

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 20.04.2012  
Date of Reporting : 21.04.2012

### I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 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
29864	850	30714	49.86	27563	1248.25	28812	49.95	674.7	31.30

\* 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	50.84	8.35		59.18	41.70	40.52	-1.18	99.70	3.54
Haryana	56.96	0.62		57.57	29.28	29.88	0.60	87.45	5.21
Rajasthan	83.23	0.00	12.90	96.12	28.57	36.51	7.95	132.63	0.44
Delhi	32.81			32.81	54.33	43.02	-11.31	75.83	0.00
UP	98.59	7.10	9.60	115.29	80.08	81.15	1.08	196.44	16.99
Uttarakhand		8.67		8.67	10.07	16.82	6.75	25.49	3.23
HP		9.73		9.73	10.81	13.21	2.40	22.94	0.00
J & K		10.91	0.00	10.91	13.69	18.71	5.02	29.62	1.90
Chandigarh				0.00	3.79	4.54	0.75	4.54	0.00
<b>Total</b>	<b>322.43</b>	<b>45.38</b>	<b>22.50</b>	<b>390.30</b>	<b>272.31</b>	<b>284.35</b>	<b>12.04</b>	<b>674.65</b>	<b>31.30</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	4504	450	-144	-141	4023	0	-274	-94	-2.95
Haryana	4324	0	37	47	3496	493	89	47	1.12
Rajasthan	5885	0	730	-416	5399	0	383	-416	-9.98
Delhi	3432	0	-477	455	2483	0	-877	213	8.65
UP	7967	0	-632	465	9111	755	813	265	7.36
Uttarakhand	1027	300	30	47	1113	0	478	47	1.14
HP	1014	0	-43	-750	783	0	148	-42	-7.46
J&K	1491	100	116	-323	1021	0	196	-323	-7.75
Chandigarh	220	0	-27	27	135	0	21	0	0.61
<b>Total</b>	<b>29864</b>	<b>850</b>	<b>-410</b>	<b>-588</b>	<b>27563</b>	<b>1248.25</b>	<b>977</b>	<b>-302</b>	<b>-9.25</b>

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

### III. Regional Entities :

A. NTPC	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
Rihand I STPS	1000	470	522	525	11.39	474	11.28	0.11	
Rihand II STPS	1000	975	1048	1044	23.62	984	23.40	0.22	
Dadri I STPS	840	799	877	864	17.46	727	17.53	-0.07	
Dadri II STPS	980	470	495	508	11.01	459	11.02	-0.01	
Unchahar I TPS	440	396	425	437	9.45	394	9.51	-0.06	
Unchahar II TPS	440	201	220	221	4.84	202	4.82	0.02	
Unchahar III TPS	210	199	220	218	4.81	200	4.78	0.04	
ISTPP (Jhajjar)	1000	143	489	0	11.88	495	3.18	8.70	
Dadri GPS	830	795	642	635	14.96	623	15.08	-0.12	
Anta GPS	419	390	223	261	5.81	242	5.51	0.30	
Auraiya GPS	663	618	286	316	7.03	293	6.94	0.09	
<b>Sub Total (A)</b>	<b>9822</b>	<b>6916</b>	<b>7039</b>	<b>6619</b>	<b>157.65</b>	<b>6569</b>	<b>148.09</b>	<b>9.56</b>	
B. NPC	NAPS	440	268	304	308	6.40	267	6.43	-0.03
RAPS- B	440	380	426	423	9.10	379	9.12	-0.02	
RAPS- C	440	418	474	469	10.09	420	10.03	0.06	
<b>Sub Total (B)</b>	<b>1320</b>	<b>1066</b>	<b>1204</b>	<b>1200</b>	<b>25.59</b>	<b>1066</b>	<b>25.58</b>	<b>0.00</b>	
C. NHPC	Chamera I HPS	540	534	540	0	6.42	268	4.85	1.57
Chamera II HPS	300	297	300	0	3.81	159	3.60	0.21	
Bairasuil HPS	180	182	182	30	3.48	145	3.59	-0.11	
Salal-HPS	690	317	478	232	7.33	305	7.60	-0.28	
Tanakpur-HPS	94	22	32	26	0.64	27	0.64	0.00	
Uri-HPS	480	475	480	476	11.58	483	11.52	0.07	
Dhauliganga-HPS	280	216	206	0	1.51	63	1.48	0.04	
Dulhasti-HPS	390	388	413	0	4.53	189	4.28	0.25	
Sewa-II HPS	120	80	85	85	1.91	80	1.87	0.04	
<b>Sub Total (C)</b>	<b>3074</b>	<b>2510</b>	<b>2716</b>	<b>849</b>	<b>41.21</b>	<b>1717</b>	<b>39.43</b>	<b>1.78</b>	
D. NJPC	Nathpa Jhakri	1500	1600	1617	0	10.75	448	10.19	0.56
<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1617</b>	<b>0</b>	<b>10.75</b>	<b>448</b>	<b>10.19</b>	<b>0.56</b>	
E. THDC	Tehri HPS	1000	490	490	0	6.39	266	6.50	-0.11
Koteshwar HPS	300	300	303	0	3.13	130	3.00	0.13	
<b>Sub Total (E)</b>	<b>1300</b>	<b>790</b>	<b>793</b>	<b>0</b>	<b>9.52</b>	<b>397</b>	<b>9.50</b>	<b>0.02</b>	
F. BBMB	Bhakra HPS	1480	359	470	366	8.83	368	8.62	0.21
Dehar HPS	990	239	660	145	6.71	280	5.73	0.98	
Pong HPS	396	6	120	0	0.18	8	0.15	0.03	
<b>Sub Total (F)</b>	<b>2866</b>	<b>604</b>	<b>1250</b>	<b>511</b>	<b>15.72</b>	<b>655</b>	<b>14.49</b>	<b>1.23</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	75	0	1.00	42	1.23	-0.23
KWHEP HPS(IPP)	1000	0	665	150	6.03	251	6.08	-0.05	
Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00	
Shree Cement TPS	300	0	282	265	6.62	276	6.05	0.57	
<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>1022</b>	<b>415</b>	<b>13.65</b>	<b>569</b>	<b>13.36</b>	<b>0.29</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>21475</b>	<b>13485</b>	<b>15641</b>	<b>9594</b>	<b>274.09</b>	<b>11420</b>	<b>260.64</b>	<b>13.44</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	1235	1230	27.46	1144	
	Guru Nanak Dev TPS(Bhatinda)	440	125	105	2.34	98	
	Guru Hargobind Singh TPS(L.mbt)	920	946	958	21.03	876	
	Thermal (Total)	2620	2306	2293	50.84	2118	
	Total Hydro	1148	400	149	8.35	348	
	<b>Total Punjab</b>	<b>3768</b>	<b>2706</b>	<b>2442</b>	<b>59.18</b>	<b>2466</b>	
Haryana	Panipat TPS	1360	1078	701	23.21	967	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	444	426	8.35	348	
	RGTPP (khedar) (IPP)	1200	979	1015	25.39	1058	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	660	0	0	0.00	0	
	Thermal (Total)	4277	2501	2142	56.96	2373	
	Total Hydro	62	16	21	0.62	26	
	<b>Total Haryana</b>	<b>4339</b>	<b>2517</b>	<b>2163</b>	<b>57.57</b>	<b>2399</b>	
	Rajasthan	kota TPS	1240	1032	1165	28.05	1169
suratgarh TPS		1500	1269	1344	31.61	1317	
Chabra TPS		500	404	394	9.61	400	
Dholpur GPS		330	98	148	2.69	112	
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	39	40	0.87	36	
Rajwest LTPS (IPP)		540	370	387	10.40	433	
VSLP LTPS (IPP)		135	0	0	0.00	0	
Thermal (Total)		5156	3212	3478	83.23	3468	
Total Hydro		550	0	0	0.00	0	
Wind power		1843	440	475	11.75	489	
Biomass		91	48	48	1.15	48	
Solar		128	0	0	0.00	0	
Renewable/Others (Total)		1934	488	523	12.90	537	
<b>Total Rajasthan</b>		<b>7640</b>	<b>3700</b>	<b>4001</b>	<b>96.12</b>	<b>4005</b>	
UP		Anpara TPS	1630	1119	1212	27.10	1129
		Obra TPS	1382	486	486	11.80	492
	Paricha TPS	640	380	389	9.20	383	
	Panki TPS	210	95	68	2.20	92	
	Harduaganj TPS	415	43	189	3.20	133	
	Tanda TPS (NTPC)	440	192	190	4.78	199	
	Roza TPS (IPP)	1200	909	1127	23.09	962	
	Anpara-C (IPP)	1200	506	495	11.86	494	
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	176	356	5.37	224	
	Thermal (Total)	7567	3906	4512	98.59	4108	
	Vishnuparyag HPS (IPP)	400	124	109	2.72	114	
	Other Hydro	527	193	0	4.37	182	
	Cogeneration	981	400	400	9.60	400	
	<b>Total UP</b>	<b>9475</b>	<b>4623</b>	<b>5021</b>	<b>115.29</b>	<b>4690</b>	
	Uttarakhand	Total Hydro	1303	426	308	8.67	361
		<b>Total Uttarakhand</b>	<b>1303</b>	<b>426</b>	<b>308</b>	<b>8.67</b>	<b>361</b>
Delhi	Rajghat TPS	135	104	106	2.80	117	
	Delhi Gas Turbine	282	188	192	4.64	193	
	Pragati Gas Turbine	330	294	297	7.22	301	
	Rithala GPS	108	30	31	0.82	34	
	Bawana GPS	440	249	60	5.98	249	
	Badarpur TPS (NTPC)	705	490	555	11.36	473	
	Thermal (Total)	2000	1355	1181	32.81	1367	
	<b>Total Delhi</b>	<b>2000</b>	<b>1355</b>	<b>1181</b>	<b>32.81</b>	<b>1367</b>	
HP	Baspa HPS (IPP)	330	0	0	1.31	55	
	Malana HPS (IPP)	101	67	0	0.55	23	
	Other Hydro	571	275	219	7.87	328	
	<b>Total HP</b>	<b>1002</b>	<b>342</b>	<b>219</b>	<b>10</b>	<b>406</b>	
J & K	Baglihar HPS (IPP)	450	360	358	7.90	329	
	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>486</b>	<b>10.91</b>	<b>455</b>	
<b>Total State Control Area Generation</b>		<b>30483</b>	<b>16149</b>	<b>15821</b>	<b>390.30</b>	<b>16149</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>727</b>	<b>3795</b>	<b>47.10</b>	<b>1963</b>	
<b>Total Regional Availability(Gross)</b>		<b>51958</b>	<b>32517</b>	<b>29210</b>	<b>711.49</b>	<b>29532</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10033	7116	1510	84.23	3509
State Control Area Hydro	5365	1857	1183	42.65	1777
<b>Total Regional Hydro</b>	<b>15397</b>	<b>8973</b>	<b>2693</b>	<b>126.88</b>	<b>5287</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	200	0	0.58	0.00	0.58
Gwalior-Agra (D/C)	294	1172	1380	0	17.68	0.00	17.68
Zerda-Kankroli	-135	124	182	360	0.00	1.51	-1.51
Zerda-Bhinmal	-120	148	217	396	0.00	1.21	-1.21
Malanpur-Auraiya	-28	23	0	108	0.00	0.76	-0.76
Badod-Kota/Morak	-30	49	60	111	0.00	0.17	-0.17
<b>Sub Total WR</b>	<b>-19</b>	<b>1516</b>			<b>18.26</b>	<b>3.65</b>	<b>14.61</b>
Pusauli Bypass	-320	4	38	411	0.70	3.72	-3.02
MZP- GKP (D/C)	295	808	848	0	11.62	0.00	11.62
Patna-Balia(D/C)	227	395	395	0	6.63	0.00	6.63
B'Sharif-Balia (D/C)	132	525	533	0	6.70	0.00	6.70
Barh - Balia(D/C)	223	392	392	0	7.23	0.00	7.23
Pusauli-Balia	0	0	52	0	0.44	0.00	0.44
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	183	129	193	0	3.85	0.00	3.85
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>746</b>	<b>2279</b>			<b>37.26</b>	<b>4.77</b>	<b>32.49</b>
<b>Total IR Exch</b>	<b>727</b>	<b>3795</b>			<b>55.53</b>	<b>8.42</b>	<b>47.10</b>

**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
28.02	0.85	28.87	-13.21	2.40	0.29	3.51	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
17.62	5.65	23.27	32.49	14.61	47.10	14.87	8.96	23.83

**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	4.70	21.40	92.60	75.90	16.70	2.70

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.45	18.33	49.22	23.04	49.83	0.65	0.19	50.28	49.59

**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	415	13:19	405	00:47	0.0	0.0	0.0	0.0
Gorakhpur	400	436	10:31	404	21:46	0.0	0.0	53.4	11.6
Bareilly	400	424	12:59	402	00:48	0.0	0.0	15.8	0.0
Kanpur	400	422	11:08	401	02:10	0.0	0.0	0.9	0.0
Dadri	400	421	18:32	406	05:23	0.0	0.0	0.2	0.0
Ballabgarh	400	424	18:31	408	04:39	0.0	0.0	4.5	0.0
Bawana	400	421	17:57	409	04:20	0.0	0.0	0.9	0.0
Bassi	400	431	18:33	402	05:42	0.0	0.0	54.2	0.0
Hissar	400	414	17:50	400	05:50	0.0	0.0	0.0	0.0
Moga	400	424	01:41	408	06:57	0.0	0.0	10.0	0.0
Abdullapur	400	427	13:03	410	06:29	0.0	0.0	18.9	0.0
Nalagarh	400	425	01:41	410	20:04	0.0	0.0	14.7	0.0
Kishenpur	400	423	03:00	401	19:40	0.0	0.0	4.0	0.0
Wagoora	400	411	02:32	0	10:40	6.5	19.5	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	474.40	345.29	484.17	560.76	238.71	205.14
Pong	426.72	384.05	403.18	296.79	410.56	514.41	53.72	11.40
Tehri	829.79	740.04	760.50	128.60	818.65	982.26	76.81	128.00
Koteshwar	612.50	598.50	610.70	4.69	NA	NA	208.00	208.00
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 20.04.2012 :**

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 :**

1. Jhajhar Thermal unit # 2 (500MW) generation declared under commercial operation from 00.00hr of dt 21.04.2012.

1: 1500 MVA (765/400 kV) ICT-2 first time charged at 01:00 hrs of dt 21.04.2012 at Moga (PG)

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

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

Report for : 20.04.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER