

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 29.07.2015

Date of Reporting : 30.07.2015

I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Freq* (Hz)	Off Peak (03:00 Hrs) MW			Demand Met	Day Energy (Net MU)	
	Shortage	Requirement			Shortage	Requirement	Req* (Hz)		Shortage	Requirement
44249	2543	46792		50.09	41271	2067	43339	50.10	1006.7	55.85

* 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	75.86	20.55		96.41	129.53	129.27	-0.27	225.67	0.00
Haryana	47.28	0.65		47.93	129.46	129.52	0.07	177.45	0.00
Rajasthan	51.36	4.98	6.35	62.69	54.99	55.54	0.56	118.23	0.00
Delhi	12.42			12.42	82.61	80.53	-2.08	92.95	0.08
UP	133.06	11.42		144.49	142.57	142.62	0.06	287.11	48.08
Uttarakhand		23.98		23.98	15.84	16.52	0.68	40.50	0.00
HP		25.03		25.03	0.73	1.17	0.44	26.20	0.00
J & K		13.41	0.00	13.41	20.08	18.87	-1.21	32.28	7.69
Chandigarh				0.00	6.61	6.29	0.27	6.29	0.00
Total	319.98	100.03	6.35	426.35	582.41	580.33	-1.49	1006.68	55.85

* 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	9821	0	33	1358	8866	0	186	1526	9981
Haryana	8141	0	-186	1545	7513	0	354	1538	8351
Rajasthan	5259	0	-173	-107	4786	0	-9	-107	5562
Delhi	3991	0	-33	389	3876	0	64	166	4422
UP	12118	2120	63	658	12464	1890	390	977	12617
Uttarakhand	1879	0	198	-57	1619	0	22	-46	1879
HP	1072	0	12	-1414	919	0	5	-1592	1243
J&K	1690	423	153	-425	1004	177	-90	-788	1753
Chandigarh	277	0	-14	0	225	0	-10	0	323
Total	44249	2543	53	1948	41271	2067	911	1935	45035

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

Diversity is 1.02

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	1834	1955	1665	45.18	1883	40.82	4.36	
	Rihand I STPS (2*500)	1000	873	972	716	19.97	832	18.19	1.78	
	Rihand II STPS (2*500)	1000	470	413	347	10.60	442	9.56	1.04	
	Rihand III STPS (2*500)	1000	953	946	711	20.14	839	18.51	1.63	
	Dadri I STPS (4*210)	840	639	427	552	12.10	504	11.57	0.53	
	Dadri II STPS (2*490)	980	976	678	671	16.74	698	16.61	0.13	
	Unchahar I TPS (2*210)	420	400	428	318	8.02	334	7.76	0.26	
	Unchahar II TPS (2*210)	420	400	342	313	7.53	314	7.17	0.36	
	Unchahar III TPS (1*220)	210	200	172	150	3.45	144	3.47	-0.02	
	ISTPP (Jhajjar) (3*500)	1500	1435	743	634	14.01	584	14.67	-0.66	
	Dadri GPS (4*130.19+2*154.51)	830	785	357	339	8.21	342	8.34	-0.13	
	Anta GPS (3*88.71+1*153.2)	419	396	0	0	0.00	0	0.00	0.00	
	Auraiya GPS (4*111.19+2*109.30)	663	638	0	0	0.00	0	0.00	0.00	
	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	0.01	0	0.07	-0.06	
	Sub Total (A)	12112	10816	8248	7234	186	7739	176	9	
B. NPC	NAPS (2*220)	440	373	411	419	9.02	376	8.95	0.07	
	RAPS- B (2*220)	440	387	431	437	9.36	390	9.29	0.07	
	RAPS- C (2*220)	440	385	412	406	8.82	368	9.24	-0.42	
	Sub Total (B)	1320	1145	1254	1262	27.20	1133	27.48	-0.28	
C. NHPC	Chamera I HPS (3*180)	540	537	550	544	13.10	546	12.89	0.22	
	Chamera II HPS (3*100)	300	300	303	302	7.22	301	7.20	0.02	
	Chamera III HPS (3*77)	231	229	237	230	5.62	234	5.50	0.12	
	Bairasuli HPS (3*60)	180	179	184	183	3.66	153	3.60	0.07	
	Salal-HPS (6*115)	690	540	575	460	13.41	559	13.03	0.38	
	Tanakpur-HPS (3*40)	94	92	95	95	2.24	93	2.21	0.03	
	Uri-I HPS (4*120)	480	475	473	471	11.51	479	11.40	0.11	
	Uri-II HPS (4*60)	240	180	183	182	4.35	181	4.32	0.03	
	Dhauliganga-HPS (4*70)	280	265	284	286	6.41	267	6.36	0.05	
	Dulhasti-HPS (3*130)	390	386	395	394	9.31	388	9.26	0.05	
	Sewa-II HPS (3*40)	120	119	128	129	3.03	126	2.86	0.17	
	Parbati 3 (4*130)	520	390	395	131	5.38	224	5.33	0.05	
	Sub Total (C)	4065	3692	3801	3408	85	3552	84	1	
D.SJVNL	NJPC (6*250)	1500	1605	1605	1605	38.48	1603	38.48	0.00	
	Rampur HEP (6*68.67)	412	428	430	430	10.31	429	10.27	0.03	
	Sub Total (D)	1912	2033	2035	2035	48.79	2033	48.75	0.03	
E. THDC	Tehri HPS (4*250)	1000	892	895	547	18.19	758	18.00	0.19	
	Koteshwar HPS (4*100)	400	286	394	179	6.98	291	6.86	0.12	
	Sub Total (E)	1400	1178	1289	726	25.17	1049	24.86	0.31	
F. BBMB	Bhakra HPS (3*108+2*126+5*157)	1361	1431	1426	1459	34.73	1447	34.34	0.39	
	Dehar HPS (6*165)	990	603	660	560	14.42	601	14.48	-0.06	
	Pong HPS (6*66)	396	376	384	384	9.06	377	9.02	0.03	
	Sub Total (F)	2747	2410	2470	2403	58.21	2425	57.85	0.36	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	231	231	5.01	209	5.04	-0.03	
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.74	1198	28.50	0.24	
	Malana Stg-II HPS (2*50)	100	0	111	111	2.62	109	2.47	0.15	
	Shree Cement TPS (2*150)	300	0	297	291	6.74	281	6.99	-0.25	
	Budhil HPS(IPP) (2*35)	70	0	74	70	1.73	72	1.67	0.06	
Sub Total (G)	1662	0	1912	1903	44.85	1869	44.68	0.17		
H. Total Regional Entities (A-G)	25219	21275	21009	18971	475.18	19799	463.85	11.32		

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	1050	1050	21.44	893	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	173	80	2.31	96	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	624	676	13.53	564	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura (2*700)	1400	1389	727	27.12	1130	
	Talwandi Saboo (1*660)	660	551	342	11.46	478	
	Thermal (Total)	4700	3787	2875	75.86	3161	
	Total Hydro	1000	811	932	20.55	856	
	Total Punjab	5700	4598	3807	96.41	4017	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	449	215	6.70	279
DCRTPP (Yamuna nagar) (2*300)		600	491	476	11.84	493	
Faridabad GPS (NTPC)		432	0	0	0.00	0	
RGTPP (khedar) (IPP) (2*600)		1200	414	368	10.58	441	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	741	739	18.16	757	
Thermal (Total)		4944	2095	1798	47.28	1970	
Total Hydro		62	28	26	0.65	27	
Total Haryana		5006	2123	1824	47.93	1997	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	175	193	5.03	210
		suratgarh TPS (6*250)	1500	193	191	4.41	184
		Chabra TPS (4*250)	1000	144	122	2.52	105
		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	33	47	1.10	46	
	RAPS A (NPC) (1*100+1*200)	300	143	158	4.14	173	
	Barsingsar (NLC) (2*125)	250	94	94	2.19	91	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	456	488	10.57	440	
	V/S LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	470	450	10.91	455	
	Kawai(Adani) (2*660)	1320	442	435	10.50	437	
	Thermal (Total)	8876	2150	2178	51	2140	
	Total Hydro	550	227	210	4.98	208	
	Wind power	3214	483	88	5.84	243	
	Biomass	99	21	21	0.51	21	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	504	109	6.35	264	
	Total Rajasthan	13469	2881	2497	62.69	2612	
	UP	Anpara TPS (3*210+2*500)	1630	1367	1350	32.39	1349
Obra TPS (2*50+2*94+5*200)		1194	416	419	10.27	428	
Panicha TPS (2*110+2*220+2*250)		1140	755	622	15.38	641	
Panki TPS (2*105)		210	41	113	1.68	70	
Harduaganj TPS (1*60+1*105+2*250)		665	402	432	10.38	432	
Tanda TPS (NTPC) (4*110)		440	353	364	8.92	371	
Roza TPS (IPP) (4*300)		1200	824	824	19.66	819	
Anpara-C (IPP) (2*600)		1200	1073	963	24.69	1029	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	396	322	8.51	354	
Anpara-D(1*500)		500	0	0	0.00	0	
Lalitpur TPS(1*660)		660	0	0	0.00	0	
Thermal (Total)		9289	5627	5409	132	5494	
Vishnuparyag HPS (IPP)(including Alakanada)		730	298	291	7.05	294	
Other Hydro		527	186	240	4.37	182	
Cogeneration		981	50	50	1.20	50	
Total UP		11527	6161	5990	144.49	5726	
Uttarakhand	Total Hydro	1398	955	1027	23.98	999	
	Total Uttarakhand	1398	955	1027	23.98	999	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	71	64	1.63	68	
	Pragati Gas Turbine (2x104+ 1x122)	330	129	128	3.13	130	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	0	0	0.00	0	
	Badarpur TPS (NTPC) (3*95+2*210)	705	318	301	7.66	319	
	Thermal (Total)	2917	518	493	12.42	518	
	Total Delhi	2917	518	493	12.42	518	
HP	Baspa HPS (IPP) (3*100)	300	330	330	7.65	319	
	Malana HPS (IPP) (2*43)	86	94	96	2.27	95	
	Other Hydro	878	638	622	15.10	629	
	Total HP	1264	1062	1048	25.03	1043	
J & K	Baqilhar HPS (IPP) (3*150)	450	450	450	10.80	450	
	Other Hydro/IPP	560	111	111	2.61	109	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	561	561	13.41	559	
Total State Control Area Generation		42481	18859	17247	426.35	17471	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			6606	5980	145.73	6072	
Total Regional Availability(Gross)		67700	46474	42198	1047.25	43342	

IV. Total Hydro Generation:

Regional Entities Hydro	12216	11951	10932	273.49	11395
State Control Area Hydro	5811	3830	4044	100.03	3874
Total Regional Hydro	18027	15781	14976	373.52	15269

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(HVDC B/B)	400	500	500	0	10.13	0.00	10.13		10.13
765 KV Gwalior-Agra (D/C)	2387	1507	2387	0	41.44	0.00	41.44		41.44
400 KV Zerda-Kankroli	-43	0	0	185	0.00	1.70	-1.70		
400 KV Zerda-Bhinnal	-92	-212	0	410	0.00	4.54	-4.54		
220 KV Auraiya-Malanpur	-7	-28	0	40	0.00	0.27	-0.27		
220 KV Badod-Kota/Morak	24	19	42	20	0.43	0.00	0.43		
Mundra-Mohinderqarh(HVDC Bipole)	2197	2497	2508	0	56.77	0.00	56.77		
400 KV Vindhychal - Rihand	483	258	498	0	8.07	0.00	8.07		
Sub Total WR	5349	4541			116.84	6.51	110.33		
Pusaull Bypass/HVDC	400	400	400	0	9.30	0.00	9.30		
400 KV MZP- GKP (D/C)	168	290	364	0	5.77	0.00	5.77		
400 KV Patna-Balia(D/C) X 2	163	184	272	0	4.52	0.00	4.52		
400 KV B'Sharif-Balia (D/C)	12	84	154	0	1.47	0.00	1.47		
765 KV Pusaull-Balia	15	54	98	26	0.29	0.00	0.29		
765 KV Gaya-Fatehpur	177	109	266	0	4.18	0.00	4.18		
220 KV Pusaull-Sahupuri	117	153	222	0	4.25	0.00	4.25		
132 KV Knasa-Sahupuri	0	0	0	0	0.96	0.00	0.96		
132 KV Son Ngr-Rihand	-28	-28	0	38	0.00	0.69	-0.69		
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
765 KV Sasaram - Fatehpur	-5	-40	96	67	0.33	0.03	0.31		
400 KV Barh -GKP (D/C)	238	233	270	0	5.04	0.00	5.04		
Sub Total ER	1257	1439			36.12	0.72	35.40		
Total IR Exch	6606	5980			152.96	7.23	145.73		

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
31.02	3.03	34.05	11.82	8.23	-0.03	-0.21	2.19	-2.19

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
48.04	92.17	140.22	35.40	110.33	145.73	-12.64	18.15	5.51

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	-24	-24	0	39	0	1	-0.60		

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	1.13	13.66	62.56	73.67	10.64	2.04	0.02	0.00

←----- Frequency (Hz) ----->				Average Frequency	Frequency Variation	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz	Index		(Hz)	(Hz)
50.20	18.00	49.70	19.10	49.97	0.05	0.07	50.17	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	402	03:20	396	19:59	0.0	0.0	0.0	0.0
Gorakhpur	400	415	06:09	393	11:08	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	417	06:04	394	11:10	0.0	0.0	0.0	0.0
Dadri	400	411	06:01	391	11:20	0.0	0.0	0.0	0.0
Ballabgarh	400	420	06:03	396	11:13	0.0	0.0	0.0	0.0
Bawana	400	408	18:01	393	11:13	0.0	0.0	0.0	0.0
Bassi	400	430	03:03	407	09:56	0.0	0.0	37.3	0.0
Hissar	400	406	06:00	388	11:20	0.0	4.2	0.0	0.0
Moga	400	404	03:04	388	11:26	0.0	13.4	0.0	0.0
Abdullapur	400	400	03:58	382	10:21	0.0	23.1	0.0	0.0
Nalagarh	400	404	02:49	387	14:23	0.0	15.9	0.0	0.0
Kishenpur	400	411	03:54	397	20:21	0.0	0.0	0.0	0.0
Wagoora	400	403	23:36	382	19:52	0.0	43.5	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	782	07:01	743	11:13	0.0	0.0	0.0	0.0
Balia	765	768	06:05	737	11:08	0.0	6.5	0.0	0.0
Moga	765	777	06:01	738	11:09	0.0	14.3	0.0	0.0
Agra	765	787	06:03	747	11:12	0.0	0.0	0.0	0.0
Bhiwani	765	787	06:01	752	12:22	0.0	0.0	0.0	0.0
Unnao	765	764	07:01	727	11:37	0.5	47.9	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	502.18	1192.70	501.41	1153.36	1532.68	1168.32
Pong	426.72	384.05	415.30	693.24	406.03	370.28	1138.51	550.76
Tehri	829.79	740.04	792.90	498.00	789.05	439.29	620.05	493.00
Koteshwar	612.50	598.50	609.69	4.41	610.50	4.90	493.00	459.55
Chamera-I	760.00	748.75	756.08	0.00	0.00	0.00	472.14	355.15
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	522.58	9.89	519.74	11.34	751.55	412.88

* 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	1526	0	0	1358	0	0	36.99	0.37	37.36
Delhi	308	-141	-2	339	52	-2	8.17	-0.79	7.38
Haryana	1326	213	0	1360	186	0	32.29	3.02	35.31
HP	-1283	-309	0	-1080	-334	0	-27.54	-7.67	-35.21
J&K	-737	-51	0	-484	60	0	-13.18	-0.50	-13.68
CHD	0	0	0	0	0	0	0.24	-0.02	0.22
Rajasthan	-496	648	2	-494	385	2	-11.89	13.66	1.77
UP	977	0	0	658	0	0	15.53	0.00	15.53
Uttarakhand	-57	11	0	-57	0	0	-1.36	0.04	-1.32
Total	1565	371	0	1600	348	0	39.25	8.12	47.37

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1913	1307	86	0	0	0
Delhi	601	65	285	-276	0	-2
Haryana	1401	1315	238	-125	0	0
HP	-1080	-1283	-233	-452	0	0
J&K	-484	-737	60	-101	0	0
CHD	29	0	16	-20	0	0
Rajasthan	-494	-497	648	327	2	0
UP	992	460	0	0	0	0
Uttarakhand	-57	-57	11	0	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 29.07.2015 :**

Normal/ Scattered rain in rajasthan

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 :**