

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 20.04.2017

Date of Reporting : 21.04.2017



### 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
48518	555	49073	50.04	45174	199	45373	50.00	1041.25	-4.74

\* 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	47.01	7.50	0.28	54.79	80.74	80.77	0.03	135.56	0.00
Haryana	33.32	0.74	0.00	34.06	100.34	101.38	1.04	135.44	0.07
Rajasthan	93.48	0.20	30.49	124.16	70.36	71.50	1.15	195.67	0.43
Delhi	18.55		0.00	18.55	89.71	90.96	1.24	109.50	0.11
UP	189.58	12.00	0.00	201.58	156.59	157.48	0.89	359.06	-14.18
Uttarakhand		17.49	0.00	19.17	20.03	19.74	-0.29	38.90	0.00
HP		19.24	5.02	19.24	4.23	6.94	2.72	26.18	0.44
J & K		19.62	0.00	19.62	17.41	15.84	-1.57	35.47	8.39
Chandigarh				0.00	5.95	5.48	-0.46	5.48	0.00
<b>Total</b>	<b>381.93</b>	<b>76.78</b>	<b>35.79</b>	<b>491.15</b>	<b>545.35</b>	<b>550.10</b>	<b>4.74</b>	<b>1041.25</b>	<b>-4.74</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	6464	0	89	317	5903	0	-131	645	6696	22	0
Haryana	6934	82	5	370	6798	0	-63	440	7162	24	150
Rajasthan	8330	0	121	-81	8520	0	74	400	9393	24	32
Delhi	4757	0	87	-145	4525	0	195	-218	5447	17	0
UP	17117	0	256	2413	15633	0	-150	2200	17328	22	0
Uttarakhand	1802	0	-55	389	1541	0	0	124	1805	21	0
HP	1028	16	120	-1342	942	0	134	-1264	1284	11	0
J&K	1831	458	181	-631	1130	199	-242	-616	1859	21	465
Chandigarh	255	0	-11	0	183	0	-12	0	298	15	0
<b>Total</b>	<b>48518</b>	<b>555</b>	<b>793</b>	<b>1291</b>	<b>45174</b>	<b>199</b>	<b>-196</b>	<b>1711</b>	<b>49643</b>	<b>22</b>	<b>570</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	
								Net MU	Net MU
<b>A. NTPC</b>									
Singrauli STPS (5*200+2*500)	2000	1625	1767	1772	39.09	1629	38.79	0.29	
Rihand I STPS (2*500)	1000	926	923	923	19.59	816	21.24	-1.65	
Rihand II STPS (2*500)	1000	0	0	0	0.00	0	0.00	0.00	
Rihand III STPS (2*500)	1000	963	918	918	20.86	869	22.13	-1.27	
Dadri I STPS (4*210)	840	815	780	662	15.72	655	16.39	-0.66	
Dadri II STPS (2*490)	980	980	960	773	18.62	776	19.56	-0.94	
Unchahar I TPS (2*210)	420	360	352	340	7.19	299	7.47	-0.29	
Unchahar II TPS (2*210)	420	404	435	367	7.80	325	8.09	-0.28	
Unchahar III TPS (1*210)	210	201	213	193	3.89	162	4.14	-0.25	
Unchahar IV TPS (1*660)	660	0	0	0	0.00	0	0.00	0.00	
ISTPP (Jhajjhar) (3*500)	1500	1440	1010	879	18.37	766	18.60	-0.23	
Dadri GPS (4*130.19+2*154.51)	830	742	128	130	3.06	127	3.43	-0.38	
Anta GPS (3*88.71+1*153.2)	419	382	0	0	0.00	0	0.00	0.00	
Auraiya GPS (4*111.19+2*109.30)	663	582	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	2	0	0	0.01	0	0.05	-0.05	
KHEP(4*200)	800	872	869	322	15.74	656	15.00	0.74	
<b>Sub Total (A)</b>	<b>12772</b>	<b>10296</b>	<b>8400</b>	<b>7279</b>	<b>170</b>	<b>7083</b>	<b>175</b>	<b>-4.97</b>	
<b>B. NPC</b>									
NAPS (2*220)	440	387	411	422	9.12	380	9.29	-0.17	
RAPS- B (2*220)	440	361	361	361	8.66	361	8.66	0.00	
RAPS- C (2*220)	440	210	230	233	4.80	200	5.04	-0.24	
<b>Sub Total (B)</b>	<b>1320</b>	<b>958</b>	<b>1002</b>	<b>1016</b>	<b>22.58</b>	<b>941</b>	<b>22.99</b>	<b>-0.41</b>	
<b>C. NHPC</b>									
Chamera I HPS (3*180)	540	535	549	548	13.19	550	12.83	0.36	
Chamera II HPS (3*100)	300	301	312	305	7.34	306	7.22	0.11	
Chamera III HPS (3*77)	231	232	234	238	5.56	232	5.56	0.01	
Bairasuli HPS(3*60)	180	179	184	180	4.34	181	4.29	0.06	
Salal-HPS (6*115)	690	617	670	665	16.10	671	14.81	1.29	
Tanakpur-HPS (3*31.4)	94	44	64	46	1.39	58	1.07	0.33	
Uri-I HPS (4*120)	480	475	480	478	11.55	481	11.40	0.15	
Uri-II HPS (4*60)	240	232	242	181	5.58	233	5.56	0.02	
Dhauliganga-HPS (4*70)	280	280	276	216	4.36	182	4.31	0.05	
Dulhasti-HPS (3*130)	390	387	403	394	9.36	390	9.30	0.06	
Sewa-II HPS (3*40)	120	126	130	133	3.13	130	3.02	0.10	
Parbati 3 (4*130)	520	238	123	0	2.51	104	2.54	-0.03	
<b>Sub Total (C)</b>	<b>4065</b>	<b>3646</b>	<b>3667</b>	<b>3383</b>	<b>84</b>	<b>3517</b>	<b>82</b>	<b>2.51</b>	
<b>D.SJVNL</b>									
NJPC (6*250)	1500	1605	1604	1622	38.51	1605	38.52	0.00	
Rampur HEP (6*68.67)	412	436	450	444	10.66	444	10.47	0.18	
<b>Sub Total (D)</b>	<b>1912</b>	<b>2041</b>	<b>2054</b>	<b>2066</b>	<b>49.17</b>	<b>2049</b>	<b>48.99</b>	<b>0.18</b>	
<b>E. THDC</b>									
Tehri HPS (4*250)	1000	465	467	0	5.34	222	5.30	0.04	
Koteshwar HPS (4*100)	400	104	206	91	2.54	106	2.50	0.04	
<b>Sub Total (E)</b>	<b>1400</b>	<b>569</b>	<b>673</b>	<b>91</b>	<b>7.88</b>	<b>328</b>	<b>7.80</b>	<b>0.08</b>	
<b>F. BBMB</b>									
Bhakra HPS (2*108+3*126+5*157)	1379	369	669	331	9.31	388	8.85	0.45	
Dehar HPS (6*165)	990	622	660	620	15.12	630	14.92	0.20	
Pong HPS (6*66)	396	119	275	0	2.82	117	2.85	-0.03	
<b>Sub Total (F)</b>	<b>2765</b>	<b>1109</b>	<b>1604</b>	<b>951</b>	<b>27.24</b>	<b>1135</b>	<b>26.62</b>	<b>0.62</b>	
<b>G. IPP(s)/JV(s)</b>									
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	220	136	3.16	132	3.54	-0.37	
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1100	1000	22.17	924	22.23	-0.05	
Malana Stg-II HPS (2*50)	100	0	112	80	1.77	74	1.67	0.10	
Shree Cement TPS (2*150)	300	0	139	110	2.73	114	2.78	-0.05	
Budhil HPS(IPP) (2*35)	70	0	36	36	0.85	35	0.90	-0.05	
<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>1607</b>	<b>1362</b>	<b>30.69</b>	<b>1279</b>	<b>31.11</b>	<b>-0.43</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>25897</b>	<b>18620</b>	<b>19007</b>	<b>16148</b>	<b>391.96</b>	<b>16332</b>	<b>394.37</b>	<b>-2.42</b>	
<b>I. State Entities</b>									
	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sento ut MW)			
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	1050	960	20.04	835			
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	120	110	2.30	96			
	Guru Hargobind Singh TPS(L.mbi) (2*210+2*250)	920	838	735	15.46	644			

	Goindwal(GVK) (2*270)	540	0	0	-0.03	-1
	Rajpura (2*700)	1400	420	420	9.65	402
	Talwandi Saboo (3*660)	1980	0	0	-0.41	-17
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2428</b>	<b>2225</b>	<b>47.01</b>	<b>1959</b>
	Total Hydro	1000	495	192	7.50	312
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	0.20	8
	Solar	560	0	0	0.08	3
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.28</b>	<b>12</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2923</b>	<b>2417</b>	<b>54.79</b>	<b>2283</b>
Haryana	Panipat TPS (2*210+2*250)	920	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	555	556	11.44	477
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	531	566	10.64	443
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	572	601	11.24	469
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1658</b>	<b>1723</b>	<b>33.32</b>	<b>1388</b>
	Total Hydro	62	31	30	0.74	31
	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>1689</b>	<b>1753</b>	<b>34.06</b>	<b>1419</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	155	153	3.79	158
	suratgarh TPS (6*250)	1500	179	178	4.45	185
	Chabra TPS (4*250)	1000	860	883	21.68	903
	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	173	175	4.55	190
	RAPS A (NPC) (1*100+1*200)	300	190	190	3.44	143
	Barsingsar (NLC) (2*125)	250	112	112	2.50	104
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	560	737	18.00	750
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	835	864	20.75	864
	Kawai(Adani) (2*660)	1320	462	610	14.31	596
	<b>Thermal (Total)</b>	<b>9536</b>	<b>3526</b>	<b>3902</b>	<b>93.48</b>	<b>3895</b>
	Total Hydro	550	0	0	0.20	8
	Wind power	4017	1493	1512	32.79	1366
	Biomass	99	26	26	0.62	26
	Solar	1295	0	0	-2.92	-122
	Renewable/Others (Total)	5411	1519	1538	30.49	1270
	<b>Total Rajasthan</b>	<b>15497</b>	<b>5045</b>	<b>5440</b>	<b>124.16</b>	<b>5173</b>
UP	Anpara TPS (3*210+2*500)	1630	915	927	22.00	917
	Obra TPS (2*50+2*94+5*200)	1194	661	619	15.60	650
	Paricha TPS (2*110+2*220+2*250)	1160	886	890	20.50	854
	Panki TPS (2*105)	210	162	153	3.50	146
	Harduaganj TPS (1*60+1*105+2*250)	665	527	513	11.80	492
	Tanda TPS (NTPC) (4*110)	440	290	284	6.78	282
	Roza TPS (IPP) (4*300)	1200	1105	1117	25.70	1071
	Anpara-C (IPP) (2*600)	1200	774	779	18.50	771
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	405	405	7.80	325
	Anpara-D(2*500)	1000	821	410	16.10	671
	Lalitpur TPS(3*660)	1980	1154	590	20.80	867
	Bara(2*660)	1320	565	376	10.90	454
	<b>Thermal (Total)</b>	<b>12449</b>	<b>8265</b>	<b>7063</b>	<b>179.98</b>	<b>7499</b>
	Vishnuparyag HPS (IPP)(4*110)	440	326	259	6.90	288
	Alakanada(4*82.5)	330	169	168	3.60	150
	Other Hydro	527	6464	129	1.50	63
	Cogeneration	981	400	400	9.60	400
	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>15624</b>	<b>8019</b>	<b>201.58</b>	<b>8399</b>
	Uttarakhand	Other Hydro	1250	744	707	17.49
Total Gas		225	0	182	1.13	47
Wind Power		0	0	0	0.00	0
Biomass		127	0	0	0.00	0
Solar		20	0	0	0.55	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>0.55</b>	<b>23</b>
<b>Total Uttarakhand</b>		<b>1802</b>	<b>744</b>	<b>889</b>	<b>19.17</b>	<b>799</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	65	33	1.07	44
	Pragati Gas Turbine (2x104+ 1x122)	330	163	153	4.08	170
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	283	251	6.10	254
	Badarpur TPS (NTPC) (3*95+2*210)	705	318	327	7.30	304
	<b>Thermal (Total)</b>	<b>2917</b>	<b>829</b>	<b>764</b>	<b>18.55</b>	<b>773</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>829</b>	<b>764</b>	<b>18.55</b>	<b>773</b>	
HP	Baspa HPS (IPP) (3*100)	300	209	56	5.48	228
	Malana HPS (IPP) (2*43)	86	86	91	1.62	67
	Other Hydro (>25MW)	372	312	281	7.13	297
	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	238	209	5.02	209
	<b>Renewable(Total)</b>	<b>486</b>	<b>238</b>	<b>209</b>	<b>5.02</b>	<b>209</b>
	<b>Total HP</b>	<b>1244</b>	<b>845</b>	<b>637</b>	<b>19.24</b>	<b>801</b>
J & K	Baglihar HPS (IPP) (3*150+3*150)	900	743	743	17.79	741
	Other Hydro/IPP(including 98 MW Small Hydro)	308	94	66	1.84	77
	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	837	809	20	818
Total State Control Area Generation	50738	28536	20728	491.15	20465
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		8035	8573	161.99	6750
Total Regional Availability(Gross)	76635	55578	45449	1045.10	43546

IV. Total Hydro Generation:

Regional Entities Hydro	12234	10298	8029	211.54	8814
State Control Area Hydro	7163	9911	3113	76.78	3269
Total Regional Hydro	19397	20209	11141	288.32	12083

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.07	3
State Control Area Renewable	7356	1757	1747	36.33	1514
Total Regional Renewable	7386	1757	1747	36.41	1517

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)	-300	100	250	300	0.96	3.99	-3.03
765 KV Gwalior-Agra (D/C)	2441	2333	2781	0	45.69	0.00	45.69
400 KV Zerda-Kankrol	-87	-176	0	316	0.00	4.90	-4.90
400 KV Zerda-Bhinmal	-86	-150	23	288	0.00	4.49	-4.49
220 KV Auraiya-Malanpur	-45	-5	0	59	0.00	0.84	-0.84
220 KV Badod-Kota/Morak	103	101	103	0	1.62	0.00	1.62
Mundra-Mohinderghar(HVDC Bipole)	2503	2498	2506	0	53.67	0.00	53.67
400 KV RAPP-C-Sujalpur	210	236	320	0	5.00	0.00	5.00
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1115	899	1115	0	17.45	0.00	17.45
+/- 800 kV HVDC Champa-Kurushetra	1500	1500	1500	0	32.53	0	32.53
<b>Sub Total WR</b>	<b>7354</b>	<b>7336</b>			<b>156.91</b>	<b>14.22</b>	<b>142.69</b>
400 kV Sasaram - Varanasi	136	128	148	0	3.29	0.00	3.29
400 kV Sasaram - Allahabad	4	12	14	8	0.08	0.00	0.08
400 kV MZP- GKP (D/C)	-103	354	378	161	2.02	0.00	2.02
400 KV Patna-Balia(D/C) X 2	596	682	690	0	12.88	0.00	12.88
400 KV B'Sharif-Balia (D/C)	17	165	165	40	1.44	0.00	1.44
765 KV Gaya-Balia	295	276	309	0	4.47	0.00	4.47
765 KV Gaya-Varanasi (D/C)	-275	-356	0	360	0.00	4.65	-4.65
220 KV Pusaui-Sahupuri	205	223	240	0	4.65	0.00	4.65
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-33	-26	0	36	0.00	0.63	-0.63
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-312	-192	0	312	0.00	4.40	-4.40
400 KV Barh -GKP (D/C)	540	502	552	0	9.84	0.00	9.84
400 kV B'Sharif - Varanasi (D/C)	111	-31	139	34	1.36	0.00	1.36
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1181</b>	<b>1737</b>			<b>40.02</b>	<b>9.69</b>	<b>30.33</b>
+/- 800 KV HVDC BiswanathChariali-Agra	-500	-500	0	500.00	0.00	11.03	-11.03
<b>Sub Total NER</b>	<b>-500</b>	<b>-500</b>			<b>0.00</b>	<b>11.03</b>	<b>-11.03</b>
<b>Total IR Exch</b>	<b>8035</b>	<b>8573</b>			<b>196.93</b>	<b>34.94</b>	<b>161.99</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
43.38	0.47	43.85	-0.34	2.46	-15.38	0.18	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
28.13	144.39	172.51	19.30	142.69	161.99	-8.83	-1.69	-10.52

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	-24	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	0.78	9.39	58.17	76.10	11.46	3.06	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)		
50.16	6.03	49.72	22.08	49.99	0.043	0.064	50.09	49.84	23.90

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	411	12:22	404	0:00	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	420	12:05	391	19:39	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	417	5:33	388	21:07	0.0	1.5	0.0	0.0	0.0
Kanpur	400	416	6:03	394	19:29	0.0	0.0	0.0	0.0	0.0
Dadri	400	419	6:01	399	19:30	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	418	6:02	395	19:31	0.0	0.0	0.0	0.0	0.0
Bawana	400	416	6:02	395	19:30	0.0	0.0	0.0	0.0	0.0
Bassi	400	417	5:03	391	20:24	0.0	0.0	0.0	0.0	0.0
Hissar	400	412	6:02	394	19:36	0.0	0.0	0.0	0.0	0.0
Moga	400	414	6:02	399	22:08	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	413	6:02	397	19:30	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	412	5:17	401	19:37	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	409	4:32	398	21:03	0.0	0.0	0.0	0.0	0.0
Wagoora	400	410	3:56	384	20:46	0.0	18.8	0.0	0.0	0.0
Amritsar	400	407	0:00	407	0:00	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	405	0:00	404	0:01	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	420	6:03	389	19:34	0.0	0.3	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	787	5:15	744	19:30	0.0	0.0	0.0	0.0	0.0
Balia	765	793	5:15	752	19:33	0.0	0.0	0.0	0.0	0.0
Moga	765	793	6:02	761	19:36	0.0	0.0	0.0	0.0	0.0
Agra	765	793	6:04	749	19:29	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	794	12:29	767	21:30	0.0	0.0	0.0	0.0	0.0
Unnao	765	781	5:15	731	19:36	0.0	7.1	0.0	0.0	0.0
Lucknow	765	801	6:02	752	19:35	0.0	0.0	0.2	0.0	0.2
Meerut	765	803	6:03	757	19:36	0.0	0.0	1.1	0.0	1.1
Jhatikara	765	799	6:03	758	19:27	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	799	6:03	763	15:15	0.0	0.0	0.0	0.0	0.0
Anta	765	794	5:03	767	20:24	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	467.41	226.00	478.12	420.92	630.42	332.61
Pong	426.72	384.05	396.96	157.28	394.96	126.34	84.64	206.80
Tehri	829.79	740.04	756.15	92.19	744.50	21.51	161.31	172.00
Koteshwar	612.50	598.50	610.83	4.95	610.24	4.45	172.00	167.58
Chamera-I	760.00	748.75	756.20	0.00	0.00	0.00	408.18	358.04
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	514.62	2.71	497.08	0.39	317.92	77.12

\* 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	-50	695	0	19	298	0	-0.93	9.16	8.23
Delhi	-244	26	0	-224	79	0	-3.83	4.02	0.19
Haryana	148	293	0	148	222	0	1.13	-0.11	1.02
HP	-66	-1198	0	-208	-1133	0	-2.96	-24.36	-27.31
J&K	-163	-453	0	-163	-467	0	-3.92	-9.02	-12.94
CHD	0	0	0	0	0	0	0.00	0.60	0.60
Rajasthan	-8	409	0	-8	-73	0	-0.20	5.63	5.44
UP	809	1391	0	1116	1297	0	9.19	14.18	23.37
Uttarakhand	266	-142	0	136	253	0	5.73	-0.20	5.53
Total	691	1021	0	816	475	0	4.23	-0.09	4.13

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	19	-50	745	298	0	0
Delhi	-25	-259	511	-134	0	0
Haryana	148	-53	308	-416	0	0
HP	-40	-271	-818	-1267	0	0
J&K	-163	-163	-227	-498	0	0
CHD	0	0	69	0	0	0
Rajasthan	-8	-8	409	-668	0	0
UP	1116	46	2020	-68	0	0
Uttarakhand	266	136	279	-170	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	11
Haryana	0	9
Rajasthan	1	15
Delhi	7	11
UP	1	16
Uttarakhand	6	29
HP	1	21
J & K	4	32
Chandigarh	4	28

**XIII. System Constraints:**

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

**XV. Weather Conditions For 20.04.2017 :**

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

1. 220kV Ganguwal(BBMB)-Bhari, Bhari-Govindgarh-1 first time charged at 1818Hrs of 20.04.17 after LILO of 220 KV Ganguwal-Bhari line.

**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 : 20.04.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER