

# पाँवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तर क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GO188682

Power Supply Position in Northern Region for 31.08.2017

Date of Reporting : 01.09.2017



### 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
46888	1810	48698	50.04	46130	779	46909	50.06	1084.39	9.64

\*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 MU:

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	48.03	20.85	0.21	69.08	111.49	111.13	-0.36	180.22	0.00
Haryana	43.29	0.87	0.00	44.15	114.89	118.20	3.31	162.35	0.00
Rajasthan	95.86	0.64	17.06	113.56	63.65	65.21	1.56	178.76	0.00
Delhi	25.06		0.00	25.06	80.37	78.99	-1.38	104.05	0.04
UP	141.12	24.30	0.00	165.42	181.50	183.24	1.74	348.66	0.00
Uttarakhand		20.70	7.48	28.18	10.95	10.62	-0.33	38.80	0.00
HP		18.83	6.83	25.66	-0.37	0.18	0.55	25.84	0.02
J & K		26.03	0.00	26.03	13.84	14.22	0.39	40.25	9.59
Chandigarh				0.00	6.03	5.46	-0.57	5.46	0.00
<b>Total</b>	<b>353.35</b>	<b>112.21</b>	<b>31.58</b>	<b>497.14</b>	<b>582.34</b>	<b>587.25</b>	<b>4.91</b>	<b>1084.39</b>	<b>9.64</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	7450	0	8	1121	7268	0	-14	1772	8373	15	0
Haryana	6822	327	231	1272	7036	0	31	1623	7472	1	0
Rajasthan	7663	0	-104	-625	8128	0	364	311	8315	1	0
Delhi	4442	0	-58	253	4365	0	123	407	4923	13	0
UP	15221	970	225	1822	15407	565	20	1823	15497	2	1075
Uttarakhand	1808	0	30	-264	1547	0	-66	-221	1808	20	0
HP	1198	0	74	-1662	960	0	2	-1526	1311	8	0
J&K	2051	513	148	-809	1215	214	-139	-1117	2051	20	513
Chandigarh	233	0	-36	-65	203	0	-18	0	298	15	0
<b>Total</b>	<b>46888</b>	<b>1810</b>	<b>518</b>	<b>1042</b>	<b>46130</b>	<b>779</b>	<b>304</b>	<b>3071</b>	<b>48112</b>	<b>1</b>	<b>1246</b>

\$ STOA figures are at seller's boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.04

### III. Regional Entities :

Station/ Constituent	Inst. Capacity	Declared	Peak MW	Off Peak MW	Energy	Average	Schedule	UI	
	(Effective) MW	Capacity(MW)	(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU	Net MU
<b>A. NTPC</b>									
Singrauli STPS (5*200+2*500)	2000	1740	1877	1880	40.23	1676	39.72	0.52	
Rihand I STPS (2*500)	1000	923	1005	892	21.54	898	21.57	-0.03	
Rihand II STPS (2*500)	1000	471	491	510	11.11	463	10.91	0.20	
Rihand III STPS (2*500)	1000	943	974	840	21.79	908	21.70	0.09	
Dadri I STPS (4*210)	840	438	321	303	8.58	357	8.50	0.08	
Dadri II STPS (2*490)	980	706	500	501	12.70	529	13.07	-0.37	
Unchahar I TPS (2*210)	420	383	384	315	7.51	313	8.08	-0.57	
Unchahar II TPS (2*210)	420	383	394	372	7.43	310	8.11	-0.68	
Unchahar III TPS (1*210)	210	192	190	117	3.31	138	3.55	-0.24	
Unchahar IV TPS(1*500)	500		517	522	12.49	520	0.00	12.49	
ISTPP (Jhajhar) (3*500)	1500	813	946	959	15.56	648	16.29	-0.73	
Dadri GPS (4*130.19+2*154.51)	830	776	173	145	3.45	144	3.72	-0.27	
Anta GPS (3*88.71+1*153.2)	419	391	-2	179	1.59	66	1.67	-0.09	
Auraiya GPS (4*111.19+2*109.30)	663	613	0	0	0.00	0	0.00	0.00	
Dadri Solar(5)	5	1	0	0	0.01	0	0.01	0.00	
Unchahar Solar(10)	10	2	0	0	0.05	2	0.04	0.00	
Singrauli Solar(15)	15	2	0	0	0.00	0	0.05	-0.05	
KHEP(4*200)	800	792	787	627	14.01	584	13.50	0.51	
<b>Sub Total (A)</b>	<b>12612</b>	<b>9569</b>	<b>8557</b>	<b>8162</b>	<b>181</b>	<b>7556</b>	<b>170</b>	<b>10.86</b>	
<b>B. NPC</b>									
NAPS (2*220)	440	381	422	424	9.22	384	9.14	0.07	
RAPS- B (2*220)	440	371	417	420	9.29	387	8.84	0.45	
RAPS- C (2*220)	440	430	451	452	10.19	425	10.32	-0.13	
<b>Sub Total (B)</b>	<b>1320</b>	<b>1182</b>	<b>1290</b>	<b>1296</b>	<b>28.70</b>	<b>1196</b>	<b>28.30</b>	<b>0.39</b>	
<b>C. NHPC</b>									
Chamera I HPS (3*180)	540	518	542	541	12.69	529	12.47	0.22	
Chamera II HPS (3*100)	300	300	304	303	7.21	300	7.20	0.01	
Chamera III HPS (3*77)	231	229	230	236	5.56	232	5.47	0.09	
Bairasuli HPS(3*60)	180	86	182	103	2.23	93	2.06	0.17	
Salal-HPS (6*115)	690	672	681	681	16.37	682	16.12	0.25	
Tanakpur-HPS (3*31.4)	94	90	96	92	2.26	94	2.15	0.12	
Uri-I HPS (4*120)	480	209	331	181	5.31	221	5.02	0.29	
Uri-II HPS (4*60)	240	122	183	115	2.98	124	2.93	0.05	
Dhauliganga-HPS (4*70)	280	281	287	284	6.78	283	6.65	0.14	
Dulhasi-HPS (3*130)	390	387	0	401	9.40	392	9.28	0.12	
Sewa-II HPS (3*40)	120	119	112	0	1.53	64	1.50	0.03	
Parbati 3 (4*130)	520	505	512	128	3.83	160	3.74	0.09	
<b>Sub Total (C)</b>	<b>4065</b>	<b>3517</b>	<b>3460</b>	<b>3064</b>	<b>76</b>	<b>3173</b>	<b>75</b>	<b>1.58</b>	
<b>D.SJVNL</b>									
NJPC (6*250)	1500	1497	1602	1484	35.89	1496	34.92	0.98	
Rampur HEP (6*68.67)	412	410	443	422	9.91	413	9.58	0.33	
<b>Sub Total (D)</b>	<b>1912</b>	<b>1907</b>	<b>2045</b>	<b>1906</b>	<b>45.80</b>	<b>1908</b>	<b>44.49</b>	<b>1.31</b>	
<b>E. THDC</b>									
Tehri HPS (4*250)	1000	973	768	0	5.91	246	6.04	-0.13	
Koteshwar HPS (4*100)	400	100	207	92	2.43	101	2.40	0.03	
<b>Sub Total (E)</b>	<b>1400</b>	<b>1073</b>	<b>975</b>	<b>92</b>	<b>8.34</b>	<b>347</b>	<b>8.44</b>	<b>-0.10</b>	
<b>F. BBMB</b>									
Bhakra HPS (2*108+3*126+5*157)	1379	878	1341	650	21.16	882	21.08	0.08	
Dehar HPS (6*165)	990	575	825	560	14.03	585	13.81	0.23	
Pong HPS (6*66)	396	248	330	132	6.05	252	5.95	0.10	
<b>Sub Total (F)</b>	<b>2765</b>	<b>1701</b>	<b>2496</b>	<b>1342</b>	<b>41.25</b>	<b>1719</b>	<b>40.83</b>	<b>0.41</b>	
<b>G. IPP(s)/JV(s)</b>									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	200	115	2.96	123	2.97	-0.02	
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1045	930	22.61	942	21.83	0.78	
Malana Stg-II HPS (2*50)	100	0	112	105	2.40	100	2.30	0.09	
Shree Cement TPS (2*150)	300	0	148	90	2.86	119	2.94	-0.08	
Budhli HPS(IPP) (2*35)	70	0	76	75	1.80	75	1.66	0.14	
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1581</b>	<b>1315</b>	<b>32.62</b>	<b>1359</b>	<b>31.70</b>	<b>0.91</b>	
<b>H. Total Regional Entities (A-G)</b>		<b>25737</b>	<b>18949</b>	<b>20404</b>	<b>17177</b>	<b>414.21</b>	<b>17259</b>	<b>398.84</b>	<b>15.37</b>

### I. State Entities

Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sentout MW)
<b>Punjab</b>					
Guru Gobind Singh TPS (Ropar) (6*210)	1260	0	160	1.60	66
Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	95	100	2.25	94
Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	0	203	-0.27	-11
Goindwal(GVK) (2*270)	540	180	180	4.23	176
Rajpura (2*700)	1400	660	660	17.60	733
Tahwandi Saboo (3*660)	1980	924	924	22.62	942

	<b>Thermal (Total)</b>	<b>6560</b>	<b>1859</b>	<b>2227</b>	48.03	<b>2001</b>
	Total Hydro	1000	666	881	20.85	869
	Wind Power	0	0	0	0.00	0
	Biomass	303	0	0	0.14	6
	Solar	859	0	0	0.07	3
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>0.21</b>	<b>9</b>
	<b>Total Punjab</b>	<b>8722</b>	<b>2525</b>	<b>3108</b>	<b>69.08</b>	<b>2879</b>
Haryana	Panipat TPS (2*210+2*250)	920	198	404	8.41	350
	DCRTPP (Yamuna nagar) (2*300)	600	218	210	5.03	210
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	193	0	2.67	111
	RGTPP (khedar) (IPP) (2*600)	1200	363	385	7.96	332
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar (CLP) (2*660)	1320	731	744	19.22	801
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1703</b>	<b>1743</b>	<b>43.29</b>	<b>1804</b>
	Total Hydro	62	36	36	0.87	36
	Wind Power	0	0	0	0.00	0
	Biomass	106	0	0	0.00	0
	Solar	50	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
	<b>Total Haryana</b>	<b>4715</b>	<b>1739</b>	<b>1779</b>	<b>44.15</b>	<b>1840</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	886	937	19.80	825
	suratgarh TPS (6*250)	1500	632	545	13.10	546
	Chabra TPS (4*250)	1000	425	408	9.22	384
	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	172	166	4.46	186
	RAPS A (NPC) (1*100+1*200)	300	166	169	4.11	171
	Barsingar (NLC) (2*125)	250	111	100	2.36	98
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwst LTPS (IPP) (8*135)	1080	693	387	10.76	448
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	975	829	20.14	839
	Kawai(Adani) (2*660)	1320	613	457	11.92	497
	<b>Thermal (Total)</b>	<b>9536</b>	<b>4673</b>	<b>3998</b>	<b>95.86</b>	<b>3994</b>
	Total Hydro	550	54	148	0.64	27
	Wind power	4292	294	341	14.19	591
	Biomass	102	24	24	0.57	24
	Solar	1995	0	0	2.30	96
	Renewable/Others (Total)	6389	318	365	17.06	711
	<b>Total Rajasthan</b>	<b>16475</b>	<b>5045</b>	<b>4511</b>	<b>113.56</b>	<b>4732</b>
UP	Anpara TPS (3*210+2*500)	1630	716	730	17.60	733
	Obra TPS (2*50+2*94+5*200)	1194	259	373	7.60	317
	Paricha TPS (2*110+2*220+2*250)	1160	807	768	19.20	800
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	442	440	10.60	442
	Tanda TPS (NTPC) (4*110)	440	354	385	8.80	367
	Roza TPS (IPP) (4*300)	1200	809	787	17.40	725
	Anpara-C (IPP) (2*600)	1200	905	816	19.50	813
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	448	451	10.80	450
	Lalitpur TPS(3*660)	1980	762	576	14.40	600
	Bara(2*660)	1320	605	603	14.50	604
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6107</b>	<b>5929</b>	<b>140.40</b>	<b>5850</b>
	Vishnuparyag HPS (IPP)(4*110)	440	435	435	10.50	438
	Alaknanda(4*82.5)	330	341	343	8.20	342
	Other Hydro	527	250	300	5.60	233
	Cogeneration	981	30	30	0.72	30
	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>7163</b>	<b>7037</b>	<b>165.42</b>	<b>6893</b>
	Uttarakhand	Other Hydro	1250	862	896	20.70
Total Gas		225	283	285	6.85	285
Wind Power		0	0	0	0.00	0
Biomass		127	0	0	0.00	0
Solar		100	0	0	0.63	26
Small Hydro (< 25 MW)		180	0	0	0.00	0
<b>Renewable(Total)</b>		<b>407</b>	<b>0</b>	<b>0</b>	<b>0.63</b>	<b>26</b>
<b>Total Uttarakhand</b>		<b>1882</b>	<b>1145</b>	<b>1181</b>	<b>28.18</b>	<b>1174</b>
Delhi	Raighat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	36	36	0.83	34
	Pragati Gas Turbine (2x104+ 1x122)	330	262	261	6.37	266
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	427	432	10.79	450
	Badarpur TPS (NTPC) (3*95+2*210)	705	316	324	7.08	295
	<b>Thermal (Total)</b>	<b>2917</b>	<b>1041</b>	<b>1053</b>	<b>25.06</b>	<b>1044</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>1041</b>	<b>1053</b>	<b>25.06</b>	<b>1044</b>	
HP	Baspa HPS (IPP) (3*100)	300	330	330	7.84	327
	Malana HPS (IPP) (2*43)	86	100	95	2.15	90
	Other Hydro (>25MW)	372	396	377	8.83	368
	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	241	307	6.83	285
	<b>Renewable(Total)</b>	<b>486</b>	<b>241</b>	<b>307</b>	<b>6.83</b>	<b>285</b>
<b>Total HP</b>	<b>1244</b>	<b>1067</b>	<b>1109</b>	<b>25.66</b>	<b>1069</b>	
J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	884	884	21.22	884
	Other Hydro/IPP(including 98 MW Small Hydro)	308	202	200	4.81	201
	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>1086</b>	<b>1084</b>	<b>26</b>	<b>1085</b>	
<b>Total State Control Area Generation</b>		<b>52226</b>	<b>20811</b>	<b>20863</b>	<b>497.14</b>	<b>20714</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5936</b>	<b>8878</b>	<b>188.51</b>	<b>7854</b>
<b>Total Regional Availability(Gross)</b>		<b>77963</b>	<b>47152</b>	<b>46918</b>	<b>1099.86</b>	<b>45828</b>

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	11120	8181	215.32	8897
State Control Area Hydro	7243	5080	5517	112.21	5272
<b>Total Regional Hydro</b>	<b>19477</b>	<b>16200</b>	<b>13698</b>	<b>327.53</b>	<b>14168</b>

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.06	2
State Control Area Renewable	8844	559	672	24.73	1031
<b>Total Regional Renewable</b>	<b>8874</b>	<b>559</b>	<b>672</b>	<b>24.79</b>	<b>1033</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)	-400	-50	0	500	0.00	5.38	-5.38
765 KV Gwalior-Agra (D/C)	2151	2218	2780	0	53.20	0.00	53.20
400 KV Zerda-Kankroli	-65	-5	90	126	0.00	0.08	-0.08
400 KV Zerda-Bhinmal	108	56	116	127	0.45	0.00	0.45
220 KV Auraiya-Malanpur	-19	-5	0	22	0.11	0.00	0.11
220 KV Badod-Kota/Morak	-22	26	129	76	0.76	0.00	0.76
Mundra-Mohindergarh(HVDC Bipole)	1499	1998	2006	0	43.62	0.00	43.62
400 KV RAPP- Sujalpur	136	218	230	65	3.38	0.00	3.38
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	663	1002	1249	0	24.52	0.00	24.52
+/- 800 kV HVDC Champa-Kurushetra	500	1500	1500	0	14.97	0	14.97
<b>Sub Total WR</b>	<b>4551</b>	<b>6958</b>			<b>141.00</b>	<b>5.46</b>	<b>135.55</b>
400 kV Sasaram - Varanasi	179	175	185	0	6.08	0.00	6.08
400 kV Sasaram - Allahabad	17	11	55	0	0.85	0.00	0.85
400 KV MZP- GKP (D/C)	259	498	0	659	13.02	0.00	13.02
400 KV Patna-Balia(D/C) X 2	415	619	847	0	14.49	0.00	14.49
400 KV B Sharif-Balia (D/C)	116	200	351	0	6.00	0.00	6.00
765 KV Gaya-Balia	262	278	417	0	3.59	0.00	3.59
765 KV Gaya-Varanasi (D/C)	94	218	522	0	6.12	0.00	6.12
220 KV Pusauli-Sahupuri	124	118	135	0	2.81	0.00	2.81
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-27	-24	0	27	0.00	0.47	-0.47
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-248	-113	82	256	0.00	2.25	-2.25
400 KV Barh -GKP (D/C)	-230	-208	0	230	0.00	4.16	-4.16
400 kV B Sharif - Varanasi (D/C)	124	-2	136	146	0.00	0.65	-0.65
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1085</b>	<b>1770</b>			<b>52.95</b>	<b>7.52</b>	<b>45.43</b>
+/- 800 KV HVDC BiswanathChariali-Agra	300	150	500	0.00	7.53	0.00	7.53
<b>Sub Total NER</b>	<b>300</b>	<b>150</b>			<b>7.53</b>	<b>0.00</b>	<b>7.53</b>
<b>Total IR Exch</b>	<b>5936</b>	<b>8878</b>			<b>201.49</b>	<b>12.98</b>	<b>188.51</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
42.44	3.66	46.10	26.05	13.79	-8.91	4.69	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
63.24	144.23	207.47	52.96	135.55	188.51	-10.28	-8.68	-18.96

**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	-29	0	0	29	0	0	-0.45

**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	2.37	44.89	79.85	16.13	2.30	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 (Hz)	MIN (Hz)	
Freq	Time	Freq	Time	Hz	Index				
50.16	12.26	49.83	19.30	50.01	0.025	0.050	0.00	0.00	20.15

**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	13:00	400	0:00	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	417	7:17	392	22:05	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	417	7:21	396	20:52	0.0	0.0	0.0	0.0	0.0
Kanpur	400	420	7:22	402	0:07	0.0	0.0	0.0	0.0	0.0
Dadri	400	415	7:34	401	0:08	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	418	7:01	400	0:05	0.0	0.0	0.0	0.0	0.0
Bawana	400	411	6:58	398	0:04	0.0	0.0	0.0	0.0	0.0
Bassi	400	421	18:01	400	0:08	0.0	0.0	0.3	0.0	0.3
Hissar	400	412	7:01	397	0:09	0.0	0.0	0.0	0.0	0.0
Moga	400	413	8:01	402	0:08	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	411	16:09	400	0:16	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	415	7:09	407	0:09	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	413	3:13	404	11:06	0.0	0.0	0.0	0.0	0.0
Wagoora	400	411	3:02	387	19:22	0.0	13.8	0.0	0.0	0.0
Amritsar	400	415	8:00	405	0:20	0.0	0.0	0.0	0.0	0.0
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	414	6:01	406	0:06	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	419	7:22	400	20:54	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 Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	782	7:08	750	0:08	0.0	0.0	0.0	0.0	0.0
Balia	765	788	7:21	752	22:17	0.0	0.0	0.0	0.0	0.0
Moga	765	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Agra	765	793	7:04	763	0:03	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	797	6:45	771	0:09	0.0	0.0	0.0	0.0	0.0

Unnao	765	773	7:18	739	22:30	0.0	4.2	0.0	0.0	0.0
Lucknow	765	793	7:25	752	22:08	0.0	0.0	0.0	0.0	0.0
Meerut	765	804	7:22	772	0:08	0.0	0.0	5.8	0.0	5.8
Jhatikara	765	796	7:01	767	0:05	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	797	7:24	756	21:37	0.0	0.0	0.0	0.0	0.0
Anta	765	788	18:02	766	0:00	0.0	0.0	0.0	0.0	0.0
Phagi	765	796	8:03	768	0:00	0.0	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	508.95	1500.16	501.28	1153.36	827.30	639.96
Pong	426.72	384.05	420.99	931.43	417.18	768.49	441.94	340.85
Tehri	829.79	740.04	817.35	949.25	818.40	970.39	353.81	148.00
Koteswar	612.50	598.50	610.66	4.69	610.62	4.90	148.00	160.08
Chamera-I	760.00	748.75	754.11	0.00	0.00	0.00	296.99	344.49
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	520.18	9.07	521.24	6.06	208.54	366.98

\* 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	1768	4	0	1272	-151	0	40.02	-1.35	38.68
Delhi	668	-262	0	697	-444	0	18.29	-7.28	11.01
Haryana	1414	209	0	1241	32	0	25.34	4.13	29.48
HP	-1301	-224	0	-1298	-364	0	-28.79	-6.46	-35.25
J&K	-744	-374	0	-744	-66	0	-17.84	-2.75	-20.60
CHD	0	0	0	0	-65	0	0.00	0.07	0.07
Rajasthan	-59	369	0	-668	43	0	-2.75	4.91	2.16
UP	1135	688	0	1572	250	0	15.11	14.60	29.71
Uttarakhand	-210	-11	0	-275	11	0	-5.54	0.91	-4.62
Total	2671	400	0	1797	-755	0	43.84	6.78	50.63

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1780	1272	33	-151	0	0
Delhi	1211	565	-53	-559	0	0
Haryana	1446	884	227	30	0	0
HP	-1037	-1527	-198	-377	0	0
J&K	-744	-744	0	-464	0	0
CHD	0	0	44	-65	0	0
Rajasthan	7	-668	370	-1566	0	0
UP	1621	98	1921	-45	0	0
Uttarakhand	-194	-284	134	-119	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	17
Haryana	1	19
Rajasthan	0	12
Delhi	3	23
UP	1	15
Uttarakhand	2	19
HP	1	14
J & K	2	16
Chandigarh	5	37

**XIII. System Constraints:**

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

**XV. Weather Conditions For 31.08.2017 :**

**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 : 31.08.2017**

**पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**