



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	0	0	0.10	4	
	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	0	0.09	4	
	Goidwal(GVK) (2*270)	540	145	145	3.80	158	
	Rajpura (2*700)	1400	1320	1320	30.24	1260	
	Talwandi Saboo (3*660)	1980	1025	924	27.63	1151	
	<b>Thermal (Total)</b>	<b>6560</b>	<b>2490</b>	<b>2389</b>	<b>61.87</b>	<b>2578</b>	
	Total Hydro	1000	24	24	2.68	112	
	Wind Power	0	0	0	0.00	0	
	Biomass	303	0	0	2.90	121	
	Solar	859	0	0	3.24	135	
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>6.13</b>	<b>256</b>	
	<b>Total Punjab</b>	<b>8722</b>	<b>2514</b>	<b>2413</b>	<b>70.69</b>	<b>2945</b>	
	Haryana	Panipat TPS (2*210+2*250)	920	762	588	15.28	637
		DCRTPP (Yamuna nagra) (2*300)	600	293	290	5.97	249
Faridabad GPS (NTPC)(2*1137.75+1*1156)		432	186	181	4.50	187	
RGTPP (kheadan) (IPP) (2*600)		1200	1053	1034	20.73	864	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (3*660)		1320	563	579	13.02	543	
<b>Thermal (Total)</b>		<b>4497</b>	<b>2857</b>	<b>2672</b>	<b>59.50</b>	<b>2479</b>	
Total Hydro		62	9	18	0.37	15	
Wind Power		0	0	0	0.00	0	
Biomass		106	0	0	1.27	53	
Solar		50	0	0	0.19	8	
<b>Renewable(Total)</b>		<b>156</b>	<b>0</b>	<b>0</b>	<b>1.46</b>	<b>61</b>	
<b>Total Haryana</b>		<b>4715</b>	<b>2866</b>	<b>2690</b>	<b>61.33</b>	<b>2555</b>	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	1142	1141	26.65	1111
		suratgarh TPS (6*250)	1500	1310	1197	29.58	1233
	Chabra TPS (4*250)	1000	701	698	16.38	682	
	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	155	159	3.82	159	
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0	
	Barsingsar (NLC) (2*125)	250	111	112	2.58	108	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	898	836	21.03	876	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	0	0	0.00	0	
	Kawai(Adani) (2*660)	1320	615	609	14.59	608	
	<b>Thermal (Total)</b>	<b>9536</b>	<b>4932</b>	<b>4752</b>	<b>114.64</b>	<b>4776</b>	
	Total Hydro	550	32	0	0.47	20	
	Wind power	4292	111	118	2.58	108	
	Biomass	102	18	18	0.44	18	
	Solar	1995	30	0	8.87	370	
	Renewable/Others (Total)	6389	159	136	11.89	496	
	<b>Total Rajasthan</b>	<b>16475</b>	<b>5123</b>	<b>4888</b>	<b>127.00</b>	<b>5292</b>	
UP	Anpara TPS (3*210+2*500)	1630	1147	1151	28.70	1196	
	Obra TPS (2*50+2*94+5*200)	1194	500	501	11.50	479	
	Paricha TPS (2*110+2*220+2*250)	1160	822	473	12.50	521	
	Panki TPS (2*105)	210	0	0	0.00	0	
	Harduaganj TPS (1*60+1*105+2*250)	665	441	255	7.80	325	
	Tanda TPS (NTPC) (4*110)	440	382	333	7.22	301	
	Roza TPS (IPP) (4*300)	1200	1060	1077	20.60	858	
	Anpara-C (IPP) (2*600)	1200	1078	1082	24.20	1008	
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0	
	Anpara-D(2*500)	1000	910	910	21.80	908	
	Lalitpur TPS(3*660)	1980	1845	1851	34.60	1442	
	Bara(3*660)	1980	903	907	20.30	846	
	<b>Thermal (Total)</b>	<b>13109</b>	<b>9088</b>	<b>8540</b>	<b>189.22</b>	<b>7884</b>	
	Vishnuparyag HPS (IPP)(4*110)	440	98	98	2.40	100	
	Alakananda(4*82.5)	330	82	0	1.20	50	
	Other Hydro	527	145	4	0.90	38	
	Cogeneration	981	850	850	20.40	850	
	Wind Power	0	0	0	0.00	0	
	Biomass	26	0	0	0.00	0	
	Solar	102	0	0	4.00	167	
<b>Renewable(Total)</b>	<b>128</b>	<b>0</b>	<b>0</b>	<b>4.00</b>	<b>167</b>		
<b>Total UP</b>	<b>15515</b>	<b>10263</b>	<b>9492</b>	<b>218.12</b>	<b>9088</b>		
Uttarakhand	Other Hydro	1250	609	254	7.56	315	
	Total Gas	450	282	287	6.81	284	
	Wind Power	0	0	0	0.00	0	
	Biomass	127	0	0	0.00	0	
	Solar	100	0	0	0.79	33	
	Small Hydro (< 25 MW)	180	0	0	0.00	0	
	<b>Renewable(Total)</b>	<b>407</b>	<b>0</b>	<b>0</b>	<b>0.79</b>	<b>33</b>	
	<b>Total Uttarakhand</b>	<b>2107</b>	<b>891</b>	<b>541</b>	<b>15.16</b>	<b>632</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	107	111	2.65	110	
	Pragati Gas Turbine (2x104+ 1x122)	330	261	263	6.37	266	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	233	233	5.49	229	
	Badarpur TPS (NTPC) (3*95+2*210)	705	147	146	3.42	142	
	<b>Thermal (Total)</b>	<b>2917</b>	<b>747</b>	<b>753</b>	<b>17.93</b>	<b>747</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>747</b>	<b>753</b>	<b>17.93</b>	<b>747</b>		

HP	Baspa HPS (IPP) (3*100)	300	30	30	1.41	59	
	Malana HPS (IPP) (2*43)	86	0	45	0.41	17	
	Other Hydro (>25MW)	372	151	124	3.05	127	
	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	201	158	4.13	172	
	Renewable(Total)	486	201	158	4.13	172	
	Total HP	1244	382	356	9.00	375	
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	385	385	9.23	385
		Other Hydro/IPP(Including 98 MW Small Hydro)	308	106	144	3.12	130
		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	491	529	12	515	
Total State Control Area Generation		53111	23277	21662	531.56	22148	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>							
Total Regional Availability(Gross)		78948	44549	39152	972.62	40526	

**IV. Total Hydro Generation:**

Regional Entities Hydro	12234	9028	2327	89.35	3708
State Control Area Hydro	7468	2154	1570	32.79	1855
Total Regional Hydro	19702	11183	3897	122.14	5563

**V. Total Renewable Generation:**

Regional Entities Renewable	30	0	0	0.15	6
State Control Area Renewable	8844	360	294	28.40	1183
Total Regional Renewable	8874	360	294	28.55	1190

**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	200	0	-200	0.00	3.84	-3.84
765 KV Gwalior-Agra (D/C)	1670	1398	1804	0	35.24	0.00	35.24
400 KV Zerda-Kankroli	-251	-305	0	403	0.00	7.58	-7.58
400 KV Zerda-Bhinmal	-176	-231	0	341	0.00	5.47	-5.47
220 KV Auraiya-Malanpur	-174	-160	0	181	0.00	3.29	-3.29
220 KV Badod-Kota/Morak	-113	-53	26	126	0.00	1.25	-1.25
Mundra-Mohindergarhi(HVDC Bipole)	301	298	304	0	7.37	0.00	7.37
400 KV RAPP-C-Sujalpur	264	136	294	0	4.70	0.00	4.70
400 KV Vindhychal-Rihand	-956	-969	0	982	0.00	23.03	-23.03
765 KV Phagt-Gwalior (D/C)	1430	1714	0	1856	40.13	0.00	40.13
+/- 800 KV HVDC Champa-Kurushetra	500	2000	2000	0	26.58	0	26.58
765KV Orai-Jabalpur	0	0	0	0	14.36	0	14.36
765KV Orai-Satna	0	0	0	0	40.02	0	40.02
765KV Orai-Gwalior	0	0	0	0	0.00	11	-11.05
<b>Sub Total WR</b>	<b>2545</b>	<b>4028</b>			<b>168.40</b>	<b>55.52</b>	<b>112.87</b>
400 kV Sasaram - Varanasi	-54	-35	23	54	0.00	0.64	-0.64
400 kV Sasaram - Allahabad	-66	-32	0	69	0.00	0.76	-0.76
400 KV MZP- GKP (D/C)	150	350	234	0	6.44	0.00	6.44
400 KV Patna-Balia(D/C) X 2	388	749	798	0	14.09	0.00	14.09
400 KV B Sharif- Balia (D/C)	144	255	268	0	5.24	0.00	5.24
765 KV Gaya-Balia	309	372	521	0	9.52	0.00	9.52
765 KV Gaya-Varanasi (D/C)	125	305	357	0	3.96	0.00	3.96
220 KV Pusaali-Sahupuri	224	163	224	0	3.41	0.00	3.41
132 KV Knasa-Sahupuri	0	0	0	0	0.01	0.00	0.01
132 KV Son Ngr-Rihand	0	0	0	0	0.00	0.47	-0.47
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-23	-12	96	73	0.28	0.00	0.28
400 KV Mothari -GKP (D/C)	146	222	253	0	4.10	0.00	4.10
400 kV B Sharif - Varanasi (D/C)	37	136	201	0	2.62	0.00	2.62
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1380</b>	<b>2473</b>			<b>49.67</b>	<b>1.87</b>	<b>47.80</b>
+/- 800 KV HVDC Biswanath Chariali-Agra	0	500	700	0.00	8.73	0.00	8.73
<b>Sub Total NER</b>	<b>0</b>	<b>500</b>			<b>8.73</b>	<b>0.00</b>	<b>8.73</b>
<b>Total IR Exch</b>	<b>3925</b>	<b>7001</b>			<b>226.80</b>	<b>57.39</b>	<b>169.41</b>

2.65

**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
53.81	0.55	54.36	-6.69	-8.88	4.92	0.24	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
52.04	111.93	163.97	56.53	112.87	169.41	4.49	0.94	5.44

**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	28	27	0	32	0	1	-0.65

**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	0.36	1.97	21.62	79.45	75.39	2.63	0.38	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)	
50.13	10.01	49.62	10.44	49.95	0.073	0.066	50.04	49.77	24.61

## 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	407	7:10	400	0:00	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	416	6:01	393	19:41	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	420	6:48	398	19:13	0.0	0.0	0.0	0.0	0.0
Kanpur	400	420	7:44	400	19:11	0.0	0.0	0.0	0.0	0.0
Dadri	400	422	6:46	405	18:58	0.0	0.0	4.4	0.0	4.4
Ballabgarh	400	419	6:49	401	19:14	0.0	0.0	0.0	0.0	0.0
Bawana	400	421	6:46	402	19:13	0.0	0.0	1.3	0.0	1.3
Bassi	400	416	12:00	399	0:07	0.0	0.0	0.0	0.0	0.0
Hissar	400	421	13:03	400	19:14	0.0	0.0	0.6	0.0	0.6
Moga	400	422	12:59	404	19:10	0.0	0.0	3.0	0.0	3.0
Abdullapur	400	428	12:08	407	19:14	0.0	0.0	32.0	0.0	32.0
Nalagarh	400	429	5:20	409	19:12	0.0	0.0	45.2	0.0	45.2
Kishenpur	400	423	3:37	406	19:38	0.0	0.0	7.3	0.0	7.3
Wagoora	400	409	3:46	389	19:38	0.0	4.9	0.0	0.0	0.0
Amritsar	400	427	12:05	407	19:37	0.0	0.0	35.1	0.0	35.1
Kashipur	400	402	0:00	402	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	424	3:59	404	19:27	0.0	0.0	13.0	0.0	13.0
Rishikesh	400	416	6:48	394	18:42	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	781	6:48	740	19:14	0.0	0.6	0.0	0.0	0.0
Balia	765	784	6:48	746	19:13	0.0	0.0	0.0	0.0	0.0
Moga	765	803	12:59	784	17:13	0.0	0.0	0.2	0.0	0.2
Agra	765	789	12:02	750	19:13	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	802	6:48	771	19:11	0.0	0.0	5.1	0.0	5.1
Unnao	765	776	8:04	742	19:12	0.0	0.0	0.0	0.0	0.0
Lucknow	765	794	7:06	755	19:15	0.0	0.0	0.0	0.0	0.0
Meerut	765	810	6:48	767	9:20	0.0	0.0	15.8	0.0	15.8
Jhatikara	765	798	6:48	759	19:14	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	806	6:48	767	19:11	0.0	0.0	13.4	0.0	13.4
Anta	765	793	11:47	771	19:38	0.0	0.0	0.0	0.0	0.0
Phagi	765	795	4:05	770	19:40	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	469.41	257.12	468.84	248.16	199.92	332.81
Pong	426.72	384.05	394.31	116.59	396.83	157.28	32.22	28.60
Tehri	829.79	740.04	753.30	72.13	755.85	90.04	41.88	152.00
Koteswar	612.50	598.50	610.31	4.72	610.50	4.95	152.00	156.76
Chamera-I	760.00	748.75	756.74	0.00	0.00	0.00	133.05	127.78
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	497.00	0.42	515.43	3.54	95.44	55.92

\* 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	-409	-101	0	-207	-202	0	-5.98	-10.30	-16.28
Delhi	-274	-95	0	-109	0	0	-2.06	0.47	-1.59
Haryana	226	1	0	147	6	0	-1.45	-3.24	-4.69
HP	-169	-9	0	-209	-402	0	-2.00	0.01	-1.99
J&K	-254	474	0	-254	12	0	-6.09	9.43	3.34
CHD	0	0	0	0	-20	0	0.00	0.12	0.12
Rajasthan	-8	60	0	-8	50	0	-0.20	4.16	3.96
UP	642	0	0	114	20	0	5.06	0.08	5.14
Uttarakhand	9	301	0	18	269	0	0.66	8.12	8.78
Total	-236	631	0	-507	-267	0	-12.06	8.85	-3.21

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	409	207	1313	101	0	0
Delhi	274	31	370	0	0	0
Haryana	289	147	703	0	0	0
HP	211	49	439	4	0	0
J&K	254	254	484	0	0	0
CHD	0	0	59	0	0	0
Rajasthan	8	8	1217	47	0	0
UP	662	46	20	0	0	0
Uttarakhand	76	7	598	7	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	23
Haryana	2	19
Rajasthan	2	18
Delhi	4	32
UP	1	13
Uttarakhand	4	51
HP	4	43
J & K	2	16
Chandigarh	5	63

**XIII. System Constraints:**

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

**XV. Weather Conditions For 23.04.2018 :**

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

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

**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 : 23.04.2018

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER