



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	1060	1060	24.37	1015	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	410	410	9.19	383	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	787	845	18.94	789	
	Goindwal(GVK) (2*270)	540	0	0	-0.03	-1	
	Rajpura (2*700)	1400	1320	1220	28.02	1167	
	Talwandi Saboo (3*660)	1980	1028	900	21.92	913	
	<b>Thermal (Total)</b>	<b>6560</b>	<b>4605</b>	<b>4435</b>	<b>102.40</b>	<b>4267</b>	
	Total Hydro	1000	628	663	15.55	648	
	<b>Total Punjab</b>	<b>7560</b>	<b>5233</b>	<b>5098</b>	<b>117.96</b>	<b>4915</b>	
	Haryana	Panipat TPS (2*210+2*250)	920	394	371	8.79	366
DCRTPP (Yamuna nagar) (2*300)		600	562	470	11.82	492	
Faridabad GPS (NTPC)(2*137.75+1*156)		432	181	188	4.14	173	
RGTPP (khedar) (IPP) (2*600)		1200	933	752	20.99	875	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	382	378	9.50	396	
<b>Thermal (Total)</b>		<b>4497</b>	<b>2452</b>	<b>2159</b>	<b>55.23</b>	<b>2301</b>	
Total Hydro		62	38	24	0.76	32	
<b>Total Haryana</b>		<b>4559</b>	<b>2490</b>	<b>2183</b>	<b>55.99</b>	<b>2333</b>	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	992	1003	24.57	1024
	suratgarh TPS (6*250)	1500	956	947	23.32	972	
	Chabra TPS (4*250)	1000	329	553	8.75	365	
	Dholpur GPS (3*110)	330	88	87	2.11	88	
	Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	176	73	3.74	156	
	RAPS A (NPC) (1*100+1*200)	300	137	139	3.41	142	
	Barsingar (NLC) (2*125)	250	80	79	1.73	72	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	498	498	15.68	653	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	444	447	10.49	437	
	Kawai(Adani) (2*660)	1320	956	864	22.58	941	
	<b>Thermal (Total)</b>	<b>8876</b>	<b>4656</b>	<b>4690</b>	<b>116</b>	<b>4848</b>	
	Total Hydro	550	0	0	0.00	0	
	Wind power	3214	891	1472	23.44	977	
	Biomass	99	25	25	0.59	25	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	916	1497	24.03	1001	
	<b>Total Rajasthan</b>	<b>13469</b>	<b>5572</b>	<b>6187</b>	<b>140.39</b>	<b>5850</b>	
	UP	Anpara TPS (3*210+2*500)	1630	1372	1337	30.88	1287
Obra TPS (2*50+2*94+5*200)		1194	441	562	11.60	483	
Paricha TPS (2*110+2*220+2*250)		1160	796	891	17.80	742	
Panki TPS (2*105)		210	0	108	1.60	67	
Harduaganj TPS (1*60+1*105+2*250)		665	363	518	9.90	413	
Tanda TPS (NTPC) (4*110)		440	338	387	7.59	316	
Roza TPS (IPP) (4*300)		1200	559	738	16.69	695	
Anpara-C (IPP) (2*600)		1200	842	1080	19.18	799	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	0	283	3.62	151	
Anpara-D(2*500)		1000	205	218	4.80	200	
Lalitpur TPS(3*660)		1980	0	0	0.00	0	
Bara(2*660)		1320	534	531	10.28	428	
<b>Thermal (Total)</b>		<b>12449</b>	<b>5450</b>	<b>6653</b>	<b>134</b>	<b>5581</b>	
Vishnuparyag HPS (IPP)(4*110)		440	435	435	10.40	433	
Alaknanda(4*82.5)		330	323	340	7.82	326	
Other Hydro		527	48	46	1.16	48	
Cogeneration		981	100	100	10.00	417	
<b>Total UP</b>		<b>14727</b>	<b>6356</b>	<b>7574</b>	<b>163</b>	<b>6805</b>	
Uttarakhand		Total Hydro	1398	856	771	20.34	847
		Total Gas	225	0	0	0.00	0
	<b>Total Uttarakhand</b>	<b>1623</b>	<b>856</b>	<b>771</b>	<b>20</b>	<b>847</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	69	70	1.80	75	
	Pragati Gas Turbine (2x104+ 1x122)	330	265	262	6.40	267	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	0	0	0.15	6	
	Badarpur TPS (NTPC) (3*95+2*210)	705	318	318	6.95	290	
	Thermal (Total)	2917	652	650	15.30	637	
	<b>Total Delhi</b>	<b>2917</b>	<b>652</b>	<b>650</b>	<b>15.30</b>	<b>637</b>	
HP	Baspa HPS (IPP) (3*100)	300	306	336	7.80	325	
	Malana HPS (IPP) (2*43)	86	90	91	2.15	89	
	Other Hydro	878	414	434	10.11	421	
	<b>Total HP</b>	<b>1264</b>	<b>810</b>	<b>861</b>	<b>20.06</b>	<b>836</b>	
J & K	Baglihar HPS (IPP) (3*150+2*150)	750	727	727	17.45	727	
	Other Hydro/IPP	560	184	176	4.28	178	
	Gas/Diesel/Others	190	0	0	0.00	0	
	<b>Total J &amp; K</b>	<b>1500</b>	<b>911</b>	<b>903</b>	<b>21.73</b>	<b>905</b>	
<b>Total State Control Area Generation</b>		<b>47619</b>	<b>22880</b>	<b>24227</b>	<b>555.07</b>	<b>23128</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>6380</b>	<b>8189</b>	<b>169.01</b>	<b>7042</b>	
<b>Total Regional Availability(Gross)</b>		<b>72856</b>	<b>48875</b>	<b>50338</b>	<b>1151.59</b>	<b>47983</b>	

IV. Total Hydro Generation:						
Regional Entities Hydro		12234	10786	9029	231.28	9637
State Control Area Hydro		7106	4049	4043	98	4075
<b>Total Regional Hydro</b>		<b>19340</b>	<b>14835</b>	<b>13072</b>	<b>329.09</b>	<b>13712</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)	-100	-50	100	250	0.28	3.43	-3.14
765 KV Gwalior-Agra (D/C)	2277	2457	2770	0	53.94	0.00	53.94
400 KV Zerda-Kankroli	-303	-333	0	502	0.00	7.95	-7.95
400 KV Zerda-Bhinmal	-272	-302	0	514	0.00	6.57	-6.57
220 KV Auraiya-Malanpur	10	51	3	0	0.83	0.00	0.83
220 KV Badoi-Kota/Morak	-157	-89	0	157	0.00	2.41	-2.41
Mundra-Mohindergarh(HVDC Bipole)	2199	2503	2506	0.00	54.56	0.00	54.56
400 KV Vindhychal - Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	627	769	986	0	18.48	0.00	18.48
<b>Sub Total WR</b>	<b>4281</b>	<b>5006</b>			<b>128.10</b>	<b>20.36</b>	<b>107.74</b>
Pusauli Bypass/HVDC	200	200	200	0	4.92	0.00	4.92
400 KV MZP- GKP (D/C)	341	467	594	0	10.49	0.00	10.49
400 KV Patna-Balia(D/C) X 2	491	878	929	0	17.98	0.00	17.98
400 KV B'Sharif-Balia (D/C)	263	212	309	0	5.52	0.00	5.52
765 KV Gaya-Balia	310	273	352	0	3.16	0.00	3.16
765 KV Gaya-Varanasi (D/C)	176	176	239	0	4.08	0.00	4.08
220 KV Pusauli-Sahupuri	162	199	204	0	4.12	0.00	4.12
132 KV K'nasa-Sahupuri	-32	-20	0	40	0.00	0.57	-0.57
132 KV Son Ngr-Rihand	-32	-19	0	32	0.00	0.41	-0.41
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-162	-175	22	199	0.00	2.91	-2.91
400 KV Barh -GKP (D/C)	374	504	514	0	9.43	0.00	9.43
400 kV B'Sharif - Varanasi (D/C)	8	6	66	72	0.33	0.00	0.33
<b>Sub Total ER</b>	<b>2099</b>	<b>2701</b>			<b>60.03</b>	<b>3.90</b>	<b>56.13</b>
+/- 800 KV BiswanathCharialli-Agra	0	482	482	0.00	5.14	0.00	5.14
<b>Sub Total NER</b>	<b>0</b>	<b>482</b>			<b>5.14</b>	<b>0.00</b>	<b>5.14</b>
<b>Total IR Exch</b>	<b>6380</b>	<b>8189</b>			<b>193.27</b>	<b>24.26</b>	<b>169.01</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
39.61	2.62	42.23	3.66	17.02	7.48	8.37	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
53.38	122.64	176.02	61.27	107.74	169.01	7.89	-14.90	-7.01

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	-31	-31	0	31	0	1	-0.63

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	0.00	0.00	3.66	52.22	78.72	15.75	1.93	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)		
50.15	6.02	49.85	15.52	50.00	0.030	0.054	0.00	0.00	21.28

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	413	7:25	405	16:29	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	421	6:33	398	22:06	0.0	0.0	1.4	0.0	1.4
Bareilly(PG)400kV	400	418	6:06	392	14:41	0.0	0.0	0.0	0.0	0.0
Kanpur	400	415	18:01	397	22:12	0.0	0.0	0.0	0.0	0.0
Dadri	400	417	6:01	394	14:51	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	425	6:01	396	14:51	0.0	0.0	17.8	0.0	17.8
Bawana	400	414	8:57	396	14:55	0.0	0.0	0.0	0.0	0.0
Bassi	400	416	5:02	387	22:11	0.0	0.7	0.0	0.0	0.0
Hissar	400	418	6:02	395	22:10	0.0	0.0	0.0	0.0	0.0
Moga	400	410	6:03	393	14:44	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	415	6:04	396	15:22	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	416	4:06	396	15:08	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	408	7:04	394	14:51	0.0	0.0	0.0	0.0	0.0
Wagoora	400	405	6:05	380	20:42	0.0	17.4	0.0	0.0	0.0
Amritsar	400	414	6:02	398	14:20	0.0	0.0	0.0	0.0	0.0
Kashipur	400	419	6:05	405	14:41	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	405	0:00	391	14:55	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	420	6:04	388	14:51	0.0	0.7	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	792	6:13	746	22:08	0.0	0.0	0.0	0.0	0.0
Balia	765	794	6:19	756	22:10	0.0	0.0	0.0	0.0	0.0
Moga	765	792	6:06	754	14:52	0.0	0.0	0.0	0.0	0.0
Agra	765	786	6:02	738	22:12	0.0	0.7	0.0	0.0	0.0
Bhiwani	765	797	6:02	758	14:26	0.0	0.0	0.0	0.0	0.0
Unnao	765	780	8:05	741	15:26	0.0	0.0	0.0	0.0	0.0
Lucknow	765	792	6:28	758	1:01	0.0	0.0	0.0	0.0	0.0
Meerut	765	801	6:06	755	15:22	0.0	0.0	0.0	0.0	0.0
Jhatikara	765	790	6:02	746	22:10	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	795	6:06	752	14:40	0.0	0.0	0.0	0.0	0.0
Anta	765	782	5:01	751	22:10	0.0	0.0	0.0	0.0	0.0
Phagi	765	782	5:04	742	22:11	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	479.40	447.73	487.69	661.49	1045.60	948.61
Pong	426.72	384.05	390.50	59.64	405.82	361.16	342.35	151.75
Tehri	829.79	740.04	747.35	34.10	741.90	9.37	332.22	271.00
Koteshwar	612.50	598.50	609.90	4.76	610.05	4.84	271.00	217.61
Chamera-I	760.00	748.75	751.58	0.00	0.00	0.00	252.38	354.41
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	504.92	7.19	522.27	5.05	294.60	334.42

\* 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	804	620	0	982	522	0	23.07	14.75	37.82
Delhi	254	330	0	500	62	0	12.08	6.77	18.84
Haryana	912	356	0	707	347	0	19.43	8.83	28.26
HP	-1134	-389	0	-884	-397	0	-23.17	-8.83	-32.00
J&K	-623	-10	0	-572	40	0	-16.53	-2.11	-18.64
CHD	0	0	0	0	0	0	0.35	0.16	0.52
Rajasthan	-414	407	0	-414	380	0	-9.87	9.34	-0.53
UP	1316	0	0	1090	0	0	25.57	0.00	25.57
Uttarakhand	47	10	0	52	150	0	1.16	1.10	2.26
<b>Total</b>	<b>1163</b>	<b>1324</b>	<b>0</b>	<b>1460</b>	<b>1104</b>	<b>0</b>	<b>32.09</b>	<b>30.01</b>	<b>62.10</b>

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1407	680	647	522	0	0
Delhi	626	254	729	-305	0	0
Haryana	1129	591	401	346	0	0
HP	-878	-1138	-305	-445	0	0
J&K	-572	-850	40	-212	0	0
CHD	44	0	30	0	0	0
Rajasthan	-406	-414	422	363	0	0
UP	1420	899	0	0	0	0
Uttarakhand	52	45	154	4	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	7.99%

(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:**

**XIV. Weather Conditions For 21.06.2016 :**

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

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

1) First time charging of 400KV Moga – Samba line at 19:01 hrs. (disconnection of 400kV Moga- Jalandhar –I line at Jalandhar and connecting with new line 400 kv Jalandhar-Samba ckt 2 and then charged as Moga-(by pass Jalandhar)-Samba(temp arrangement) line.)

**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.