



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	3.55	148	
	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	0	172	1.15	48	
	Goindwal(GVK) (2*270)	540	185	145	4.48	187	
	Rajpura (2*700)	1400	860	660	20.23	843	
	Talwandi Saboo (3*660)	1980	924	924	22.67	944	
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2129</b>	<b>2061</b>	<b>52.04</b>	<b>2168</b>	
	Total Hydro	1000	415	449	10.87	453	
	Wind Power	0	0	0	0.00	0	
	Biomass	303	0	0	2.26	94	
	Solar	859	0	0	3.37	140	
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>5.63</b>	<b>234</b>	
	<b>Total Punjab</b>	<b>8722</b>	<b>2544</b>	<b>2510</b>	<b>68.53</b>	<b>2855</b>	
	Haryana	Panipat TPS (2*210+2*250)	920	0	0	0.00	0
		DCRTPP (Yamuna nagar) (2*300)	600	232	239	5.42	226
Faridabad GPS (NTPC)(2*137.75+1*156)		432	0	0	0.00	0	
RGTPP (kharda) (IPP) (2*600)		1200	0	0	0.00	0	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	382	378	8.89	370	
<b>Thermal (Total)</b>		<b>4497</b>	<b>614</b>	<b>617</b>	<b>14.31</b>	<b>596</b>	
Total Hydro		62	44	0	0.22	9	
Wind Power		0	0	0	0.00	0	
Biomass		106	0	0	0.58	24	
Solar		50	0	0	0.11	4	
<b>Renewable(Total)</b>		<b>156</b>	<b>0</b>	<b>0</b>	<b>0.69</b>	<b>29</b>	
<b>Total Haryana</b>		<b>4715</b>	<b>658</b>	<b>617</b>	<b>15.22</b>	<b>634</b>	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	178	144	3.93	164
		suratgarh TPS (6*250)	1500	227	179	4.44	185
	Chabra TPS (4*250)	1000	945	753	19.75	823	
	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	132	3.15	131	
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0	
	Barsingsar (NLC) (2*125)	250	97	101	2.26	94	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	845	437	17.48	728	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	408	404	9.65	402	
	Kawai(Adani) (2*660)	1320	1206	850	22.09	920	
	<b>Thermal (Total)</b>	<b>9536</b>	<b>4035</b>	<b>3000</b>	<b>82.75</b>	<b>3448</b>	
	Total Hydro	550	0	0	0.08	4	
	Wind power	4292	637	2069	29.92	1247	
	Biomass	102	12	12	0.30	12	
	Solar	1995	17	0	7.34	306	
	Renewable/Others (Total)	6389	666	2081	37.56	1565	
	<b>Total Rajasthan</b>	<b>16475</b>	<b>4701</b>	<b>5081</b>	<b>120.39</b>	<b>5016</b>	
	UP	Anpara TPS (3*210+2*500)	1630	1324	823	24.20	1008
		Obra TPS (2*50+2*94+5*200)	1194	508	306	8.30	346
		Paricha TPS (2*110+2*220+2*250)	1160	690	455	12.20	508
		Panki TPS (2*105)	210	0	0	0.00	0
		Harduaganj TPS (1*60+1*105+2*250)	665	443	254	6.80	283
Tanda TPS (NTPC) (4*110)		440	234	162	5.54	231	
Roza TPS (IPP) (4*300)		1200	0	0	0.00	0	
Anpara-C (IPP) (2*600)		1200	1092	634	18.00	750	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	0	0	0.00	0	
Anpara-D(2*500)		1000	474	544	13.10	546	
Lalitpur TPS(3*660)		1980	450	694	11.20	467	
Bara(3*660)		1980	954	682	15.90	663	
<b>Thermal (Total)</b>		<b>13109</b>	<b>6169</b>	<b>4554</b>	<b>115.24</b>	<b>4802</b>	
Vishnupurayag HPS (IPP)(4*110)		440	435	395	10.40	433	
Alakananada(4*82.5)		330	283	200	4.70	196	
Other Hydro		527	48	28	0.70	29	
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	1.20	50		
<b>Renewable(Total)</b>	<b>498</b>	<b>0</b>	<b>0</b>	<b>1.20</b>	<b>50</b>		
<b>Total UP</b>	<b>16264</b>	<b>7035</b>	<b>5277</b>	<b>134.64</b>	<b>5610</b>		
Uttarakhand	Other Hydro	1250	348	585	13.28	553	
	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	0.25	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>0.25</b>	<b>10</b>	
	<b>Total Uttarakhand</b>	<b>2107</b>	<b>348</b>	<b>585</b>	<b>13.52</b>	<b>563</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	67	68	1.73	72	
	Pragati Gas Turbine (2x104+ 1x122)	330	261	262	6.38	266	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	0	0	-0.12	-5	
	Badarpur TPS (NTPC) (3*95+2*210)	705	291	304	6.50	271	
	<b>Thermal (Total)</b>	<b>2917</b>	<b>619</b>	<b>634</b>	<b>14.49</b>	<b>604</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>619</b>	<b>634</b>	<b>14.49</b>	<b>604</b>		

HP	Baspa HPS (IPP) (3*100)	300	0	331	6.01	251
	Malana HPS (IPP) (2*43)	86	106	106	2.56	107
	Other Hydro (>25MW)	372	276	324	8.15	340
	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	284	267	6.88	287
	Renewable(Total)	486	284	267	6.88	287
	Total HP	1244	666	1028	23.60	983
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	883	883	21.19
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	1074	1073	25.61	1067	
Total State Control Area Generation		53670	17645	16805	416.00	17333
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			12980	9581.76	231.03	9626
Total Regional Availability(Gross)		79837	48819	41843	1026.06	42753

IV. Total Hydro Generation:

Regional Entities Hydro	12564	9486	9313	221.10	9138
State Control Area Hydro	7468	3313	3758	82.58	3737
Total Regional Hydro	20032	12799	13070	303.68	12876

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.07	3
State Control Area Renewable	9214	950	2348	52.19	2175
Total Regional Renewable	9244	950	2348	52.26	2178

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

Element	Peak(20:00 Hrs)	Diff Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal(HVDC B/B)	-250	-250	0	250	0.00	6.05	-6.05
765 KV Gwalior-Agra (D/C)	2322	2246	2416	0	46.33	0.00	46.33
400 KV Zerdha-Kankroli	159	-2	159	166	0.71	0.00	0.71
400 KV Zerdha-Bhinmal	165	-35	184	212	0.49	0.00	0.49
220 KV Auraiya-Malanpur	15	43	0	38	0.50	0.00	0.50
220 KV Badod-Kota/Morak	168	123	125	0	2.28	0.00	2.28
Mundra-Mohindergarhi(HVDC Bipole)	1202	801	1203	0	18.34	0.00	18.34
400 KV RAPPC-Sujalpur	310	130	340	64	4.52	0.00	4.52
400 KV Vindhychal-Rihand	-954	-613	0	958	0.00	18.62	-18.62
765 KV Phagt-Gwalior (D/C)	1293	973	866	0	25.93	0.00	25.93
+/- 800 KV HVDC Champa-Kurushetra	2500	500	2000	0	21.10	0	21.10
765KV Orai-Jabalpur	1124	969	1287	0	23.05	0	23.05
765KV Orai-Satna	1676	1361	1682	0	36.23	0	36.23
765KV Orai-Gwalior	405	243	0	405	0.00	8	-7.83
<b>Sub Total WR</b>	<b>10134</b>	<b>6489</b>			<b>179.48</b>	<b>32.50</b>	<b>146.98</b>
400 kV Sasaram - Varanasi	128	112	128	0	2.57	0.00	2.57
400 kV Sasaram - Allahabad	15	32	59	0	0.89	0.00	0.89
400 KV MZP- GKP (D/C)	557	614	855	0	16.76	0.00	16.76
400 KV Patna-Balia(D/C) X 2	726	734	929	0	18.76	0.00	18.76
400 KV B Sharif-Balia (D/C)	248	282	438	0	7.96	0.00	7.96
765 KV Gaya-Balia	316	315	365	0	6.99	0.00	6.99
765 KV Gaya-Varanasi (D/C)	274	296	528	0	8.24	0.00	8.24
220 KV Pusaui-Sahupuri	138	120	144	0	3.19	0.00	3.19
132 KV Knasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
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	-129	-74	69	141	0.00	0.73	-0.73
400 KV Mothari -GKP (D/C)	-271	-171	0	279	0.00	4.57	-4.57
400 KV B Sharif - Varanasi (D/C)	-56	-117	299	0	4.15	0.00	4.15
+/- 800 KV HVDC Alipurduar-Agra	300	500	500	0	8.00	0.00	8.00
<b>Sub Total ER</b>	<b>2246</b>	<b>2643</b>			<b>77.52</b>	<b>5.73</b>	<b>71.78</b>
+/- 800 KV HVDC Biswanath Chariali-Agra	600	450	600	0.00	12.26	0.00	12.26
<b>Sub Total NER</b>	<b>600</b>	<b>450</b>			<b>12.26</b>	<b>0.00</b>	<b>12.26</b>
<b>Total IR Exch</b>	<b>12980</b>	<b>9582</b>			<b>269.26</b>	<b>38.23</b>	<b>231.03</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
38.04	3.74	41.78	33.31	59.08	-3.66	1.56	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
67.69	179.58	247.27	84.05	146.98	231.03	16.36	-32.60	-16.24

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

Element	Peak(20:00 Hrs)	Diff Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-19	-13	0	20	0	0	-0.24

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	0.40	1.70	13.60	65.60	77.70	7.60	1.40	0.00	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)	
50.16	13.01	49.67	6.15	49.97	0.053	0.067	0.00	0.00	22.30

## 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	473.16	319.15	493.31	838.00	1597.49	387.37
Pong	426.72	384.05	397.88	174.24	408.30	444.61	1328.63	103.10
Tehri	829.79	740.04	787.80	422.86	792.30	487.66	776.85	241.00
Koteswar	612.50	598.50	610.69	4.92	610.15	4.64	241.00	241.61
Chamera-I	760.00	748.75	757.85	0.00	0.00	0.00	499.45	352.95
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	507.12	5.42	521.63	8.48	431.14	212.80

\* 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	2202	0	0	2200	-301	0	52.83	-1.21	51.62
Delhi	1078	-110	0	951	-286	0	22.78	-0.27	22.51
Haryana	2341	166	0	2255	3	0	47.96	1.74	49.70
HP	-1634	-280	0	-1665	-328	0	-36.83	-6.49	-43.32
J&K	-1150	109	0	-1151	454	0	-27.61	10.85	-16.76
CHD	0	0	0	0	-20	0	0.00	0.06	0.06
Rajasthan	-37	-274	0	-37	-275	0	-0.90	-12.09	-12.99
UP	2135	0	0	1757	-507	0	43.99	-2.05	41.94
Uttarakhand	-121	432	0	-255	720	0	-3.70	13.74	10.04
<b>Total</b>	<b>4813</b>	<b>42</b>	<b>0</b>	<b>4055</b>	<b>-540</b>	<b>0</b>	<b>98.52</b>	<b>4.28</b>	<b>102.80</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	2202	2194	0	-301	0	0
Delhi	1245	553	293	-327	0	0
Haryana	2385	1763	169	-259	0	0
HP	-1430	-1818	-236	-328	0	0
J&K	-1150	-1152	662	79	0	0
CHD	0	0	29	-25	0	0
Rajasthan	-37	-38	2	-1052	0	0
UP	2159	1661	0	-730	0	0
Uttarakhand	-121	-255	744	432	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	25
Haryana	1	16
Rajasthan	1	19
Delhi	5	25
UP	3	31
Uttarakhand	4	27
HP	5	36
J & K	4	45
Chandigarh	5	34

**XIII. System Constraints:**

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

**XV. Weather Conditions For 27.07.2018 :**

**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 : 27.07.2018

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER