

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिड की पूर्ण स्वामित्व प्राप्त सार्वजनिक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 15.08.2015
Date of Reporting : 16.08.2015

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
39837	1364	41201	49.99	41357	3604	44960	50.04	944.9	47.02

* 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	50.16	25.50		75.67	124.81	124.61	-0.21	200.27	0.00
Haryana	16.90	0.34		17.24	123.25	122.33	-0.92	139.57	0.00
Rajasthan	80.33	7.15	6.81	94.29	57.25	55.16	-2.09	149.45	0.00
Delhi	13.17			13.17	75.98	71.07	-4.91	84.24	0.01
UP	116.29	5.74		129.81	145.98	146.27	0.29	276.09	38.27
Uttarakhand	16.19	16.19		16.19	15.38	16.87	1.49	33.06	0.25
HP		23.62		23.62	-1.62	-1.94	-0.32	21.68	0.00
J & K		14.78	0.00	14.78	21.39	20.90	-0.49	35.68	8.49
Chandigarh				0.00	5.61	4.85	0.27	4.85	0.00
Total	276.85	93.32	6.81	384.76	568.03	560.12	-6.88	944.87	47.02

* 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	8235	0	-16	1283	8126	0	-53	1493	8706
Haryana	5915	0	31	1791	6449	0	57	1818	6646
Rajasthan	5982	0	102	46	6913	0	-5	158	7181
Delhi	3054	0	-192	235	4184	0	-49	539	4673
UP	12029	900	350	983	11982	3405	166	1131	12102
Uttarakhand	1565	0	53	-148	1456	0	381	-374	1565
HP	964	0	58	-1508	930	0	49	-1612	1074
J&K	1855	464	189	-365	1125	199	-119	-816	1855
Chandigarh	238	0	-5	0	192	0	-20	0	248
Total	39837	1364	570	2318	41357	3604	407	2337	42564

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

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 (OG:(+ve), UG: (-ve))	
									Net MU	Net MU
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1860	1953	2028	40.07	1669	39.26		0.81
	Rihand I STPS (2*500)	1000	910	805	937	17.97	749	17.53		0.43
	Rihand II STPS (2*500)	1000	702	771	413	12.89	537	12.40		0.48
	Rihand III STPS (2*500)	1000	480	403	405	8.73	364	8.66		0.06
	Dadri I STPS (4*210)	840	742	323	434	9.34	389	9.37		-0.03
	Dadri II STPS (2*490)	980	970	638	666	15.63	651	16.17		-0.54
	Unchahar I TPS (2*210)	420	400	281	402	6.92	288	7.52		-0.60
	Unchahar II TPS (2*210)	420	400	295	401	6.78	283	7.11		-0.33
	Unchahar III TPS (1*220)	210	200	149	159	3.09	129	3.41		-0.32
	ISTPP (Jhajjar) (3*500)	1500	1436	624	603	13.80	575	13.97		-0.17
	Dadri GPS (4*130.19+2*154.51)	830	800	136	181	3.91	163	4.17		-0.26
	Anta GPS (3*88.71+1*153.2)	419	396	-1	-1	0.00	0	0.00		0.00
	Auraiya GPS (4*111.19+2*109.30)	663	639	109	158	3.32	138	3.29		0.03
	Dadri Solar	5	1	0	0	0.01	1	0.02		-0.01
	Unchahar Solar	10	3	0	0	0.01	1	0.06		-0.05
	Singrauli Solar	15	3	0	0	0.07	3	0.07		-0.01
	KHEP	800	835	846	845	20.31	846	20.04		0.27
Sub Total (A)	12112	10776	7332	7631	163	6785	163	0		
B. NPC	NAPS (2*220)	440	373	423	416	9.00	375	8.95		0.04
	RAPS- B (2*220)	440	390	435	432	9.31	388	9.36		-0.05
	RAPS- C (2*220)	440	375	417	411	8.90	371	9.00		-0.10
	Sub Total (B)	1320	1138	1275	1259	27.20	1133	27.31	-0.11	
C. NHPC	Chamera I HPS (3*180)	540	538	545	543	13.01	542	12.84		0.17
	Chamera II HPS (3*100)	300	300	301	304	7.23	301	7.13		0.09
	Chamera III HPS (3*77)	231	0	0	0	0.00	0	0.00		0.00
	Bairasuil HPS (3*60)	180	179	184	186	4.13	172	4.15		-0.02
	Salal-HPS (6*115)	690	657	665	665	16.03	668	15.64		0.39
	Tanakpur-HPS (3*40)	94	92	94	94	2.26	94	2.19		0.07
	Uri-I HPS (4*120)	480	453	467	450	11.01	459	10.79		0.22
	Uri-II HPS (4*60)	240	230	234	232	5.47	228	5.52		-0.05
	Dhauliganga-HPS (4*70)	280	280	280	280	6.76	282	6.66		0.10
	Dulhasti-HPS (3*130)	390	386	399	397	9.33	389	9.26		0.07
	Sewa-II HPS (3*40)	120	119	128	128	2.86	119	2.83		0.02
	Parbati 3 (4*130)	520	259	254	260	5.81	242	5.90		-0.09
	Sub Total (C)	4065	3494	3552	3539	84	3495	83	1	
	D.SJVNL	NJPC (6*250)	1500	1605	1617	1619	38.20	1592	37.88	
Rampur HEP (6*68.67)		412	428	429	429	10.31	430	10.27		0.04
Sub Total (D)		1912	2033	2046	2048	48.51	2021	48.15	0.36	
E. THDC	Tehri HPS (4*250)	1000	1030	1043	969	20.52	855	20.40		0.12
	Koteshwar HPS (4*100)	400	358	362	302	7.26	303	7.20		0.06
	Sub Total (E)	1400	1388	1405	1271	27.79	1158	27.60	0.18	
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	1450	1458	1456	34.89	1454	34.80		0.09
	Dehar HPS (6*165)	990	594	825	560	14.35	598	14.25		0.11
	Pong HPS (6*66)	396	380	384	384	9.04	377	9.12		-0.08
	Sub Total (F)	2765	2424	2667	2400	58.29	2429	58.17	0.12	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	222	224	5.10	212	4.48		0.62
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.66	1194	28.51		0.15
	Malana Stg-II HPS (2*50)	100	0	111	111	2.63	110	2.48		0.16
	Shree Cement TPS (2*150)	300	0	271	290	6.15	256	6.06		0.09
	Budhil HPS(IPP) (2*35)	70	0	0	0	0.00	0	0.00		0.00
Sub Total (G)	1662	0	1803	1825	42.54	1772	41.53	1.01		
H. Total Regional Entities (A-G)	25237	21253	20080	19973	451.05	18794	448.73	2.32		

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	690	690	15.34	639	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	80	80	1.80	75	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	385	383	9.15	381	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura (2*700)	1400	705	716	16.48	687	
	Talwandi Saboo (1*660)	660	345	330	7.39	308	
	Thermal (Total)	4700	2205	2199	50.16	2090	
	Total Hydro	1000	1075	1073	25.50	1063	
	Total Punjab	5700	3280	3272	75.67	3153	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
DCRTPP (Yamuna nagar) (2*300)		600	235	518	9.10	379	
Faridabad GPS (NTPC)		432	320	320	7.80	325	
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	0	0	0.00	0	
Thermal (Total)		4944	555	838	16.90	704	
Total Hydro		62	27	0	0.34	14	
Total Haryana		5006	582	838	17.24	718	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	669	792	17.85	744
		suratgarh TPS (6*250)	1500	381	730	15.43	643
		Chabra TPS (4*250)	1000	104	87	2.30	96
		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	185	171	4.15	173	
	RAPS A (NPC) (1*100+1*200)	300	181	183	4.29	179	
	Barsingar (NLC) (2*125)	250	160	166	3.84	160	
	Giral LTPS (2*125)	250	0	79	0.50	21	
	Rajwest LTPS (IPP) (8*135)	1080	496	583	11.08	462	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	0	0	0.00	0	
	Kawai(Adani) (2*660)	1320	860	850	20.89	870	
	Thermal (Total)	8876	3036	3641	80	3347	
	Total Hydro	550	381	327	7.15	298	
	Wind power	3214	31	275	6.21	259	
	Biomass	99	25	25	0.60	25	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	56	300	6.81	284	
	Total Rajasthan	13469	3473	4268	94.29	3929	
	UP	Anpara TPS (3*210+2*500)	1630	1387	1342	32.60	1358
Obra TPS (2*50+2*94+5*200)		1194	433	441	10.50	438	
Panicha TPS (2*110+2*220+2*250)		1140	797	793	19.20	800	
Panki TPS (2*105)		210	0	59	0.20	8	
Harduaganj TPS (1*60+1*105+2*250)		665	497	529	12.30	513	
Tanda TPS (NTPC) (4*110)		440	270	274	6.41	267	
Roza TPS (IPP) (4*300)		1200	549	550	12.78	532	
Anpara-C (IPP) (2*600)		1200	549	551	12.94	539	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	365	363	8.16	340	
Anpara-D(1*500)		500	0	0	0.00	0	
Lalitpur TPS(1*660)		660	0	0	0.00	0	
Thermal (Total)		9289	4847	4902	115	4795	
Vishnuparyag HPS (IPP)(4*110)		440	0	0	0.00	0	
Alakananda(4*82.5)		330	326	327	7.78	324	
Other Hydro		527	340	272	5.74	239	
Cogeneration		981	50	50	1.20	50	
Total UP	11567	5563	5551	130	5409		
Uttarakhand	Total Hydro	1398	957	262	16.19	674	
	Total Uttarakhand	1398	957	262	16.19	674	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	34	32	0.74	31	
	Pragati Gas Turbine (2x104+ 1x122)	330	145	262	4.80	200	
	Riithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	0	0	0.10	4	
	Badarpur TPS (NTPC) (3*95+2*210)	705	318	317	7.52	313	
	Thermal (Total)	2917	497	611	13.17	549	
	Total Delhi	2917	497	611	13.17	549	
HP	Baspa HPS (IPP) (3*100)	300	333	333	7.67	320	
	Malana HPS (IPP) (2*43)	86	102	102	2.44	101	
	Other Hydro	878	591	529	13.51	563	
	Total HP	1264	1026	964	23.62	984	
J & K	Baglihar HPS (IPP) (3*150)	450	450	450	10.80	450	
	Other Hydro/IPP	560	177	182	3.98	166	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	627	632	14.78	616	
Total State Control Area Generation		42521	16005	16398	384.76	16031	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5918	6193	121.37	5057	
Total Regional Availability(Gross)		67758	42003	42564	957.18	39882	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	12048	11639	275.16	11465
State Control Area Hydro	5811	4433	3530	93.32	3888
Total Regional Hydro	18045	16481	15169	368.48	15353

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(HVDC B/B)	-100	250	250	100	1.88	0.49	1.39
765 KV Gwalior-Agra (D/C)	2099	1182	2099	0	32.46	0.00	32.46
400 KV Zerda-Kankroli	2	-226	2	226	0.00	3.33	-3.33
400 KV Zerda-Bhimmal	-35	199	53	204	0.00	2.53	-2.53
220 KV Auraiya-Malanpur	3	15	0	23	0.00	0.32	-0.32
220 KV Badod-Kota/Morak	45	-28	48	35	0.30	0.00	0.30
Mundra-Mohinderqarh(HVDC Bipole)	1204	2500	2504	0	40.83	0.00	40.83
400 KV Vindhychal - Rihand	327	494	494	0	7.37	0.00	7.37
765 kV Phagi-Gwalior (D/C)	698	643	909	0	13.30	0.00	13.30
Sub Total WR	4243	5029			96.13	6.66	89.47
Pusauli Bypass/HVDC	400	400	400	0	8.99	0.00	8.99
400 KV MZP- GKP (D/C)	380	250	516	0	8.31	0.00	8.31
400 KV Patna-Balia(D/C) X 2	210	250	315	0	5.14	0.00	5.14
400 KV B'Sharif-Balia (D/C)	106	143	194	0	2.97	0.00	2.97
765 KV Pusauli-Balia	117	122	137	0	1.09	0.00	1.09
765 KV Gaya-Fatehpur	109	-65	118	83	0.62	0.00	0.62
220 KV Pusauli-Sahupuri	181	150	219	0	2.79	0.00	2.79
132 KV K'nasa-Sahupuri	0	0	0	0	0.96	0.00	0.96
132 KV Son Ngr-Rihand	-40	-46	0	47	0.00	0.94	-0.94
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-54	-176	17	183	0.00	2.11	-2.11
400 KV Barh -GKP (D/C)	266	136	250	0	4.07	0.00	4.07
Sub Total ER	1675	1164			34.96	3.05	31.91
Total IR Exch	5918	6193			131.09	9.71	121.37

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
21.85	3.74	25.58	15.43	16.01	0.92	-1.64	2.08	-2.08
Total IR Schedule (MU)								
44.01	90.88	134.89	31.91	89.47	121.37	-12.10	-1.41	-13.52

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	-28	-35	0	38	0	1	-0.66

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	0.90	10.59	53.04	63.76	15.27	10.12	0.32	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.23	17.09	49.69	0.08	50.00	0.06	0.08	50.23	49.94

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	411	12:56	399	00:04	0.0	0.0	0.0	0.0
Gorakhpur	400	418	13:01	398	19:04	0.0	0.0	0.0	0.0
Bareilly	400	420	13:06	396	20:55	0.0	0.0	0.0	0.0
Kanpur	400	420	13:05	403	00:07	0.0	0.0	0.0	0.0
Dadri	400	421	17:05	404	00:05	0.0	0.0	0.8	0.0
Ballabgarh	400	426	16:07	409	00:04	0.0	0.0	38.1	0.0
Bawana	400	421	13:06	406	00:07	0.0	0.0	1.6	0.0
Bassi	400	430	13:04	414	21:07	0.0	0.0	81.2	0.0
Hissar	400	416	17:04	404	00:05	0.0	0.0	0.0	0.0
Moga	400	410	06:02	401	20:04	0.0	0.0	0.0	0.0
Abdullapur	400	414	17:09	404	19:14	0.0	0.0	0.0	0.0
Nalagarh	400	414	04:00	409	00:02	0.0	0.0	0.0	0.0
Kishenpur	400	411	03:59	403	20:03	0.0	0.0	0.0	0.0
Wagoora	400	404	04:01	386	20:08	0.0	6.8	0.0	0.0
Amritsar	400	410	05:30	393	05:47	0.0	0.0	0.0	0.0
Kashipur	400	420	13:05	411	00:04	0.0	0.0	0.0	0.0
Hamirpur	400	402	00:00	402	00:00	0.0	0.0	0.0	0.0
Rishikesh	400	411	13:06	391	00:06	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	783	13:03	743	19:10	0.0	0.0	0.0	0.0
Balia	765	775	13:05	743	19:08	0.0	0.0	0.0	0.0
Moga	765	790	13:01	762	20:06	0.0	0.0	0.0	0.0
Agra	765	805	13:04	765	20:07	0.0	0.0	1.0	0.0
Bhiwani	765	804	13:06	776	20:07	0.0	0.0	0.5	0.0
Unnao	765	766	13:06	732	00:07	0.0	13.3	0.0	0.0
Lucknow	765	779	13:06	746	00:05	0.0	0.0	0.0	0.0
Meerut	765	813	13:11	775	21:09	0.0	0.0	17.3	0.0
Jhatikara	765	804	13:01	776	00:05	0.0	0.0	12.2	0.0
Bareilly	765	781	13:05	747	00:06	0.0	0.0	0.0	0.0
Anta	765	767	00:00	767	00:00	0.0	0.0	0.0	0.0
Phagi	765	803	13:00	775	19:22	0.0	0.0	9.5	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	508.59	1485.27	508.76	1485.27	1750.63	1160.99
Pong	426.72	384.05	421.47	961.02	413.56	622.40	1182.99	871.31
Tehri	829.79	740.04	812.30	845.28	808.85	780.00	749.53	479.00
Koteshwar	612.50	598.50	610.01	4.69	611.84	5.46	479.00	478.66
Chamera-I	760.00	748.75	0.00	0.00	0.00	0.00	478.83	352.09
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	524.07	14.08	518.53	11.38	545.25	558.89

* 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	1146	347	0	997	286	0	27.22	7.74	34.96
Delhi	323	217	-2	429	-192	-2	10.06	1.24	11.30
Haryana	1633	184	0	1685	106	0	39.41	3.25	42.66
HP	-1239	-372	0	-998	-510	0	-25.46	-11.56	-37.02
J&K	-741	-76	0	-489	124	0	-13.44	0.22	-13.22
CHD	0	0	0	0	0	0	0.24	0.00	0.24
Rajasthan	-495	652	2	-495	540	2	-11.89	13.30	1.41
UP	1131	0	0	590	393	0	15.86	1.77	17.63
Uttarakhand	-88	-286	0	3	-151	0	-0.80	-2.27	-3.07
Total	1671	667	0	1722	596	0	41.19	13.69	54.89

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1223	997	350	286	0	0
Delhi	772	110	594	-417	-2	-2
Haryana	1685	1631	193	106	0	0
HP	-913	-1352	-352	-695	0	0
J&K	-489	-741	124	-151	0	0
CHD	30	0	0	0	0	0
Rajasthan	-495	-495	658	490	2	2
UP	1131	447	393	0	0	0
Uttarakhand	3	-88	51	-292	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 15.08.2015 :
cloudy weather and scattered rain in parts of NR

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 :