

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 07.04.2017

Date of Reporting : 08.04.2017



### 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
43743	485	44228	50.03	35822	330	36152	50.00	924.97	10.03

\* 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	39.87	3.18	0.21	43.27	58.06	57.69	-0.37	100.95	0.00
Haryana	16.85	0.62	0.00	17.47	98.07	97.35	-0.72	114.82	0.00
Rajasthan	116.18	0.50	10.04	126.72	72.87	74.74	1.87	201.46	0.00
Delhi	14.26		0.00	14.26	70.21	68.66	-1.55	82.92	0.03
UP	192.78	7.40	0.00	200.18	122.18	125.38	3.20	325.56	0.00
Uttarakhand		10.81	0.00	10.81	12.77	13.75	0.97	31.52	0.00
HP		15.62	4.21	15.62	11.55	11.02	-0.53	26.64	0.00
J & K		17.65	0.00	17.65	16.84	19.49	2.65	37.13	10.00
Chandigarh				0.00	4.35	3.97	-0.38	3.97	0.00
<b>Total</b>	<b>379.93</b>	<b>55.77</b>	<b>14.47</b>	<b>452.93</b>	<b>466.90</b>	<b>472.04</b>	<b>5.14</b>	<b>924.97</b>	<b>10.03</b>

\* Shortage furnished by the respective constituent's 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				Maximum Demand Met (MW) and Time(Hrs)	Shortage (MW)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction			
Punjab	5080	0	-291	-148	3944	0	44	-198	5080	20:00	0
Haryana	6287	0	101	292	4119	0	-110	24	6287	20:00	0
Rajasthan	7828	0	255	447	7448	0	134	464	8201	8:00	0
Delhi	3819	0	-9	-226	3103	0	69	-315	3964	12:00	4
UP	15883	0	540	166	13934	0	-9	72	15938	22:00	0
Uttarakhand	1692	0	203	141	1135	0	88	48	1692	20:00	0
HP	1020	0	-53	-603	696	0	-163	49	1139	8:00	0
J&K	1940	485	222	-490	1321	330	4	-400	1940	20:00	485
Chandigarh	193	0	-14	0	121	0	-12	0	198	11:00	0
<b>Total</b>	<b>43743</b>	<b>485</b>	<b>954</b>	<b>-420</b>	<b>35822</b>	<b>330</b>	<b>46</b>	<b>-256</b>	<b>43743</b>	<b>20:00</b>	<b>485</b>

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

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentoout(MW)	Schedule Net MU	UI	
								Diversity is 1.02	UI (DG:(+ve), UG: (-ve))
<b>A. NTPC</b>									
Singrauli STPS (5*200+2*500)	2000	1645	1789	1545	39.23	1635	39.08	0.15	
Rihand I STPS (2*500)	1000	906	987	979	21.08	878	21.03	0.06	
Rihand II STPS (2*500)	1000	473	498	503	11.31	471	11.05	0.25	
Rihand III STPS (2*500)	1000	953	996	984	22.10	921	21.83	0.28	
Dadri I STPS (4*210)	840	815	532	470	11.21	467	11.69	-0.48	
Dadri II STPS (2*490)	980	980	945	712	17.23	718	17.76	-0.54	
Unchahar I TPS (2*210)	420	407	369	297	6.87	286	7.53	-0.66	
Unchahar II TPS (2*210)	420	405	388	266	6.57	274	7.46	-0.89	
Unchahar III TPS (1*210)	210	203	203	152	3.61	150	3.83	-0.22	
Unchahar IV TPS(1*660)	660		0	0	0.00	0	0.00	0.00	
ISTPP (Jhajjhar) (3*500)	1500	1440	991	927	18.33	764	18.65	-0.32	
Dadri GPS (4*130.19+2*154.51)	830	596	210	61	3.62	151	4.57	-0.95	
Anta GPS (3*88.71+1*153.2)	419	377	375	287	7.80	325	7.87	-0.07	
Auraiya GPS (4*111.19+2*109.30)	663	639	0	0	0.00	0	0.00	0.00	
Dadri Solar(5)	5	1	0	0	0.00	0	0.02	-0.02	
Unchahar Solar(10)	10	2	0	0	0.00	0	0.04	-0.04	
Singrauli Solar(15)	15	2	0	0	0.00	0	0.05	-0.05	
KHEP(4*200)	800	872	868	0	5.69	237	5.50	0.19	
<b>Sub Total (A)</b>	<b>12772</b>	<b>10716</b>	<b>9151</b>	<b>7183</b>	<b>175</b>	<b>7277</b>	<b>178</b>	<b>-3.34</b>	
<b>B. NPC</b>									
NAPS (2*220)	440	198	215	217	4.55	189	4.75	-0.21	
RAPS- B (2*220)	440	363	413	411	8.82	368	8.71	0.11	
RAPS- C (2*220)	440	210	233	230	4.88	203	5.04	-0.16	
<b>Sub Total (B)</b>	<b>1320</b>	<b>771</b>	<b>861</b>	<b>858</b>	<b>18.25</b>	<b>760</b>	<b>18.50</b>	<b>-0.26</b>	
<b>C. NHPC</b>									
Chamera I HPS (3*180)	540	541	549	557	13.26	553	12.98	0.28	
Chamera II HPS (3*100)	300	301	308	312	6.74	281	6.53	0.21	
Chamera III HPS (3*77)	231	155	158	161	3.77	157	3.71	0.05	
Bairasuli HPS(3*60)	180	45	0	0	0.00	0	0.97	-0.97	
Salal-HPS (6*115)	690	345	559	0	9.19	383	8.28	0.91	
Tanakpur-HPS (3*31.4)	94	34	43	32	0.91	38	0.81	0.10	
Uri-I HPS (4*120)	480	433	473	62	10.67	445	10.39	0.28	
Uri-II HPS (4*60)	240	52	180	0	1.24	52	1.26	-0.02	
Dhauliganga-HPS (4*70)	280	280	284	0	1.98	83	1.89	0.09	
Dulhasti-HPS (3*130)	390	387	293	401	8.68	361	8.50	0.18	
Sewa-II HPS (3*40)	120	124	131	130	3.12	130	2.98	0.14	
Parbati 3 (4*130)	520	260	263	0	1.03	43	1.11	-0.07	
<b>Sub Total (C)</b>	<b>4065</b>	<b>2957</b>	<b>3241</b>	<b>1654</b>	<b>61</b>	<b>2524</b>	<b>59</b>	<b>1.19</b>	
<b>D.SJVNL</b>									
NJPC (6*250)	1500	1605	1598	0	11.99	499	11.85	0.13	
Rampur HEP (6*68.67)	412	439	430	0	3.43	143	3.30	0.13	
<b>Sub Total (D)</b>	<b>1912</b>	<b>2044</b>	<b>2028</b>	<b>0</b>	<b>15.42</b>	<b>642</b>	<b>15.15</b>	<b>0.26</b>	
<b>E. THDC</b>									
Tehri HPS (4*250)	1000	490	470	0	5.28	220	5.30	-0.02	
Koteshwar HPS (4*100)	400	114	101	91	2.77	115	2.70	0.06	
<b>Sub Total (E)</b>	<b>1400</b>	<b>604</b>	<b>571</b>	<b>91</b>	<b>8.05</b>	<b>335</b>	<b>8.00</b>	<b>0.04</b>	
<b>F. BBMB</b>									
Bhakra HPS (2*108+3*126+5*157)	1379	296	427	299	7.21	300	7.10	0.11	
Dehar HPS (6*165)	990	541	660	495	13.33	556	12.98	0.35	
Pong HPS (6*66)	396	24	165	0	0.58	24	0.58	0.00	
<b>Sub Total (F)</b>	<b>2765</b>	<b>861</b>	<b>1252</b>	<b>794</b>	<b>21.12</b>	<b>880</b>	<b>20.66</b>	<b>0.46</b>	
<b>G. IPP(s)/JV(s)</b>									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	58	0	0.85	36	0.91	-0.06	
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	750	0	7.35	306	7.33	0.02	
Malana Stg-II HPS (2*50)	100	0	0	0	0.56	23	0.55	0.01	
Shree Cement TPS (2*150)	300	0	104	98	2.62	109	2.64	-0.02	
Budhil HPS(IPP) (2*35)	70	0	36	0	0.56	23	0.61	-0.05	
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>948</b>	<b>98</b>	<b>11.94</b>	<b>498</b>	<b>12.04</b>	<b>-0.10</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>25897</b>	<b>17953</b>	<b>18052</b>	<b>10678</b>	<b>310.01</b>	<b>12917</b>	<b>311.74</b>	<b>-1.73</b>	
<b>I. State Entities</b>	<b>Station</b>	<b>Effective Installed Capacity (MW)</b>	<b>Peak MW</b>	<b>Off Peak MW</b>	<b>Energy(MU)</b>	<b>Average(Sento ut MW)</b>			
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	0	0	-0.13	-5			
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.03	-1			
	Guru Hargobind Singh TPS(L.mbi) (2*210+2*250)	920	0	0	-0.08	-3			

	Goindwal(GVK) (2*270)	540	0	0	-0.02	-1	
	Rajpura (2*700)	1400	1070	1220	25.13	1047	
	Talwandi Saboo (3*660)	1980	1108	400	14.99	625	
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2178</b>	<b>1620</b>	<b>39.87</b>	<b>1661</b>	
	Total Hydro	1000	86	133	3.18	133	
	Wind Power	0	0	0	0.00	0	
	Biomass	288	7	7	0.17	7	
	Solar	560	0	0	0.05	2	
	<b>Renewable(Total)</b>	<b>848</b>	<b>7</b>	<b>7</b>	<b>0.21</b>	<b>9</b>	
	<b>Total Punjab</b>	<b>8408</b>	<b>2271</b>	<b>1760</b>	<b>43.27</b>	<b>1803</b>	
Haryana	Panipat TPS (2*210+2*250)	920	210	210	5.32	221	
	DCRTPP (Yamuna nagar) (2*300)	600	558	447	11.53	481	
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0	
	RGTPP (khedar) (IPP) (2*600)	1200	0	0	0.00	0	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP) (2*660)	1320	0	0	0.00	0	
	<b>Thermal (Total)</b>	<b>4497</b>	<b>768</b>	<b>657</b>	<b>16.85</b>	<b>702</b>	
	Total Hydro	62	26	25	0.62	26	
	Wind Power	0	0	0	0.00	0	
	Biomass	40	0	0	0.00	0	
	Solar	0	0	0	0.00	0	
	<b>Renewable(Total)</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
	<b>Total Haryana</b>	<b>4599</b>	<b>794</b>	<b>682</b>	<b>17.47</b>	<b>728</b>	
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	317	317	7.51	313
suratgarh TPS (6*250)		1500	180	183	4.57	190	
Chabra TPS (4*250)		1000	1069	1217	26.87	1119	
Chabra TPS (1*660)		660	1069	1217	26.87	1119	
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	69	108	2.52	105	
RAPS A (NPC) (1*100+1*200)		300	194	194	4.27	178	
Barsingar (NLC) (2*125)		250	106	62	2.34	98	
Giral LTPS (2*125)		250	0	0	0.00	0	
Rajwest LTPS (IPP) (8*135)		1080	763	625	16.63	693	
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0	
Kalisindh Thermal(2*600)		1200	419	417	10.76	448	
Kawai(Adani) (2*660)		1320	571	604	13.84	577	
<b>Thermal (Total)</b>		<b>9536</b>	<b>4757</b>	<b>4944</b>	<b>116.18</b>	<b>4841</b>	
Total Hydro		550	20	20	0.50	21	
Wind power		4017	240	527	9.40	392	
Biomass		99	27	27	0.64	27	
Solar		1295	0	0	0.00	0	
Renewable/Others (Total)		5411	267	554	10.04	418	
<b>Total Rajasthan</b>		<b>15497</b>	<b>5044</b>	<b>5518</b>	<b>126.72</b>	<b>5280</b>	
UP	Anpara TPS (3*210+2*500)	1630	1076	1080	25.60	1067	
	Obra TPS (2*50+2*94+5*200)	1194	679	687	15.89	662	
	Paricha TPS (2*110+2*220+2*250)	1160	896	896	18.70	779	
	Panki TPS (2*105)	210	153	135	3.32	138	
	Harduaganj TPS (1*60+1*105+2*250)	665	542	514	11.06	461	
	Tanda TPS (NTPC) (4*110)	440	295	294	6.26	261	
	Roza TPS (IPP) (4*300)	1200	824	837	17.13	714	
	Anpara-C (IPP) (2*600)	1200	621	626	15.27	636	
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	405	281	7.09	295	
	Anpara-D(2*500)	1000	829	819	19.45	810	
	Lalitpur TPS(3*660)	1980	1181	1062	23.04	960	
	Bara(2*660)	1320	551	506	11.97	499	
	<b>Thermal (Total)</b>	<b>12449</b>	<b>8052</b>	<b>7737</b>	<b>174.78</b>	<b>7282</b>	
	Vishnuparyag HPS (IPP)(4*110)	440	122	127	2.98	124	
	Alakanada(4*82.5)	330	85	84	2.49	104	
	Other Hydro	527	153	114	1.93	81	
	Cogeneration	981	750	750	18.00	750	
	Wind Power	0	0	0	0.00	0	
	Biomass	26	0	0	0.00	0	
	Solar	102	0	0	0.00	0	
	<b>Renewable(Total)</b>	<b>128</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
	<b>Total UP</b>	<b>14855</b>	<b>9162</b>	<b>8812</b>	<b>200.18</b>	<b>8341</b>	
	Uttarakhand	Other Hydro	1250	423	465	10.81	450
		Total Gas	225	281	284	6.59	274
Wind Power		0	0	0	0.00	0	
Biomass		127	0	0	0.00	0	
Solar		20	0	0	0.39	16	
Small Hydro (< 25 MW)		180	0	0	0.00	0	
<b>Renewable(Total)</b>		<b>327</b>	<b>0</b>	<b>0</b>	<b>0.39</b>	<b>16</b>	
<b>Total Uttarakhand</b>	<b>1802</b>	<b>704</b>	<b>749</b>	<b>17.78</b>	<b>741</b>		
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	32	34	0.86	36	
	Pragati Gas Turbine (2x104+ 1x122)	330	150	152	3.70	154	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	249	248	6.00	250	
	Badarpur TPS (NTPC) (3*95+2*210)	705	160	169	3.69	154	
	<b>Thermal (Total)</b>	<b>2917</b>	<b>591</b>	<b>603</b>	<b>14.26</b>	<b>594</b>	
	Wind Power	0	0	0	0.00	0	
	Biomass	16	0	0	0.00	0	
	Solar	2	0	0	0.00	0	
	<b>Renewable(Total)</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	
<b>Total Delhi</b>	<b>2935</b>	<b>591</b>	<b>603</b>	<b>14.26</b>	<b>594</b>		
HP	Baspa HPS (IPP) (3*100)	300	27	0	1.29	54	
	Malana HPS (IPP) (2*43)	86	11	0	0.65	27	
	Other Hydro (>25MW)	372	361	387	9.47	395	
	Wind Power	0	0	0	0.00	0	
	Biomass	0	0	0	0.00	0	
	Solar	0	0	0	0.00	0	
	Small Hydro (< 25 MW)	486	168	166	4.21	176	
	<b>Renewable(Total)</b>	<b>486</b>	<b>168</b>	<b>166</b>	<b>4.21</b>	<b>176</b>	
	<b>Total HP</b>	<b>1244</b>	<b>567</b>	<b>553</b>	<b>15.62</b>	<b>651</b>	
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	737	731	17.65	735
Other Hydro/IPP(including 98 MW Small Hydro)		308	136	120	0.00	0	
Gas/Diesel/Others		190	0	0	0.00	0	
Wind Power		0	0	0	0.00	0	
Biomass		0	0	0	0.00	0	
Solar		0	0	0	0.00	0	
Small Hydro (< 25 MW)Included in Other Hydro Above		98	0	0	0.00	0	

Renewable(Total)	98	0	0	0.00	0
Total J & K	1398	873	851	18	735
Total State Control Area Generation	50738	20006	19528	452.93	18872
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		7759	6900	178.70	7446
Total Regional Availability(Gross)	76635	45817	37105	941.64	39235

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	8768	2539	119.62	4984
State Control Area Hydro	7163	2636	2656	55.77	2614
Total Regional Hydro	19397	11404	5195	175.39	7599

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.00	0
State Control Area Renewable	7356	442	727	14.85	619
Total Regional Renewable	7386	442	727	14.85	619

**VI(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(HVDC B/B)	-250	-500	0	500	0.00	8.13	-8.13
765 KV Gwalior-Agra (D/C)	2386	2186	2499	0	52.83	0.00	52.83
400 KV Zerda-Kankrol	-88	-172	0	328	0.00	4.50	-4.50
400 KV Zerda-Bhinmal	55	-59	71	142	0.00	1.27	-1.27
220 KV Auraiya-Malanpur	17	-17	0	47	0.00	0.03	-0.03
220 KV Badod-Kota/Morak	76	31	54	29	0.91	0.00	0.91
Mundra-Mohinderghar(HVDC Bipole)	1698	1999	2506	0	44.90	0.00	44.90
400 KV RAPP- Sujalpur	331	286	338	0	7.02	0.00	7.02
400 KV Vindhyachal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1228	1023	454	654	26.50	0.00	26.50
+/- 800 kV HVDC Champa-Kurushetra	600	300	1500	0	9.57	0	9.57
<b>Sub Total WR</b>	<b>6053</b>	<b>5077</b>			<b>141.73</b>	<b>13.93</b>	<b>127.80</b>
400 kV Sasaram - Varanasi	164	137	164	0	3.34	0.00	3.34
400 kV Sasaram - Allahabad	-24	3	26	24	0.07	0.21	-0.13
400 kV MZP- GKP (D/C)	56	71	123	159	0.00	0.22	-0.22
400 KV Patna-Balia(D/C) X 2	456	522	611	0	12.83	0.00	12.83
400 KV B'Sharif-Balia (D/C)	-107	-55	23	107	0.00	0.87	-0.87
765 KV Gaya-Balia	185	123	259	0	4.13	0.00	4.13
765 KV Gaya-Varanasi (D/C)	212	19	315	0	7.80	0.00	7.80
220 KV Pusaui-Sahupuri	235	199	237	0	4.58	0.00	4.58
132 KV K'nasa-Sahupuri	0	0	0	0	0.48	0.00	0.48
132 KV Son Ngr-Rihand	-24	-26	0	26	0.00	0.56	-0.56
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-310	-258	0	310	0.00	5.42	-5.42
400 KV Barh -GKP (D/C)	456	390	456	0	8.88	0.00	8.88
400 kV B'Sharif - Varanasi (D/C)	157	198	0	233	5.36	0.00	5.36
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1456</b>	<b>1323</b>			<b>47.48</b>	<b>7.29</b>	<b>40.19</b>
+/- 800 KV HVDC BiswanathChariali-Agra	250	500	500	0.00	10.71	0.00	10.71
<b>Sub Total NER</b>	<b>250</b>	<b>500</b>			<b>10.71</b>	<b>0.00</b>	<b>10.71</b>
<b>Total IR Exch</b>	<b>7759</b>	<b>6900</b>			<b>199.92</b>	<b>21.21</b>	<b>178.70</b>

**VI(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
40.46	1.07	41.52	-0.89	-1.21	-8.43	0.65	0.00	0.00

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER(including NER)	Through WR	Total	Through ER (including NER)	Through WR	Total
32.21	151.72	183.92	50.90	127.80	178.70	18.69	-23.91	-5.22

**VI(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	Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-26	-25	0	30	0	1	-0.64

**VII. 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	0.05	5.05	56.25	81.74	10.93	2.36	0.00	0.00

----- Frequency (Hz) ----->				Average Frequency	Frequency Variation	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX	MIN	
Freq	Time	Freq	Time	Hz	Index	(Hz)	(Hz)		
50.16	13.03	49.80	22.21	49.99	0.030	50.07	49.89	18.26	

**VIII(A). Voltage profile 400 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	406	7:00	398	19:15	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	416	13:02	390	19:23	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	420	13:03	393	19:13	0.0	0.0	0.0	0.0	0.0
Kanpur	400	413	7:35	393	19:14	0.0	0.0	0.0	0.0	0.0
Dadri	400	422	7:38	400	19:14	0.0	0.0	6.4	0.0	6.4
Ballabgarh	400	422	8:04	397	19:16	0.0	0.0	0.8	0.0	0.8
Bawana	400	423	8:04	399	19:16	0.0	0.0	6.6	0.0	6.6
Bassi	400	421	13:05	398	19:18	0.0	0.0	0.6	0.0	0.6
Hissar	400	421	13:03	397	19:14	0.0	0.0	0.2	0.0	0.2
Moga	400	423	2:09	401	19:15	0.0	0.0	11.9	0.0	11.9
Abdullapur	400	428	2:09	402	19:19	0.0	0.0	49.6	0.0	49.6
Nalagarh	400	429	13:11	408	19:14	0.0	0.0	50.8	0.0	50.8
Kishenpur	400	420	3:58	400	19:11	0.0	0.0	0.0	0.0	0.0
Wagoora	400	406	3:56	376	19:11	16.0	40.3	0.0	0.0	16.0
Amritsar	400	429	2:10	409	19:08	0.0	0.0	37.9	0.0	37.9
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	422	3:01	413	0:00	0.0	0.0	52.2	0.0	52.2
Rishikesh	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0

**VIII(B). Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum	Minimum	Voltage (in % of Time)	Voltage
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Station	Voltage Level (kV)	Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	% Deviat
Fatehpur	765	776	13:03	732	19:20	0.0	3.4	0.0	0.0	0.0
Balia	765	776	7:41	733	19:23	0.0	3.5	0.0	0.0	0.0
Moga	765	800	2:09	759	19:16	0.0	0.0	0.0	0.0	0.0
Agra	765	791	13:03	751	19:16	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	806	13:03	767	19:10	0.0	0.0	14.6	0.0	14.6
Unnao	765	774	13:04	734	19:16	0.0	5.6	0.0	0.0	0.0
Lucknow	765	797	13:04	742	19:23	0.0	0.0	0.0	0.0	0.0
Meerut	765	806	13:04	760	19:16	0.0	0.0	2.2	0.0	2.2
Jhatikara	765	803	8:03	760	19:16	0.0	0.0	3.1	0.0	3.1
Bareilly 765 kV	765	800	13:02	749	19:15	0.0	0.0	0.0	0.0	0.0
Anta	765	793	13:47	771	19:18	0.0	0.0	0.0	0.0	0.0
Phagi	765	0	0:00	0	0:00	100.0	100.0	0.0	0.0	100.0

Note : \*0" in Max / Min Col -> Telemetry Outage

**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 <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	464.71	191.18	479.74	454.47	291.44	241.80
Pong	426.72	384.05	396.81	157.28	395.75	136.17	123.91	42.48
Tehri	829.79	740.04	760.10	121.30	750.85	54.00	99.25	165.00
Koteshwar	612.50	598.50	610.87	5.00	611.32	5.20	165.00	182.25
Chamera-I	760.00	748.75	754.99	0.00	0.00	0.00	416.46	359.28
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	509.55	0.61	496.94	5.78	148.78	38.78

\* 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	-97	-101	0	-97	-51	0	-2.34	-4.04	-6.38
Delhi	-255	-60	0	-255	29	0	-4.01	2.31	-1.70
Haryana	32	-8	0	32	259	0	-1.65	0.73	-0.92
HP	77	-27	0	75	-677	0	1.60	-4.78	-3.19
J&K	-46	-354	0	-46	-444	0	-1.10	-7.67	-8.78
CHD	0	0	0	0	0	0	0.00	0.11	0.11
Rajasthan	24	439	0	28	419	0	0.54	9.97	10.51
UP	72	0	0	99	67	0	1.78	0.51	2.29
Uttarakhand	212	-164	0	117	24	0	4.93	-1.19	3.74
Total	19	-276	0	-47	-374	0	-0.26	-4.06	-4.32

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-97	-99	0	-641	0	0
Delhi	-98	-255	393	-197	0	0
Haryana	32	-170	304	-642	0	0
HP	79	-77	-20	-826	0	0
J&K	-46	-46	-177	-470	0	0
CHD	0	0	30	-10	0	0
Rajasthan	34	12	439	223	0	0
UP	99	25	853	-56	0	0
Uttarakhand	243	112	84	-186	0	0

**XI. System Reliability Indices(Violation of TTC and ATC):**

(i)%age of times N-1 Criteria was violated in the inter - regional corridors

WR	0.00%
ER	0.00%
Simultaneous	0.00%

(ii)%age of times ATC violated on the inter-regional corridors

WR	0.00%
ER	0.00%
Simultaneous	0.00%

(iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

Rihand - Dadri	0.00%
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**XII. Zero Crossing Violations**

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
Punjab	3	19
Haryana	0	12
Rajasthan	1	15
Delhi	4	54
UP	2	29
Uttarakhand	3	45
HP	4	40
J & K	2	16
Chandigarh	2	24

**XIII. System Constraints:**

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

XV. Weather Conditions For 07.04.2017 :

XVI. Synchronisation of new generating units :

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

XVIII. Tripping of lines in pooling stations :

XIX. Complete generation loss in a generating station :

Note: Data(regarding drawal,generation, shortage , inter-regional flows and reservoir levels)of the constituents filled in the report are as per last furnished data by the respective state/constituent to NRLDC.

Report for : 07.04.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER