



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	160	3.99	166
	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	172	170	4.12	172
	Goidwal(GVK) (2*270)	540	145	246	5.34	222
	Rajpura (2*700)	1400	800	1320	28.08	1170
	Talwandi Saboo (3*660)	1980	924	1524	30.16	1257
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2201</b>	<b>3420</b>	<b>71.67</b>	<b>2986</b>
	Total Hydro	1000	697	717	17.28	720
	Wind Power	0	0	0	0.00	0
	Biomass	303	0	0	1.75	73
	Solar	859	0	0	4.49	187
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>6.24</b>	<b>260</b>
	<b>Total Punjab</b>	<b>8722</b>	<b>2898</b>	<b>4137</b>	<b>95.19</b>	<b>3966</b>
	Haryana	Panipat TPS (2*210+2*250)	920	400	404	9.88
DCRTPP (Yamuna nagar) (2*300)		600	475	472	11.28	470
Faridabad GPS (NTPC)(2*137.75+1*156)		432	0	0	0.00	0
RGTPP (kherda) (IPP) (2*600)		1200	0	0	0.00	0
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	414	490	10.59	441
<b>Thermal (Total)</b>		<b>4497</b>	<b>1289</b>	<b>1366</b>	<b>31.75</b>	<b>1323</b>
Total Hydro		62	27	29	1.01	42
Wind Power		0	0	0	0.00	0
Biomass		106	0	0	0.41	17
Solar		50	0	0	0.11	5
<b>Renewable(Total)</b>		<b>156</b>	<b>0</b>	<b>0</b>	<b>0.52</b>	<b>22</b>
<b>Total Haryana</b>		<b>4715</b>	<b>1316</b>	<b>1395</b>	<b>33.28</b>	<b>1387</b>
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	219	309	6.69
	suratgarh TPS (6*250)	1500	184	173	4.14	173
	Chabra TPS (4*250)	1000	812	795	18.71	780
	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	129	128	3.11	129
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0
	Barsingsar (NLC) (2*125)	250	101	102	1.98	82
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	459	490	10.95	456
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	415	397	9.70	404
	Kawai(Adani) (2*660)	1320	868	826	20.30	846
	<b>Thermal (Total)</b>	<b>9536</b>	<b>3187</b>	<b>3220</b>	<b>75.58</b>	<b>3149</b>
	Total Hydro	550	0	12	0.16	7
	Wind power	4292	2340	1458	49.71	2071
	Biomass	102	12	12	0.29	12
	Solar	1995	27	0	10.62	442
	Renewable/Others (Total)	6389	2379	1470	60.61	2526
	<b>Total Rajasthan</b>	<b>16475</b>	<b>5566</b>	<b>4702</b>	<b>136.35</b>	<b>5681</b>
	UP	Anpara TPS (3*210+2*500)	1630	1324	1296	26.58
Obra TPS (2*50+2*94+5*200)		1194	481	496	8.36	348
Paricha TPS (2*110+2*220+2*250)		1160	468	634	12.26	511
Panki TPS (2*105)		210	0	0	0.00	0
Harduaganj TPS (1*60+1*105+2*250)		665	309	407	7.99	333
Tanda TPS (NTPC) (4*110)		440	150	250	4.31	179
Roza TPS (IPP) (4*300)		1200	437	437	10.75	448
Anpara-C (IPP) (2*600)		1200	1092	1101	19.74	823
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	223	223	5.18	216
Anpara-D(2*500)		1000	965	947	18.30	763
Lalitpur TPS(3*660)		1980	1040	1024	26.01	1084
Bara(3*660)		1980	683	771	17.19	716
<b>Thermal (Total)</b>		<b>13109</b>	<b>7172</b>	<b>7586</b>	<b>156.65</b>	<b>6527</b>
Vishnuparyag HPS (IPP)(4*110)		440	395	395	9.80	408
Alakananda(4*82.5)		330	344	346	8.23	343
Other Hydro		527	97	72	1.67	70
Cogeneration		1360	100	100	2.40	100
Wind Power		0	0	0	0.00	0
Biomass	26	0	0	0.00	0	
Solar	472	0	0	0.72	30	
<b>Renewable(Total)</b>	<b>498</b>	<b>0</b>	<b>0</b>	<b>0.72</b>	<b>30</b>	
<b>Total UP</b>	<b>16264</b>	<b>8108</b>	<b>8499</b>	<b>179.47</b>	<b>7478</b>	
Uttarakhand	Other Hydro	1250	760	602	15.04	627
	Total Gas	450	0	0	0.00	0
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	100	0	0	0.24	10
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>407</b>	<b>0</b>	<b>0</b>	<b>0.24</b>	<b>10</b>
<b>Total Uttarakhand</b>	<b>2107</b>	<b>760</b>	<b>602</b>	<b>15.28</b>	<b>637</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	139	134	3.42	143
	Pragati Gas Turbine (2x104+ 1x122)	330	270	259	6.37	266
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	470	480	11.34	473
	Badarpur TPS (NTPC) (3*95+2*210)	705	299	301	6.64	277
	<b>Thermal (Total)</b>	<b>2917</b>	<b>1178</b>	<b>1174</b>	<b>27.78</b>	<b>1158</b>
	Wind Power	0	0	0	0.00	0
	Biomass	16	30	27	0.00	0
	Solar	2	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>18</b>	<b>30</b>	<b>27</b>	<b>0.00</b>	<b>0</b>
<b>Total Delhi</b>	<b>2935</b>	<b>1208</b>	<b>1201</b>	<b>27.78</b>	<b>1158</b>	

HP	Baspa HPS (IPP) (3*100)	300	331	331	7.92	330	
	Malana HPS (IPP) (2*43)	86	108	105	2.55	106	
	Other Hydro (>25MW)	372	328	334	8.06	336	
	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	344	293	8.23	343	
	Renewable(Total)	486	344	293	8.23	343	
	Total HP	1244	1111	1063	26.77	1115	
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	882	882	21.16	882
		Other Hydro/IPP(Including 98 MW Small Hydro)	308	191	190	4.42	184
Gas/Diesel/Others		0	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		1208	1073	1072	25.58	1066	
Total State Control Area Generation		53670	22040	22671	539.70	22488	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		13339	13620.85	252.43	10518		
Total Regional Availability(Gross)		79837	55543	54108	1192.89	49704	

IV. Total Hydro Generation:

Regional Entities Hydro	12564	11314	9860	228.52	9447
State Control Area Hydro	7468	4504	4308	97.31	4408
Total Regional Hydro	20032	15818	14168	325.84	13855

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.10	4
State Control Area Renewable	9214	2753	1790	76.57	3190
Total Regional Renewable	9244	2753	1790	76.66	3194

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

Element	Peak(20:00 Hrs) MW	Diff Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
Vindhychal(HVDC B/B)	-50	50	50	150	0.37	1.14	-0.77
765 KV Gwalior-Agra (D/C)	1895	1904	2222	0	44.67	0.00	44.67
400 KV Zerdia-Kankroli	-22	-9	106	134	0.00	0.73	-0.73
400 KV Zerdia-Bhinmal	-76	-17	82	199	0.00	1.58	-1.58
220 KV Auraiya-Malanpur	26	12	0	43	0.60	0.00	0.60
220 KV Badod-Kota/Morak	102	103	96	0	1.60	0.00	1.60
Mundra-Mohindergarh(HVDC Bipole)	1598	1201	1604	0	31.57	0.00	31.57
400 KV RAPPC-Sujalpur	109	144	200	119	1.58	0.00	1.58
400 KV Vindhychal-Rihand	846	941	0	482	0.00	19.00	-19.00
765 kv Phagt-Gwalior (D/C)	997	1060	597	0	23.01	0.00	23.01
+/- 800 KV HVDC Champa-Kurushetra	2500	2000	2000	0	36.88	0	36.88
765KV Orai-Jabalpur	850	915	1076	0	21.39	0	21.39
765KV Orai-Satna	1535	1496	1634	0	32.62	0	32.62
765KV Orai-Gwalior	320	273	0	321	0.00	6	-6.27
<b>Sub Total WR</b>	<b>10631</b>	<b>10074</b>			<b>194.29</b>	<b>28.72</b>	<b>165.57</b>
400 kV Sasaram - Varanasi	124	110	124	0	3.40	0.00	3.40
400 kV Sasaram - Allahabad	17	41	75	0	1.12	0.00	1.12
400 KV MZP- GKP (D/C)	471	650	830	0	16.39	0.00	16.39
400 KV Patna-Balia(D/C) X 2	582	671	0	842	15.21	0.00	15.21
400 KV B Sharif-Balia (D/C)	191	300	0	425	7.86	0.00	7.86
765 KV Gaya-Balia	238	258	0	331	6.54	0.00	6.54
765 KV Gaya-Varanasi (D/C)	177	262	468	0	8.11	0.00	8.11
220 KV Pusaui-Sahupuri	160	128	152	0	3.36	0.00	3.36
132 KV Knasa-Sahupuri	0	0	0	0	0.96	0.00	0.96
132 KV Son Ngr-Rihand	0	0	0	0	0.00	0.44	-0.44
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-148	-25	110	149	0.03	0.00	0.03
400 KV Mothari -GKP (D/C)	-205	-68	0	205	0.00	3.60	-3.60
400 kV B Sharif - Varanasi (D/C)	1	120	314	1	4.02	0.00	4.02
+/- 800 KV HVDC Alipurduar-Agra	600	600	600	0	11.87	0.00	11.87
<b>Sub Total ER</b>	<b>2208</b>	<b>3047</b>			<b>78.87</b>	<b>4.04</b>	<b>74.83</b>
+/- 800 KV HVDC Biswanath Chariali-Agra	500	500	500	0.00	12.03	0.00	12.03
<b>Sub Total NER</b>	<b>500</b>	<b>500</b>			<b>12.03</b>	<b>0.00</b>	<b>12.03</b>
<b>Total IR Exch</b>	<b>13339</b>	<b>13621</b>			<b>285.19</b>	<b>32.76</b>	<b>252.43</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
39.01	3.75	42.76	34.77	61.92	2.92	3.33	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
76.70	196.04	272.74	86.86	165.57	252.43	10.16	-30.47	-20.31

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

Element	Peak(20:00 Hrs) MW	Diff Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-15	-17	0	18	0	0	-0.33

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	0.30	0.60	6.50	42.70	69.80	21.20	2.50	0.20	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	Index	Std. Dev.	(Hz)	(Hz)	(%)
50.24	18.01	49.83	19.25	49.99	0.031	0.055	0.00	0.00	30.20

## 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	404	4:01	400	0:04	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	421	16:01	394	19:19	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	412	16:02	382	5:43	0.0	0.0	0.0	0.0	0.0
Kanpur	400	417	16:03	402	0:38	0.0	0.0	0.0	0.0	0.0
Dadri	400	411	7:01	398	22:29	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	411	7:04	396	22:14	0.0	0.0	0.0	0.0	0.0
Bawana	400	409	16:02	397	0:17	0.0	0.0	0.0	0.0	0.0
Bassi	400	417	16:02	399	22:17	0.0	0.0	0.0	0.0	0.0
Hissar	400	407	16:04	394	0:07	0.0	0.0	0.0	0.0	0.0
Moga	400	403	9:41	393	0:17	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	408	8:01	398	0:12	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	408	8:06	402	0:14	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	407	13:06	400	21:16	0.0	0.0	0.0	0.0	0.0
Wagoora	400	403	4:44	388	20:28	0.0	0.0	0.0	0.0	0.0
Amritsar	400	405	8:01	396	0:03	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	405	8:30	398	0:03	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	404	4:06	391	23:15	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 Deviation Index
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	778	16:04	751	0:38	0.0	0.0	0.0	0.0	0.0
Balia	765	790	16:02	756	19:19	0.0	0.0	0.0	0.0	0.0
Moga	765	784	10:01	756	0:17	0.0	0.0	0.0	0.0	0.0
Agra	765	791	16:02	760	22:32	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	792	16:00	767	0:11	0.0	0.0	0.0	0.0	0.0
Unnao	765	771	16:04	741	22:30	0.0	0.7	0.0	0.0	0.0
Lucknow	765	794	16:02	758	23:07	0.0	0.0	0.0	0.0	0.0
Meerut	765	798	16:02	767	23:38	0.0	0.0	0.0	0.0	0.0
Jhatikara	765	792	16:02	759	22:21	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	789	16:02	754	23:08	0.0	0.0	0.0	0.0	0.0
Anta	765	795	4:12	775	22:20	0.0	0.0	0.0	0.0	0.0
Phagi	765	795	15:57	770	21:47	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	469.77	262.21	491.88	798.09	1781.24	561.35
Pong	426.72	384.05	395.52	136.17	407.37	416.46	914.04	292.26
Tehri	829.79	740.04	783.20	361.52	789.70	448.97	754.92	220.00
Koteswar	612.50	598.50	610.80	4.95	609.79	4.44	220.00	219.15
Chamera-I	760.00	748.75	757.38	0.00	0.00	0.00	477.91	352.13
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	507.91	5.97	521.33	10.82	372.42	268.58

\* 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	2201	0	0	2200	-100	0	52.82	-0.30	52.52
Delhi	1059	-246	0	960	-268	0	24.32	-4.33	19.99
Haryana	2336	160	0	2250	2	0	47.54	1.06	48.60
HP	-1615	-287	0	-1665	-346	0	-36.77	-6.63	-43.40
J&K	-1150	119	0	-1151	494	0	-27.61	10.68	-16.93
CHD	0	-20	0	0	-25	0	0.00	-0.17	-0.17
Rajasthan	-78	-601	0	-37	-224	0	-1.48	-4.74	-6.22
UP	2269	39	0	1920	7	0	47.49	0.33	47.82
Uttarakhand	-121	644	0	-255	793	0	-3.70	16.89	13.19
<b>Total</b>	<b>4902</b>	<b>-192</b>	<b>0</b>	<b>4221</b>	<b>332</b>	<b>0</b>	<b>102.61</b>	<b>12.79</b>	<b>115.40</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	2201	2194	0	-100	0	0
Delhi	1247	847	0	-548	0	0
Haryana	2380	1607	160	-407	0	0
HP	-1420	-1869	-243	-346	0	0
J&K	-1150	-1152	632	109	0	0
CHD	0	0	39	-40	0	0
Rajasthan	-37	-78	74	-1302	0	0
UP	2304	1848	39	0	0	0
Uttarakhand	-121	-255	793	527	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	1	17
Haryana	0	12
Rajasthan	1	16
Delhi	5	38
UP	0	9
Uttarakhand	2	16
HP	0	9
J & K	4	22
Chandigarh	5	42

**XIII. System Constraints:**

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

**XV. Weather Conditions For 25.07.2018 :**

**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 : 25.07.2018

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER