

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

उत्तर क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GO118682

Power Supply Position in Northern Region for 01.06.2018

Date of Reporting : 02.06.2018



## 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
44888	597	45484	50.04	55404	376	55780	50.00	1199.39	11.18

\* 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)							UI (OD: (+ve), UD: (-ve))				
	Thermal	Hydro	Gas/Naptha/ Diesel	Solar	Wind	Other (Biomass/ Small hydro/ Co-Generation etc.)	Total	Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages* (MU)
Punjab	75.55	8.53	0.00	4.16	0.00	2.66	90.89	94.05	86.75	-7.30	177.64	0.00
Haryana	67.56	0.58	0.00	0.14	0.00	0.73	69.02	96.56	92.04	-4.52	161.06	0.84
Rajasthan	114.45	0.00	4.07	10.71	45.61	4.38	179.21	66.29	65.68	-0.61	244.89	0.90
Delhi	6.65	0.00	23.58	0.00	0.00	0.00	30.22	102.22	100.11	-2.11	130.33	0.02
UP	176.99	14.92	0.00	2.88	0.00	12.00	206.79	173.67	174.16	0.49	380.94	0.00
Uttarakhand	0.00	16.73	4.98	0.62	0.00	0.00	22.33	19.70	16.47	-3.23	38.80	0.00
HP	0.00	16.47	0.00	0.00	0.00	3.27	19.74	5.69	4.04	-1.66	23.78	0.96
J & K	0.00	24.67	0.00	0.00	0.00	0.00	24.67	18.38	11.34	-7.04	36.01	8.46
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.21	5.95	-0.26	5.95	0.00
<b>Total</b>	<b>441.19</b>	<b>81.90</b>	<b>32.62</b>	<b>18.51</b>	<b>45.61</b>	<b>23.04</b>	<b>642.86</b>	<b>582.77</b>	<b>556.53</b>	<b>-26.24</b>	<b>1199.39</b>	<b>11.18</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				UI (OD: (+ve), UD: (-ve))		
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	Maximum Demand Met (MW) and Time(Hrs)		Shortage (MW)
Punjab	4266	0	-1495	687	8286	0	9	687	8822	14	0
Haryana	5049	0	-1412	236	8158	75	246	483	8158	3	75
Rajasthan	9154	0	183	-181	9996	0	299	-134	10947	8	0
Delhi	5393	0	-63	480	5793	0	103	520	6570	17	0
UP	17712	150	431	1921	18336	0	182	2120	18357	1	0
Uttarakhand	838	0	-702	227	1825	0	-29	373	1951	16	0
HP	701	55	17	-1408	1046	0	149	-1060	1391	10	0
J&K	1567	392	-107	-481	1706	301	-200	-85	1852	21	463
Chandigarh	208	0	-38	0	258	0	59	0	346	16	0
<b>Total</b>	<b>44888</b>	<b>597</b>	<b>-3186</b>	<b>1480</b>	<b>55404</b>	<b>376</b>	<b>819</b>	<b>2904</b>	<b>55976</b>	<b>1</b>	<b>1597</b>

\* STOA figures are at sellers 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
A. NTPC	Singrauli STPS (6*200+2*500)	2000	1645	1613	1802	37.73	1572	36.93	0.80
	Rihand I STPS (2*500)	1000	923	724	946	18.52	772	19.64	-1.12
	Rihand II STPS (2*500)	1000	471	415	505	10.00	417	9.93	0.07
	Rihand III STPS (2*500)	1000	943	789	976	20.28	845	19.56	0.72
	Dadri I STPS (4*210)	840	769	458	790	14.09	587	14.56	-0.47
	Dadri II STPS (2*490)	980	929	670	947	17.05	710	16.41	0.64
	Unchahar I TPS (2*210)	420	382	273	367	6.72	280	6.96	-0.24
	Unchahar II TPS (2*210)	420	382	271	378	6.86	286	6.71	0.15
	Unchahar III TPS (1*210)	210	170	124	132	2.86	119	2.99	-0.13
	Unchahar IV TPS(1*500)	500	0	0	0	0.00	0	0.00	0.00
	ISTPP (Jhajhar) (3*500)	1500	993	896	982	20.38	849	20.67	-0.29
	Dadri GPS (4*130.19+2*154.51)	830	0	228	264	5.43	226	4.30	1.13
	Anta GPS (3*88.71+1*153.2)	419	0	0	0	0.00	0	0.00	0.00
	Auraya GPS (4*111.19+2*109.30)	663	0	0	0	0.00	0	0.00	0.00
	Dadri Solar(5)	5	1	0	0	0.00	0	0.02	-0.02
	Unchahar Solar(10)	10	2	0	0	0.05	2	0.05	0.00
	Singrauli Solar(15)	15	3	0	0	0.07	3	0.05	0.02
	KHEP(4*200)	800	872	425	0	6.70	279	6.73	-0.03
	<b>Sub Total (A)</b>	<b>12612</b>	<b>8484</b>	<b>6886</b>	<b>8089</b>	<b>167</b>	<b>6948</b>	<b>166</b>	<b>1.23</b>
B. NPC	NAPS (2*220)	440	380	411	412	8.97	374	9.12	-0.15
	RAPS- B (2*220)	440	353	398	401	8.51	354	8.47	0.03
	RAPS- C (2*220)	440	410	453	453	9.75	406	9.78	-0.03
	<b>Sub Total (B)</b>	<b>1320</b>	<b>1143</b>	<b>1262</b>	<b>1266</b>	<b>27.23</b>	<b>1135</b>	<b>27.37</b>	<b>-0.14</b>
C. NHPC	Chamera I HPS (3*180)	540	534	185	180	4.62	192	4.48	0.14
	Chamera II HPS (3*100)	300	298	301	302	7.18	299	7.14	0.04
	Chamera III HPS (3*77)	231	229	238	237	5.58	233	5.48	0.10
	Bairasul HPS(3*60)	180	69	169	52	1.70	71	1.58	0.12
	Salal-HPS (6*115)	690	650	696	676	16.26	678	15.60	0.66
	Tanakpur-HPS (3*31.4)	94	49	62	35	1.32	55	1.17	0.15
	Uri-I HPS (4*120)	480	475	487	482	11.76	490	11.40	0.36
	Uri-II HPS (4*60)	240	238	244	244	5.83	243	5.70	0.13
	Dhauliganga-HPS (4*70)	280	277	282	73	3.79	158	3.69	0.10
	Dulhasi-HPS (3*130)	390	387	403	397	9.42	392	9.28	0.14
	Sewa-II HPS (3*40)	120	125	120	0	0.38	16	0.40	-0.02
	Parbati 3 (4*130)	520	78	373	14	1.90	79	1.87	0.03
	Kishanganga(3*110)	330	0	184	184	4.24	177	4.80	-0.56
	<b>Sub Total (C)</b>	<b>4395</b>	<b>3407</b>	<b>3744</b>	<b>2876</b>	<b>74</b>	<b>3082</b>	<b>73</b>	<b>1.39</b>
D. SJVNL	NUPC (6*250)	1500	1497	1507	1086	30.25	1260	29.95	0.30
	Rampur HEP (6*68.67)	412	412	414	295	8.59	358	8.31	0.28
	<b>Sub Total (D)</b>	<b>1912</b>	<b>1910</b>	<b>1921</b>	<b>1381</b>	<b>38.84</b>	<b>1618</b>	<b>38.26</b>	<b>0.58</b>
E. THDC	Tehri HPS (4*250)	1000	512	130	0	2.30	96	2.27	0.03
	Koteswar HPS (4*100)	400	86	200	72	1.96	82	1.94	0.02
	<b>Sub Total (E)</b>	<b>1400</b>	<b>598</b>	<b>330</b>	<b>72</b>	<b>4.26</b>	<b>178</b>	<b>4.21</b>	<b>0.05</b>
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	561	901	432	13.59	566	13.46	0.13
	Dehar HPS (6*165)	990	561	825	330	13.44	560	13.45	-0.01
	Pong HPS (6*68)	386	30	147	0	0.71	29	0.71	0.00
	<b>Sub Total (F)</b>	<b>2765</b>	<b>1151</b>	<b>1873</b>	<b>762</b>	<b>27.74</b>	<b>1156</b>	<b>27.62</b>	<b>0.12</b>
G. IPP(s)/JV(s)	Allain DuhanganHPS(IPP) (2*96)	192	0	108	126	2.66	111	3.02	-0.36
	Karcham Wangtoo HPS(IPP) (4*250)	1000	0	1000	700	16.96	707	16.47	0.49
	Malana Stg-II HPS (2*50)	100	0	90	95	1.49	62	1.43	0.06
	Shree Cement TPS (2*150)	300	0	254	258	6.09	254	6.21	-0.12
	Budhil HPS(IPP) (2*35)	70	0	72	73	1.25	52	0.82	0.43
	Sainj HPS (IPP) (2*50)	100	0	0	0	0.00	0	1.23	0.00
	<b>Sub Total (G)</b>	<b>1762</b>	<b>0</b>	<b>1525</b>	<b>1252</b>	<b>28.45</b>	<b>1186</b>	<b>27.95</b>	<b>0.50</b>
<b>H. Total Regional Entities (A-G)</b>		<b>26167</b>	<b>16693</b>	<b>17541</b>	<b>15698</b>	<b>367.24</b>	<b>15302</b>	<b>363.51</b>	<b>3.73</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	160	500	9.32	389
	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	372	792	14.23	593
	Goidnwal(GVK) (2*270)	540	290	350	7.40	308
	Rajpura (2*700)	1400	660	1320	25.19	1050
	Talwandi Saboo (3*660)	1980	616	1200	19.39	808
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2098</b>	<b>4162</b>	<b>75.55</b>	<b>3148</b>
	Total Hydro	1000	200	347	8.53	355
	Wind Power	0	0	0	0.00	0
	Biomass	303	0	0	2.66	111
	Solar	859	0	0	4.16	173
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>6.81</b>	<b>284</b>
	<b>Total Punjab</b>	<b>8722</b>	<b>2298</b>	<b>4509</b>	<b>90.89</b>	<b>3787</b>
Haryana	Panipat TPS (2*210+2*250)	920	329	641	11.57	482
	DCRTPP (Yamuna nagar) (2*300)	600	470	541	11.24	468
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0
	RGTPP (Khedar) (IPP) (2*600)	1200	779	1124	18.62	776
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	854	1149	26.13	1089
	<b>Thermal (Total)</b>	<b>4497</b>	<b>2432</b>	<b>3455</b>	<b>67.56</b>	<b>2815</b>
	Total Hydro	62	32	22	0.58	24
	Wind Power	0	0	0	0.00	0
	Biomass	106	0	0	0.73	31
	Solar	50	0	0	0.14	6
	<b>Renewable(Total)</b>	<b>156</b>	<b>0</b>	<b>0</b>	<b>0.87</b>	<b>36</b>
	<b>Total Haryana</b>	<b>4715</b>	<b>2464</b>	<b>3477</b>	<b>69.02</b>	<b>2876</b>
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	794	1027	21.81	909
	suratgarh TPS (6*250)	1500	1059	1306	27.44	1143
	Chabra TPS (4*250)	1000	748	683	16.61	692
	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	164	167	4.07	169
	RAPS A (NPC) (1*100+1*200)	300	168	169	3.95	165
	Barsingsar (NLC) (2*125)	250	114	114	2.59	108
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	846	853	21.65	902
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	407	561	12.31	513
	Kawai(Adani) (2*660)	1320	405	536	12.04	502
	<b>Thermal (Total)</b>	<b>9536</b>	<b>4705</b>	<b>5416</b>	<b>122.47</b>	<b>5103</b>
	Total Hydro	550	0	0	0.00	0
	Wind power	4292	1782	1667	45.61	1900
	Biomass	102	18	18	0.43	18
	Solar	1995	0	0	10.71	446
	Renewable/Others (Total)	6389	1800	1685	56.74	2364
	<b>Total Rajasthan</b>	<b>16475</b>	<b>6505</b>	<b>7101</b>	<b>179.21</b>	<b>7467</b>
UP	Anpara TPS (3*210+2*500)	1630	1318	1332	30.48	1270
	Obra TPS (2*50+2*94+5*200)	1194	349	313	6.95	290
	Paricha TPS (2*110+2*220+2*250)	1160	520	627	12.83	535
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	502	543	9.96	415
	Tanda TPS (NTPC) (4*110)	440	216	398	6.04	252
	Roza TPS (IPP) (4*300)	1200	597	805	15.04	627
	Anpara-C (IPP) (2*600)	1200	1096	1092	21.53	897
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	223	401	5.86	244
	Anpara-D(2*500)	1000	894	900	21.08	879
	Lalitpur TPS(3*660)	1980	1032	1423	26.92	1122
	Bara(3*660)	1980	1115	1106	20.29	845
	<b>Thermal (Total)</b>	<b>13109</b>	<b>7862</b>	<b>8940</b>	<b>176.99</b>	<b>7374</b>
	Vishnuparyag HPS (IPP)(4*110)	440	435	435	10.36	432
	Alaknanda(4*82.5)	330	165	164	3.96	165
	Other Hydro	527	0	3	0.60	25
	Cogeneration	1360	500	500	12.00	500
	Wind Power	0	0	0	0.00	0
	Biomass	26	0	0	0.00	0
	Solar	472	0	0	2.88	120
	<b>Renewable(Total)</b>	<b>498</b>	<b>0</b>	<b>0</b>	<b>2.88</b>	<b>120</b>
	<b>Total UP</b>	<b>16264</b>	<b>8962</b>	<b>10042</b>	<b>206.79</b>	<b>8616</b>
Uttarakhand	Other Hydro	1250	673	701	16.73	697
	Total Gas	450	245	235	4.98	207
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	100	0	0	0.62	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>0.62</b>	<b>26</b>
	<b>Total Uttarakhand</b>	<b>2107</b>	<b>918</b>	<b>936</b>	<b>22.33</b>	<b>930</b>
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	138	142	3.40	142
	Pragati Gas Turbine (2x104+ 1x122)	330	262	272	6.53	272
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	562	583	13.65	569
	Badarpur TPS (NTPC) (3*95+2*210)	705	309	310	6.65	277
	<b>Thermal (Total)</b>	<b>2917</b>	<b>1271</b>	<b>1307</b>	<b>30.22</b>	<b>1259</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>1271</b>	<b>1307</b>	<b>30.22</b>	<b>1259</b>

HP	Baspa HPS (IPP) (3*100)	300	261	332	7.22	301
	Malana HPS (IPP) (2*43)	86	40	73	1.21	51
	Other Hydro (>25MW)	372	374	389	8.04	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	171	122	3.27	136
	Renewable(Total)	486	171	122	3.27	136
	Total HP	1244	846	917	19.74	823
J & K	Baglihar HPS (IPP) (3*150+3*150)	900	883	884	21.18	883
	Other Hydro/IPP(including 98 MW Small Hydro)	308	159	132	3.49	145
	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	1042	1016	24.67	1028
Total State Control Area Generation		53860	24306	29305	642.86	26786
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5888	9402	225.26	9386
Total Regional Availability(Gross)		80027	47735	54405	1235.36	51473

IV. Total Hydro Generation:

Regional Entities Hydro	12564	9491	6012	173.88	7193
State Control Area Hydro	7468	3638	3840	81.90	3782
Total Regional Hydro	20032	13129	9852	255.77	10975

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.12	5
State Control Area Renewable	9214	1971	1807	71.21	2967
Total Regional Renewable	9244	1971	1807	71.33	2972

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)	100	250	250	50	5.00	0.09	4.91
765 KV Gwalior-Agra (D/C)	936	1219	1184	0	22.95	0.00	22.95
400 KV Zerda-Kankroli	-440	-312	0	535	0.00	9.96	-9.96
400 KV Zerda-Bhinmal	-389	-268	0	571	0.00	9.04	-9.04
220 KV Auraiya-Malanpur	2	58	0	24	0.61	0.00	0.61
220 KV Badod-Kota/Morak	-74	-32	40	75	0.00	0.87	-0.87
Mundra-Mohindergarh(HVDC Bipole)	998	1402	1406	0	30.56	0.00	30.56
400 KV RAPPC-Sujalpur	21	139	158	207	0.25	0.00	0.25
400 KV Vindhychal-Rihand	-853	-940	0	968	0.00	20.56	-20.56
765 kv Phagt-Gwalior (D/C)	1262	1513	760	0	27.72	0.00	27.72
+/- 800 kV HVDC Champa-Kurushetra	2500	2500	2500	0	50.41	0	50.41
765KV Orai-Jabalpur	0	0	0	0	18.51	0	18.51
765KV Orai-Satna	0	0	0	0	48.28	0	48.28
765KV Orai-Gwalior	0	0	0	0	0.00	7	-7.17
Sub Total WR	4063	5529			204.28	47.69	156.58
400 kV Sasaram - Varanasi	13	80	-68	100	0.00	2.35	-2.35
400 kV Sasaram - Allahabad	-95	-21	51	95	0.00	0.72	-0.72
400 KV MZP- GKP (D/C)	9	520	535	60	7.36	0.00	7.36
400 KV Patna-Balia(D/C) X 2	147	471	531	0	8.34	0.00	8.34
400 KV B'Shanif-Balia (D/C)	83	330	349	0	4.81	0.00	4.81
765 KV Gaya-Balia	294	546	546	0	10.60	0.00	10.60
765 KV Gaya-Varanasi (D/C)	73	346	376	0	6.58	0.00	6.58
220 KV Pusauli-Sahupuri	179	168	187	0	3.81	0.00	3.81
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.31	-0.31
132 KV Son Ngr-Rihand	17	8	0	22	0.00	0.30	-0.30
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-128	128	216	284	1.97	0.00	1.97
400 KV Mothari -GKP (D/C)	101	165	184	0	2.97	0.00	2.97
400 KV B'Shanif - Varanasi (D/C)	132	132	199	187	2.05	0.00	2.05
+/- 800 KV HVDC Alipurduar-Agra	500	500	500	0	11.85	0.00	11.85
Sub Total ER	1325	3373			60.34	3.68	56.67
+/- 800 KV HVDC BiswanathChariaili-Agra	500	500	500	0.00	12.01	0.00	12.01
Sub Total NER	500	500			12.01	0.00	12.01
Total IR Exch	5888	9402			276.63	51.37	225.26

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
49.41	0.99	50.40	35.37	4.38	6.63	-2.50	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
91.41	146.79	238.20	68.68	156.58	225.26	-22.73	9.79	-12.94

VIC). 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	-18	-10	0	24	0	0	-0.36

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	0.10	1.40	5.40	40.50	73.20	18.50	3.60	0.10	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)	
50.21	17.01	49.69	14.16	50.01	0.041	0.064	50.13	49.78	26.80

VIII(A). Voltage profile 400 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviation Index
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	410	18:00	400	16:56	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	420	7:57	394	21:00	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	418	23:59	398	0:08	0.0	0.0	0.0	0.0	0.0
Kanpur	400	417	8:00	403	0:03	0.0	0.0	0.0	0.0	0.0
Dadri	400	421	20:48	398	14:27	0.0	0.0	0.2	0.0	0.2
Ballabgarh	400	423	20:48	396	14:22	0.0	0.0	3.8	0.0	3.8
Bawana	400	420	20:50	396	0:04	0.0	0.0	0.0	0.0	0.0
Bassi	400	412	20:31	390	0:01	0.0	0.0	0.0	0.0	0.0
Hissar	400	418	21:14	392	0:06	0.0	0.0	0.0	0.0	0.0
Moga	400	413	21:06	395	0:14	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	422	20:42	397	0:15	0.0	0.0	4.2	0.0	4.2
Nalagarh	400	416	20:51	398	12:12	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	415	16:53	401	11:36	0.0	0.0	0.0	0.0	0.0
Wagooora	400	405	23:58	392	11:03	0.0	0.0	0.0	0.0	0.0
Amritsar	400	415	20:57	394	12:10	0.0	0.0	0.0	0.0	0.0
Kashipur	400	402	0:00	402	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	413	16:58	391	11:43	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	424	22:00	392	0:08	0.0	0.0	4.3	0.0	4.3

VIII(B). Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviation Index
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	781	8:01	758	0:04	0.0	0.0	0.0	0.0	0.0
Balia	765	796	8:46	767	19:29	0.0	0.0	0.0	0.0	0.0
Moga	765	788	21:04	759	0:03	0.0	0.0	0.0	0.0	0.0
Agra	765	788	7:58	763	0:03	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	805	20:47	758	18:37	0.0	0.0	3.4	0.0	3.4
Unnao	765	781	9:01	749	0:05	0.0	0.0	0.0	0.0	0.0
Lucknow	765	798	9:01	766	0:05	0.0	0.0	0.0	0.0	0.0
Meerut	765	813	20:50	764	0:06	0.0	0.0	4.9	0.0	4.9
Jhatikara	765	806	21:06	766	0:05	0.0	0.0	3.3	0.0	3.3
Bareilly 765 kV	765	802	8:01	769	0:08	0.0	0.0	3.0	0.0	3.0
Anta	765	792	20:39	766	0:29	0.0	0.0	0.0	0.0	0.0
Phagi	765	799	20:27	764	0:00	0.0	0.0	0.0	0.0	0.0

Note : '0' in Max / Min Col =&gt; 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	454.32	74.65	473.69	329.69	439.56	511.03
Pong	426.72	384.05	391.91	80.40	394.29	116.59	27.38	59.69
Tehri	829.79	740.04	743.15	14.90	743.40	16.12	159.58	83.00
Koteswar	612.50	598.50	608.83	4.01	610.00	4.69	83.00	129.80
Chamera-I	760.00	748.75	754.79	0.00	0.00	0.00	224.32	125.80
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 Saagar	298.70	295.78	0.00	0.00	0.00	0.00	0.00	0.00
RSD	527.91	487.91	498.87	2.52	514.32	6.28	142.51	158.53

\* 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	687	0	0	687	0	0	16.49	0.00	16.49
Delhi	1012	-492	0	895	-416	0	23.39	-8.82	14.57
Haryana	482	1	0	234	1	0	4.35	-0.34	4.01
HP	-988	-72	0	-1005	-404	0	-19.31	-1.66	-20.97
J&K	-977	892	0	-977	496	0	-23.47	15.20	-8.27
CHD	0	0	0	0	0	0	0.00	0.38	0.38
Rajasthan	-52	-82	0	-104	-77	0	-1.57	1.65	0.08
UP	1737	382	0	1759	163	0	41.65	4.05	45.70
Uttarakhand	59	314	0	59	168	0	0.71	6.48	7.19
Total	1960	944	0	1549	-69	0	42.24	16.94	59.18

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	687	687	0	0	0	0
Delhi	1028	895	241	-1107	0	0
Haryana	564	-193	7	-200	0	0
HP	-480	-1208	241	-419	0	0
J&K	-977	-989	892	287	0	0
CHD	0	0	99	0	0	0
Rajasthan	-52	-258	895	-698	0	0
UP	1769	1678	674	0	0	0
Uttarakhand	59	0	412	30	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	4.51%
ER	0.00%
Simultaneous	1.04%

(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	19
Haryana	2	16
Rajasthan	4	30
Delhi	6	51
UP	0	12
Uttarakhand	6	60
HP	5	40
J & K	6	37
Chandigarh	5	32

#### XIII. System Constraints:

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

#### XV. Weather Conditions For 01.06.2018 :

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

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

0.00

#### 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 : 01.06.2018

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER