

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOH88882

Power Supply Position in Northern Region for 21.05.2017

Date of Reporting : 22.05.2017



### 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
38015	472	38487	0.00	46272	1020	47292	0.00	1010.85	13.70

\* 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	32.02	15.81	0.27	48.11	102.35	102.23	-0.12	150.33	0.00
Haryana	46.81	0.57	0.00	47.39	90.46	88.09	-2.37	135.47	0.00
Rajasthan	66.88	0.22	36.48	103.58	72.09	76.26	4.17	179.84	3.33
Delhi	18.31		0.00	18.31	81.91	79.68	-2.23	97.99	1.52
UP	189.22	14.40	0.00	203.62	143.21	142.42	-0.79	346.04	0.00
Uttarakhand		12.90	6.78	19.67	17.59	15.18	-2.40	34.86	0.00
HP		14.57	5.42	20.00	1.64	3.86	2.23	23.86	0.00
J & K		23.47	0.00	23.47	13.08	14.08	1.00	37.55	8.85
Chandigarh				0.00	5.73	4.92	-0.81	4.92	0.00
<b>Total</b>	<b>353.25</b>	<b>81.93</b>	<b>48.95</b>	<b>484.14</b>	<b>528.05</b>	<b>526.72</b>	<b>-1.33</b>	<b>1010.85</b>	<b>13.70</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	5980	0	-53	712	6440	0	-22	1230	6965	8	0
Haryana	4928	0	-449	512	7089	0	-295	551	7640	1	0
Rajasthan	6779	0	150	446	7045	779	693	474	8349	16	128
Delhi	3292	0	-224	409	4804	0	71	467	5076	1	0
UP	12663	0	-9	1257	16734	0	412	1422	16734	3	0
Uttarakhand	1350	0	-297	55	1626	0	3	136	1875	12	0
HP	911	0	-39	-1219	947	0	62	-1132	1204	10	0
J&K	1889	472	209	-574	1364	241	-66	-927	1906	21	477
Chandigarh	223		-31	15	224	0	-26	25	254	1	0
<b>Total</b>	<b>38015</b>	<b>472</b>	<b>-742</b>	<b>1613</b>	<b>46272</b>	<b>1020</b>	<b>831</b>	<b>2245</b>	<b>47435</b>	<b>1</b>	<b>2452</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	1348	1278	1405	29.68	1237	28.59		1.09
Rihand I STPS (2*500)	1000	923	676	989	19.44	810	19.76		-0.32
Rihand II STPS (2*500)	1000	568	656	492	10.91	455	10.78		0.13
Rihand III STPS (2*500)	1000	943	647	999	19.68	820	19.82		-0.15
Dadri I STPS (4*210)	840	769	331	397	8.60	358	8.67		-0.07
Dadri II STPS (2*490)	980	929	508	694	14.20	592	14.65		-0.44
Unchahar I TPS (2*210)	420	311	233	191	5.05	210	4.81		0.24
Unchahar II TPS (2*210)	420	383	226	383	6.17	257	6.60		-0.44
Unchahar III TPS (1*210)	210	192	116	191	3.07	128	3.19		-0.12
Unchahar IV TPS(1*660)	660		0	0	0.00	0	0.00		0.00
ISTPP (Jhajjhar) (3*500)	1500	1421	891	1469	23.98	999	23.40		0.58
Dadri GPS (4*130.19+2*154.51)	830	755	228	230	5.64	235	5.96		-0.32
Anta GPS (3*88.71+1*153.2)	419	384	0	0	0.00	0	0.00		0.00
Auraiya GPS (4*111.19+2*109.30)	663	618	0	0	0.00	0	0.00		0.00
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	867	649	15.87	661	15.67		0.20
<b>Sub Total (A)</b>	<b>12772</b>	<b>10339</b>	<b>6657</b>	<b>8089</b>	<b>162</b>	<b>6768</b>	<b>162</b>		<b>0.39</b>
<b>B. NPC</b>									
NAPS (2*220)	440	383	418	433	9.24	385	9.19		0.04
RAPS- B (2*220)	440	357	357	357	8.53	356	8.53		0.00
RAPS- C (2*220)	440	400	447	451	9.71	405	9.60		0.11
<b>Sub Total (B)</b>	<b>1320</b>	<b>1140</b>	<b>1222</b>	<b>1241</b>	<b>27.48</b>	<b>1145</b>	<b>27.33</b>		<b>0.15</b>
<b>C. NHPC</b>									
Chamera I HPS (3*180)	535	535	553	237	8.82	368	8.86		-0.04
Chamera II HPS (3*100)	300	304	309	305	7.29	304	7.29		0.01
Chamera III HPS (3*77)	231	232	232	232	5.50	229	5.47		0.03
Bairasuli HPS(3*60)	180	179	183	182	3.40	141	3.35		0.05
Salal-HPS (6*115)	690	664	675	675	16.19	675	15.87		0.32
Tanakpur-HPS (3*31.4)	94	49	59	42	1.20	50	1.18		0.03
Uri-I HPS (4*120)	480	474	481	480	11.62	484	11.38		0.24
Uri-II HPS (4*60)	240	237	242	240	5.73	239	5.69		0.04
Dhauliganga-HPS (4*70)	280	280	280	60	3.34	139	3.22		0.12
Dulhasti-HPS (3*130)	390	387	404	393	9.21	384	9.24		-0.03
Sewa-II HPS (3*40)	120	119	128	117	2.81	117	2.85		-0.04
Parbati 3 (4*130)	520	520	396	0	1.95	81	1.95		0.00
<b>Sub Total (C)</b>	<b>4065</b>	<b>3979</b>	<b>3942</b>	<b>2962</b>	<b>77</b>	<b>3212</b>	<b>76</b>		<b>0.73</b>
<b>D. SJVNL</b>									
NJPC (6*250)	1500	1482	1597	1583	35.73	1489	34.80		0.93
Rampur HEP (6*68.67)	412	408	427	421	9.87	411	9.60		0.27
<b>Sub Total (D)</b>	<b>1912</b>	<b>1890</b>	<b>2024</b>	<b>2004</b>	<b>45.60</b>	<b>1900</b>	<b>44.40</b>		<b>1.20</b>
<b>E. THDC</b>									
Tehri HPS (4*250)	1000	296	273	277	5.97	249	6.14		-0.18
Koteshwar HPS (4*100)	400	138	301	101	3.24	135	3.30		-0.06
<b>Sub Total (E)</b>	<b>1400</b>	<b>433</b>	<b>574</b>	<b>378</b>	<b>9.20</b>	<b>384</b>	<b>9.44</b>		<b>-0.24</b>
<b>F. BBMB</b>									
Bhakra HPS (2*108+3*126+5*157)	1379	655	1074	471	15.78	657	15.71		0.07
Dehar HPS (6*165)	990	480	495	495	11.58	483	11.52		0.06
Pong HPS (6*66)	396	77	312	0	1.77	74	1.84		-0.07
<b>Sub Total (F)</b>	<b>2765</b>	<b>1211</b>	<b>1881</b>	<b>966</b>	<b>29.13</b>	<b>1214</b>	<b>29.07</b>		<b>0.06</b>
<b>G. IPP(s)/JV(s)</b>									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	160	122	2.68	112	2.65		0.03
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1100	1100	26.05	1085	26.08		-0.03
Malana Stg-II HPS (2*50)	100	0	56	30	0.83	34	0.91		-0.08
Shree Cement TPS (2*150)	300	0	127	135	2.74	114	2.74		0.00
Budhil HPS(IPP) (2*35)	70	0	70	69	1.37	57	1.60		-0.22
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1513</b>	<b>1456</b>	<b>33.66</b>	<b>1403</b>	<b>33.97</b>		<b>-0.31</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25897</b>	<b>18993</b>	<b>17813</b>	<b>17096</b>	<b>384.56</b>	<b>16024</b>	<b>382.59</b>		<b>1.97</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	160	160	3.76	157
Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	90	115	2.14	89
Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	200	207	4.62	192
Goindwal(GVK) (2*270)	540	0	0	-0.03	-1
Raipura (2*700)	1400	660	1090	21.59	899
Talwandi Saboo (3*660)	1980	0	0	-0.05	-2

	<b>Thermal (Total)</b>	<b>6560</b>	<b>1110</b>	<b>1572</b>	<b>32.02</b>	<b>1334</b>	
	Total Hydro	1000	650	682	15.81	659	
	Wind Power	0	0	0	0.00	0	
	Biomass	288	0	0	0.20	8	
	Solar	560	0	0	0.07	3	
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.27</b>	<b>11</b>	
	<b>Total Punjab</b>	<b>8408</b>	<b>1760</b>	<b>2254</b>	<b>48.11</b>	<b>2004</b>	
Haryana	Panipat TPS (2*210+2*250)	920	198	218	4.89	204	
	DCRTPP (Yamuna nagar) (2*300)	600	446	555	10.96	457	
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	57	178	3.59	150	
	RGTPP (khedar) (IPP) (2*600)	1200	746	1111	17.57	732	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar (CLP) (2*660)	1320	381	602	9.80	408	
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1828</b>	<b>2664</b>	<b>46.81</b>	<b>1951</b>	
	Total Hydro	62	15	23	0.57	24	
	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>1843</b>	<b>2687</b>	<b>47.39</b>	<b>1974</b>	
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	448	546	12.91	538	
	suratgarh TPS (6*250)	1500	180	1	2.72	114	
	Chabra TPS (4*250)	1000	538	153	11.65	486	
	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	151	194	3.76	157	
	RAPS A (NPC) (1*100+1*200)	300	166	166	4.14	173	
	Barsingar (NLC) (2*125)	250	96	112	2.52	105	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	438	836	17.51	730	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	121	0	1.30	54	
	Kawai(Adani) (2*660)	1320	861	0	10.36	431	
	<b>Thermal (Total)</b>	<b>9536</b>	<b>2999</b>	<b>2008</b>	<b>66.88</b>	<b>2787</b>	
	Total Hydro	550	28	0	0.22	9	
	Wind power	4017	721	1150	34.11	1421	
	Biomass	99	19	19	0.47	19	
	Solar	1295	0	0	1.91	79	
	Renewable/Others (Total)	5411	740	1169	36.48	1520	
	<b>Total Rajasthan</b>	<b>15497</b>	<b>3767</b>	<b>3177</b>	<b>103.58</b>	<b>4316</b>	
	UP	Anpara TPS (3*210+2*500)	1630	1167	1387	31.89	1329
Obra TPS (2*50+2*94+5*200)		1194	653	495	13.55	565	
Paricha TPS (2*110+2*220+2*250)		1160	641	644	15.46	644	
Panki TPS (2*105)		210	133	144	3.32	138	
Harduaganj TPS (1*60+1*105+2*250)		665	392	549	11.71	488	
Tanda TPS (NTPC) (4*110)		440	290	396	7.39	308	
Roza TPS (IPP) (4*300)		1200	751	1106	22.48	937	
Anpara-C (IPP) (2*600)		1200	351	513	11.57	482	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	283	405	7.93	330	
Anpara-D(2*500)		1000	707	842	19.32	805	
Lalitpur TPS(3*660)		1980	714	1179	25.20	1050	
Bara(2*660)		1320	595	588	14.62	609	
<b>Thermal (Total)</b>		<b>12449</b>	<b>6677</b>	<b>8248</b>	<b>184.42</b>	<b>7684</b>	
Vishnuparyag HPS (IPP)(4*110)		440	400	435	9.85	410	
Alaknanda(4*82.5)		330	151	84	3.17	132	
Other Hydro		527	50	74	1.38	58	
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>7478</b>	<b>9041</b>	<b>203.62</b>	<b>8484</b>		
Uttarakhand	Other Hydro	1250	594	580	12.90	537	
	Total Gas	225	249	277	6.27	261	
	Wind Power	0	0	0	0.00	0	
	Biomass	127	0	0	0.00	0	
	Solar	20	0	0	0.51	21	
	Small Hydro (< 25 MW)	180	0	0	0.00	0	
	<b>Renewable(Total)</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>0.51</b>	<b>21</b>	
	<b>Total Uttarakhand</b>	<b>1802</b>	<b>843</b>	<b>857</b>	<b>19.67</b>	<b>820</b>	
	Delhi	Raighat TPS (2*67.5)	135	0	0	-0.01	0
		Delhi Gas Turbine (6x30 + 3x34)	282	70	72	1.81	75
Pragati Gas Turbine (2x104+ 1x122)		330	150	150	3.76	157	
Rithala GPS (3*36)		95	0	0	0.00	0	
Bawana GPS (4*216+2*253)		1370	0	300	4.89	204	
Badarpur TPS (NTPC) (3*95+2*210)		705	340	340	7.86	328	
<b>Thermal (Total)</b>		<b>2917</b>	<b>560</b>	<b>862</b>	<b>18.31</b>	<b>763</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>560</b>	<b>862</b>	<b>18.31</b>	<b>763</b>		
HP	Baspa HPS (IPP) (3*100)	300	259	289	6.25	260	
	Malana HPS (IPP) (2*43)	86	67	60	0.94	39	
	Other Hydro (>25MW)	372	353	332	7.39	308	
	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	237	242	5.42	226	
	<b>Renewable(Total)</b>	<b>486</b>	<b>237</b>	<b>242</b>	<b>5.42</b>	<b>226</b>	
<b>Total HP</b>	<b>1244</b>	<b>916</b>	<b>923</b>	<b>20.00</b>	<b>833</b>		
J & K	Baqilhar HPS (IPP) (3*150+3*150)	900	900	900	21.60	900	
	Other Hydro/IPP(including 98 MW Small Hydro)	308	64	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>964</b>	<b>956</b>	<b>23</b>	<b>978</b>		
<b>Total State Control Area Generation</b>		<b>50738</b>	<b>18131</b>	<b>20757</b>	<b>484.14</b>	<b>20172</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5565</b>	<b>10275</b>	<b>159.46</b>	<b>6644</b>	
<b>Total Regional Availability(Gross)</b>		<b>76635</b>	<b>41509</b>	<b>48128</b>	<b>1028.16</b>	<b>42840</b>	

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	10605	8211	206.42	8601
State Control Area Hydro	7163	4017	4034	87.36	3922
<b>Total Regional Hydro</b>	<b>19397</b>	<b>14622</b>	<b>12245</b>	<b>293.78</b>	<b>12523</b>

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.14	6
State Control Area Renewable	7356	977	1411	42.69	1779
<b>Total Regional Renewable</b>	<b>7386</b>	<b>977</b>	<b>1411</b>	<b>42.83</b>	<b>1785</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)	-500	400	400	500	1.77	7.66	-5.89
765 KV Gwalior-Agra (D/C)	1783	1724	1951	0	36.81	0.00	36.81
400 KV Zerda-Kankroli	-88	-213	0	405	0.00	6.81	-6.81
400 KV Zerda-Bhinmal	298	298	298	298	0.00	6.35	-6.35
220 KV Auraiya-Malanpur	-26	-48	0	96	0.00	1.03	-1.03
220 KV Badod-Kota/Morak	47	120	92	48	0.80	0.00	0.80
Mundra-Mohinderghar(HVDC Bipole)	998	1998	2505	0	39.55	0.00	39.55
400 KV RAPPCC-Sujalpur	170	151	170	0	1.52	0.00	1.52
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	542	1409	753	0	25.58	0.00	25.58
+/- 800 kV HVDC Champa-Kurushetra	1000	1500	1500	0	21.39	0	21.39
<b>Sub Total WR</b>	<b>4224</b>	<b>7339</b>			<b>127.41</b>	<b>21.84</b>	<b>105.57</b>
400 kV Sasaram - Varanasi	236	256	270	0	6.05	0.00	6.05
400 kV Sasaram - Allahabad	121	96	139	0	2.68	0.00	2.68
400 KV MZP- GKP (D/C)	136	263	297	62	4.05	0.00	4.05
400 KV Patna-Balia(D/C) X 2	457	668	668	0	13.15	0.00	13.15
400 KV B'Sharif-Balia (D/C)	19	60	109	0	0.75	0.00	0.75
765 KV Gaya-Balia	316	349	354	0	6.70	0.00	6.70
765 KV Gaya-Varanasi (D/C)	261	351	363	0	7.01	0.00	7.01
220 KV Pusaali-Sahupuri	219	203	219	0	4.36	0.00	4.36
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-30	-10	0	32	0.00	0.59	-0.59
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-423	-271	0	423	0.00	6.70	-6.70
400 KV Barh -GKP (D/C)	494	594	594	0	11.25	0.00	11.25
400 kV B'Sharif - Varanasi (D/C)	36	-13	144	61	0.30	0.00	0.30
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1842</b>	<b>2546</b>			<b>56.30</b>	<b>7.29</b>	<b>49.00</b>
+/- 800 KV HVDC BiswanathCharialli-Agra	-501	390	494	504.00	4.89	0.00	4.89
<b>Sub Total NER</b>	<b>-501</b>	<b>390</b>			<b>4.89</b>	<b>0.00</b>	<b>4.89</b>
<b>Total IR Exch</b>	<b>5565</b>	<b>10275</b>			<b>188.60</b>	<b>29.14</b>	<b>159.46</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
41.83	1.75	43.58	2.50	2.56	3.62	1.71	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
49.70	118.17	167.88	53.89	105.57	159.46	4.19	-12.60	-8.42

**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	-9	-11	0	31	0	1	-0.65

**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	1.19	32.01	63.25	22.69	11.09	1.86	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)		
50.32	18.03	49.84	12.14	50.03	0.054	0.066	0.00	0.00	36.75

**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	469.53	257.12	476.39	381.25	840.27	597.88
Pong	426.72	384.05	394.75	121.45	391.93	80.40	70.28	138.98
Tehri	829.79	740.04	747.45	36.43	742.35	11.05	156.08	208.00
Koteshwar	612.50	598.50	609.69	4.40	604.45	2.37	208.00	213.47
Chamera-I	760.00	748.75	752.59	0.00	0.00	0.00	297.87	239.81
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	514.00	7.02	502.95	3.20	286.78	303.95

\* 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	343	887	0	614	99	0	12.02	17.53	29.56
Delhi	500	-33	0	462	-53	0	12.33	-2.06	10.27
Haryana	343	208	0	343	169	0	3.25	3.82	7.06
HP	-784	-348	0	-784	-435	0	-18.84	-8.91	-27.76
J&K	-574	-353	0	-574	0	0	-13.78	-4.39	-18.17
CHD	0	25	0	0	15	0	0.00	0.51	0.51
Rajasthan	36	438	0	23	423	0	0.62	9.70	10.31
UP	983	439	0	1300	-42	0	12.02	1.73	13.75
Uttarakhand	133	3	0	-96	151	0	1.25	1.26	2.51
<b>Total</b>	<b>979</b>	<b>1266</b>	<b>0</b>	<b>1287</b>	<b>326</b>	<b>0</b>	<b>8.86</b>	<b>19.19</b>	<b>28.05</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	796	343	1134	99	0	0
Delhi	659	462	107	-459	0	0
Haryana	343	-106	222	-247	0	0
HP	-701	-947	-272	-477	0	0
J&K	-574	-574	0	-353	0	0
CHD	0	0	59	0	0	0
Rajasthan	36	15	461	13	0	0
UP	1309	53	439	-46	0	0
Uttarakhand	133	-172	151	2	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	7	11
Haryana	7	6
Rajasthan	7	11
Delhi	7	5
UP	7	14
Uttarakhand	7	0
HP	7	0
J & K	7	11
Chandigarh	7	11

**XIII. System Constraints:**

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

**XV. Weather Conditions For 21.05.2017 :**

**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 : 21.05.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER