

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 20.04.2015
Date of Reporting : 21.04.2015

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
37791	2733	40525	50.03	30868	2067	32935	50.10	791.2	54.04

* 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	27.61	5.73		33.34	62.55	61.55	-1.00	94.90	0.00
Haryana	26.70	0.70		27.40	78.41	77.08	-1.33	104.48	0.00
Rajasthan	102.00	0.10	11.36	113.47	60.18	58.64	-1.53	172.11	0.00
Delhi	18.39			18.39	63.31	64.26	0.96	82.65	0.33
UP	125.70	9.80		135.50	109.87	108.75	-1.12	244.25	45.47
Uttarakhand		10.99		10.99	21.38	22.09	0.71	33.08	1.69
HP		12.19		12.19	11.55	11.48	-0.07	23.67	0.00
J & K		12.52	0.00	12.52	20.26	19.18	-1.08	31.70	6.54
Chandigarh				0.00	3.95	4.40	0.27	4.40	0.00
Total	300.39	52.04	11.36	363.80	431.45	427.44	-4.19	791.24	54.04

* 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	4825	0	39	-73	3871	0	19	343	4900
Haryana	6002	0	-20	508	3852	0	121	265	6002
Rajasthan	7537	0	-190	747	6653	0	-107	493	7889
Delhi	3763	0	-98	83	2994	0	185	-223	3965
UP	10822	2300	-49	223	10528	1750	374	145	10822
Uttarakhand	1751	75	126	489	1197	140	33	257	1751
HP	1083	0	-47	-761	759	0	59	-198	1159
J&K	1792	358	-5	-136	886	177	-78	-121	1832
Chandigarh	217	0	12	-10	130	0	7	0	219
Total	37791	2733	-232	1069	30868	2067	611	961	38040

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

Diversity is 1.01

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	1725	1853	1858	43.48	1812	40.47	3.01
	Rihand I STPS (2*500)	1000	827	908	813	20.45	852	18.48	1.97
	Rihand II STPS (2*500)	1000	463	516	506	11.66	486	10.24	1.43
	Rihand III STPS (2*500)	1000	959	1006	992	22.84	952	21.47	1.37
	Dadri I STPS (4*210)	840	615	600	542	14.47	603	13.94	0.52
	Dadri II STPS (2*490)	980	980	710	775	19.30	804	19.41	-0.11
	Unchahar I TPS (2*210)	420	405	427	356	9.04	377	8.93	0.10
	Unchahar II TPS (2*210)	420	401	434	351	8.59	358	8.36	0.23
	Unchahar III TPS (1*220)	210	0	0	0	0.00	0	0.00	0.00
	ISTPP (Jhajjar) (3*500)	1500	1500	928	654	15.46	644	16.57	-1.11
	Dadri GPS (4*130.19+2*154.51)	830	806	376	391	9.14	381	9.31	-0.17
	Anta GPS (3*88.71+1*153.2)	419	392	-4	-1	0.11	5	0.27	-0.16
	Auraiya GPS (4*111.19+2*109.30)	663	652	154	162	3.77	157	4.08	-0.31
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03
	Singrauli Solar	15	3	0	0	0.07	3	0.07	0.00
KHEP	400	0	0	0	0.00	0	0.00	0.00	
Sub Total (A)	11712	9731	7908	7399	178	7434	172	7	
B. NPC	NAPS (2*220)	440	195	214	219	4.43	184	4.68	-0.25
	RAPS- B (2*220)	440	380	418	423	8.97	374	7.30	1.67
	RAPS- C (2*220)	440	413	439	440	9.48	395	9.91	-0.42
	Sub Total (B)	1320	988	1071	1082	22.88	953	21.89	1.00
C. NHPC	Chamera I HPS (3*180)	540	534	542	166	11.13	464	10.80	0.33
	Chamera II HPS (3*100)	300	300	300	91	5.93	247	5.93	0.00
	Chamera III HPS (3*77)	231	231	232	0	3.69	154	3.59	0.10
	Bairasuil HPS(3*60)	180	120	120	120	2.90	121	2.88	0.02
	Salal-HPS (6*115)	690	643	670	650	15.77	657	15.45	0.33
	Tanakpur-HPS (3*40)	94	40	61	42	1.09	46	0.97	0.12
	Uri-I HPS (4*120)	480	453	473	474	11.09	462	10.92	0.17
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	140	140	0	2.65	110	2.65	0.00
	Dulhasti-HPS (3*130)	390	366	409	132	7.42	309	7.50	-0.08
	Sewa-II HPS (3*40)	120	119	130	129	2.96	123	2.86	0.10
	Parbati 3 (4*130)	520	390	386	0	1.68	70	1.63	0.05
	Sub Total (C)	4065	3336	3462	1804	66	2763	65	1
	D.SJVNL	NJPC (6*250)	1500	1605	1599	0	15.65	652	15.29
Rampur HEP (6*68.67)		412	430	431	0	4.43	185	4.24	0.19
Sub Total (D)		1912	2035	2030	0	20.08	837	19.54	0.54
E. THDC	Tehri HPS (4*250)	1000	513	513	0	6.83	285	6.70	0.13
	Koteswar HPS (4*100)	400	138	198	91	3.13	131	3.10	0.03
	Sub Total (E)	1400	651	711	91	9.96	415	9.80	0.16
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	339	772	301	8.17	341	8.14	0.03
	Dehar HPS (6*165)	990	548	660	495	13.31	555	13.14	0.17
	Pong HPS (6*66)	396	6	128	0	0.15	6	0.16	-0.01
	Sub Total (F)	2900	893	1560	796	21.63	901	21.44	0.20
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	176	27	1.71	71	1.30	0.41
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	930	150	7.89	329	7.62	0.27
	Malana Stg-II HPS (2*50)	100	0	46	0	0.85	35	0.78	0.07
	Shree Cement TPS (2*150)	300	0	294	262	6.63	276	6.59	0.04
	Budhil HPS(IPP)	70	0	71	0	0.79	33	0.77	0.02
	Sub Total (G)	1662	0	1516	439	17.86	744	17.05	0.81
H. Total Regional Entities (A-G)	24972	17635	18258	11611	337.15	14048	326.57	10.58	

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	615	510	11.85	494
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	117	95	2.06	86
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	250	193	4.64	193
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	366	341	9.06	378
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	4680	1348	1139	27.61	1150
	Total Hydro	1148	223	225	5.73	239
	Total Punjab	5828	1571	1364	33.34	1389
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00
DCRTPP (Yamuna nagar) (2*300)		600	236	241	5.85	244
Faridabad GPS (NTPC)		432	0	0	0.10	4
RGTPP (khedar) (IPP) (2*600)		1200	0	0	0.00	0
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	810	742	20.75	864
Thermal (Total)		4944	1046	983	26.70	1112
Total Hydro		62	25	24	0.70	29
Total Haryana		5006	1071	1007	27.40	1142
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	871	872	20.85
	suratgarh TPS (6*250)	1500	376	385	8.99	374
	Chabra TPS (4*250)	1000	577	547	13.94	581
	Dholpur GPS (3*110)	330	104	121	2.67	111
	Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	133	116	4.18	174
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0
	Barsingar (NLC) (2*125)	250	97	90	2.17	90
	Giral LTPS (2*125)	250	77	77	1.71	71
	Rajwest LTPS (IPP) (8*135)	1080	725	439	15.11	629
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	440	310	9.69	404
	Kawai(Adani) (2*660)	1320	865	864	22.69	946
	Thermal (Total)	8276	4265	3821	102	4250
	Total Hydro	550	31	0	0.10	4
	Wind power	2798	205	851	10.51	438
	Biomass	99	32	32	0.77	32
	Solar	730	0	0	0.09	4
	Renewable/Others (Total)	3627	237	883	11.36	473
	Total Rajasthan	12453	4533	4704	113.47	4728
	UP	Anpara TPS (3*210+2*500)	1630	1206	1198	28.30
Obra TPS (2*50+2*94+5*200)		1194	316	442	9.70	404
Paricha TPS (2*110+2*220+2*250)		1140	677	658	15.70	654
Panki TPS (2*105)		210	63	140	2.80	117
Harduaganj TPS (1*60+1*105+2*250)		665	216	221	5.20	217
Tanda TPS (NTPC) (4*110)		440	216	380	9.40	392
Roza TPS (IPP) (4*300)		1200	1080	1067	25.60	1067
Anpara-C (IPP) (2*600)		1200	544	549	13.00	542
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	241	0	4.00	4738
Anpara-D		500	0	0	0.00	0
Thermal (Total)		8629	4559	4655	114	9308
Vishnuparyag HPS (IPP)		400	154	154	3.60	150
Other Hydro		527	321	287	6.20	258
Cogeneration		981	500	500	12.00	500
Total UP		10537	5534	5596	135.50	10067
Uttarakhand	Total Hydro	1398	479	458	10.99	458
	Total Uttarakhand	1398	479	458	10.99	458
Delhi	Rajghat TPS (2*67.5)	135	49	0	0.67	28
	Delhi Gas Turbine (6x30 + 3x34)	282	74	72	1.78	74
	Pragati Gas Turbine (2x104+ 1x122)	330	294	146	6.04	251
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	295	270	6.26	261
	Badarpur TPS (NTPC) (3*95+2*210)	705	174	177	3.64	152
	Thermal (Total)	2917	886	666	18.39	766
Total Delhi	2917	886	666	18.39	766	
HP	Baspa HPS (IPP) (2*150)	300	89	60	1.67	70
	Malana HPS (IPP) (2*43)	86	69	69	0.98	41
	Other Hydro	728	419	393	9.54	398
	Total HP	1114	577	522	12.19	508
J & K	Baglihar HPS (IPP) (3*150)	450	440	440	10.56	440
	Other Hydro/IPP	436	122	135	1.96	82
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	562	575	12.52	522
Total State Control Area Generation		40347	15213	14892	363.80	19579
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5041	4972	117.31	4888
Total Regional Availability(Gross)		65319	38512	31475	818.26	38515

IV. Total Hydro Generation:

Regional Entities Hydro	11969	8915	2868	128.431320	5351
State Control Area Hydro	5684	2218	2091	52.04	2018
Total Regional Hydro	17654	11133	4959	180.47	7370

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	150	150	300	250	1.59	1.88	-0.29
Gwalior-Agra (D/C)	1699	2073	2370	0	45.77	0.00	45.77
Zerda-Kankroli	-186	-306	0	379	0.00	6.85	-6.85
Zerda-Bhinmal	-116	-253	0	312	0.00	5.23	-5.23
Malanpur-Auraiya	-146	-39	0	146	0.00	1.42	-1.42
Badod-Kota/Morak	-23	-71	3	101	0.00	1.51	-1.51
Mundra-Mohindergarh(HVDC)	2497	2502	2514	0	60.46	0.00	60.46
Vindhychal - Rihand	516	495	525	0	12.17	0.00	12.17
Sub Total WR	4391	4551			119.99	16.87	103.11
Pusauli Bypass	200	400	400	0	7.48	0.00	7.48
MZP- GKP (D/C)	-29	-44	64	161	0.00	1.17	-1.17
Patna-Balia(D/C)	207	284	411	0	6.97	0.00	6.97
B'Sharif-Balia (D/C)	-50	-143	0	204	0.00	2.43	-2.43
Pusauli-Balia	29	1	54	77	0.11	0.00	0.11
Gaya-Fatehpur (765 Kv)	143	-12	252	78	2.22	0.00	2.22
Pusauli-Sahupuri	195	198	222	0	4.22	0.00	4.22
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-41	-34	0	41	0.00	0.78	-0.78
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	-4	-229	32	305	0.00	2.41	-2.41
Sub Total ER	650	421			20.99	6.79	14.20
Total IR Exch	5041	4972			140.97	23.66	117.31

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
22.07	1.09	23.16	1.13	-1.75	8.37	6.47	0.91	-0.91

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
33.57	86.37	119.94	14.20	103.11	117.31	-19.38	16.74	-2.63

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	2.03	9.08	32.47	71.75	56.44	7.89	3.25	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					
50.18	7.22	49.56	22.15	49.94	0.14	0.10	50.17	0

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	00:43	397	18:56	0.0	0.0	0.0	0.0
Gorakhpur	400	415	00:00	9999	00:00	0.0	0.0	0.0	0.0
Bareilly	400	419	02:56	389	19:15	0.0	0.0	0.0	0.0
Kanpur	400	417	03:20	392	19:12	0.0	0.0	0.0	0.0
Dadri	400	422	03:18	394	19:15	0.7	0.7	2.6	0.0
Ballabgarh	400	428	03:23	396	19:14	0.0	0.0	18.6	0.0
Bawana	400	426	03:20	396	19:12	0.0	0.0	12.7	0.0
Bassi	400	424	03:21	238	16:39	19.2	19.2	10.9	0.0
Hissar	400	418	03:17	384	19:15	0.0	2.4	0.0	0.0
Moga	400	424	03:18	394	19:13	0.0	0.0	7.9	0.0
Abdullapur	400	422	03:18	396	19:15	0.0	2.3	2.6	0.0
Nalagarh	400	430	03:18	397	19:14	0.0	0.0	26.6	0.0
Kishenpur	400	426	02:51	398	19:10	0.0	0.0	17.4	0.0
Wagooora	400	415	03:18	375	19:18	12.3	21.1	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	777	03:23	736	19:14	0.0	1.6	0.0	0.0
Balia	765	776	07:04	746	19:12	0.0	0.0	0.0	0.0
Moga	765	806	03:18	2	10:08	57.8	57.8	5.6	0.0
Agra	765	786	03:20	741	19:13	0.0	0.1	0.0	0.0
Bhiwani	765	805	03:15	747	19:12	0.0	0.0	9.5	0.0
Unnao	765	778	14:09	725	19:14	0.3	38.6	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	482.35	519.70	482.58	519.70	394.00	238.51
Pong	426.72	384.05	404.42	328.16	402.30	273.51	148.52	11.61
Tehri	829.79	740.04	765.70	168.00	765.30	164.00	104.83	204.00
Koteswar	612.50	598.50	611.60	5.46	610.81	5.00	204.00	221.00
Chamera-I	760.00	748.75	759.88	0.00	0.00	0.00	296.90	301.29
Rihand	268.22	252.98	842.00	142.50	848.70	234.80	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	517.49	3.35	516.47	2.12	252.52	148.83

* 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	-155	496	2	-155	81	0	-3.71	8.96	5.25
Delhi	-146	-36	-41	-48	131	0	-2.58	1.85	-0.73
Haryana	386	-121	0	382	126	0	9.20	0.31	9.52
HP	99	-296	0	-104	-657	0	1.15	-8.47	-7.32
J&K	-70	-51	0	-121	-15	0	-2.40	-0.44	-2.84
CHD	0	0	0	0	-10	0	0.00	0.08	0.08
Rajasthan	-125	616	2	-121	866	2	-2.94	14.81	11.87
UP	145	0	0	223	0	0	4.18	0.00	4.18
Uttarakhand	0	213	43	0	483	6	0.00	8.09	8.09
Total	133	821	7	56	1005	8	2.91	25.20	28.10

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-155	-155	506	5	2	0
Delhi	-48	-146	231	-52	0	-41
Haryana	386	382	150	-254	0	0
HP	99	-104	-139	-721	0	0
J&K	-70	-121	84	-101	0	0
CHD	0	0	20	-15	0	0
Rajasthan	-121	-125	1012	296	2	2
UP	228	140	0	0	0	0
Uttarakhand	0	0	494	199	45	6

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 20.04.2015 :**

Normal

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

II. 400 kV Barilley(765 kV)-Kashipur-II charged first time at 2320 hrs. dated 20/04/15 & tripped at 2340 hrs. due to CVT problem at kashipur

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