

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिस्ट की पूर्ण स्वामित्व प्राप्त महायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 20.05.2015
Date of Reporting : 21.05.2015

I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Demand Met	Off Peak (03:00 Hrs) MW			Day Energy (Net MU)	
	Shortage	Requirement	Freq* (Hz)		Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
39250	2032	41283	50.16	34814	269	35083	50.13	881.3	33.40

* 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	35.07	17.85		52.93	91.55	90.60	-0.95	143.53	0.00
Haryana	45.64	0.66		46.31	78.95	78.28	-0.66	124.59	0.00
Rajasthan	84.00	0.04	5.16	89.20	72.75	75.09	2.35	164.29	0.00
Delhi	22.09			22.09	76.62	73.71	-2.91	95.80	0.02
UP	113.40	15.48		128.88	116.96	116.10	-0.85	244.99	25.56
Uttarakhand		19.10		19.10	18.34	20.08	1.75	39.18	0.53
HP		21.97		21.97	4.07	4.69	0.62	26.65	0.00
J & K		14.16	0.00	14.16	21.21	22.35	1.15	36.52	7.30
Chandigarh				0.00	5.65	5.72	0.27	5.72	0.00
Total	300.21	89.27	5.16	394.63	486.08	486.62	0.74	881.25	33.40

* 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	5652	0	3	315	6095	0	-74	694	6639
Haryana	6422	0	-387	310	4926	0	14	287	6788
Rajasthan	7230	0	-65	521	6223	0	38	655	7509
Delhi	4107	0	-226	637	3821	0	-133	610	4763
UP	11052	1615	171	969	9687	0	-329	1185	12269
Uttarakhand	1785	75	129	197	1558	0	-31	123	1793
HP	1042	0	-66	-1237	958	0	39	-1370	1311
J&K	1712	342	243	-361	1344	269	-1	-558	1822
Chandigarh	248	0	-3	20	202	0	13	0	291
Total	39250	2032	-201	1370	34814	269	-465	1626	41261

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

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III. Regional Entities :

A. NTPC	Station/ Constituent	Inst. Capacity	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU
		(Effective) MW							
	Singrauli STPS (5*200+2*500)	2000	1682	1816	1669	37.14	1548	37.40	-0.26
	Rihand I STPS (2*500)	1000	469	499	359	10.20	425	9.52	0.69
	Rihand II STPS (2*500)	1000	965	955	701	20.44	852	18.96	1.48
	Rihand III STPS (2*500)	1000	965	1008	710	20.55	856	19.22	1.33
	Dadri I STPS (4*210)	840	757	630	445	0.00	0	11.88	-11.88
	Dadri II STPS (2*490)	980	980	724	676	0.00	0	16.49	-16.49
	Unchahar I TPS (2*210)	420	405	328	253	0.70	29	7.48	-6.78
	Unchahar II TPS (2*210)	420	401	350	249	0.70	29	7.44	-6.74
	Unchahar III TPS (1*220)	210	201	157	127	0.34	14	3.62	-3.29
	ISTPP (Jhajjar) (3*500)	1500	1500	640	651	14.29	595	14.49	-0.20
	Dadri GPS (4*130.19+2*154.51)	830	806	371	374	9.05	377	9.15	-0.11
	Anta GPS (3*88.71+1*153.2)	419	380	234	218	5.56	232	5.47	0.09
	Auraiya GPS (4*111.19+2*109.30)	663	644	153	161	3.78	157	3.77	-0.01
	Dadri Solar	5	1	0	0	0.03	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.00	0	0.06	-0.06
	Singrauli Solar	15	3	0	0	0.06	2	0.07	-0.01
	KHEP	400	0	196	196	4.80	200	0.00	4.80
	Sub Total (A)	11712	10160	8061	6789	128	5317	165	-37
B. NPC	NAPS (2*220)	440	371	418	433	9.22	384	8.90	0.32
	RAPS- B (2*220)	440	0	0	0	0.00	0	0.00	0.00
	RAPS- C (2*220)	440	0	0	0	-0.61	-25	0.00	-0.61
	Sub Total (B)	1320	371	418	433	8.61	359	8.90	-0.29
C. NHPC	Chamera I HPS (3*180)	540	540	553	549	13.14	547	12.96	0.18
	Chamera II HPS (3*100)	300	300	309	313	7.36	307	7.20	0.17
	Chamera III HPS (3*77)	231	231	234	224	5.62	234	5.55	0.07
	Bairasul HPS(3*60)	180	179	184	186	4.26	178	4.18	0.09
	Salal-HPS (6*115)	690	666	673	673	16.24	677	15.97	0.27
	Tanakpur-HPS (3*40)	94	45	80	65	1.12	46	1.10	0.02
	Uri-I HPS (4*120)	480	475	477	475	11.60	483	11.40	0.20
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	210	218	208	4.50	188	4.34	0.17
	Dulhasti-HPS (3*130)	390	387	404	397	9.41	392	9.29	0.12
	Sewa-II HPS (3*40)	120	117	130	130	3.02	126	2.81	0.21
	Parbati 3 (4*130)	520	260	266	131	3.38	141	3.32	0.06
	Sub Total (C)	4065	3410	3530	3350	80	3318	78	2
D.SJVNL	NJPC (6*250)	1500	1605	1626	1624	38.73	1614	38.52	0.21
	Rampur HEP (6*68.67)	412	438	446	447	10.73	447	10.51	0.22
	Sub Total (D)	1912	2043	2072	2071	49.46	2061	49.03	0.43
E. THDC	Tehri HPS (4*250)	1000	290	301	145	6.85	285	6.70	0.15
	Koteshwar HPS (4*100)	400	146	302	101	3.50	146	3.50	0.00
	Sub Total (E)	1400	436	603	246	10.35	431	10.20	0.15
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	802	1134	462	19.39	808	19.25	0.15
	Dehar HPS (6*165)	990	604	825	495	14.78	616	14.49	0.29
	Pong HPS (6*66)	396	90	258	0	2.19	91	2.17	0.02
	Sub Total (F)	2900	1496	2217	957	36.37	1515	35.90	0.46
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	218	175	4.12	172	4.66	-0.53
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.68	1195	28.53	0.15
	Malana Stg-II HPS (2*50)	100	0	100	55	1.54	64	1.45	0.08
	Shree Cement TPS (2*150)	300	0	265	291	6.33	264	6.34	-0.01
	Budhil HPS(IPP)	70	0	35	70	1.00	42	1.19	-0.19
	Sub Total (G)	1662	0	1818	1791	41.66	1736	42.16	-0.50
H. Total Regional Entities (A-G)		24972	17916	18719	15637	353.71	14738	389.38	-35.67

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	210	160	3.80	158
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	120	90	2.29	95
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	219	172	4.13	172
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	700	1104	24.86	1036
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	4680	1249	1526	35.07	1461
	Total Hydro	1148	680	782	17.85	744
	Total Punjab	5828	1929	2308	52.93	2205
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	502	483	11.66	486
Faridabad GPS (NTPC)		432	182	169	4.44	185
RGTPP (kheadar) (IPP) (2*600)		1200	885	753	19.60	817
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	414	380	9.94	414
Thermal (Total)		4944	1983	1785	45.64	1902
Total Hydro		62	27	27	0.66	28
Total Haryana		5006	2010	1812	46.31	1929
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	529	350	10.33
	suratgarh TPS (6*250)	1500	408	370	9.66	403
	Chabra TPS (4*250)	1000	360	544	12.14	506
	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	56	58	1.86	78
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0
	Barsingsar (NLC) (2*125)	250	59	69	1.33	55
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	817	669	16.85	702
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	440	443	10.42	434
	Kawai(Adani) (2*660)	1320	948	867	21.42	892
	Thermal (Total)	8276	3617	3370	84	3500
	Total Hydro	550	0	12	0.04	2
	Wind power	2798	399	63	3.38	141
	Biomass	99	25	25	0.59	25
	Solar	730	0	0	1.19	49
	Renewable/Others (Total)	3627	424	88	5.16	215
	Total Rajasthan	12453	4041	3470	89.20	3717
	UP	Anpara TPS (3*210+2*500)	1630	1299	1297	28.90
Obra TPS (2*50+2*94+5*200)		1194	473	444	10.70	446
Paricha TPS (2*110+2*220+2*250)		1140	769	717	18.10	754
Panki TPS (2*105)		210	135	59	2.50	104
Harduaganj TPS (1*60+1*105+2*250)		665	216	164	4.20	175
Tanda TPS (NTPC) (4*110)		440	280	276	7.30	304
Roza TPS (IPP) (4*300)		1200	765	756	18.70	779
Anpara-C (IPP) (2*600)		1200	1026	648	18.80	783
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	58	58	1.30	54
Anpara-D		500	0	0	0.00	0
Thermal (Total)		8629	5021	4419	111	4604
Vishnuparyag HPS (IPP)(including Alaknanda)		400	597	597	13.78	574
Other Hydro		527	85	71	1.70	71
Cogeneration		981	120	120	2.90	121
Total UP		10537	5823	5207	128.88	4796
Uttarakhand		Total Hydro	1398	790	789	19.10
	Total Uttarakhand	1398	790	789	19.10	796
Delhi	Rajghat TPS (2*67.5)	135	36	37	0.85	35
	Delhi Gas Turbine (6x30 + 3x34)	282	72	79	1.76	73
	Praagati Gas Turbine (2x104+ 1x122)	330	274	274	5.82	243
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	293	271	6.76	282
	Badarpur TPS (NTPC) (3*95+2*210)	705	246	202	6.91	288
	Thermal (Total)	2917	921	862	22.09	920
Total Delhi	2917	921	862	22.09	920	
HP	Baspa HPS (IPP) (2*150)	300	329	329	7.84	327
	Malana HPS (IPP) (2*43)	86	45	40	1.49	62
	Other Hydro	728	529	531	12.64	527
	Total HP	1114	903	900	21.97	915
J & K	Baglihar HPS (IPP) (3*150)	450	440	440	10.57	440
	Other Hydro/IPP	436	166	131	3.60	150
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	606	571	14.16	590
Total State Control Area Generation		40347	17023	15919	394.63	15868
J. Net Inter Regional Exchange (import +ve)/Export (-ve)			4919	1426	103.87	4328
Total Regional Availability(Gross)		65319	40661	32982	852.21	34934

IV. Total Hydro Generation:

Regional Entities Hydro	11969	10136	8251	214.960466	8957
State Control Area Hydro	5684	3091	3152	89.27	3145
Total Regional Hydro	17654	13227	11403	304.23	12102

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	
Vindhyachal B/B	200	-50	200	150	2.24	0.86	1.39		
Gwalior-Agra (D/C)	1883	-823	1920	0	30.65	0.00	30.65		
Zerda-Kankroli	113	-62	113	70	0.00	0.24	-0.24		
Zerda-Bhinmal	144	32	188	25	1.87	0.00	1.87		
Malanpur-Auraiya	0	0	0	0	0.00	0.00	0.00		
Badod-Kota/Morak	91	21	94	5	0.00	2.41	-2.41		
Mundra-Mohinderagar(HVDC)	1697	1401	2205	0	39.07	0.00	39.07		
Vindhyachal - Rihand	486	400	499	0	10.38	0.00	10.38		
Sub Total WR	4614	919			84.22	3.50	80.71		
Pusaui Bypass	-381	-219	0	381	0.00	5.63	-5.63		
MZP- GKP (D/C)	-316	-193	547	0	7.25	0.00	7.25		
Patna-Balia(D/C)	490	299	515	0	7.56	0.00	7.56		
B'Sharif-Balia (D/C)	140	83	238	0	3.45	0.00	3.45		
Pusaui-Balia	0	247	327	0	2.41	0.00	2.41		
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00		
Pusaui-Sahupuri	169	215	235	0	4.36	0.00	4.36		
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00		
Son Ngr-Rihand	-30	-33	0	43	0.00	0.84	-0.84		
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
Sasaram - Fatehpur(765 KV)	233	108	358	0	4.60	0.00	4.60		
Sub Total ER	305	507			29.62	6.47	23.16		
Total IR Exch	4919	1426			113.84	9.97	103.87		

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
34.26	1.93	36.19	10.40	-2.52	3.43	-1.28	1.00	-1.00

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
51.02	63.86	114.88	23.16	80.71	103.87	-27.87	16.85	-11.02

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	-6	-10	0	27	0	0	-0.33		

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	0.44	1.90	10.53	49.34	63.83	18.51	7.21	0.00	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					
50.19	18.04	49.65	22.13	50.00	0.06	0.08	50.20	49.89

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	410	06:38	398	16:44	0.0	0.0	0.0	0.0
Gorakhpur	400	415	02:21	394	14:49	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	421	06:01	398	14:53	0.0	0.0	2.3	0.0
Dadri	400	415	06:06	396	22:11	0.0	0.0	0.0	0.0
Ballabgarh	400	424	06:03	399	22:11	0.0	0.0	20.2	0.0
Bawana	400	416	04:00	399	22:09	0.0	0.0	0.0	0.0
Bassi	400	419	06:03	392	19:37	0.0	0.0	0.0	0.0
Hissar	400	406	03:57	389	22:09	0.0	0.3	0.0	0.0
Moga	400	411	18:18	399	14:19	0.0	0.0	3.0	0.0
Abdullapur	400	410	03:51	396	10:48	0.0	0.0	0.0	0.0
Nalagarh	400	413	03:38	398	15:25	0.0	0.0	0.0	0.0
Kishenpur	400	416	03:33	403	20:09	0.0	0.0	0.0	0.0
Wagoora	400	411	03:44	385	20:34	0.0	6.1	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	788	06:40	740	14:56	0.0	1.5	0.0	0.0
Balia	765	779	06:29	739	22:09	0.0	1.5	0.0	0.0
Moga	765	787	18:22	757	09:36	0.0	0.0	0.0	0.0
Agra	765	787	06:06	739	22:10	0.0	0.4	0.0	0.0
Bhiwani	765	792	05:07	758	22:11	0.0	0.0	0.0	0.0
Unnao	765	779	06:40	731	22:11	0.0	30.1	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 (m ³ /s)	Usage (m ³ /s)
Bhakra	513.59	445.62	487.08	644.48	480.26	468.02	928.00	698.29
Pong	426.72	384.05	405.46	352.07	403.33	296.79	234.18	149.71
Tehri	829.79	740.04	753.75	74.00	745.75	26.00	147.82	224.00
Koteswar	612.50	598.50	609.55	4.44	610.55	4.95	224.00	232.00
Chamera-I	760.00	748.75	756.81	0.00	0.00	0.00	376.14	355.91
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	522.92	9.67	52.39	8.55	325.23	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	123	571	0	23	293	0	5.41	10.85	16.26
Delhi	670	-56	-4	514	123	0	14.37	2.19	16.56
Haryana	68	218	0	93	217	0	1.68	4.04	5.73
HP	-762	-608	0	-509	-728	0	-14.24	-15.64	-29.87
J&K	-558	0	0	-396	34	0	-11.58	0.13	-11.45
CHD	0	0	0	0	20	0	0.24	0.47	0.71
Rajasthan	-121	774	2	-117	636	2	-2.86	19.50	16.64
UP	1185	0	0	969	0	0	24.25	0.00	24.25
Uttarakhand	74	50	0	74	123	0	1.49	1.11	2.60
Total	679	949	-2	652	717	2	18.77	22.65	41.42

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	418	23	598	150	0	0
Delhi	721	475	515	-259	0	-4
Haryana	93	64	234	-29	0	0
HP	-509	-813	-519	-865	0	0
J&K	-355	-596	84	-15	0	0
CHD	30	0	54	0	0	0
Rajasthan	-117	-121	1245	533	2	2
UP	1205	907	0	0	0	0
Uttarakhand	74	0	125	1	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 20.05.2015 :****XIV. Synchronisation of new generating units :****XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**
0.00**XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**