



I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)	
Punjab	Guru Gobind Singh TPS (Ropar) (6*210)	1260	622	530	15.18	632	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	343	270	6.84	285	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	426	205	6.08	254	
	Goindwal(GVK) (2*270)	540	0	0	-0.04	-2	
	Rajpura (2*700)	1400	1320	1320	31.61	1317	
	Talwandi Saboo (3*660)	1980	1126	865	25.43	1060	
	<b>Thermal (Total)</b>	<b>6560</b>	<b>3837</b>	<b>3190</b>	<b>85.10</b>	<b>3546</b>	
	Total Hydro	1000	507	483	11.65	485	
	<b>Total Punjab</b>	<b>7560</b>	<b>4344</b>	<b>3673</b>	<b>96.75</b>	<b>4031</b>	
	Haryana	Panipat TPS (2*210+2*250)	920	638	586	14.25	594
DCRTPP (Yamuna nagar) (2*300)		600	525	464	11.68	486	
Faridabad GPS (NTPC)(2*137.75+1*156)		432	357	170	6.36	265	
RGTPP (khedar) (IPP) (2*600)		1200	902	725	18.23	759	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	0	0	0.00	0	
<b>Thermal (Total)</b>		<b>4497</b>	<b>2422</b>	<b>1945</b>	<b>50.51</b>	<b>2104</b>	
Total Hydro		62	41	39	0.95	40	
<b>Total Haryana</b>		<b>4559</b>	<b>2463</b>	<b>1984</b>	<b>51.46</b>	<b>2144</b>	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	732	707	17.11	713
	suratgarh TPS (6*250)	1500	365	749	13.38	557	
	Chabra TPS (4*250)	1000	561	543	12.87	536	
	Dholpur GPS (3*110)	330	0	91	1.35	56	
	Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	178	173	4.22	176	
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0	
	Barsingsar (NLC) (2*125)	250	101	93	2.29	95	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	451	454	12.36	515	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	404	405	9.81	409	
	Kawai(Adani) (2*660)	1320	867	878	23.45	977	
	<b>Thermal (Total)</b>	<b>8876</b>	<b>3659</b>	<b>4093</b>	<b>97</b>	<b>4035</b>	
	Total Hydro	550	94	0	0.63	26	
	Wind power	3214	1064	742	17.04	710	
	Biomass	99	6	6	0.15	6	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	1070	748	17.19	716	
	<b>Total Rajasthan</b>	<b>13469</b>	<b>4823</b>	<b>4841</b>	<b>114.65</b>	<b>4777</b>	
	UP	Anpara TPS (3*210+2*500)	1630	1364	1366	32.57	1357
Obra TPS (2*50+2*94+5*200)		1194	402	384	9.22	384	
Paricha TPS (2*110+2*220+2*250)		1160	689	390	13.07	544	
Panki TPS (2*105)		210	131	144	3.08	128	
Harduaganj TPS (1*60+1*105+2*250)		665	527	537	11.77	490	
Tanda TPS (NTPC) (4*110)		440	350	282	6.62	276	
Roza TPS (IPP) (4*300)		1200	761	1107	20.27	844	
Anpara-C (IPP) (2*600)		1200	1044	1065	22.94	956	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	283	405	7.37	307	
Anpara-D(2*500)		1000	208	207	4.94	206	
Lalitpur TPS(3*660)		1980	356	476	9.25	386	
Bara(2*660)		1320	537	538	10.95	456	
<b>Thermal (Total)</b>		<b>12449</b>	<b>6652</b>	<b>6901</b>	<b>152</b>	<b>6335</b>	
Vishnuparyag HPS (IPP)(4*110)		440	395	435	10.15	423	
Alaknanda(4*82.5)		330	343	343	7.18	299	
Other Hydro		527	61	59	1.25	52	
Cogeneration		981	50	50	1.20	50	
<b>Total UP</b>		<b>14727</b>	<b>7501</b>	<b>7788</b>	<b>172</b>	<b>7159</b>	
Uttarakhand		Total Hydro	1398	900	844	20.45	852
		Total Gas	225	0	0	0.00	0
	<b>Total Uttarakhand</b>	<b>1623</b>	<b>900</b>	<b>844</b>	<b>20</b>	<b>852</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.02	-1	
	Delhi Gas Turbine (6x30 + 3x34)	282	75	107	1.64	68	
	Pragati Gas Turbine (2x104+ 1x122)	330	147	265	5.50	229	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	254	253	6.02	251	
	Badarpur TPS (NTPC) (3*95+2*210)	705	330	330	7.67	319	
	<b>Thermal (Total)</b>	<b>2917</b>	<b>806</b>	<b>955</b>	<b>20.81</b>	<b>867</b>	
	<b>Total Delhi</b>	<b>2917</b>	<b>806</b>	<b>955</b>	<b>20.81</b>	<b>867</b>	
HP	Baspa HPS (IPP) (3*100)	300	339	339	7.08	295	
	Malana HPS (IPP) (2*43)	86	105	105	2.51	105	
	Other Hydro	878	501	538	12.41	517	
	<b>Total HP</b>	<b>1264</b>	<b>945</b>	<b>982</b>	<b>22.01</b>	<b>917</b>	
J & K	Baglihar HPS (IPP) (3*150+2*150)	750	736	736	17.48	728	
	Other Hydro/IPP	560	211	140	4.61	192	
	Gas/Diesel/Others	190	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>1500</b>	<b>947</b>	<b>876</b>	<b>22.09</b>	<b>920</b>	
<b>Total State Control Area Generation</b>		<b>47619</b>	<b>22729</b>	<b>21943</b>	<b>520.04</b>	<b>21668</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>5209</b>	<b>6298</b>	<b>155.63</b>	<b>6485</b>	
<b>Total Regional Availability(Gross)</b>		<b>72856</b>	<b>49869</b>	<b>47240</b>	<b>1131.03</b>	<b>47126</b>	

IV. Total Hydro Generation:						
Regional Entities Hydro		12234	11415	9461	245.75	10240
State Control Area Hydro		7106	4233	4061	96.36	4015
<b>Total Regional Hydro</b>		<b>19340</b>	<b>15648</b>	<b>13522</b>	<b>342.11</b>	<b>14255</b>

V(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)	-250	-250	0	250	0.00	6.15	-6.15
765 KV Gwalior-Agra (D/C)	1619	2165	2668	0	45.13	0.00	45.13
400 KV Zerda-Kankroli	-116	-92	59	310	0.00	2.51	-2.51
400 KV Zerda-Bhinmal	-97	-78	127	326	0.00	2.82	-2.82
220 KV Auraiya-Malanpur	-100	-44	0	100	0.00	1.26	-1.26
220 KV Badod-Kota/Morak	26	163	0	185	0.00	2.48	-2.48
Mundra-Mohindergarh(HVDC Bipole)	1501	1301	1523	0.00	35.76	0.00	35.76
400 KV Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	813	987	1224	1224	24.55	0.00	24.55
<b>Sub Total WR</b>	<b>3396</b>	<b>4152</b>			<b>105.43</b>	<b>15.21</b>	<b>90.22</b>
Pusauli Bypass/HVDC	100	250	250	0	5.55	0.00	5.55
400 KV MZP- GKP (D/C)	202	426	496	0	8.92	0.00	8.92
400 KV Patna-Balia(D/C) X 2	675	739	786	0	17.30	0.00	17.30
400 KV B'Sharif-Balia (D/C)	-27	22	128	98	0.49	0.00	0.49
765 KV Gaya-Balia	210	234	281	0	2.60	0.00	2.60
765 KV Gaya-Varanasi (D/C)	-412	-441	636	0	9.16	0.00	9.16
220 KV Pusauli-Sahupuri	145	182	193	0	4.21	0.00	4.21
132 KV K'nasa-Sahupuri	-30	-36	0	40	0.00	0.76	-0.76
132 KV Son Ngr-Rihand	-34	-19	0	36	0.00	0.58	-0.58
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	0	-205	0	244	0.00	3.58	-3.58
400 KV Barh -GKP (D/C)	484	494	530	0	10.63	0.00	10.63
400 kV B'Sharif - Varanasi (D/C)	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1313</b>	<b>1646</b>			<b>58.85</b>	<b>4.92</b>	<b>53.93</b>
+/- 800 KV BiswanathCharialli-Agra	500	500	500	0.00	11.47	0.00	11.47
<b>Sub Total NER</b>	<b>500</b>	<b>500</b>			<b>11.47</b>	<b>0.00</b>	<b>11.47</b>
<b>Total IR Exch</b>	<b>5209</b>	<b>6298</b>			<b>175.76</b>	<b>20.13</b>	<b>155.63</b>

V(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
33.55	3.83	37.38	9.57	23.59	15.78	3.40	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
62.73	105.01	167.74	65.41	90.22	155.63	2.68	-14.79	-12.11

V(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	-28	-23	0	-29	0	-1	0.58

VI. 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	0.05	0.37	3.34	47.18	76.68	17.18	2.85	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)		
50.19	13.02	49.69	2.39	50.00	0.032	0.056	50.18	0.00	23.32

VII. 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	409	8:57	401	22:27	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	422	8:01	397	22:33	0.0	0.0	1.4	0.0	1.4
Bareilly(PG)400kV	400	419	6:44	396	12:48	0.0	0.0	0.0	0.0	0.0
Kanpur	400	416	6:02	397	0:22	0.0	0.0	0.0	0.0	0.0
Dadri	400	414	6:02	397	0:18	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	422	6:03	399	12:17	0.0	0.0	0.5	0.0	0.5
Bawana	400	417	6:02	399	0:16	0.0	0.0	0.0	0.0	0.0
Bassi	400	424	6:02	400	22:18	0.0	0.0	2.4	0.0	2.4
Hissar	400	414	6:02	394	22:19	0.0	0.0	0.0	0.0	0.0
Moga	400	413	6:02	396	14:47	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	410	6:01	394	12:46	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	417	6:02	399	14:48	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	409	5:32	396	13:48	0.0	0.0	0.0	0.0	0.0
Wagoora	400	408	4:12	394	10:03	0.0	0.0	0.0	0.0	0.0
Amritsar	400	418	6:01	159	14:56	0.3	0.3	0.0	0.0	0.3
Kashipur	400	419	6:02	408	12:18	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	416	6:19	402	0:00	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	410	6:02	387	12:18	0.0	2.4	0.0	0.0	0.0

VIII. Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	787	6:05	746	22:36	0.0	0.0	0.0	0.0	0.0
Balia	765	796	6:58	754	22:36	0.0	0.0	0.0	0.0	0.0
Moga	765	794	6:03	760	22:19	0.0	0.0	0.0	0.0	0.0
Agra	765	796	6:05	760	0:17	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	798	6:02	763	22:10	0.0	0.0	0.0	0.0	0.0
Unnao	765	780	7:58	729	22:38	0.0	16.4	0.0	0.0	0.0
Lucknow	765	800	6:56	756	22:34	0.0	0.0	0.0	0.0	0.0
Meerut	765	804	6:02	764	22:18	0.0	0.0	2.4	0.0	2.4
Jhatikara	765	770	0:00	770	0:00	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	792	6:55	750	0:18	0.0	0.0	0.0	0.0	0.0
Anta	765	798	6:07	769	0:22	0.0	0.0	0.0	0.0	0.0
Phagi	765	800	6:02	765	22:10	0.0	0.0	0.0	0.0	0.0

**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	481.86	503.43	494.22	869.36	1013.09	956.54
Pong	426.72	384.05	395.52	136.17	408.14	435.19	621.10	227.07
Tehri	829.79	740.04	767.30	184.00	765.60	167.00	618.64	398.00
Koteshwar	612.50	598.50	609.42	4.21	610.85	4.95	398.00	353.74
Chamera-I	760.00	748.75	752.86	0.00	0.00	0.00	317.62	284.20
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	0.00	0.00
RPS	352.80	343.81	1149.00	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	504.16	3.46	523.79	10.76	270.12	220.92

\* 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	1477	459	0	1328	724	0	34.33	19.34	53.67
Delhi	456	-190	0	813	-370	0	18.75	-7.11	11.64
Haryana	1852	368	0	1761	355	0	40.55	5.74	46.29
HP	-1496	-44	0	-1244	-237	0	-31.85	-3.09	-34.94
J&K	-919	-151	0	-642	-15	0	-18.84	-1.37	-20.21
CHD	0	10	0	0	0	0	0.36	0.27	0.63
Rajasthan	-523	554	0	-523	439	0	-10.22	12.93	2.71
UP	1181	0	0	868	0	0	19.59	0.00	19.59
Uttarakhand	-350	295	0	-349	492	0	-8.40	9.03	0.63
<b>Total</b>	<b>1678</b>	<b>1301</b>	<b>0</b>	<b>2012</b>	<b>1389</b>	<b>0</b>	<b>44.27</b>	<b>35.74</b>	<b>80.01</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1626	1182	1133	459	0	0
Delhi	998	456	175	-701	0	0
Haryana	1852	1579	384	-133	0	0
HP	-1241	-1497	-41	-311	0	0
J&K	-617	-1070	0	-226	0	0
CHD	44	0	35	0	0	0
Rajasthan	-371	-523	557	305	0	0
UP	1197	635	0	0	0	0
Uttarakhand	-349	-351	538	295	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. System Constraints:**

**XIII. Grid Disturbance / Any Other Significant Event:**  
0.00

**XIV. Weather Conditions For 13.07.2016 :**

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

**XVI. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / substation :**

**XVII. Tripping of lines in pooling stations :**

**XVIII. 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.