



	Goindwal(GVK) (2*270)	540	0	0	-0.03	-1
	Rajpura (2*700)	1400	660	660	15.89	662
	Talwandi Saboo (3*660)	1980	0	0	-0.12	-5
	<b>Thermal (Total)</b>	<b>6560</b>	<b>1701</b>	<b>1920</b>	<b>41.04</b>	<b>1710</b>
	Total Hydro	1000	547	538	12.87	536
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	0.31	13
	Solar	560	0	0	0.07	3
	<b>Renewable(Total)</b>	<b>848</b>	<b>0</b>	<b>0</b>	<b>0.38</b>	<b>16</b>
	<b>Total Punjab</b>	<b>8408</b>	<b>2248</b>	<b>2458</b>	<b>54.29</b>	<b>2262</b>
Haryana	Panipat TPS (2*210+2*250)	920	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	223	222	5.47	228
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	0	0	0.00	0
	RGTPP (khedar) (IPP) (2*600)	1200	773	801	19.24	801
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	483	603	11.28	470
	<b>Thermal (Total)</b>	<b>4497</b>	<b>1479</b>	<b>1626</b>	<b>35.99</b>	<b>1499</b>
	Total Hydro	62	16	15	0.45	19
	Wind Power	0	0	0	0.00	0
	Biomass	40	0	0	0.00	0
	Solar	0	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
	<b>Total Haryana</b>	<b>4599</b>	<b>1495</b>	<b>1641</b>	<b>36.44</b>	<b>1518</b>
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	296	182	6.27
suratgarh TPS (6*250)		1500	181	222	5.19	216
Chabra TPS (4*250)		1000	743	847	20.17	840
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	187	193	4.74	197
RAPS A (NPC) (1*100+1*200)		300	0	0	0.00	0
Barsingsar (NLC) (2*125)		250	188	203	4.67	195
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	447	838	18.10	754
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(2*600)		1200	898	1098	24.91	1038
Kawai(Adani) (2*660)		1320	459	619	14.42	601
<b>Thermal (Total)</b>		<b>9536</b>	<b>3399</b>	<b>4202</b>	<b>98.47</b>	<b>4103</b>
Total Hydro		550	0	0	0.00	0
Wind power		4017	628	676	15.20	633
Biomass		99	22	22	0.53	22
Solar		1295	0	0	-2.72	-113
Renewable/Others (Total)		5411	650	698	13.01	542
<b>Total Rajasthan</b>		<b>15497</b>	<b>4049</b>	<b>4900</b>	<b>111.49</b>	<b>4645</b>
UP	Anpara TPS (3*210+2*500)	1630	1383	1201	31.64	1319
	Obra TPS (2*50+2*94+5*200)	1194	635	191	10.99	458
	Paricha TPS (2*110+2*220+2*250)	1160	670	680	15.17	632
	Panki TPS (2*105)	210	153	162	3.28	137
	Harduaganj TPS (1*60+1*105+2*250)	665	509	547	11.90	496
	Tanda TPS (NTPC) (4*110)	440	274	298	6.48	270
	Roza TPS (IPP) (4*300)	1200	1116	1126	24.22	1009
	Anpara-C (IPP) (2*600)	1200	781	790	18.85	785
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	322	403	7.48	312
	Anpara-D(2*500)	1000	426	410	10.05	419
	Lalitpur TPS(3*660)	1980	1164	1180	25.45	1061
	Bara(2*660)	1320	584	580	10.95	456
	<b>Thermal (Total)</b>	<b>12449</b>	<b>8017</b>	<b>7568</b>	<b>176.48</b>	<b>7353</b>
	Vishnuparyag HPS (IPP)(4*110)	440	226	201	5.03	210
	Alakanada(4*82.5)	330	84	85	2.03	85
	Other Hydro	527	181	147	3.58	149
	Cogeneration	981	400	400	9.60	400
	Wind Power	0	0	0	0.00	0
	Biomass	26	0	0	0.00	0
	Solar	102	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>128</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
	<b>Total UP</b>	<b>14855</b>	<b>8908</b>	<b>8401</b>	<b>196.71</b>	<b>8196</b>
	Uttarakhand	Other Hydro	1250	697	509	13.18
Total Gas		225	282	241	6.34	264
Wind Power		0	0	0	0.00	0
Biomass		127	0	0	0.00	0
Solar		20	0	0	0.42	18
Small Hydro (< 25 MW)		180	0	0	0.00	0
<b>Renewable(Total)</b>		<b>327</b>	<b>0</b>	<b>0</b>	<b>0.42</b>	<b>18</b>
<b>Total Uttarakhand</b>	<b>1802</b>	<b>979</b>	<b>750</b>	<b>19.94</b>	<b>831</b>	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	71	71	1.78	74
	Pragati Gas Turbine (2x104+ 1x122)	330	150	155	3.78	157
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	250	250	6.01	250
	Badarpur TPS (NTPC) (3*95+2*210)	705	320	330	7.29	304
	<b>Thermal (Total)</b>	<b>2917</b>	<b>791</b>	<b>806</b>	<b>18.85</b>	<b>786</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>791</b>	<b>806</b>	<b>18.85</b>	<b>786</b>	
HP	Baspa HPS (IPP) (3*100)	300	92	214	2.97	124
	Malana HPS (IPP) (2*43)	86	78	0	0.61	25
	Other Hydro (>25MW)	372	236	236	5.33	222
	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	205	189	4.83	201
	<b>Renewable(Total)</b>	<b>486</b>	<b>205</b>	<b>189</b>	<b>4.83</b>	<b>201</b>
	<b>Total HP</b>	<b>1244</b>	<b>612</b>	<b>639</b>	<b>13.73</b>	<b>572</b>
J & K	Baglihar HPS (IPP) (3*150+3*150)	900	742	737	17.75	740
	Other Hydro/IPP(including 98 MW Small Hydro)	308	94	66	1.84	77
	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	836	803	20	816
Total State Control Area Generation	50738	19918	20398	471.02	19626
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		7638	9646	184.03	7668
Total Regional Availability(Gross)	76635	46752	44105	1013.38	42224

IV. Total Hydro Generation:

Regional Entities Hydro	12234	9886	4424	152.60	6358
State Control Area Hydro	7163	3481	3178	70.44	3217
Total Regional Hydro	19397	13367	7602	223.04	9575

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.07	3
State Control Area Renewable	7356	855	887	18.64	777
Total Regional Renewable	7386	855	887	18.71	780

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

Element	Peak(20:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
Vindhychal(HVDC B/B)	-500	-300	0	500	0.00	11.68	-11.68
765 KV Gwalior-Agra (D/C)	2200	2381	2654	0	45.04	0.00	45.04
400 KV Zerda-Kankrol	-65	-213	0	357	0.00	5.06	-5.06
400 KV Zerda-Bhinmal	25	-152	43	262	0.00	3.55	-3.55
220 KV Auraiya-Malanpur	-25	-37	0	94	0.00	1.02	-1.02
220 KV Badod-Kota/Morak	35	98	98	35	1.00	0.00	1.00
Mundra-Mohinderghar(HVDC Bipole)	2003	2503	2507	0	53.18	0.00	53.18
400 KV RAPP-C-Sujalpur	125	212	294	0	4.53	0.00	4.53
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1059	1000	1175	0	22.85	0.00	22.85
+/- 800 kV HVDC Champa-Kurushetra	1000	1500	1500	0	30.72	0	30.72
<b>Sub Total WR</b>	<b>5857</b>	<b>6992</b>			<b>157.33</b>	<b>21.31</b>	<b>136.02</b>
400 kV Sasaram - Varanasi	129	118	45	0	2.96	0.00	2.96
400 kV Sasaram - Allahabad	13	26	45	0	0.52	0.00	0.52
400 KV MZP- GKP (D/C)	87	468	510	0	6.33	0.00	6.33
400 KV Patna-Balia(D/C) X 2	666	881	895	0	18.10	0.00	18.10
400 KV B'Sharif-Balia (D/C)	172	340	340	0	4.84	0.00	4.84
765 KV Gaya-Balia	308	376	388	0	6.16	0.00	6.16
765 KV Gaya-Varanasi (D/C)	376	486	566	0	9.29	0.00	9.29
220 KV Pusaali-Sahupuri	233	206	233	0	4.54	0.00	4.54
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-30	-27	0	30	0.00	0.66	-0.66
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-221	-93	10	254	0.00	2.46	-2.46
400 KV Barh -GKP (D/C)	532	500	544	0	10.87	0.00	10.87
400 kV B'Sharif - Varanasi (D/C)	16	-127	16	169	0.00	1.56	-1.56
+/- 800 KV HVDC Alipurduar-Agra	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>2281</b>	<b>3154</b>			<b>63.61</b>	<b>4.68</b>	<b>58.92</b>
+/- 800 KV HVDC BiswanathChariali-Agra	-500	-500	0	600.00	0.00	10.91	-10.91
<b>Sub Total NER</b>	<b>-500</b>	<b>-500</b>			<b>0.00</b>	<b>10.91</b>	<b>-10.91</b>
<b>Total IR Exch</b>	<b>7638</b>	<b>9646</b>			<b>220.94</b>	<b>36.91</b>	<b>184.03</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
53.89	1.00	54.88	-0.49	0.89	-7.76	2.74	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
46.63	148.65	195.29	48.01	136.02	184.03	1.38	-12.63	-11.25

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

Element	Peak(20:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-12	-12	0	30	0	1	-0.68

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	0.00	1.33	21.59	72.71	68.43	8.17	1.82	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)		
50.18	18.35	49.76	14.22	49.95	0.072	0.071	50.08	49.80	31.57

VIII(A). 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	405	6:04	401	1:14	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	418	13:24	396	19:27	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	415	7:24	395	23:37	0.0	0.0	0.0	0.0	0.0
Kanpur	400	417	7:24	400	23:47	0.0	0.0	0.0	0.0	0.0
Dadri	400	415	6:02	401	23:28	11.3	11.3	0.0	0.0	11.3
Ballabgarh	400	417	6:51	400	23:24	0.0	0.0	0.0	0.0	0.0
Bawana	400	415	7:02	398	23:32	0.0	0.0	0.0	0.0	0.0
Bassi	400	419	18:00	397	23:31	0.0	0.0	0.0	0.0	0.0
Hissar	400	410	6:50	396	23:21	0.0	0.0	0.0	0.0	0.0
Moga	400	413	7:03	403	23:22	0.0	0.0	0.0	0.0	0.0
Abdullapur	400	413	6:50	400	23:07	0.0	0.0	0.0	0.0	0.0
Nalagarh	400	417	4:00	407	19:25	0.0	0.0	0.0	0.0	0.0
Kishenpur	400	412	17:58	403	13:07	0.0	0.0	0.0	0.0	0.0
Wagoora	400	407	18:01	383	6:14	0.0	54.2	0.0	0.0	0.0
Amritsar	400	419	17:58	408	23:34	0.0	0.0	0.0	0.0	0.0
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	412	17:59	405	12:15	0.0	0.0	0.0	0.0	0.0
Rishikesh	400	0	0:00	0	0:00	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
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Station	Voltage Level (kV)	Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	% Deviat
Fatehpur	765	784	7:02	756	1:34	0.0	0.0	0.0	0.0	0.0
Balia	765	790	8:25	762	19:26	0.0	0.0	0.0	0.0	0.0
Moga	765	790	18:01	767	23:32	0.0	0.0	0.0	0.0	0.0
Agra	765	788	7:02	759	23:31	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	794	6:03	770	22:38	0.0	0.0	0.0	0.0	0.0
Unnao	765	780	7:27	748	23:47	0.0	0.0	0.0	0.0	0.0
Lucknow	765	798	7:23	764	19:40	0.0	0.0	0.0	0.0	0.0
Meerut	765	796	6:50	764	23:32	0.0	0.0	0.0	0.0	0.0
Jhatikara	765	795	7:23	765	23:31	0.0	0.0	0.0	0.0	0.0
Bareilly 765 kV	765	793	7:02	758	23:46	0.0	0.0	0.0	0.0	0.0
Anta	765	793	18:01	770	23:31	0.0	0.0	0.0	0.0	0.0
Phagi	765	789	17:57	765	22:23	3.6	3.6	0.0	0.0	3.6

Note : \*0" in Max / Min Col -> 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	470.77	282.71	476.02	374.70	538.33	433.93
Pong	426.72	384.05	396.64	151.67	394.50	116.59	62.75	70.88
Tehri	829.79	740.04	753.60	74.21	741.60	7.48	72.82	196.00
Koteshwar	612.50	598.50	610.87	5.00	607.46	3.96	196.00	195.10
Chamera-I	760.00	748.75	752.01	0.00	0.00	0.00	184.72	357.12
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	516.32	7.01	498.44	2.56	317.08	183.03

\* 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	-48	499	0	12	0	0	-0.90	4.87	3.96
Delhi	-267	-30	0	-107	95	0	-3.89	3.33	-0.56
Haryana	149	271	0	149	126	0	1.17	0.48	1.65
HP	-61	-291	0	-155	-374	0	-2.21	-7.65	-9.86
J&K	-163	-391	0	-163	-179	0	-3.90	-7.11	-11.02
CHD	0	0	0	0	0	0	0.00	0.43	0.43
Rajasthan	-8	-148	0	-69	144	0	-0.46	4.43	3.97
UP	811	616	0	1138	-68	0	9.22	2.72	11.94
Uttarakhand	119	19	0	169	-34	0	3.92	0.08	4.00
Total	531	546	0	973	-291	0	2.95	1.57	4.52

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	12	-48	948	0	0	0
Delhi	-17	-267	608	-354	0	0
Haryana	149	-51	302	-555	0	0
HP	-35	-384	-235	-543	0	0
J&K	-163	-163	-129	-491	0	0
CHD	0	0	89	0	0	0
Rajasthan	-8	-69	416	-435	0	0
UP	1138	40	1233	-68	0	0
Uttarakhand	279	98	155	-126	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	3	21
Haryana	2	18
Rajasthan	4	23
Delhi	4	26
UP	0	12
Uttarakhand	2	16
HP	2	23
J & K	3	22
Chandigarh	5	20

**XIII. System Constraints:**

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

XV. Weather Conditions For 28.04.2017 :

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 : 28.04.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER