

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 19.11.2011  
Date of Reporting : 20.11.2011

### 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
28973	3013	31986	49.92	24958	1260	26217.9235	49.88	633.8	51.43

\* Half hourly (two 15 minutes block--one block each before and after the designated time) average frequency

### II. A. State's Load Energy 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	48.01	10.34		58.36	23.26	24.11	0.86	82.47	4.68
Haryana	60.23	0.78		61.02	26.82	27.82	1.00	88.84	4.09
Rajasthan	82.46	5.11	3.19	90.76	46.76	55.69	8.92	146.44	10.29
Delhi	23.28			23.28	40.74	33.17	-7.57	56.45	0.02
UP	83.36	6.68	6.00	96.03	88.31	78.54	-9.78	174.57	29.97
Uttarakhand		9.12		9.12	17.42	18.11	0.69	27.23	0.61
HP		6.60		6.60	14.39	15.21	0.82	21.80	0.28
J & K		6.41	0.00	6.41	20.57	26.18	5.61	32.59	1.50
Chandigarh				0.00	3.48	3.42	-0.06	3.42	0.00
<b>Total</b>	<b>297.34</b>	<b>45.03</b>	<b>9.19</b>	<b>351.56</b>	<b>281.76</b>	<b>282.25</b>	<b>0.49</b>	<b>633.81</b>	<b>51.43</b>

\* Shortage furnished by the respective constituent.

### 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	
Punjab	3976	600	-19	-564	2981	0	46	-737	-12.71
Haryana	3947	808	-32	-88	3149	0	30	-104	-2.49
Rajasthan	6113	440	114	301	6780	0	1144	426	11.68
Delhi	2938	0	-245	-259	1585	0	-638	-495	-8.37
UP	7654	1165	-637	391	7479	1235	33	391	9.39
Uttarakhand	1425	0	47	316	939	0	55	316	7.58
HP	1143	0	-97	-336	721	25	189	4	-2.95
J&K	1595	0	109	79	1234	0	263	158	2.96
Chandigarh	182	0	-21	0	90	0	-3	-30	-0.24
<b>Total</b>	<b>28973</b>	<b>3013</b>	<b>-781</b>	<b>-159</b>	<b>24958</b>	<b>1260</b>	<b>1119</b>	<b>-71</b>	<b>4.86</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
	Singrauli STPS	2000	1915	2068	2064	46.10	1921	45.96	0.14
	Rihand I STPS	1000	671	739	736	16.26	678	16.09	0.17
	Rihand II STPS	1000	977	1039	1047	23.66	986	23.45	0.22
	Dadri I STPS	840	585	638	629	14.09	587	14.04	0.05
	Dadri II STPS	980	922	974	761	22.31	929	22.13	0.18
	Unchahar I TPS	440	400	443	440	9.68	403	9.60	0.08
	Unchahar II TPS	440	402	439	440	9.74	406	9.65	0.09
	Unchahar III TPS	210	201	218	221	4.89	204	4.82	0.06
	ISTPP (Jhajihar)	1000	475	499	492	11.21	467	11.28	-0.06
	Dadri GPS	830	609	511	580	13.28	553	13.51	-0.24
	Anta GPS	419	407	353	377	8.88	370	8.62	0.26
	Auraiya GPS	663	622	569	541	13.30	554	13.25	0.05
	<b>Sub Total (A)</b>	<b>9822</b>	<b>8185</b>	<b>8490</b>	<b>8328</b>	<b>193.41</b>	<b>8059</b>	<b>192.40</b>	<b>1.01</b>
B. NPC	NAPS	440	200	238	245	4.91	205	4.80	0.11
	RAPS- B	440	190	222	220	4.78	199	4.56	0.22
	RAPS- C	440	420	475	474	10.16	423	10.08	0.08
	<b>Sub Total (B)</b>	<b>1320</b>	<b>810</b>	<b>935</b>	<b>939</b>	<b>19.85</b>	<b>827</b>	<b>19.44</b>	<b>0.41</b>
C. NHPC	Chamera I HPS	540	534	360	0	3.31	138	3.20	0.11
	Chamera II HPS	300	297	189	0	1.81	75	1.73	0.07
	Bairasuil HPS	180	179	20	0	0.62	26	0.60	0.02
	Salal-HPS	690	142	150	215	3.54	148	3.41	0.13
	Tanakpur-HPS	94	43	43	40	1.09	45	1.08	0.01
	Uri-HPS	480	148	236	120	3.70	154	3.71	-0.02
	Dhauliganga-HPS	280	277	278	0	1.65	69	1.59	0.06
	Dulhasti-HPS	390	388	378	0	3.96	165	3.85	0.11
	Sewa-II HPS	120	0	0	0	0.00	0	0.00	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2007</b>	<b>1654</b>	<b>375</b>	<b>19.66</b>	<b>819</b>	<b>19.18</b>	<b>0.49</b>
D. NJPC	Nathpa Jhakri	1500	1600	1585	0	9.19	383	8.85	0.34
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1585</b>	<b>0</b>	<b>9.19</b>	<b>383</b>	<b>8.85</b>	<b>0.34</b>
E. THDC	Tehri HPS	1000	693	1022	0	4.27	178	4.25	0.02
	Koteshwar HPS	200	53	87	85	2.87	119	1.25	1.62
	<b>Sub Total (E)</b>	<b>1200</b>	<b>746</b>	<b>1109</b>	<b>85</b>	<b>7.13</b>	<b>297</b>	<b>5.50</b>	<b>1.63</b>
F. BBMB	Bhakra HPS	1480	627	996	418	15.37	640	15.05	0.32
	Dehar HPS	990	176	495	0	4.46	186	4.22	0.24
	Pong HPS	396	228	306	186	5.75	240	5.47	0.28
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1031</b>	<b>1797</b>	<b>604</b>	<b>25.58</b>	<b>1066</b>	<b>24.74</b>	<b>0.84</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	0	0	0.45	19	0.44	0.01
	KWHEP HPS(IPP)	1000	0	384	125	5.39	225	5.31	0.08
	Malana Stg-II HPS	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS	150	0	133	137	3.26	136	2.84	0.42
	<b>Sub Total (G)</b>	<b>1442</b>	<b>0</b>	<b>517</b>	<b>262</b>	<b>9.11</b>	<b>380</b>	<b>8.59</b>	<b>0.52</b>
<b>H. Total Regional Entities (A-G)</b>		<b>21225</b>	<b>14380</b>	<b>16087</b>	<b>10593</b>	<b>283.93</b>	<b>11830</b>	<b>278.69</b>	<b>5.24</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	1045.00	1045.00	23.32	971
	Guru Nanak Dev TPS(Bhatinda)	440	212.00	206.00	4.50	188
	Guru Hargobind Singh TPS(L.mbt)	920	903.00	909.00	20.20	842
	Thermal (Total)	2620	2160.00	2160.00	48.01	2001
	Total Hydro	1148	383.00	244.00	10.34	431
	<b>Total Punjab</b>	<b>3768</b>	<b>2543</b>	<b>2404</b>	<b>58.36</b>	<b>2432</b>
Haryana	Panipat TPS	1360	1101.00	1033.00	26.64	1110
	DCRTPP (Yamuna nagar)	600	270.00	274.00	6.55	273
	Faridabad GPS (NTPC)	432	421.00	323.00	9.16	382
	RGTPP (khedar) (IPP)	1200	710.00	534.00	17.88	745
	Magnum Diesel (IPP)	25	0.00	0.00	0.00	0
	Thermal (Total)	3617	2502.00	2164.00	60.23	2510
	Total Hydro	62	16.00	31.00	0.78	33
	<b>Total Haryana</b>	<b>3679</b>	<b>2518</b>	<b>2195</b>	<b>61.02</b>	<b>2542</b>
Rajasthan	kota TPS	1240	1173.00	1169.00	27.72	1155
	suratgarh TPS	1500	1147.00	1145.00	27.29	1137
	Chabra TPS	500	365.00	412.00	11.02	459
	Dholpur GPS	330	274.00	275.00	6.69	279
	Ramgarh GPS	113	65.00	65.00	1.66	69
	RAPS A (NPC)	300	80.00	0.00	2.13	89
	Barsingsar (NLC)	250	48.00	42.00	1.05	44
	Giral LTPS (IPP)	250	17.00	48.00	0.35	15
	Rajwest LTPS (IPP)	540	222.00	300.00	4.57	190
	VSLP LTPS (IPP)	135	0.00	0.00	0.00	0
	Thermal (Total)	5158	3391.00	3456.00	82.46	3436
	Total Hydro	550	189.00	212.00	5.11	213
	Wind power	1294	171.00	111.00	2.29	95
	Biomass	71	42.00	42.00	0.90	37
	Solar	50	0.00	0.00	0.00	0
	Renewable/Others (Total)	1365	213	153	3.19	133
		<b>Total Rajasthan</b>	<b>7073</b>	<b>3793</b>	<b>3821</b>	<b>90.76</b>
UP	Anpara TPS	1630	1480	1451	31.70	1321
	Obra TPS	1442	628	631	13.80	575
	Paricha TPS	640	398	405	8.60	358
	Panki TPS	210	185	177	3.70	154
	Harduaganj TPS	415	105	26	1.00	42
	Tanda TPS (NTPC)	440	400	411	10.90	454
	Roza TPS (IPP)	600	567	565	13.60	567
	Anpara-C (IPP)	1200	0	0	0.00	0
	Bajaj Energy Pvt.Ltd(IPP) TPS	180	0	27	0.06	2
	Thermal (Total)	6757	3763	3693	83.36	3473
	Vishnuparyag HPS (IPP)	400	138	134	3.22	134
	Other Hydro	527	132	0	3.46	144
	Cogeneration	951	250	250	6.00	250
		<b>Total UP</b>	<b>8635</b>	<b>4283</b>	<b>4077</b>	<b>96.03</b>
Uttarakhand	Total Hydro	1303	476	231	9.12	380
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>476</b>	<b>231</b>	<b>9.12</b>	<b>380</b>
Delhi	Rajghat TPS	135	46	46	1.22	51
	Delhi Gas Turbine	282	197	157	4.33	180
	Pragati Gas Turbine	330	308	255	6.64	277
	Rithala GPS	108	22	29	0.56	23
	Bawana GPS	440	0	0	0.00	0
	Badarpur TPS (NTPC)	705	480	455	10.52	438
	Thermal (Total)	2000	1053	942	23.28	970
	<b>Total Delhi</b>	<b>2000</b>	<b>1053</b>	<b>942</b>	<b>23.28</b>	<b>970</b>
HP	Baspa HPS (IPP)	330	28	0	1.72	72
	Malana HPS (IPP)	101	0	0	0.34	14
	Other Hydro	571	240	103	4.53	189
	<b>Total HP</b>	<b>1002</b>	<b>268</b>	<b>103</b>	<b>7</b>	<b>275</b>
J & K	Baglihar HPS (IPP)	450	293	146	4.68	195
	Other Hydro	323	54	100	1.73	72
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>347</b>	<b>246</b>	<b>6.41</b>	<b>267</b>
<b>Total State Control Area Generation</b>		<b>28416</b>	<b>15281</b>	<b>14019</b>	<b>351.56</b>	<b>14514</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>49</b>	<b>1084</b>	<b>20.77</b>	<b>865</b>
<b>Total Regional Availability(Gross)</b>		<b>49641</b>	<b>31417</b>	<b>25696</b>	<b>656.26</b>	<b>27210</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10083	6662	1326	70.67	2945
State Control Area Hydro	5365	1811	1067	41.81	1742
<b>Total Regional Hydro</b>	<b>15447</b>	<b>8473</b>	<b>2393</b>	<b>112.48</b>	<b>4687</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	
Vindhychal B/B	-500	-300	0	500	0.00	10.46	-10.46
Gwalior-Agra (D/C)	134	167	688	0	6.87	0.00	6.87
Zerda-Kankroli	-180	-94	0	242	0.00	3.66	-3.66
Zerda-Bhinmal	-45	48	182	137	0.00	0.12	-0.12
Malanpur-Auraiya	-224	-225	0	259	0.00	4.58	-4.58
Badod-Kota/Morak	-98	-59	0	120	0.00	1.85	-1.85
<b>Sub Total WR</b>	<b>-913</b>	<b>-463</b>			<b>6.87</b>	<b>20.68</b>	<b>-13.81</b>
Pusauli Bypass	18	171	273	0	3.94	0.01	3.93
MZP- GKP (D/C)	314	502	546	0	10.79	0.00	10.79
Patna-Balia(D/C)	364	536	663	0	11.98	0.00	11.98
B'Sharif-Balia (D/C)	146	297	383	0	5.96	0.00	5.96
Barh - balia(D/C)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	155	81	170	0	2.80	0.00	2.80
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-35	-40	0	48	0.00	0.88	-0.88
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>962</b>	<b>1547</b>			<b>35.46</b>	<b>0.88</b>	<b>34.58</b>
<b>Total IR Exch</b>	<b>49</b>	<b>1084</b>			<b>42.33</b>	<b>21.56</b>	<b>20.77</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
23.86	0.98	24.84	7.93	-1.68	-5.98	-1.31	0.00	0.00

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
26.80	-8.81	17.98	34.58	-13.81	20.77	7.78	-5.00	2.78

**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	13.20	58.70	86.60	41.10	5.00	0.20

----- 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				
50.25	0.08	49.21	18.27	49.68	1.30	0.18	50.14	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	408	00:00	399	07:49	0.0	0.0	0.0	0.0
Gorakhpur	400	431	05:00	410	10:12	0.0	0.0	49.7	0.3
Bareilly	400	423	03:20	399	10:21	0.0	0.0	5.0	0.0
Kanpur	400	420	20:00	401	08:14	0.0	0.0	0.0	0.0
Dadri	400	420	03:19	401	11:03	0.0	0.0	0.0	0.0
Ballabgarh	400	423	03:20	401	11:04	0.0	0.0	3.5	0.0
Bawana	400	424	03:16	404	11:04	0.0	0.0	5.6	0.0
Bassi	400	426	20:58	396	08:21	0.0	0.0	7.8	0.0
Hissar	400	416	03:17	397	11:04	0.0	0.0	0.0	0.0
Moga	400	421	03:23	400	15:29	0.0	0.0	0.1	0.0
Abdullapur	400	429	03:18	404	11:04	0.0	0.0	16.5	0.0
Nalagarh	400	426	03:23	406	12:24	0.0	0.0	50.9	0.0
Kishenpur	400	413	04:19	387	18:28	0.0	2.7	0.0	0.0
Wagoora	400	401	03:06	363	22:00	33.7	76.0	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	508.83	1485.27	510.58	1575.10	230.73	368.49
Pong	426.72	384.05	418.96	848.35	421.54	961.02	58.73	419.12
Tehri	829.79	740.04	817.26	942.25	NA	NA	75.28	74.00
Koteshwar	612.50	598.50	599.90	0.45	NA	NA	75.00	79.00
Chamera-I	760.00	748.75	755.31	NA	755.14	1.60	75.16	74.28
Rihand	268.22	252.98	NA	NA	277.77	191.10	NA	NA
RPS	352.80	343.81	350.66	NA	349.00	NA	NA	252.19
Jawahar Sagar	298.70	295.78	297.88	NA	297.88	NA	NA	222.85
RSD	527.91	487.91	519.77	NA	520.43	NA	99.11	158.21

**IX. System Constraints:**

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

**XI. Weather Conditions For 19.11.2011 :**

1. Fog reported at Meerut , Abdulapur, Mandola, Bareilly & Muradnagar.

**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 :**

1. All lines from Unnao S/S (UPPCL ) tripped at 01.15 Hrs/19.11.2011 Tripping details awaited.

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

Report for : 19.11.2011

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER