

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 11.12.2012

Date of Reporting : 12.12.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 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
32311	2135	34446	50.09	26215	630	26845	50.23	702.3	42.60

\* 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)	UI [OD:(+ve), UD: (-ve)]	
	Thermal	Hydro	Renewable/others \$	Total				Consumption (Net MU)	Shortages * (MU)
Punjab	48.41	10.39		58.80	33.87	33.38	-0.50	92.17	4.50
Haryana	60.74	0.55		61.29	33.94	34.72	0.79	96.01	2.05
Rajasthan	88.17	5.03	2.94	96.14	69.65	68.62	-1.03	164.76	0.00
Delhi	24.82			24.82	33.95	32.22	-1.73	57.04	0.25
UP	110.74	4.58	14.40	129.72	70.11	66.21	-3.90	195.93	33.80
Uttarakhand		9.97		9.97	20.29	20.94	0.65	30.91	0.18
HP		4.73		4.73	18.49	19.14	0.65	23.87	0.12
J & K		7.30	0.00	7.30	28.91	30.82	1.92	38.12	1.70
Chandigarh				0.00	3.59	3.53	-0.05	3.53	0.00
<b>Total</b>	<b>332.88</b>	<b>42.55</b>	<b>17.34</b>	<b>392.77</b>	<b>312.78</b>	<b>309.58</b>	<b>-3.20</b>	<b>702.35</b>	<b>42.60</b>

\* 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 (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy MU	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	STOA/PX transaction	
Punjab	4488	800	100	-230	3244	0	-55	-48	-4.82	
Haryana	4610	327	-41	-82	3516	0	-14	-191	-4.98	
Rajasthan	7124	0	-108	405	6829	0	220	931	27.24	
Delhi	2945	0	-35	-1171	1358	0	-53	-2266	-35.11	
UP	8935	900	148	-340	8024	630	-400	87	-8.90	
Uttarakhand	1340	0	-116	381	1050	0	-45	417	9.78	
HP	1180	8	-43	249	748	0	-49	335	6.18	
J&K	1501	100	-257	381	1355	0	57	501	10.12	
Chandigarh	188	0	-24	-10	91	0	-3	-31	-0.33	
<b>Total</b>	<b>32311</b>	<b>2135</b>	<b>-375</b>	<b>-417</b>	<b>26215</b>	<b>630</b>	<b>-342</b>	<b>-265</b>	<b>-0.82</b>	

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	UI [OG:(+ve), UG: (-ve)]	
							Schedule Net MU	UI Net MU
<b>A. NTPC</b>								
Singrauli STPS	2000	1947	2093	2097	46.70	1946	46.72	-0.02
Rihand I STPS	1000	935	1010	1008	22.49	937	22.44	0.05
Rihand II STPS	1000	975	1037	1035	23.22	967	23.40	-0.18
Rihand III STPS	500	293	336	349	6.91	288	7.03	-0.12
Dadri I STPS	840	810	719	647	16.85	702	17.78	-0.94
Dadri II STPS	980	972	986	934	21.63	901	22.56	-0.93
Unchahar I TPS	420	402	407	400	9.22	384	9.41	-0.19
Unchahar II TPS	420	405	375	382	9.11	380	9.28	-0.17
Unchahar III TPS	210	202	200	208	4.61	192	4.75	-0.14
ISTPP (Jhajhar)	1500	940	687	675	17.61	734	17.48	0.13
Dadri GPS	830	845	330	389	9.03	376	9.51	-0.47
Anta GPS	419	379	213	200	5.42	226	5.48	-0.06
Auraiya GPS	663	664	270	277	6.85	285	6.98	-0.13
<b>Sub Total (A)</b>	<b>10782</b>	<b>9769</b>	<b>8663</b>	<b>8601</b>	<b>199.64</b>	<b>8318</b>	<b>202.83</b>	<b>-3.18</b>
<b>B. NPC</b>								
NAPS	440	284	320	323	6.80	283	6.82	-0.01
RAPS- B	440	211	234	233	5.00	208	5.06	-0.07
RAPS- C	440	435	472	474	10.13	422	10.44	-0.31
<b>Sub Total (B)</b>	<b>1320</b>	<b>930</b>	<b>1026</b>	<b>1030</b>	<b>21.92</b>	<b>913</b>	<b>22.32</b>	<b>-0.40</b>
<b>C. NHPC</b>								
Chamera I HPS	540	550	540	0	2.35	98	2.59	-0.24
Chamera II HPS	300	303	225	0	1.42	59	1.47	-0.05
Chamera III HPS	231	231	142	0	0.87	36	0.83	0.04
Bairasuil HPS	180	120	70	0	0.58	24	0.52	0.05
Salai-HPS	690	140	245	90	2.69	112	2.83	-0.14
Tanakpur-HPS	94	34	48	32	0.78	33	0.80	-0.02
Uri-HPS	480	100	203	37	2.42	101	2.55	-0.12
Dhauliganga-HPS	280	216	141	0	1.09	46	1.18	-0.08
Dulhasi-HPS	390	388	410	0	2.76	115	2.90	-0.14
Sewa-II HPS	120	119	91	0	0.20	8	0.21	0.00
<b>Sub Total (C)</b>	<b>3305</b>	<b>2200</b>	<b>2115</b>	<b>159</b>	<b>15.15</b>	<b>631</b>	<b>15.87</b>	<b>-0.72</b>
<b>D.NJPC</b>								
Nathpa Jhakri	1500	1605	1008	0	7.00	292	7.20	-0.20
<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1008</b>	<b>0</b>	<b>7.00</b>	<b>292</b>	<b>7.20</b>	<b>-0.20</b>
<b>E. THDC</b>								
Tehri HPS	1000	1050	920	0	8.14	339	8.00	0.14
Koteshwar HPS	400	100	101	100	2.57	107	2.40	0.17
<b>Sub Total (E)</b>	<b>1400</b>	<b>1150</b>	<b>1021</b>	<b>100</b>	<b>10.70</b>	<b>446</b>	<b>10.40</b>	<b>0.30</b>
<b>F. BBMB</b>								
Bhakra HPS	1480	650	1145	419	16.01	667	15.60	0.41
Dehar HPS	990	134	495	0	3.24	135	3.22	0.02
Pong HPS	396	275	366	186	6.81	284	5.01	1.80
<b>Sub Total (F)</b>	<b>2866</b>	<b>1059</b>	<b>2006</b>	<b>605</b>	<b>26.06</b>	<b>1086</b>	<b>23.82</b>	<b>2.24</b>
<b>G. IPP(s)/JV(s)</b>								
ADHPL HPS(IPP)	192	0	0	0	0.50	21	0.52	-0.02
KWHEP HPS(IPP)	1000	0	140	0	3.84	160	3.88	-0.04
Malana Stg-II HPS	100	0	0	0	0.00	0	0.18	-0.18
Shree Cement TPS	300	0	285	170	6.08	254	6.04	0.04
Budhil HPS(IPP)	70	0	0	0	0.00	0	0.15	-0.15
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>425</b>	<b>170</b>	<b>10.42</b>	<b>434</b>	<b>10.78</b>	<b>-0.36</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16712</b>	<b>16264</b>	<b>10665</b>	<b>290.91</b>	<b>12121</b>	<b>293.21</b>	<b>-2.30</b>

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)	1260	1264	1020	26.04	1085
	Guru Nanak Dev TPS(Bhatinda)	440	332	295	7.03	293
	Guru Hargobind Singh TPS(L.mbt)	920	748	529	15.35	639
	Thermal (Total)	2620	2344	1844	48.41	2017
	Total Hydro	1148	483	451	10.39	433
	<b>Total Punjab</b>	<b>3768</b>	<b>2827</b>	<b>2295</b>	<b>58.80</b>	<b>2450</b>
Haryana	Panipat TPS	1367	945	891	21.81	909
	DCRTPP (Yamuna nagar)	600	281	286	6.56	273
	Faridabad GPS (NTPC)	432	162	147	3.96	165
	RGTPP (kheadar) (IPP)	1200	589	532	13.43	560
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	610	618	14.98	624
	Thermal (Total)	4944	2587	2474	60.74	2531
	Total Hydro	62	26	23	0.55	23
	<b>Total Haryana</b>	<b>5006</b>	<b>2613</b>	<b>2497</b>	<b>61.29</b>	<b>2554</b>
Rajasthan	kota TPS	1240	1186	1178	27.86	1161
	suratgarh TPS	1500	1103	1139	28.39	1183
	Chabra TPS	500	381	369	9.37	391
	Dholpur GPS	330	140	132	3.25	135
	Ramgarh GPS	111	31	60	1.28	53
	RAPS A (NPC)	300	179	179	4.37	182
	Barsingar (NLC)	250	178	211	4.91	205
	Giral LTPS	250	58	60	1.40	58
	Rajwest LTPS (IPP)	540	306	297	7.34	306
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	3562	3625	88.17	3674
	Total Hydro	550	243	165	5.03	210
	Wind power	2191	145	44	2.43	101
	Biomass	91	23	23	0.44	18
	Solar	201	2	0	0.07	3
	Renewable/Others (Total)	2483	168	67	2.94	123
		<b>Total Rajasthan</b>	<b>8189</b>	<b>3973</b>	<b>3857</b>	<b>96.14</b>
UP	Anpara TPS	1630	1553	1537	32.40	1350
	Obra TPS	1382	473	481	10.50	438
	Paricha TPS	890	242	131	4.50	188
	Panki TPS	210	60	65	0.80	33
	Harduaganj TPS	665	277	218	5.30	221
	Tanda TPS (NTPC)	440	397	397	9.70	404
	Roza TPS (IPP)	1200	1080	891	24.63	1026
	Anpara-C (IPP)	1200	665	578	14.35	598
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	365	361	8.57	357
	Thermal (Total)	8067	5112	4659	110.74	4614
	Vishnuparyag HPS (IPP)	400	0	94	0.82	34
	Other Hydro	527	107	149	3.76	157
	Cogeneration	981	600	600	14.40	600
		<b>Total UP</b>	<b>9975</b>	<b>5819</b>	<b>5502</b>	<b>129.72</b>
Uttarakhand	Total Hydro	1303	497	312	9.97	416
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>497</b>	<b>312</b>	<b>9.97</b>	<b>416</b>
Delhi	Raighat TPS	135	102	105	2.42	101
	Delhi Gas Turbine	282	76	74	1.92	80
	Pragati Gas Turbine	330	318	321	7.63	318
	Rithala GPS	108	20	0	0.40	17
	Bawana GPS	677	158	228	4.83	201
	Badarpur TPS (NTPC)	705	340	325	7.63	318
	Thermal (Total)	2237	1014	1053	24.82	1034
	<b>Total Delhi</b>	<b>2237</b>	<b>1014</b>	<b>1053</b>	<b>24.82</b>	<b>1034</b>
HP	Baspa HPS (IPP)	330	0	0	1.11	46
	Malana HPS (IPP)	86	38	0	0.23	10
	Other Hydro	589	180	149	3.39	141
		<b>Total HP</b>	<b>1005</b>	<b>218</b>	<b>149</b>	<b>5</b>
J & K	Baglihar HPS (IPP)	450	294	146	4.12	172
	Other Hydro	323	120	175	3.18	133
	Gas/Diesel/Others	183	0	0	0.00	0
		<b>Total J &amp; K</b>	<b>956</b>	<b>414</b>	<b>321</b>	<b>7.30</b>
<b>Total State Control Area Generation</b>		<b>32439</b>	<b>17375</b>	<b>15986</b>	<b>392.77</b>	<b>16331</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>992</b>	<b>1237</b>	<b>40.92</b>	<b>1705</b>
<b>Total Regional Availability(Gross)</b>		<b>55275</b>	<b>34631</b>	<b>27888</b>	<b>724.59</b>	<b>30157</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	6290	864	63.26	2636
State Control Area Hydro	5368	1988	1570	42.55	1739
<b>Total Regional Hydro</b>	<b>15731</b>	<b>8278</b>	<b>2434</b>	<b>105.80</b>	<b>4375</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(19:00 Hrs)		Off Peak(03:00 Hrs)		Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	Import	Export	
Vindhychal B/B	-400	-300	0	400	0.00	9.07			-9.07
Gwalior-Agra (D/C)	98	76	480	122	4.81	0.00			4.81
Zerda-Kankroli	-82	-50	69	127	0.00	1.02			-1.02
Zerda-Bhinmal	17	46	173	53	1.43	0.00			1.43
Malanpur-Auraiya	-210	-166	0	210	0.00	3.80			-3.80
Badod-Kota/Morak	-130	-141	0	178	0.00	2.94			-2.94
Mundra-Mohindergarh(HVDC)	432	396	470	0	10.64	0.00			10.64
<b>Sub Total WR</b>	<b>-275</b>	<b>-139</b>			<b>16.88</b>	<b>16.82</b>			<b>0.06</b>
Pusauli Bypass	-252	-253	0	355	0.04	4.74			-4.70
MZP- GKP (D/C)	436	520	708	0	11.67	0.00			11.67
Patna-Balia(D/C)	594	707	854	0	18.70	0.00			18.70
B'Sharif-Balia (D/C)	160	0	420	0	6.23	0.00			6.23
Barh - Balia(D/C)	0	0	0	0	0.00	0.00			0.00
Pusauli-Balia	6	120	120	0	1.37	0.00			1.37
Gaya-Fatehpur (765 Kv)	182	186	286	0	4.93	0.00			4.93
Pusauli-Sahupuri	178	128	171	0	3.51	0.00			3.51
K'nasa-Sahupuri	0	0	0	0	0.00	0.00			0.00
Son Ngr-Rihand	-37	-32	0	48	0.00	0.85			-0.85
Garhwa-Rihand	0	0	0	0	0.00	0.00			0.00
<b>Sub Total ER</b>	<b>1267</b>	<b>1376</b>			<b>46.45</b>	<b>5.59</b>			<b>40.86</b>
<b>Total IR Exch</b>	<b>992</b>	<b>1237</b>			<b>63.33</b>	<b>22.41</b>			<b>40.92</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
34.12	0.46	34.59	11.63	-24.77	0.00	4.14	-3.41	3.54
<b>Total IR Schedule (MU)</b>			<b>Total IR Actual (MU)</b>			<b>Net IR UI (MU)</b>		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
42.80	-5.70	37.10	40.86	0.06	40.92	-1.94	5.76	3.82

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.60	85.60	85.00	66.40	14.40
<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.47	13.04	49.62	5.48	50.05	0.22	0.14	50.43	49.89

**VII. Voltage profile**

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	405	0:00	397	7:12	0.0	0.0	0.0	0.0
Gorakhpur	400	429	4:38	412	7:46	0.0	0.0	47.7	0.0
Bareilly	400	418	3:06	400	7:25	0.0	0.0	0.0	0.0
Kanpur	400	416	3:08	398	7:21	0.0	0.0	0.0	0.0
Dadri	400	421	4:00	403	10:11	0.0	0.0	0.9	0.0
Ballabhgarh	400	426	4:00	405	9:44	0.0	0.0	23.2	0.0
Bawana	400	425	4:01	408	9:28	0.0	0.0	28.7	0.0
Bassi	400	432	4:00	400	9:41	0.0	0.0	21.7	0.6
Hissar	400	413	4:00	396	8:41	0.0	0.0	0.0	0.0
Moga	400	417	13:03	395	9:04	0.0	0.0	0.0	0.0
Abdullapur	400	428	3:11	299	17:18	0.0	0.0	41.1	0.0
Nalagarh	400	424	13:02	405	8:42	0.0	0.0	9.0	0.0
Kishenpur	400	419	13:03	389	18:07	0.0	0.1	0.0	0.0
Wagoora	400	403	13:04	364	18:07	44.4	70.7	0.0	0.0

**VIII. 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	498.31	1029.80	505.58	1339.30	195.36	496.59
Pong	426.72	384.05	413.83	633.63	416.09	718.14	67.96	401.48
Tehri	829.79	740.04	818.80	975.00	818.65	982.26	52.44	124.00
Koteshwar	612.50	598.50	608.15	3.76	NA	NA	124.00	160.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	58.35	52.20
Rihand	268.22	252.98	262.46	500.10	264.14	617.70	NA	NA
RPS	352.80	343.81	349.22	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.27	NA	NA	NA	NA	NA
RSD	527.91	487.91	519.27	NA	515.67	NA	54.14	166.08

\* NA: Not Available

**IX. System Constraints:**

**X. Grid Disturbance / Any Other Significant Event:**

**XI. Weather Conditions For 11.12.2012 :**

Light fog in Eastern U.P.

**XII. Synchronisation of new generating units :**

0.00

**XIII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XIV. Tripping of lines in pooling stations :**

**XV. Complete generation loss in a generating station :**

Report for : 11.12.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER