

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOH88882

Power Supply Position in Northern Region for 27.05.2017

Date of Reporting : 28.05.2017



### 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
47617	653	48270	0.00	44020	278	44298	0.00	1094.74	9.27

\* 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	62.48	14.90	0.33	77.71	98.39	97.25	-1.14	174.96	0.00
Haryana	41.74	0.64	0.00	42.38	115.50	116.53	1.03	158.91	0.00
Rajasthan	107.78	0.03	46.82	154.62	63.64	67.07	3.42	221.69	0.00
Delhi	19.53		0.00	19.53	98.23	97.29	-0.94	116.82	0.07
UP	178.38	18.00	0.00	196.38	122.81	119.22	-3.59	315.60	0.00
Uttarakhand		15.54	7.54	23.08	13.58	12.19	-1.39	35.26	0.00
HP		16.58	5.77	22.35	3.61	4.20	0.60	26.55	0.00
J & K		23.06	0.00	23.06	16.64	15.83	-0.81	38.89	9.19
Chandigarh			0.00	0.00	6.52	6.07	-0.45	6.07	0.00
<b>Total</b>	<b>409.90</b>	<b>88.74</b>	<b>60.46</b>	<b>559.10</b>	<b>538.91</b>	<b>535.64</b>	<b>-3.27</b>	<b>1094.74</b>	<b>9.27</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				Maximum Demand Met (MW) and Time(Hrs)	Shortage (MW)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction			
Punjab	7254	0	-47	436	7096	0	-111	936	7527	9	0
Haryana	6434	0	-76	506	6095	0	143	528	6621	22	0
Rajasthan	8289	0	89	-73	9549	0	306	300	10512	24	0
Delhi	4727	0	-124	163	5145	0	114	406	5689	16	0
UP	16357	180	25	1440	12529	0	-500	1884	17061	21	190
Uttarakhand	1748	0	283	89	1207	0	-143	83	1802	21	0
HP	648	0	48	-1259	587	0	55	-1066	899	13	0
J&K	1892	473	55	-672	1575	278	130	-809	1979	22	495
Chandigarh	267	0	0	10	237	0	-47	0	304	15	0
<b>Total</b>	<b>47617</b>	<b>653</b>	<b>253</b>	<b>640</b>	<b>44020</b>	<b>278</b>	<b>-53</b>	<b>2263</b>	<b>50045</b>	<b>23</b>	<b>1159</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 Sentout(MW)	Schedule Net MU	UI	
								Net MU	Net MU
<b>A. NTPC</b>									
Singrauli STPS (5*200+2*500)	2000	1775	1877	1238	33.54	1398	32.90		0.64
Rihand I STPS (2*500)	1000	757	936	385	15.33	639	14.93		0.40
Rihand II STPS (2*500)	1000	943	971	872	20.00	833	20.53		-0.54
Rihand III STPS (2*500)	1000	943	915	795	18.45	769	18.25		0.21
Dadri I STPS (4*210)	840	769	572	474	10.77	449	10.85		-0.08
Dadri II STPS (2*490)	980	929	681	545	14.20	592	14.33		-0.12
Unchahar I TPS (2*210)	420	350	241	229	5.43	226	5.59		-0.17
Unchahar II TPS (2*210)	420	383	225	228	5.25	219	5.62		-0.37
Unchahar III TPS (1*210)	210	192	114	123	2.76	115	2.82		-0.06
Unchahar IV TPS(1*500)	500		0	0	0.00	0	0.00		0.00
ISTPP (Jhajjhar) (3*500)	1500	1421	1265	957	24.40	1017	25.84		-1.44
Dadri GPS (4*130,19+2*154.51)	830	729	229	219	5.13	214	4.92		0.21
Anta GPS (3*88.71+1*153.2)	419	381	0	0	0.00	0	0.00		0.00
Auraiya GPS (4*111.19+2*109.30)	663	599	183	176	4.24	177	4.23		0.01
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	3	0	0	0.07	3	0.06		0.01
KHEP(4*200)	800	792	766	206	16.71	696	16.48		0.23
<b>Sub Total (A)</b>	<b>12612</b>	<b>10967</b>	<b>8975</b>	<b>6447</b>	<b>176</b>	<b>7348</b>	<b>177</b>		<b>-1.09</b>
<b>B. NPC</b>									
NAPS (2*220)	440	380	422	435	9.18	383	9.12		0.06
RAPS- B (2*220)	440	350	413	416	8.46	353	8.37		0.09
RAPS- C (2*220)	440	410	440	447	9.48	395	9.84		-0.36
<b>Sub Total (B)</b>	<b>1320</b>	<b>1140</b>	<b>1275</b>	<b>1298</b>	<b>27.13</b>	<b>1130</b>	<b>27.33</b>		<b>-0.21</b>
<b>C. NHPC</b>									
Chamera I HPS (3*180)	540	534	538	545	12.90	538	12.82		0.08
Chamera II HPS (3*100)	300	301	310	303	7.27	303	7.22		0.05
Chamera III HPS (3*77)	231	232	236	231	5.65	235	5.54		0.10
Bairasuli HPS(3*60)	180	178	184	157	3.24	135	3.15		0.11
Salal-HPS (6*115)	690	644	674	663	15.74	656	15.44		0.30
Tanakpur-HPS (3*31.4)	94	50	61	52	1.27	53	1.21		0.06
Uri-I HPS (4*120)	480	474	476	480	11.57	482	11.38		0.19
Uri-II HPS (4*60)	240	220	245	188	5.42	226	5.30		0.12
Dhauliganga-HPS (4*70)	280	280	201	137	3.89	162	3.85		0.03
Dulhasti-HPS (3*130)	390	387	392	397	9.36	390	9.30		0.06
Sewa-II HPS (3*40)	120	119	126	78	1.99	83	2.00		-0.01
Parbati 3 (4*130)	520	417	522	0	2.45	102	2.44		0.01
<b>Sub Total (C)</b>	<b>4065</b>	<b>3836</b>	<b>3966</b>	<b>3231</b>	<b>81</b>	<b>3365</b>	<b>80</b>		<b>1.10</b>
<b>D. SJVNL</b>									
NJPC (6*250)	1500	1482	1509	1494	36.03	1501	35.57		0.46
Rampur HEP (6*68.67)	412	408	403	417	10.07	420	9.79		0.28
<b>Sub Total (D)</b>	<b>1912</b>	<b>1890</b>	<b>1912</b>	<b>1911</b>	<b>46.10</b>	<b>1921</b>	<b>45.36</b>		<b>0.74</b>
<b>E. THDC</b>									
Tehri HPS (4*250)	1000	399	402	274	7.41	309	7.50		-0.09
Koteshwar HPS (4*100)	400	156	302	103	3.75	156	3.75		0.00
<b>Sub Total (E)</b>	<b>1400</b>	<b>555</b>	<b>704</b>	<b>377</b>	<b>11.16</b>	<b>465</b>	<b>11.25</b>		<b>-0.09</b>
<b>F. BBMB</b>									
Bhakra HPS (2*108+3*126+5*157)	1379	593	1075	469	14.48	603	14.23		0.25
Dehar HPS (6*165)	990	482	495	495	11.63	485	11.57		0.07
Pong HPS (6*66)	396	71	260	0	1.63	68	1.70		-0.07
<b>Sub Total (F)</b>	<b>2765</b>	<b>1146</b>	<b>1830</b>	<b>964</b>	<b>27.74</b>	<b>1156</b>	<b>27.50</b>		<b>0.25</b>
<b>G. IPP(s)/JV(s)</b>									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	194	169	3.95	164	3.85		0.10
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1100	1100	26.15	1090	26.08		0.07
Malana Stg-II HPS (2*50)	100	0	112	40	1.37	57	1.28		0.09
Shree Cement TPS (2*150)	300	0	141	143	2.97	124	3.08		-0.11
Budhil HPS(IPP) (2*35)	70	0	73	73	1.72	72	1.60		0.12
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1620</b>	<b>1524</b>	<b>36.16</b>	<b>1507</b>	<b>35.89</b>		<b>0.28</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25737</b>	<b>19533</b>	<b>20282</b>	<b>15753</b>	<b>405.39</b>	<b>16891</b>	<b>404.41</b>		<b>0.98</b>

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sentout MW)
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	725	850	19.26	802
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.02	-1
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	591	627	14.02	584
	Goindwal(GVK) (2*270)	540	0	0	-0.03	-1
	Raipura (2*700)	1400	1220	1320	29.40	1225
	Talwandi Saboo (3*660)	1980	0	0	-0.14	-6

	<b>Thermal (Total)</b>	<b>6560</b>	<b>2536</b>	<b>2797</b>	62.48	<b>2603</b>
	Total Hydro	1000	621	649	14.90	621
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	0.26	11
	Solar	560	0	0	0.07	3
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.33</b>	<b>14</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>3157</b>	<b>3446</b>	<b>77.71</b>	<b>3238</b>
Haryana	Panipat TPS (2*210+2*250)	920	201	228	5.02	209
	DCRTPP (Yamuna nagar) (2*300)	600	462	552	11.74	489
	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	1186	1172	24.98	1041
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1849</b>	<b>1952</b>	<b>41.74</b>	<b>1739</b>
	Total Hydro	62	27	29	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>1876</b>	<b>1981</b>	<b>42.38</b>	<b>1766</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	796	784	19.27	803
	suratgarh TPS (6*250)	1500	374	544	12.27	511
	Chabra TPS (4*250)	1000	374	403	8.31	346
	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	152	167	4.20	175
	RAPS A (NPC) (1*100+1*200)	300	164	168	4.12	172
	Barsingar (NLC) (2*125)	250	102	112	2.48	103
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwst LTPS (IPP) (8*135)	1080	401	676	14.43	601
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	823	424	15.22	634
	Kawai(Adani) (2*660)	1320	892	1191	27.47	1145
	<b>Thermal (Total)</b>	<b>9536</b>	<b>4078</b>	<b>4469</b>	<b>107.78</b>	<b>4491</b>
	Total Hydro	550	0	0	0.03	1
	Wind power	4017	1674	1954	43.19	1800
	Biomass	99	25	25	0.61	25
	Solar	1295	0	0	3.01	126
	Renewable/Others (Total)	5411	1699	1979	46.82	1951
	<b>Total Rajasthan</b>	<b>15497</b>	<b>5777</b>	<b>6448</b>	<b>154.62</b>	<b>6443</b>
UP	Anpara TPS (3*210+2*500)	1630	1376	1086	28.90	1204
	Obra TPS (2*50+2*94+5*200)	1194	660	546	14.10	588
	Paricha TPS (2*110+2*220+2*250)	1160	635	649	15.40	642
	Panki TPS (2*105)	210	0	104	0.30	13
	Harduaganj TPS (1*60+1*105+2*250)	665	533	390	10.50	438
	Tanda TPS (NTPC) (4*110)	440	388	275	7.48	312
	Roza TPS (IPP) (4*300)	1200	1031	747	20.20	842
	Anpara-C (IPP) (2*600)	1200	353	315	7.50	313
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	302	283	6.60	275
	Anpara-D(2*500)	1000	842	624	17.20	717
	Lalitpur TPS(3*660)	1980	1002	716	20.20	842
	Bara(2*660)	1320	1180	956	25.20	1050
	<b>Thermal (Total)</b>	<b>12449</b>	<b>8302</b>	<b>6691</b>	<b>173.58</b>	<b>7233</b>
	Vishnuparyag HPS (IPP)(4*110)	440	435	435	10.40	433
	Alaknanda(4*82.5)	330	168	152	4.20	175
	Other Hydro	527	225	50	3.40	142
	Cogeneration	981	200	200	4.80	200
	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>9330</b>	<b>7528</b>	<b>196.38</b>	<b>8183</b>	
Uttarakhand	Other Hydro	1250	701	579	15.54	648
	Total Gas	225	285	295	6.85	285
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	20	0	0	0.69	29
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>0.69</b>	<b>29</b>
	<b>Total Uttarakhand</b>	<b>1802</b>	<b>986</b>	<b>874</b>	<b>23.08</b>	<b>962</b>
Delhi	Raighat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	65	67	1.74	72
	Pragati Gas Turbine (2x104+ 1x122)	330	148	152	3.68	153
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	293	292	7.04	293
	Badarpur TPS (NTPC) (3*95+2*210)	705	183	330	7.08	295
	<b>Thermal (Total)</b>	<b>2917</b>	<b>689</b>	<b>841</b>	<b>19.53</b>	<b>814</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>689</b>	<b>841</b>	<b>19.53</b>	<b>814</b>	
HP	Baspa HPS (IPP) (3*100)	300	333	302	7.33	305
	Malana HPS (IPP) (2*43)	86	85	42	1.21	51
	Other Hydro (>25MW)	372	322	354	8.03	335
	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	269	208	5.77	241
	<b>Renewable(Total)</b>	<b>486</b>	<b>269</b>	<b>208</b>	<b>5.77</b>	<b>241</b>
<b>Total HP</b>	<b>1244</b>	<b>1009</b>	<b>906</b>	<b>22.35</b>	<b>931</b>	
J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	883	883	21.19	883
	Other Hydro/IPP(including 98 MW Small Hydro)	308	85	56	1.87	78
	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
	<b>Renewable(Total)</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total J &amp; K</b>	<b>1398</b>	<b>968</b>	<b>939</b>	<b>23</b>	<b>961</b>	
<b>Total State Control Area Generation</b>		<b>50738</b>	<b>23792</b>	<b>22963</b>	<b>559.10</b>	<b>23296</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>7532</b>	<b>6773.83</b>	<b>150.87</b>	<b>6286</b>
<b>Total Regional Availability(Gross)</b>		<b>76475</b>	<b>51606</b>	<b>45490</b>	<b>1115.36</b>	<b>46473</b>

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	10584	7998	213.93	8914
State Control Area Hydro	7163	4439	4034	94.52	4252
<b>Total Regional Hydro</b>	<b>19397</b>	<b>15023</b>	<b>12033</b>	<b>308.45</b>	<b>13166</b>

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.15	6
State Control Area Renewable	7356	1968	2187	53.61	2234
<b>Total Regional Renewable</b>	<b>7386</b>	<b>1968</b>	<b>2187</b>	<b>53.76</b>	<b>2240</b>

**VI(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
Vindhychal(HVDC B/B)	-250	50	250	250	0.23	3.84	-3.61
765 KV Gwalior-Agra (D/C)	2544	1243	2544	0	37.94	0.00	37.94
400 KV Zerda-Kankroli	-64	-222	0	312	0.00	5.25	-5.25
400 KV Zerda-Bhinmal	-28	-171	25	315	0.00	4.53	-4.53
220 KV Auraiya-Malanpur	-48	-71	0	125	0.00	1.71	-1.71
220 KV Badod-Kota/Morak	109	40	123	10	1.24	0.00	1.24
Mundra-Mohinderghar(HVDC Bipole)	2205	1502	2506	0	41.88	0.00	41.88
400 KV RAPPCC-Sujalpur	0	15	170	0	0.96	0.00	0.96
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kv Phagi-Gwalior (D/C)	1078	781	1078	0	19.38	0.00	19.38
+/- 800 kV HVDC Champa-Kurushetra	0	1500	1500	0	20.90	0	20.90
<b>Sub Total WR</b>	<b>5546</b>	<b>4667</b>			<b>122.53</b>	<b>15.34</b>	<b>107.19</b>
400 kV Sasaram - Varanasi	106	85	118	0	2.19	0.00	2.19
400 kV Sasaram - Allahabad	-14	9	31	24	0.12	0.00	0.12
400 KV MZP- GKP (D/C)	105	339	442	-16	5.99	0.00	5.99
400 KV Patna-Balia(D/C) X 2	482	371	482	0	9.06	0.00	9.06
400 KV B'Sharif-Balia (D/C)	57	143	189	0	2.15	0.00	2.15
765 KV Gaya-Balia	323	171	323	0	3.48	0.00	3.48
765 KV Gaya-Varanasi (D/C)	321	254	0	321	5.26	0.00	5.26
220 KV Pusaali-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-28	-31	0	33	0.00	0.55	-0.55
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-20	38	124	73	0.90	0.00	0.90
400 KV Barh -GKP (D/C)	526	302	526	0	8.25	0.00	8.25
400 kV B'Sharif - Varanasi (D/C)	-22	-74	46	123	0.00	0.69	-0.69
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1836</b>	<b>1607</b>			<b>37.38</b>	<b>1.24</b>	<b>36.14</b>
+/- 800 KV HVDC BiswanathCharialli-Agra	150	500	500	0.00	7.54	0.00	7.54
<b>Sub Total NER</b>	<b>150</b>	<b>500</b>			<b>7.54</b>	<b>0.00</b>	<b>7.54</b>
<b>Total IR Exch</b>	<b>7532</b>	<b>6774</b>			<b>167.45</b>	<b>16.58</b>	<b>150.87</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
45.95	0.82	46.77	2.34	2.24	-11.27	-0.06	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
37.84	119.26	157.10	43.68	107.19	150.87	5.84	-12.07	-6.23

**VI(C). Inter National Exchange with Nepal [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-22	-21	0	29	0	1	-0.58

**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	3.19	33.34	60.51	25.75	10.39	0.25	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX	MIN	
Freq	Time	Freq	Time				(Hz)	(Hz)	
50.22	7.04	49.79	19.45	50.02	0.048	0.065	0.00	0.00	39.49

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

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviate
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	405	18:16	401	9:36	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	410	14:01	388	20:41	0.0	3.6	0.0	0.0	0.0
Bareilly(PG)400kV	400	413	5:34	372	11:58	0.0	1.6	0.0	0.0	0.0
Kanpur	400	411	6:37	396	21:09	0.0	0.0	0.0	0.0	0.0
Dadri	400	417	5:32	399	14:45	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	414	5:33	394	14:47	0.0	0.0	0.0	0.0	0.0
Bawana	400	414	5:33	397	14:45	0.0	0.0	0.0	0.0	0.0
Bassi	400	421	18:30	397	22:31	0.0	0.0	0.5	0.0	0.5
Hissar	400	410	18:00	395	19:34	0.0	0.0	0.0	0.0	0.0
Moga	400	414	18:02	400	10:30	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	413	5:34	397	19:42	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	418	5:38	403	10:46	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	411	2:48	399	21:08	0.0	0.0	0.0	0.0	0.0
Wagoora	400	398	18:01	376	20:07	15.4	80.0	0.0	0.0	15.4
Amritsar	400	422	2:46	403	10:26	0.0	0.0	5.1	0.0	5.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	415	2:44	398	10:14	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	416	5:33	388	19:50	0.0	1.9	0.0	0.0	0.0

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

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviate
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	771	18:35	739	10:46	0.0	1.8	0.0	0.0	0.0
Balia	765	773	23:29	741	20:44	0.0	0.3	0.0	0.0	0.0
Moga	765	792	18:32	764	10:35	0.0	0.0	0.0	0.0	0.0
Agra	765	788	18:32	755	10:36	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	798	18:32	768	22:29	0.0	0.0	0.0	0.0	0.0
Unnao	765	768	18:31	735	21:20	0.0	8.3	0.0	0.0	0.0

Lucknow	765	778	5:35	741	20:06	0.0	0.2	0.0	0.0
Meerut	765	799	18:32	761	19:53	0.0	0.0	0.0	0.0
Jhatikara	765	790	5:35	756	10:33	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	785	5:34	742	19:52	0.0	0.0	0.0	0.0
Anta	765	797	18:46	757	18:55	0.0	0.0	0.0	0.0
Phagi	765	800	18:38	763	22:31	0.0	0.0	0.0	0.0

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	471.47	293.05	477.66	407.63	727.54	523.46
Pong	426.72	384.05	394.57	121.45	391.55	76.21	143.88	129.41
Tehri	829.79	740.04	745.10	24.50	742.25	10.57	167.90	263.00
Koteshwar	612.50	598.50	609.60	4.44	606.00	2.77	263.00	247.28
Chamera-I	760.00	748.75	753.48	0.00	0.00	0.00	321.93	350.08
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	513.60	6.75	504.12	3.39	212.60	284.46

\* 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	342	594	0	436	0	0	8.75	6.63	15.38
Delhi	539	-133	0	501	-338	0	13.18	-3.08	10.10
Haryana	342	186	0	342	164	0	3.23	3.01	6.24
HP	-728	-338	0	-673	-585	0	-16.10	-10.47	-26.57
J&K	-575	-234	0	-575	-97	0	-13.80	-4.39	-18.19
CHD	0	0	0	0	10	0	0.00	0.85	0.85
Rajasthan	29	272	0	37	-109	0	0.76	3.59	4.35
UP	927	957	0	1083	357	0	11.08	7.36	18.44
Uttarakhand	81	2	0	-71	160	0	1.30	0.50	1.81
<b>Total</b>	<b>956</b>	<b>1307</b>	<b>0</b>	<b>1079</b>	<b>-439</b>	<b>0</b>	<b>8.40</b>	<b>4.00</b>	<b>12.39</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	559	293	738	0	0	0
Delhi	713	471	127	-348	0	0
Haryana	342	-107	255	-347	0	0
HP	-593	-745	-279	-675	0	0
J&K	-575	-575	63	-374	0	0
CHD	0	0	78	0	0	0
Rajasthan	40	19	313	-494	0	0
UP	1083	97	1520	-30	0	0
Uttarakhand	133	-122	163	-163	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	0	9
Haryana	1	15
Rajasthan	2	19
Delhi	3	27
UP	2	16
Uttarakhand	7	56
HP	4	45
J & K	0	12
Chandigarh	2	15

**XIII. System Constraints:**

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

**XV. Weather Conditions For 27.05.2017 :**

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

**XVII. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus //substation :**  
First time charging of Tie Bay 414 and 417 at 1821 and 1819 Hrs respectively at kanpur GIS.

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 : 27.05.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER