

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 18.04.2012  
Date of Reporting : 19.04.2012

### 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
32112	3176	35288	49.92	26413	650	27063	50.06	667.3	33.33

\* 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	50.06	7.42		57.49	41.63	39.59	-2.03	97.08	1.80
Haryana	55.48	0.56		56.04	29.94	31.27	1.33	87.31	5.79
Rajasthan	72.36	0.02	8.64	81.02	30.09	47.41	17.31	128.43	3.09
Delhi	25.33			25.33	54.13	44.14	-9.99	69.47	0.01
UP	102.57	7.78	9.60	119.95	76.78	81.56	4.78	201.51	19.36
Uttarakhand		8.54		8.54	12.15	18.42	6.26	26.95	2.09
HP		9.22		9.22	11.04	13.28	2.24	22.50	0.00
J & K		11.62	0.00	11.62	13.75	18.60	4.86	30.22	1.20
Chandigarh				0.00	4.32	3.86	-0.46	3.86	0.00
<b>Total</b>	<b>305.80</b>	<b>45.16</b>	<b>18.24</b>	<b>369.20</b>	<b>273.83</b>	<b>298.13</b>	<b>24.30</b>	<b>667.33</b>	<b>33.33</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 (20:00 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	
Punjab	4680	450	-241	-141	3823	0	-274	-94	-2.95
Haryana	4128	840	161	47	3466	0	-140	47	1.12
Rajasthan	6055	191	891	-366	4951	0	115	-366	-8.78
Delhi	3424	0	-522	567	2357	0	-371	324	11.33
UP	10093	1295	1002	465	8696	650	746	265	7.36
Uttarakhand	999	300	-79	47	1130	0	441	47	1.14
HP	1017	0	-47	-355	769	0	134	59	-3.63
J&K	1513	100	180	-323	1107	0	233	-323	-7.75
Chandigarh	203	0	-50	27	114	0	-3	0	0.61
<b>Total</b>	<b>32112</b>	<b>3176</b>	<b>1295</b>	<b>-31</b>	<b>26413</b>	<b>650</b>	<b>881</b>	<b>-40</b>	<b>-1.55</b>

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

### 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)	UI [OG:(+ve), UG: (-ve)]	
								Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1460	1591	1525	35.24	1468	35.04	0.20
	Rihand I STPS	1000	905	990	990	21.77	907	21.44	0.33
	Rihand II STPS	1000	764	1043	62	18.52	772	18.16	0.36
	Dadri I STPS	840	801	877	628	17.41	725	17.03	0.38
	Dadri II STPS	980	470	504	492	11.26	469	11.08	0.18
	Unchahar I TPS	440	400	433	430	9.55	398	9.52	0.02
	Unchahar II TPS	440	200	221	208	4.83	201	4.71	0.12
	Unchahar III TPS	210	199	217	213	4.77	199	4.69	0.08
	ISTPP (Jhajjar)	1000	336	268	501	7.60	317	7.96	-0.36
	Dadri GPS	830	805	696	650	15.50	646	15.34	0.16
	Anta GPS	419	390	230	261	5.87	244	5.57	0.29
	Auraiya GPS	663	616	309	321	7.29	304	7.21	0.08
	<b>Sub Total (A)</b>	<b>9822</b>	<b>7345</b>	<b>7379</b>	<b>6281</b>	<b>159.59</b>	<b>6650</b>	<b>157.76</b>	<b>1.83</b>
	B. NPC	NAPS	440	268	305	312	6.45	269	6.43
RAPS- B		440	383	418	425	9.12	380	9.19	-0.07
RAPS- C		440	416	468	470	10.04	418	9.98	0.05
<b>Sub Total (B)</b>		<b>1320</b>	<b>1067</b>	<b>1191</b>	<b>1207</b>	<b>25.60</b>	<b>1067</b>	<b>25.61</b>	<b>-0.01</b>
C. NHPC	Chamera I HPS	540	534	540	0	6.54	272	6.41	0.13
	Chamera II HPS	300	297	201	0	3.13	130	3.41	-0.28
	Bairasuil HPS	180	182	180	80	2.95	123	2.77	0.18
	Salal-HPS	690	300	376	257	7.36	306	7.30	0.06
	Tanakpur-HPS	94	24	35	30	0.68	28	0.65	0.03
	Uri-HPS	480	478	480	480	11.60	484	11.53	0.07
	Dhauliganga-HPS	280	277	275	0	1.25	52	1.23	0.02
	Dulhasti-HPS	390	388	398	0	4.90	204	4.48	0.42
	Sewa-II HPS	120	98	85	80	2.34	98	2.25	0.09
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2577</b>	<b>2570</b>	<b>927</b>	<b>40.75</b>	<b>1698</b>	<b>40.02</b>	<b>0.73</b>
D. NJPC	Nathpa Jhakri	1500	1600	1508	0	8.88	370	8.46	0.41
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1508</b>	<b>0</b>	<b>8.88</b>	<b>370</b>	<b>8.46</b>	<b>0.41</b>
E. THDC	Tehri HPS	1000	495	503	0	6.09	254	6.00	0.09
	Koteshwar HPS	300	300	296	0	2.85	119	2.70	0.15
	<b>Sub Total (E)</b>	<b>1300</b>	<b>795</b>	<b>799</b>	<b>0</b>	<b>8.94</b>	<b>372</b>	<b>8.70</b>	<b>0.24</b>
F. BBMB	Bhakra HPS	1480	393	587	373	9.73	405	9.43	0.30
	Dehar HPS	990	233	660	145	5.73	239	5.59	0.15
	Pong HPS	396	6	120	0	0.18	8	0.15	0.03
	<b>Sub Total (F)</b>	<b>2866</b>	<b>632</b>	<b>1367</b>	<b>518</b>	<b>15.64</b>	<b>652</b>	<b>15.16</b>	<b>0.48</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	100	0	0.84	35	1.23	-0.40
	KWHEP HPS(IPP)	1000	0	486	151	5.49	229	5.52	-0.03
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	300	0	265	161	5.27	220	4.84	0.43
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>851</b>	<b>312</b>	<b>11.60</b>	<b>483</b>	<b>11.59</b>	<b>0.01</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>14016</b>	<b>15665</b>	<b>9245</b>	<b>270.99</b>	<b>11291</b>	<b>267.30</b>	<b>3.69</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	1290	1245	27.49	1145	
	Guru Nanak Dev TPS(Bhatinda)	440	105	105	2.27	95	
	Guru Hargobind Singh TPS(L.mbt)	920	963	965	20.30	846	
	Thermal (Total)	2620	2358	2315	50.06	2086	
	Total Hydro	1148	404	129	7.42	309	
	<b>Total Punjab</b>	<b>3768</b>	<b>2762</b>	<b>2444</b>	<b>57.49</b>	<b>2395</b>	
Haryana	Panipat TPS	1360	1050	1054	24.81	1034	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	373	397	8.66	361	
	RGTPP (kheldar) (IPP)	1200	885	877	22.01	917	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2308	2328	55.48	2312	
	Total Hydro	62	11	11	0.56	23	
	<b>Total Haryana</b>	<b>4339</b>	<b>2319</b>	<b>2339</b>	<b>56.04</b>	<b>2335</b>	
Rajasthan	kota TPS	1240	1161	1105	27.21	1134	
	suratgarh TPS	1500	1361	1351	32.20	1342	
	Chabra TPS	500	71	0	0.75	31	
	Dholpur GPS	330	150	206	4.47	186	
	Ramgarh GPS	111	0	0	0.00	0	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingsar (NLC) IPP	250	0	0	0.00	0	
	Giral LTPS	250	49	67	1.12	47	
	Rajwest LTPS (IPP)	540	230	326	6.62	276	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	3022	3055	72.36	3015	
	Total Hydro	550	0	0	0.02	1	
	Wind power	1843	515	669	7.34	306	
	Biomass	91	54	54	1.31	54	
	Solar	128	0	0	0.00	0	
	Renewable/Others (Total)	1934	569	723	8.64	360	
	<b>Total Rajasthan</b>	<b>7640</b>	<b>3591</b>	<b>3778</b>	<b>81.02</b>	<b>3376</b>	
	UP	Anpara TPS	1630	1205	1135	27.80	1158
		Obra TPS	1382	476	496	12.00	500
Paricha TPS		640	376	391	9.30	388	
Panki TPS		210	144	151	3.30	138	
Harduaganj TPS		415	157	64	2.80	117	
Tanda TPS (NTPC)		440	194	190	4.77	199	
Roza TPS (IPP)		1200	1117	1116	23.83	993	
Anpara-C (IPP)		1200	446	459	10.48	437	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	355	365	8.29	345	
Thermal (Total)		7567	4470	4367	102.57	4274	
Vishnuparyag HPS (IPP)		400	104	99	2.43	101	
Other Hydro		527	244	0	5.35	223	
Cogeneration		981	400	400	9.60	400	
<b>Total UP</b>		<b>9475</b>	<b>5218</b>	<b>4866</b>	<b>119.95</b>	<b>4896</b>	
Uttarakhand		Total Hydro	1303	426	299	8.54	356
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>426</b>	<b>299</b>	<b>8.54</b>	<b>356</b>	
Delhi	Rajghat TPS	135	93	48	1.55	65	
	Delhi Gas Turbine	282	157	156	3.83	160	
	Pragati Gas Turbine	330	293	299	7.31	305	
	Rithala GPS	108	35	24	0.82	34	
	Bawana GPS	440	0	0	0.00	0	
	Badarpur TPS (NTPC)	705	600	485	11.82	493	
	Thermal (Total)	2000	1178	1012	25.33	1055	
	<b>Total Delhi</b>	<b>2000</b>	<b>1178</b>	<b>1012</b>	<b>25.33</b>	<b>1055</b>	
HP	Baspa HPS (IPP)	330	0	0	1.16	48	
	Malana HPS (IPP)	101	67	0	0.43	18	
	Other Hydro	571	305	219	7.63	318	
	<b>Total HP</b>	<b>1002</b>	<b>372</b>	<b>219</b>	<b>9</b>	<b>384</b>	
J & K	Baglihar HPS (IPP)	450	360	356	8.61	359	
	Other Hydro	323	120	128	3.01	125	
	Gas/Diesel/Others	183	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>956</b>	<b>480</b>	<b>484</b>	<b>11.62</b>	<b>484</b>	
<b>Total State Control Area Generation</b>		<b>30483</b>	<b>16346</b>	<b>15441</b>	<b>369.20</b>	<b>15282</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2350</b>	<b>2371</b>	<b>51.82</b>	<b>2159</b>	
<b>Total Regional Availability(Gross)</b>		<b>51958</b>	<b>34361</b>	<b>27057</b>	<b>692.02</b>	<b>28733</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	6830	1596	80.53	3355
State Control Area Hydro	5365	1937	1142	42.73	1780
<b>Total Regional Hydro</b>	<b>15397</b>	<b>8767</b>	<b>2738</b>	<b>123.26</b>	<b>5136</b>

**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	0	0	0	200	0.00	0.56	-0.56
Gwalior-Agra (D/C)	658	776	1214	0	17.58	0.00	17.58
Zerda-Kankroli	21	-100	128	140	0.00	0.87	-0.87
Zerda-Bhinmal	6	-86	314	167	0.74	0.00	0.74
Malanpur-Auraiya	-1	-30	0	88	0.00	0.83	-0.83
Badod-Kota/Morak	24	28	30	45	0.32	0.00	0.32
<b>Sub Total WR</b>	<b>708</b>	<b>588</b>			<b>18.63</b>	<b>2.26</b>	<b>16.37</b>
Pusauli Bypass	-194	2	80	194	0.27	2.04	-1.77
MZP- GKP (D/C)	700	592	732	0	12.98	0.00	12.98
Patna-Balia(D/C)	453	277	491	0	7.32	0.00	7.32
B'Sharif-Balia (D/C)	213	447	575	0	6.93	0.00	6.93
Barh - Balia(D/C)	276	305	361	0	7.02	0.00	7.02
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	188	134	198	0	3.93	0.00	3.93
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-42	-34	0	49	0.00	1.05	-1.05
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1642</b>	<b>1783</b>			<b>38.54</b>	<b>3.09</b>	<b>35.45</b>
<b>Total IR Exch</b>	<b>2350</b>	<b>2371</b>			<b>57.17</b>	<b>5.35</b>	<b>51.82</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	Total	Through ER	Through WR	Through ER	Through WR
24.49	0.78	25.27	-3.42	-3.43	-0.14	0.62	1.68	-1.68	

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
23.40	-5.07	18.33	35.45	16.37	51.82	12.05	21.44	33.49

**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	0.30	5.40	28.60	93.90	70.70	11.00	0.70

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.27	6.05	49.12	19.12	49.79	0.75	0.18	50.20	49.49

**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	412	08:03	402	18:08	0.0	0.0	0.0	0.0
Gorakhpur	400	436	08:06	402	18:24	0.0	0.0	58.8	22.3
Bareilly	400	418	14:29	393	18:11	0.0	0.0	0.0	0.0
Kanpur	400	419	08:02	395	18:08	0.0	0.0	0.0	0.0
Dadri	400	414	22:04	404	20:49	0.0	0.0	0.0	0.0
Ballabgarh	400	421	03:00	400	18:08	0.0	0.0	1.1	0.0
Bawana	400	420	03:42	401	18:09	0.0	0.0	0.0	0.0
Bassi	400	424	03:38	395	18:08	0.0	0.0	9.5	0.0
Hissar	400	414	14:30	395	18:08	0.0	0.0	0.0	0.0
Moga	400	423	02:56	406	18:08	0.0	0.0	5.8	0.0
Abdullapur	400	424	13:05	231	20:58	0.1	0.1	25.9	0.0
Nalagarh	400	428	02:06	408	18:09	0.0	0.0	30.4	0.0
Kishenpur	400	423	02:53	401	20:08	0.0	0.0	6.1	0.0
Wagoora	400	409	02:54	382	20:49	0.0	14.7	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	474.47	345.61	484.10	560.76	250.49	309.81
Pong	426.72	384.05	403.15	296.79	410.39	504.32	64.25	11.58
Tehri	829.79	740.04	761.10	128.85	818.65	982.26	60.51	128.85
Koteshwar	612.50	598.50	610.90	4.95	NA	NA	188.00	189.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	156.88	177.11
Rihand	268.22	252.98	258.81	241.10	254.93	73.80	NA	NA
RPS	352.80	343.81	347.65	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.16	NA	NA	NA	NA	NA
RSD	527.91	487.91	496.40	NA	506.75	NA	211.98	226.36

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 18.04.2012 :**

1. Normal weather in Northern region.

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

**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 : 18.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER