

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 14.04.2017

Date of Reporting : 15.04.2017



### 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
43028	393	43421	50.01	37591	384	37974	49.96	942.11	9.81

\* 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:

UI [OD:(+ve), UD: (-ve)]

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	54.97	4.17	0.26	59.40	64.42	60.95	-3.47	120.35	0.00
Haryana	26.90	0.64	0.00	27.53	95.72	92.71	-3.01	120.25	0.00
Rajasthan	104.04	0.49	12.04	116.57	72.99	70.31	-2.68	186.88	0.00
Delhi	14.18		0.00	14.18	74.24	73.82	-0.41	88.00	0.01
UP	179.24	7.85	0.00	187.09	133.23	135.16	1.92	322.25	0.00
Uttarakhand		10.14	0.00	16.64	18.20	19.47	1.28	36.12	0.00
HP		14.75	5.49	14.75	10.78	10.19	-0.59	24.94	0.00
J & K		20.64	0.00	20.64	22.93	18.57	-4.36	39.21	9.80
Chandigarh				0.00	3.96	4.11	0.15	4.11	0.00
<b>Total</b>	<b>379.32</b>	<b>58.69</b>	<b>17.79</b>	<b>456.81</b>	<b>496.47</b>	<b>485.29</b>	<b>-11.18</b>	<b>942.11</b>	<b>9.81</b>

\* Shortage furnished by the respective constituent's Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

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	5583	0	-239	-101	5227	0	119	-101	5862	22:00	0
Haryana	6481	0	-121	207	5597	0	-122	301	6554	21:00	0
Rajasthan	6851	0	-150	417	4914	0	-388	521	6851	20:00	0
Delhi	4043	0	1	-276	3431	0	264	-462	4153	24:00	0
UP	15929	0	-152	1502	14703	0	513	844	16152	22:00	0
Uttarakhand	1700	0	114	173	1353	0	-5	180	1700	20:00	0
HP	658	0	-231	-1051	700	0	5	-75	1164	10:00	0
J&K	1574	393	-252	-262	1535	384	-213	-197	1809	7:00	452
Chandigarh	210	0	7	-10	131	0	47	0	210	20:00	0
<b>Total</b>	<b>43028</b>	<b>393</b>	<b>-1022</b>	<b>599</b>	<b>37591</b>	<b>384</b>	<b>221</b>	<b>1011</b>	<b>43469</b>	<b>21:00</b>	<b>417</b>

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

Diversity is 1.02

UI [OD:(+ve), UG: (-ve)]

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
			(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
<b>A. NTPC</b>								
Singrauli STPS (5*200+2*500)	2000	1144	1255	1257	27.90	1163	27.31	0.60
Rihand I STPS (2*500)	1000	934	964	945	20.49	854	20.63	-0.13
Rihand II STPS (2*500)	1000	479	514	485	10.82	451	10.66	0.16
Rihand III STPS (2*500)	1000	971	1020	732	21.10	879	21.23	-0.13
Dadri I STPS (4*210)	840	815	514	446	11.06	461	11.52	-0.46
Dadri II STPS (2*490)	980	980	858	726	17.50	729	18.17	-0.67
Unchahar I TPS (2*210)	420	405	398	408	7.43	309	7.80	-0.37
Unchahar II TPS (2*210)	420	405	290	427	7.21	301	7.55	-0.33
Unchahar III TPS (1*210)	210	203	150	212	3.51	146	3.82	-0.31
Unchahar IV TPS (1*660)	660		0	0	0.56	23	0.00	0.56
ISTPP (Jhajjar) (3*500)	1500	1440	986	702	17.72	739	18.06	-0.33
Dadri GPS (4*130.19+2*154.51)	830	778	158	154	3.76	157	4.16	-0.41
Anta GPS (3*88.71+1*153.2)	419	378	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	639	139	128	3.11	129	3.18	-0.08
Dadri Solar(5)	5	1	0	0	0.02	1	0.02	0.00
Unchahar Solar(10)	10	2	0	0	0.05	2	0.05	0.00
Singrauli Solar(15)	15	2	0	0	0.00	0	0.06	-0.06
KHEP(4*200)	800	872	799	0	6.28	262	6.00	0.28
<b>Sub Total (A)</b>	<b>12772</b>	<b>10448</b>	<b>8046</b>	<b>6622</b>	<b>159</b>	<b>6605</b>	<b>160</b>	<b>-1.69</b>
<b>B. NPC</b>								
NAPS (2*220)	440	431	424	443	9.44	393	10.34	-0.91
RAPS- B (2*220)	440	364	406	410	8.73	364	8.74	-0.01
RAPS- C (2*220)	440	210	229	231	4.82	201	5.04	-0.22
<b>Sub Total (B)</b>	<b>1320</b>	<b>1005</b>	<b>1059</b>	<b>1084</b>	<b>22.99</b>	<b>958</b>	<b>24.12</b>	<b>-1.13</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	535	551	0	10.40	433	10.02	0.38
Chamera II HPS (3*100)	300	301	311	306	7.29	304	7.11	0.18
Chamera III HPS (3*77)	231	231	227	165	5.26	219	5.15	0.11
Bairasuli HPS(3*60)	180	179	183	170	4.35	181	4.29	0.07
Salal-HPS (6*115)	690	527	654	548	13.71	571	12.66	1.06
Tanakpur-HPS (3*31.4)	94	27	23	32	0.73	30	0.65	0.08
Uri-I HPS (4*120)	480	475	480	480	11.61	484	11.40	0.21
Uri-II HPS (4*60)	240	237	241	239	5.72	238	5.69	0.03
Dhauliganga-HPS (4*70)	280	280	277	0	2.22	93	2.10	0.12
Dulhasti-HPS (3*130)	390	387	393	391	9.41	392	9.30	0.12
Sewa-II HPS (3*40)	120	126	130	131	3.14	131	3.02	0.12
Parbati 3 (4*130)	520	260	264	0	1.61	67	1.59	0.02
<b>Sub Total (C)</b>	<b>4065</b>	<b>3566</b>	<b>3733</b>	<b>2461</b>	<b>75</b>	<b>3144</b>	<b>73</b>	<b>2.49</b>
<b>D.SJVNL</b>								
NJPC (6*250)	1500	1605	1600	540	18.66	777	18.25	0.40
Rampur HEP (6*68.67)	412	442	437	150	5.34	222	5.09	0.25
<b>Sub Total (D)</b>	<b>1912</b>	<b>2047</b>	<b>2037</b>	<b>690</b>	<b>23.99</b>	<b>1000</b>	<b>23.34</b>	<b>0.65</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	474	443	0	5.24	218	5.30	-0.06
Koteshwar HPS (4*100)	400	104	204	91	2.52	105	2.50	0.02
<b>Sub Total (E)</b>	<b>1400</b>	<b>578</b>	<b>647</b>	<b>91</b>	<b>7.76</b>	<b>323</b>	<b>7.80</b>	<b>-0.04</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	266	296	267	6.49	270	6.39	0.09
Dehar HPS (6*165)	990	471	660	165	11.45	477	11.30	0.15
Pong HPS (6*66)	396	23	165	0	0.57	24	0.56	0.01
<b>Sub Total (F)</b>	<b>2765</b>	<b>761</b>	<b>1121</b>	<b>432</b>	<b>18.51</b>	<b>771</b>	<b>18.26</b>	<b>0.25</b>
<b>G. IPP(s)/JV(s)</b>								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	159	22	1.76	73	1.63	0.13
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	800	260	9.64	402	9.61	0.03
Malana Stg-II HPS (2*50)	100	0	111	40	0.89	37	0.83	0.06
Shree Cement TPS (2*150)	300	0	143	145	3.42	143	3.48	-0.06
Budhil HPS(IPP) (2*35)	70	0	36	0	0.06	3	1.01	-0.95
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1249</b>	<b>468</b>	<b>15.77</b>	<b>657</b>	<b>16.57</b>	<b>-0.79</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25897</b>	<b>18405</b>	<b>17892</b>	<b>11848</b>	<b>323.02</b>	<b>13459</b>	<b>323.29</b>	<b>-0.27</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(Sentout MW)</b>		
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	420	420	8.00	333		
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.02	-1		
	Guru Hargobind Singh TPS(L.mbi) (2*210+2*250)	920	719	641	14.23	593		

	Goindwal(GVK) (2*270)	540	0	0	-0.02	-1
	Rajpura (2*700)	1400	630	660	12.93	539
	Talwandi Saboo (3*660)	1980	616	980	19.85	827
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2385</b>	<b>2701</b>	<b>54.97</b>	<b>2290</b>
	Total Hydro	1000	220	147	4.17	174
	Wind Power	0	0	0	0.00	0
	Biomass	288	8	8	0.20	8
	Solar	560	0	0	0.06	3
	<b>Renewable(Total)</b>	<b>848</b>	<b>8</b>	<b>8</b>	<b>0.26</b>	<b>11</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2613</b>	<b>2856</b>	<b>59.40</b>	<b>2475</b>
Haryana	Panipat TPS (2*210+2*250)	920	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	280	443	6.75	281
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	559	383	9.61	400
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar (CLP) (2*660)	1320	597	382	10.54	439
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1436</b>	<b>1208</b>	<b>26.90</b>	<b>1121</b>
	Total Hydro	62	26	30	0.64	27
	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>1462</b>	<b>1238</b>	<b>27.53</b>	<b>1147</b>
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	560	471	11.56
suratgarh TPS (6*250)		1500	196	189	4.62	192
Chabra TPS (4*250)		1000	1140	1047	26.42	1101
Chabra TPS (1*660)		660	0	0	0.00	0
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	181	180	4.68	195
RAPS A (NPC) (1*100+1*200)		300	190	190	4.29	179
Barsingsar (NLC) (2*125)		250	225	225	5.31	221
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	811	537	18.14	756
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(2*600)		1200	480	439	10.90	454
Kawai(Adani) (2*660)		1320	582	502	18.14	756
<b>Thermal (Total)</b>		<b>9536</b>	<b>4365</b>	<b>3780</b>	<b>104.04</b>	<b>4335</b>
Total Hydro		550	196	21	0.49	20
Wind power		4017	170	1550	15.28	637
Biomass		99	16	16	0.39	16
Solar		1295	0	0	-3.63	-151
Renewable/Others (Total)		5411	186	1566	12.04	502
<b>Total Rajasthan</b>		<b>15497</b>	<b>4747</b>	<b>5367</b>	<b>116.57</b>	<b>4857</b>
UP	Anpara TPS (3*210+2*500)	1630	1395	1389	32.78	1366
	Obra TPS (2*50+2*94+5*200)	1194	680	688	16.03	668
	Paricha TPS (2*110+2*220+2*250)	1160	595	824	15.61	650
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	216	190	4.36	182
	Tanda TPS (NTPC) (4*110)	440	288	292	6.18	257
	Roza TPS (IPP) (4*300)	1200	788	837	16.25	677
	Anpara-C (IPP) (2*600)	1200	630	626	15.08	629
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	827	850	20.00	833
	Lalitpur TPS(3*660)	1980	1184	1177	23.44	977
	Bara(2*660)	1320	977	581	15.12	630
	<b>Thermal (Total)</b>	<b>12449</b>	<b>7580</b>	<b>7454</b>	<b>164.84</b>	<b>6868</b>
	Vishnuparyag HPS (IPP)(4*110)	440	152	152	3.51	146
	Alakanada(4*82.5)	330	168	84	2.23	93
	Other Hydro	527	114	124	2.11	88
	Cogeneration	981	600	600	14.40	600
	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>8614</b>	<b>8414</b>	<b>187.09</b>	<b>7796</b>
	Uttarakhand	Other Hydro	1250	465	419	10.14
Total Gas		225	240	267	5.94	248
Wind Power		0	0	0	0.00	0
Biomass		127	0	0	0.00	0
Solar		20	0	0	0.56	23
Small Hydro (< 25 MW)		180	0	0	0.00	0
<b>Renewable(Total)</b>		<b>327</b>	<b>0</b>	<b>0</b>	<b>0.56</b>	<b>23</b>
<b>Total Uttarakhand</b>	<b>1802</b>	<b>705</b>	<b>686</b>	<b>16.64</b>	<b>694</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	32	34	0.86	36
	Pragati Gas Turbine (2x104+ 1x122)	330	145	154	3.64	152
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	251	249	6.02	251
	Badarpur TPS (NTPC) (3*95+2*210)	705	168	167	3.67	153
	<b>Thermal (Total)</b>	<b>2917</b>	<b>596</b>	<b>604</b>	<b>14.18</b>	<b>591</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>596</b>	<b>604</b>	<b>14.18</b>	<b>591</b>	
HP	Baspa HPS (IPP) (3*100)	300	71	61	2.42	101
	Malana HPS (IPP) (2*43)	86	46	44	0.81	34
	Other Hydro (>25MW)	372	268	259	6.04	252
	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	276	210	5.49	229
	<b>Renewable(Total)</b>	<b>486</b>	<b>276</b>	<b>210</b>	<b>5.49</b>	<b>229</b>
	<b>Total HP</b>	<b>1244</b>	<b>662</b>	<b>574</b>	<b>14.75</b>	<b>615</b>
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	738	738	17.78
Other Hydro/IPP(including 98 MW Small Hydro)		308	136	120	2.86	119
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	874	858	21	860
Total State Control Area Generation	50738	20273	20597	456.81	19034
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		8465	8874	182.13	7589
Total Regional Availability(Gross)	76635	46630	41319	961.96	40082

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	9407	3996	144.30	6012
State Control Area Hydro	7163	3117	2676	58.69	2716
Total Regional Hydro	19397	12524	6672	202.99	8729

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.07	3
State Control Area Renewable	7356	471	1784	18.34	764
Total Regional Renewable	7386	471	1784	18.41	767

**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)	-200	-200	0	200	0.00	4.95	-4.95
765 KV Gwalior-Agra (D/C)	2537	2434	2862	0	51.21	0.00	51.21
400 KV Zerda-Kankrol	-42	-202	0	301	0.00	4.64	-4.64
400 KV Zerda-Bhinmal	-27	-167	79	251	0.00	3.28	-3.28
220 KV Auraiya-Malanpur	-6	-19	0	64	0.00	0.64	-0.64
220 KV Badod-Kota/Morak	27	-4	92	67	0.00	0.17	-0.17
Mundra-Mohindergarh(HVDC Bipole)	2002	2499	2507	0	49.31	0.00	49.31
400 KV RAPP-C-Sujalpur	340	170	340	0	5.43	0.00	5.43
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1121	1160	1219	0	24.01	0.00	24.01
+/- 800 kV HVDC Champa-Kurushetra	1500	1500	1500	0	36.15	0	36.15
<b>Sub Total WR</b>	<b>7252</b>	<b>7171</b>			<b>166.10</b>	<b>13.68</b>	<b>152.43</b>
400 kV Sasaram - Varanasi	155	129	162	0	5.08	0.00	5.08
400 kV Sasaram - Allahabad	-8	14	16	15	0.02	0.00	0.02
400 kV MZP- GKP (D/C)	122	127	208	73	0.11	0.00	0.11
400 KV Patna-Balia(D/C) X 2	445	649	666	0	14.21	0.00	14.21
400 KV B'Sharif-Balia (D/C)	2	87	105	0	1.04	0.00	1.04
765 KV Gaya-Balia	264	293	361	0	5.61	0.00	5.61
765 KV Gaya-Varanasi (D/C)	313	373	397	0	6.04	0.00	6.04
220 KV Pusaui-Sahupuri	236	199	239	0	4.28	0.00	4.28
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	26	25	0	30	0.00	0.58	-0.58
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-263	-175	0	302	0.00	3.99	-3.99
400 KV Barh -GKP (D/C)	528	520	562	0	11.67	0.00	11.67
400 kV B'Sharif - Varanasi (D/C)	-107	-38	0	153	0.00	2.04	-2.04
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1713</b>	<b>2203</b>			<b>48.05</b>	<b>6.61</b>	<b>41.44</b>
+/- 800 KV HVDC BiswanathCharialli-Agra	-500	-500	0	500.00	0.00	11.74	-11.74
<b>Sub Total NER</b>	<b>-500</b>	<b>-500</b>			<b>0.00</b>	<b>11.74</b>	<b>-11.74</b>
<b>Total IR Exch</b>	<b>8465</b>	<b>8874</b>			<b>214.16</b>	<b>32.03</b>	<b>182.13</b>

**VI(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
42.37	0.53	42.90	-0.59	-1.46	-5.40	4.22	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
36.91	145.58	182.48	29.70	152.43	182.13	-7.21	6.85	-0.36

**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	-27	-28	0	29	0	1	-0.66

**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	0.00	4.42	46.62	76.90	15.59	3.72	0.00	0.00

----- Frequency (Hz) ----->					Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum		MAX				MIN		
Freq	Time	Freq	Time	Hz	Index	(Hz)	(Hz)			
50.19	5.03	49.80	19.14	50.00	0.032	0.056	50.08	49.86	23.10	

**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	409	7:01	402	19:23	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	418	13:01	390	19:22	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	416	5:04	383	19:27	0.0	5.3	0.0	0.0	0.0
Kanpur	400	416	5:04	391	19:22	0.0	0.0	0.0	0.0	0.0
Dadri	400	422	5:04	398	19:18	0.0	0.0	1.4	0.0	1.4
Ballabgarh	400	422	5:05	395	19:20	0.0	0.0	1.3	0.0	1.3
Bawana	400	421	5:05	394	19:26	0.0	0.0	0.3	0.0	0.3
Bassi	400	420	5:03	397	19:26	0.0	0.0	0.0	0.0	0.0
Hissar	400	417	8:01	393	19:22	0.0	0.0	0.0	0.0	0.0
Moga	400	418	5:03	400	19:19	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	422	13:01	396	19:23	0.0	0.0	1.3	0.0	1.3
Nalagarh	400	423	13:02	403	19:29	0.0	0.0	7.1	0.0	7.1
Kishenpur	400	412	3:38	401	20:07	0.0	0.0	0.0	0.0	0.0
Wagoora	400	405	18:03	377	6:48	2.3	58.6	0.0	0.0	2.3
Amritsar	400	421	5:04	405	19:18	0.0	0.0	0.1	0.0	0.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	405	0:00	405	0:00	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	415	16:09	385	19:27	0.0	7.2	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	778	5:03	737	19:27	0.0	1.1	0.0	0.0	0.0
Balia	765	787	5:03	740	19:27	0.0	0.5	0.0	0.0	0.0
Moga	765	800	5:03	760	19:25	0.0	0.0	0.0	0.0	0.0
Agra	765	794	7:02	751	19:27	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	807	8:02	762	19:20	0.0	0.0	9.6	0.0	9.6
Unnao	765	776	7:01	733	19:28	0.0	6.5	0.0	0.0	0.0
Lucknow	765	790	7:02	736	19:27	0.0	3.7	0.0	0.0	0.0
Meerut	765	807	5:03	755	19:27	0.0	0.0	15.6	0.0	15.6
Jhatikara	765	804	8:01	756	19:27	0.0	0.0	2.5	0.0	2.5
Bareilly 765 kV	765	793	5:04	734	19:27	0.0	4.4	0.0	0.0	0.0
Anta	765	794	5:01	770	19:52	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	465.77	204.14	478.96	434.29	340.20	218.18
Pong	426.72	384.05	396.99	157.28	395.78	136.17	75.15	42.56
Tehri	829.79	740.04	757.45	101.61	747.15	34.88	84.45	168.00
Koteshwar	612.50	598.50	611.05	5.10	611.03	5.10	168.00	165.92
Chamera-I	760.00	748.75	753.79	0.00	0.00	0.00	306.12	282.37
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	512.18	1.01	496.07	2.29	214.90	31.25

\* 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	-101	0	0	-101	0	0	-2.42	-0.81	-3.22
Delhi	-294	-168	0	-128	-149	0	-3.88	-1.39	-5.27
Haryana	33	268	0	33	174	0	-1.63	1.33	-0.30
HP	70	-145	0	69	-1120	0	1.61	-9.79	-8.17
J&K	-46	-151	0	-46	-216	0	-1.10	-2.78	-3.88
CHD	0	0	0	0	-10	0	0.00	0.13	0.13
Rajasthan	23	498	0	27	389	0	0.61	9.69	10.31
UP	66	777	0	98	1403	0	1.67	8.88	10.55
Uttarakhand	220	-40	0	155	18	0	5.50	0.19	5.69
Total	-28	1039	0	109	490	0	0.37	5.46	5.83

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-101	-101	0	-504	0	0
Delhi	-77	-294	184	-342	0	0
Haryana	33	-169	276	-275	0	0
HP	76	19	-145	-1199	0	0
J&K	-46	-46	-25	-316	0	0
CHD	0	0	40	-20	0	0
Rajasthan	37	18	502	-270	0	0
UP	98	19	1501	-56	0	0
Uttarakhand	285	155	125	-142	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	2	16
Haryana	1	13
Rajasthan	3	32
Delhi	3	28
UP	0	12
Uttarakhand	1	14
HP	4	30
J & K	6	46
Chandigarh	2	16

**XIII. System Constraints:**

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

**XV. Weather Conditions For 14.04.2017 :**

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

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

First time charging at Bikaner (Raj.):

- (a) 400kV Main and Tie bay (of 400kV SCTPS - Bikaner -I) charged at 09:52 hrs.
- (b) 400kV Main bay (of 400kV SCTPS-Bikaner -II) charged at 11:54 hrs.

**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 : 14.04.2017**

**पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**