigarh	253	0	19	0	182	0	0	0	281
Total	40189	3704	-64	1039	39297	2366	409	1160	40803

* 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 :

A. NTPC	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentour(MW)	Schedule Net MU	UI Net MU
Rihand I STPS (2*500)	1000	793	875	880	19.64	818	18.08	1.56	
Rihand II STPS (2*500)	1000	970	1014	1044	24.19	1008	22.44	1.75	
Rihand III STPS (2*500)	1000	966	1024	1013	23.89	995	22.53	1.36	
Dadri I STPS (4*210)	840	615	522	460	12.63	526	12.22	0.41	
Dadri II STPS (2*490)	980	980	730	818	18.95	790	18.86	0.09	
Unchahar I TPS (2*210)	420	405	400	437	9.50	396	9.43	0.07	
Unchahar II TPS (2*210)	420	401	408	434	9.44	393	8.99	0.45	
Unchahar III TPS (1*220)	210	0	0	0	0.00	0	0.00	0.00	
ISTPP (Jhajjhan) (3*500)	1500	1500	776	603	16.72	697	17.04	-0.32	
Dadri GPS (4*130.19+2*154.51)	830	806	369	385	8.93	372	8.95	-0.03	
Anta GPS (3*88.71+1*153.2)	419	376	-1	-1	0.00	0	0.00	0.00	
Auraiya GPS (4*111.19+2*109.30)	663	644	152	159	3.67	153	3.59	0.08	
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	0.01	0	0.07	-0.06	
KHEP	400	0	0	0	0.00	0	0.00	0.00	
Sub Total (A)	11712	10161	8133	8098	192	7990	183	9	
B. NPC	NAPS (2*220)	440	385	385	385	9.24	385	9.24	0.00
RAPS- B (2*220)	440	155	155	155	3.72	155	7.30	-3.58	
RAPS- C (2*220)	440	410	440	443	9.49	396	9.84	-0.35	
Sub Total (B)	1320	950	980	983	22.45	936	26.38	-3.93	
C. NHPC	Chamera I HPS (3*180)	540	535	547	541	13.04	544	12.75	0.30
Chamera II HPS (3*100)	300	300	304	314	7.42	309	7.20	0.22	
Chamera III HPS (3*77)	231	231	240	238	5.65	236	5.55	0.10	
Bairasuli HPS(3*60)	180	179	180	180	4.36	182	4.25	0.11	
Salal-HPS (6*115)	690	658	667	670	15.97	666	15.81	0.17	
Tanakpur-HPS (3*40)	94	45	53	61	1.20	50	1.05	0.15	
Uri-I HPS (4*120)	480	475	478	478	11.62	484	11.40	0.22	
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00	
Dhauliganga-HPS (4*70)	280	210	210	0	3.45	144	3.12	0.33	
Dulhasti-HPS (3*130)	390	387	408	399	9.44	393	9.29	0.15	
Sewa-II HPS (3*40)	120	117	130	130	3.02	126	2.82	0.21	
Parbati 3 (4*130)	520	260	261	0	2.84	118	2.80	0.05	
Sub Total (C)	4065	3397	3478	3011	78	3251	76	2	
D.SJVNL	NJPC (6*250)	1500	1605	1614	989	31.14	1298	28.29	2.85
Rampur HEP (6*68.67)	412	430	444	292	8.82	368	8.41	0.41	
Sub Total (D)	1912	2035	2058	1281	39.96	1665	36.70	3.26	
E. THDC	Tehri HPS (4*250)	1000	468	468	0	7.18	299	7.10	0.08
Koteshwar HPS (4*100)	400	146	303	101	3.46	144	3.50	-0.04	
Sub Total (E)	1400	614	771	101	10.65	444	10.60	0.05	
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	598	1027	358	14.91	621	14.36	0.55
Dehar HPS (6*165)	990	604	660	560	14.99	625	14.50	0.49	
Pong HPS (6*66)	396	79	252	0	1.98	82	1.89	0.08	
Sub Total (F)	2900	1281	1939	918	31.88	1328	30.75	1.13	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	217	211	4.59	191	4.18	0.41
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1100	740	17.55	731	16.70	0.85	
Malana Stg-II HPS (2*50)	100	0	108	60	1.81	75	1.70	0.11	
Shree Cement TPS (2*150)	300	0	182	148	3.89	162	4.44	-0.55	
Budhil HPS(IPP)	70	0	74	72	1.57	66	1.50	0.08	
Sub Total (G)	1662	0	1682	1232	29.41	1225	28.52	0.89	
H. Total Regional Entities (A-G)	24972	18439	19040	15624	404.13	16839	391.96	12.17	

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	630	630	13.43	560
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	115	2.48	103
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	503	504	11.23	468
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	0	710	2.18	91
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	4680	1253	1959	29.32	1222
	Total Hydro	1148	597	461	13.31	554
	Total Punjab	5828	1850	2420	42.63	1776
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	668	673	14.52
DCRTPP (Yamuna nagar) (2*300)		600	287	280	6.78	282
Faridabad GPS (NTPC)		432	180	190	4.55	190
RGTPP (khedar) (IPP) (2*600)		1200	589	595	11.33	472
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	539	566	11.15	465
Thermal (Total)		4944	2263	2304	48.33	2014
Total Hydro		62	17	16	0.67	28
Total Haryana		5006	2280	2320	49.00	2042
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	712	486	15.06
	suratgarh TPS (6*250)	1500	445	454	11.07	461
	Chabra TPS (4*250)	1000	671	670	16.27	678
	Dholpur GPS (3*110)	330	109	112	2.75	115
	Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	112	37	1.85	77
	RAPS A (NPC) (1*100+1*200)	300	145	143	3.53	147
	Barsingsar (NLC) (2*125)	250	99	99	2.26	94
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwast LTPS (IPP) (8*135)	1080	666	583	14.43	601
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	445	445	8.77	365
	Kawai(Adani) (2*660)	1320	608	612	14.32	597
	Thermal (Total)	8276	4012	3641	90	3763
	Total Hydro	550	0	0	0.00	0
	Wind power	2798	761	831	17.84	743
	Biomass	99	13	13	0.30	13
	Solar	730	0	0	0.12	5
	Renewable/Others (Total)	3627	774	844	18.25	760
	Total Rajasthan	12453	4786	4485	108.57	4524
	UP	Anpara TPS (3*210+2*500)	1630	1390	1375	32.10
Obra TPS (2*50+2*94+5*200)		1194	473	459	11.10	463
Paricha TPS (2*110+2*220+2*250)		1140	765	756	18.20	758
Panki TPS (2*105)		210	54	104	2.10	88
Harduaganj TPS (1*60+1*105+2*250)		665	182	212	5.00	208
Tanda TPS (NTPC) (4*110)		440	381	390	9.50	396
Roza TPS (IPP) (4*300)		1200	1067	1067	25.60	1067
Anpara-C (IPP) (2*600)		1200	545	1080	21.50	896
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	363	363	7.50	313
Anpara-D		500	0	0	0.00	0
Thermal (Total)		8629	5220	5806	133	5525
Vishnuparyag HPS (IPP)(including Alakananda)		400	292	237	5.90	246
Other Hydro		527	76	302	2.50	104
Cogeneration		981	200	200	4.80	200
Total UP		10537	5788	6545	145.80	5829
Uttarakhand	Total Hydro	1398	558	487	12.65	527
	Total Uttarakhand	1398	558	487	12.65	527
Delhi	Rajghat TPS (2*67.5)	135	103	48	1.76	73
	Delhi Gas Turbine (6x30 + 3x34)	282	138	143	3.32	138
	Pragati Gas Turbine (2x104+ 1x122)	330	280	276	6.74	281
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	288	308	6.92	288
	Badarpur TPS (NTPC) (3*95+2*210)	705	243	254	5.43	226
	Thermal (Total)	2917	1052	1029	24.17	1007
	Total Delhi	2917	1052	1029	24.17	1007
HP	Baspa HPS (IPP) (2*150)	300	215	235	4.50	187
	Malana HPS (IPP) (2*43)	86	84	34	1.71	71
	Other Hydro	728	520	508	12.36	515
	Total HP	1114	819	777	18.56	773
J & K	Baglihar HPS (IPP) (3*150)	450	440	440	10.56	440
	Other Hydro/IPP	436	132	137	3.27	136
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	572	577	13.83	576
Total State Control Area Generation		40347	17705	18640	415.19	17054
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5445	5431	120.66	5027
Total Regional Availability(Gross)		65319	42190	39695	939.98	38920

IV. Total Hydro Generation:

Regional Entities Hydro	11969	9671	6323	184.456627	7686
State Control Area Hydro	5684	2639	2620	67.40	2563
Total Regional Hydro	17654	12310	8943	251.86	10248

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			
	Vindhyachal B/B	150	150	150	500	0.50	2.43	-1.93	
Gwalior-Agra (D/C)	2045	2073	2485	0	47.34	0.00	47.34		
Zerda-Kankroli	-103	-253	0	302	0.00	5.10	-5.10		
Zerda-Bhinmal	-61	-205	0	260	0.00	3.66	-3.66		
Malanpur-Auraiya	-49	-49	0	59	0.00	0.60	-0.60		
Badod-Kota/Morak	39	65	52	16	0.89	0.00	0.89		
Mundra-Mohindergarh(HVDC)	2498	2498	2507	0	59.62	0.00	59.62		
Vindhyachal - Rihand	490	502	502	0	11.61	0.00	11.61		
Sub Total WR	5009	4781			119.96	11.79	108.17		
Pusauli Bypass	-365	-559	0	570	0.00	9.43	-9.43		
MZP- GKP (D/C)	118	190	232	75	2.50	0.00	2.50		
Patna-Balia(D/C)	284	354	413	0	8.24	0.00	8.24		
B'Sharif-Balia (D/C)	43	48	126	36	1.23	0.00	1.23		
Pusauli-Balia	116	162	180	0	1.53	0.00	1.53		
Gaya-Fatehpur (765 Kv)	80	176	219	8	3.22	0.00	3.22		
Pusauli-Sahupuri	150	168	186	0	3.92	0.00	3.92		
K'nasa-Sahupuri	0	0	0	0	0.00	0.48	-0.48		
Son Ngr-Rihand	-25	-40	0	41	0.00	0.84	-0.84		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	35	151	185	32	2.58	0.00	2.58		
Sub Total ER	436	650			23.23	10.74	12.49		
Total IR Exch	5445	5431			143.19	22.53	120.66		

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	
	31.95	1.32	33.27	-0.27	-2.07	12.28	4.72	0.64	-0.64

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
45.91	79.51	125.42	12.49	108.17	120.66	-33.43	28.66	-4.76

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	-39	-38	0	44	0	1	-0.92	

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	0.06	4.13	29.02	73.96	63.31	5.80	1.89	0.05	NA

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev. (Hz)	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time					
50.21	18.03	49.69	15.42	49.94	0.10	0.08	50.10	49.77

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	00:00	398	15:45	0.0	0.0
Gorakhpur	400	415	07:21	393	19:12	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	413	07:20	394	19:23	0.0	0.0	0.0	0.0
Dadri	400	413	07:21	398	16:23	0.0	0.0	0.0	0.0
Ballabgarh	400	419	07:24	399	19:29	0.0	0.0	0.0	0.0
Bawana	400	416	07:19	399	19:12	0.0	0.0	0.0	0.0
Bassi	400	418	05:02	396	09:25	0.0	0.0	0.0	0.0
Hissar	400	403	13:02	389	19:14	0.0	1.8	0.0	0.0
Moga	400	411	01:59	398	09:29	0.0	0.0	0.0	0.0
Abdullapur	400	416	06:15	396	19:18	0.0	0.0	0.0	0.0
Nalagarh	400	417	01:44	400	19:11	0.0	0.0	0.0	0.0
Kishenpur	400	416	02:00	401	20:13	0.0	0.0	0.0	0.0
Wagoora	400	409	03:55	383	06:49	0.0	16.1	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	775	07:22	738	19:14	0.0	2.6
Balia	765	770	07:22	741	22:15	0.0	0.9	0.0	0.0
Moga	765	779	01:59	752	19:23	0.0	0.0	0.0	0.0
Agra	765	781	07:22	745	19:23	0.0	0.0	0.0	0.0
Bhiwani	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Unnao	765	759	07:27	730	19:14	0.0	48.8	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	485.13	593.99	482.01	503.43	623.54	499.85
Pong	426.72	384.05	405.43	352.07	403.05	288.96	184.63	136.35
Tehri	829.79	740.04	759.10	114.00	754.45	79.00	118.77	225.00
Koteshwar	612.50	598.50	611.35	5.46	610.52	4.69	225.00	230.00
Chamera-I	760.00	748.75	757.16	0.00	0.00	0.00	411.08	353.03
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	522.56	6.24	518.77	3.21	260.88	253.06

* 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	30	337	0	72	51	0	1.67	8.00	9.67
Delhi	154	-46	-30	271	218	0	6.09	4.02	10.12
Haryana	68	200	0	135	185	0	2.01	2.80	4.81
HP	-535	-233	0	-433	-518	0	-9.34	-8.01	-17.35
J&K	-385	-91	0	-273	-22	0	-7.68	-0.38	-8.06
CHD	0	0	0	0	0	0	0.24	0.22	0.46
Rajasthan	-121	649	2	-117	636	2	-2.85	16.12	13.27
UP	831	0	0	411	0	0	12.08	1.61	13.69
Uttarakhand	74	218	36	74	340	7	1.77	7.14	8.91
Total	117	1035	8	139	891	9	3.99	31.51	35.50

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	178	29	636	30	0	0
Delhi	320	78	647	-163	0	-41
Haryana	135	64	209	-413	0	0
HP	-281	-636	-226	-646	0	0
J&K	-233	-385	52	-98	0	0
CHD	30	0	39	-10	0	0
Rajasthan	-117	-121	1029	224	2	2
UP	862	318	604	0	0	0
Uttarakhand	74	74	369	218	46	7

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 07.05.2015 :**
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 :**