

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

## उत्तर क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GO188682

Power Supply Position in Northern Region for 28.11.2017

Date of Reporting : 29.11.2017



### I. Regional Availability/Demand:

Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
41585	499	42083	49.98	29713	295	30007	49.98	851.85	11.69

\* Half hourly (two 15 minutes block-one block each before and after the designated time) average frequency

### II. A. State's Load Details (At States periphery) in MUs:

State	State's Control Area Generation (Net MU)							Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages* (MU)
	Thermal	Hydro	Gas/Naptha/Diesal	Solar	Wind	Other (Biomass/ Small hydro/ Co-Generation etc.)	Total					
Punjab	61.87	8.68	0.00	0.05	0.00	0.22	70.83	30.52	30.02	-0.51	100.85	0.00
Haryana	37.91	0.43	5.41	0.00	0.00	0.00	43.75	64.07	65.74	1.68	109.49	0.12
Rajasthan	115.76	3.92	7.63	0.00	1.91	4.90	134.12	69.21	69.86	0.65	203.97	0.29
Delhi	0.00	0.00	15.08	0.00	0.00	0.00	15.08	46.67	45.13	-1.54	60.21	0.01
UP	157.88	5.87	0.00	0.00	0.00	19.20	182.95	86.55	86.57	0.02	269.52	1.23
Uttarakhand	0.00	9.41	7.21	0.52	0.00	0.00	17.14	17.73	17.66	-0.06	34.80	0.00
HP	0.00	5.59	0.00	0.00	0.00	1.67	7.26	19.13	20.56	1.43	27.82	0.14
J & K	0.00	4.64	0.00	0.00	0.00	0.00	4.64	35.95	37.34	1.39	41.98	9.90
Chandigarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.43	3.20	-0.23	3.20	0.00
<b>Total</b>	<b>373.42</b>	<b>38.55</b>	<b>35.32</b>	<b>0.58</b>	<b>1.91</b>	<b>25.99</b>	<b>475.77</b>	<b>373.26</b>	<b>376.08</b>	<b>2.83</b>	<b>851.85</b>	<b>11.69</b>

\* Shortage furnished by the respective constituent. \$ Others include UP Co-generation and JK Diesal

### II. B. State's Demand Met in MWs:

State	Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Maximum Demand Met (MW) and Time(Hrs)	Shortage (MW)	
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction			
Punjab	5460	0	15	-1330	2901	0	32	-717	5460	19	0
Haryana	6010	0	9	-562	3713	0	97	-526	6010	19	0
Rajasthan	9124	0	-59	-338	7942	0	66	124	10943	8	79
Delhi	3171	0	-54	-564	1487	0	-114	-1222	3269	11	0
UP	12585	0	130	-121	9974	0	-124	87	12585	19	0
Uttarakhand	1776	0	-6	353	1137	0	-42	254	1865	8	0
HP	1319	8	88	201	809	0	25	370	1491	8	0
J&K	1963	491	-29	657	1669	295	172	588	1963	19	491
Chandigarh	176	0	-19	-10	80	0	-15	0	183	8	0
<b>Total</b>	<b>41585</b>	<b>499</b>	<b>75</b>	<b>-1714</b>	<b>29713</b>	<b>295</b>	<b>97</b>	<b>-1042</b>	<b>41699</b>	<b>8</b>	<b>689</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.05

UI [OG:(+ve), UG: (-ve)]

### III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI
								Net MU
<b>A. NTPC</b>								
Singrauli STPS (5*200+2*500)	2000	914	1054	982	22.85	952	21.65	1.20
Rihand I STPS (2*500)	1000	909	944	907	20.11	838	20.38	-0.27
Rihand II STPS (2*500)	1000	844	505	888	17.01	709	18.63	-1.62
Rihand III STPS (2*500)	1000	943	1020	878	21.13	880	20.79	0.34
Dadri I STPS (4*210)	840	769	238	235	6.64	277	6.82	-0.18
Dadri II STPS (2*490)	980	929	528	533	16.45	685	16.77	-0.32
Unchahar I TPS (2*210)	420	270	266	126	5.48	228	5.36	0.12
Unchahar II TPS (2*210)	420	192	134	140	3.69	154	3.52	0.17
Unchahar III TPS (1*210)	210	192	151	116	3.48	145	3.48	0.00
Unchahar IV TPS(1*500)	500	0	0	0	0.00	0	0.00	0.00
ISTPP (Jhajhar) (3*500)	1500	923	947	645	18.11	755	18.66	-0.56
Dadri GPS (4*130.19+2*154.51)	830	806	130	108	3.37	140	3.57	-0.20
Anta GPS (3*88.71+1*153.2)	419	409	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	638	0	0	0.00	0	0.00	0.00
Dadri Solar(5)	5	1	0	0	0.02	1	0.02	0.00
Unchahar Solar(10)	10	2	0	0	0.04	2	0.04	0.00
Singrauli Solar(15)	15	3	0	0	0.07	3	0.07	0.00
KHEP(4*200)	800	792	865	196	3.08	128	2.75	0.33
<b>Sub Total (A)</b>	<b>12612</b>	<b>9534</b>	<b>6782</b>	<b>5754</b>	<b>142</b>	<b>5897</b>	<b>143</b>	<b>-1.00</b>
<b>B. NPC</b>								
NAPS (2*220)	440	412	442	448	9.81	409	9.85	-0.04
RAPS- B (2*220)	440	403	442	447	9.60	400	9.54	0.06
RAPS- C (2*220)	440	410	456	452	9.98	416	9.84	0.14
<b>Sub Total (B)</b>	<b>1320</b>	<b>1225</b>	<b>1340</b>	<b>1347</b>	<b>29.40</b>	<b>1225</b>	<b>29.24</b>	<b>0.16</b>
<b>C. NHPC</b>								
Chamera I HPS (3*180)	540	534	547	0	1.79	75	1.60	0.19
Chamera II HPS (3*100)	300	200	206	0	1.47	61	1.37	0.09
Chamera III HPS (3*77)	231	231	232	0	0.86	36	0.75	0.11
Bairasul HPS(3*60)	180	53	123	0	0.39	16	0.37	0.02
Salat-HPS (6*115)	690	105	345	35	2.95	123	2.53	0.43
Tanakpur-HPS (3*31.4)	94	32	31	34	0.83	35	0.78	0.06
Uri-I HPS (4*120)	480	81	230	78	2.15	90	1.94	0.21
Uri-II HPS (4*60)	240	54	172	58	1.43	60	1.30	0.13
Dhauliganga-HPS (4*70)	280	55	219	0	1.42	59	1.31	0.11
Dulhasti-HPS (3*130)	390	387	395	0	3.41	142	3.20	0.21
Sewa-II HPS (3*40)	120	90	108	0	0.29	12	0.32	-0.03
Parbati 3 (4*130)	520	24	255	0	0.62	26	0.58	0.04
<b>Sub Total (C)</b>	<b>4065</b>	<b>1846</b>	<b>2864</b>	<b>205</b>	<b>18</b>	<b>733</b>	<b>16</b>	<b>1.56</b>
<b>D. SJVNL</b>								
NJPC (6*250)	1500	1497	1500	0	8.68	362	8.40	0.28
Rampur HEP (6*68.67)	412	412	408	0	2.38	99	2.35	0.03
<b>Sub Total (D)</b>	<b>1912</b>	<b>1910</b>	<b>1908</b>	<b>0</b>	<b>11.06</b>	<b>461</b>	<b>10.75</b>	<b>0.32</b>
<b>E. THDC</b>								
Tehri HPS (4*250)	1000	988	1021	0	6.64	277	6.50	0.14
Koteshwar HPS (4*100)	400	91	101	93	2.26	94	2.19	0.07
<b>Sub Total (E)</b>	<b>1400</b>	<b>1079</b>	<b>1122</b>	<b>93</b>	<b>8.91</b>	<b>371</b>	<b>8.69</b>	<b>0.22</b>
<b>F. BBMB</b>								
Bhakra HPS (2*108+3*126+5*157)	1379	560	1097	389	13.58	566	13.44	0.14
Dehar HPS (6*165)	990	121	495	0	3.10	129	2.90	0.20
Pong HPS (6*66)	396	206	264	66	4.95	206	4.94	0.01
<b>Sub Total (F)</b>	<b>2765</b>	<b>887</b>	<b>1856</b>	<b>455</b>	<b>21.62</b>	<b>901</b>	<b>21.28</b>	<b>0.34</b>
<b>G. IPP(s)/JV(s)</b>								
Allain Duhangan HPS(IPP) (2*96)	192	0	65	0	0.62	26	0.60	0.02
Karcham Wangtoo HPS(IPP) (4*250)	1000	0	580	0	4.91	205	4.74	0.17
Malana Stg-II HPS (2*50)	100	0	0	0	0.30	13	0.29	0.01
Shree Cement TPS (2*150)	300	0	-1	0	-0.09	-4	0.00	-0.09
Budhil HPS(IPP) (2*35)	70	0	69	0	0.24	10	0.21	0.03
Sainj HPS (IPP) (2*50)	100	0	0	0	0.00	0	0.45	0.00
<b>Sub Total (G)</b>	<b>1762</b>	<b>0</b>	<b>713</b>	<b>0</b>	<b>5.98</b>	<b>249</b>	<b>5.84</b>	<b>0.14</b>
<b>H. Total Regional Entities (A-G)</b>	<b>25837</b>	<b>16481</b>	<b>16585</b>	<b>7853</b>	<b>236.09</b>	<b>9837</b>	<b>234.35</b>	<b>1.74</b>
<b>I. State Entities</b>	<b>Station</b>	<b>Effective Installed Capacity (MW)</b>	<b>Peak MW</b>	<b>Off Peak MW</b>	<b>Energy(MU)</b>	<b>Average(Sentout MW)</b>		

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	-0.10	-4
	Goindwal(GVK) (2*270)	540	491	290	9.09	379
	Rajpura (2*700)	1400	1320	660	26.66	1111
	Talwandi Saboo (3*660)	1980	1200	924	26.34	1098
	<b>Thermal (Total)</b>	<b>6560</b>	<b>3011</b>	<b>1874</b>	<b>61.87</b>	<b>2578</b>
	Total Hydro	1000	375	316	8.68	362
	Wind Power	0	0	0	0.00	0
	Biomass	303	0	0	0.22	9
	Solar	859	0	0	0.05	2
	<b>Renewable(Total)</b>	<b>1162</b>	<b>0</b>	<b>0</b>	<b>0.28</b>	<b>12</b>
	<b>Total Punjab</b>	<b>8722</b>	<b>3386</b>	<b>2190</b>	<b>70.83</b>	<b>2951</b>
	Haryana	Panipat TPS (2*210+2*250)	920	213	203	5.19
DCRTPP (Yamuna nagar) (2*300)		600	522	464	8.13	339
Faridabad GPS (NTPC)(2*137.75+1*156)		432	318	284	5.41	225
RGTPP (kheadar) (IPP) (2*600)		1200	0	0	0.00	0
Magnum Diesel (IPP)		25	0	0	0.00	0
Jhajjar(CLP) (2*660)		1320	1220	742	24.59	1025
<b>Thermal (Total)</b>		<b>4497</b>	<b>2273</b>	<b>1693</b>	<b>43.32</b>	<b>1805</b>
Total Hydro		62	11	16	0.43	18
Wind Power		0	0	0	0.00	0
Biomass		106	0	0	0.00	0
Solar		50	0	0	0.00	0
<b>Renewable(Total)</b>		<b>156</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total Haryana</b>		<b>4715</b>	<b>2284</b>	<b>1709</b>	<b>43.75</b>	<b>1823</b>
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	961	771	20.48
	suratgarh TPS (6*250)	1500	414	352	9.60	400
	Chabra TPS (4*250)	1000	936	906	22.00	917
	Chabra TPS (1*660)	660	0	0	0.00	0
	Dholpur GPS (3*110)	330	136	129	3.34	139
	Ramgarh GPS(1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	177	153	4.29	179
	RAPS A (NPC) (1*100+1*200)	300	173	230	4.28	178
	Barsingsar (NLC) (2*125)	250	224	224	5.30	221
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	840	844	20.25	844
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	1118	943	24.88	1037
	Kawai(Adani) (2*660)	1320	620	433	13.25	552
	<b>Thermal (Total)</b>	<b>9536</b>	<b>5599</b>	<b>4985</b>	<b>127.66</b>	<b>5319</b>
	Total Hydro	550	126	152	3.92	163
	Wind power	4292	90	59	1.91	80
	Biomass	102	26	26	0.62	26
	Solar	1995	0	0	0.00	0
	Renewable/Others (Total)	6389	116	85	2.53	106
<b>Total Rajasthan</b>	<b>16475</b>	<b>5841</b>	<b>5222</b>	<b>134.12</b>	<b>5588</b>	
UP	Anpara TPS (3*210+2*500)	1630	1368	1342	34.30	1429
	Obra TPS (2*50+2*94+5*200)	1194	623	513	14.25	594
	Paricha TPS (2*110+2*220+2*250)	1160	431	430	12.04	502
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	315	317	8.99	375
	Tanda TPS (NTPC) (4*110)	440	273	274	7.97	332
	Roza TPS (IPP) (4*300)	1200	797	755	19.03	793
	Anpara-C (IPP) (2*600)	1200	1096	956	25.85	1077
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Anpara-D(2*500)	1000	462	437	10.87	453
	Lalitpur TPS(3*660)	1980	541	384	12.25	511
	Bara(2*660)	1320	571	376	12.33	514
	<b>Thermal (Total)</b>	<b>12449</b>	<b>6477</b>	<b>5784</b>	<b>157.88</b>	<b>6578</b>
	Vishnuparyag HPS (IPP)(4*110)	440	107	107	2.61	109
	Alakanada(4*82.5)	330	84	74	1.65	69
	Other Hydro	527	83	61	1.62	67
	Cogeneration	981	800	800	19.20	800
	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>7551</b>	<b>6826</b>	<b>182.95</b>	<b>7623</b>	
Uttarakhand	Other Hydro	1250	674	309	9.41	392
	Total Gas	450	293	304	7.21	300
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	100	0	0	0.52	22
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	<b>Renewable(Total)</b>	<b>407</b>	<b>0</b>	<b>0</b>	<b>0.52</b>	<b>22</b>
	<b>Total Uttarakhand</b>	<b>2107</b>	<b>967</b>	<b>613</b>	<b>17.14</b>	<b>714</b>
	Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00
Delhi Gas Turbine (6x30 + 3x34)		282	76	76	1.88	78
Pragati Gas Turbine (2x104+ 1x122)		330	271	273	6.62	276
Rithala GPS (3*36)		95	0	0	0.00	0
Bawana GPS (4*216+2*253)		1370	280	252	6.58	274
Badarpur TPS (NTPC) (3*95+2*210)		705	0	0	0.00	0
<b>Thermal (Total)</b>		<b>2917</b>	<b>627</b>	<b>601</b>	<b>15.08</b>	<b>628</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>627</b>	<b>601</b>	<b>15.08</b>	<b>628</b>	
HP	Baspa HPS (IPP) (3*100)	300	31	31	1.32	55
	Malana HPS (IPP) (2*43)	86	36	0	0.31	13
	Other Hydro (>25MW)	372	111	64	3.95	165
	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	98	44	1.67	69
	<b>Renewable(Total)</b>	<b>486</b>	<b>98</b>	<b>44</b>	<b>1.67</b>	<b>69</b>
<b>Total HP</b>	<b>1244</b>	<b>276</b>	<b>138</b>	<b>7.26</b>	<b>302</b>	
J & K	Baglihar HPS (IPP) (3*150+3*150)	900	147	147	3.53	147
	Other Hydro/IPP(including 98 MW Small Hydro)	308	90	30	1.12	46
	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
<b>Renewable(Total)</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>
<b>Total J &amp; K</b>	<b>1398</b>	<b>237</b>	<b>177</b>	<b>5</b>	<b>193</b>
<b>Total State Control Area Generation</b>	<b>52451</b>	<b>21169</b>	<b>17476</b>	<b>475.77</b>	<b>19824</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>		<b>6068</b>	<b>6193.66</b>	<b>158.18</b>	<b>6591</b>
<b>Total Regional Availability(Gross)</b>	<b>78288</b>	<b>43823</b>	<b>31523</b>	<b>870.03</b>	<b>36251</b>

**IV. Total Hydro Generation:**

<b>Regional Entities Hydro</b>	<b>12234</b>	<b>9259</b>	<b>949</b>	<b>68.35</b>	<b>2838</b>
<b>State Control Area Hydro</b>	<b>7468</b>	<b>2266</b>	<b>1654</b>	<b>38.55</b>	<b>1998</b>
<b>Total Regional Hydro</b>	<b>19702</b>	<b>11525</b>	<b>2603</b>	<b>106.90</b>	<b>4836</b>

**V. Total Renewable Generation:**

<b>Regional Entities Renewable</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0.13</b>	<b>5</b>
<b>State Control Area Renewable</b>	<b>8844</b>	<b>214</b>	<b>129</b>	<b>5.00</b>	<b>208</b>
<b>Total Regional Renewable</b>	<b>8874</b>	<b>214</b>	<b>129</b>	<b>5.13</b>	<b>214</b>

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

Element	Peak(19:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
Vindhychal(HVDC B/B)	250	-100	250	100	2.84	1.14	1.69
765 KV Gwalior-Agra (D/C)	1478	1617	2211	0	36.79	0.00	36.79
400 KV Zerda-Kankroli	-135	-128	22	234	0.00	2.75	-2.75
400 KV Zerda-Bhimnal	-80	-42	214	-157	0.00	0.00	0.00
220 KV Auraiya-Malanpur	-95	-57	0	119	0.00	1.62	-1.62
220 KV Badod-Kota/Morak	-141	-135	0	66	0.00	2.89	-2.89
Mundra-Mohindergarh(HVDC Bipole)	1149	1003	1257	0	26.77	0.00	26.77
400 KV RAPP- Sujalpur	94	140	302	48	3.29	0.00	3.29
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	648	1017	1279	0	23.03	0.00	23.03
+/- 800 kV HVDC Champa-Kurushetra	1000	500	1400	0	15.91	0	15.91
<b>Sub Total WR</b>	<b>4168</b>	<b>3815</b>			<b>108.62</b>	<b>8.40</b>	<b>100.21</b>
400 kV Sasaram - Varanasi	171	174	180	0	3.89	0.00	3.89
400 kV Sasaram - Allahabad	67	68	126	0	1.98	0.00	1.98
400 KV MZP- GKP (D/C)	163	336	625	0	8.31	0.00	8.31
400 KV Patna-Balia(D/C) X 2	717	885	1112	0	21.17	0.00	21.17
400 KV B'Sharif-Balia (D/C)	21	122	264	0	2.33	0.00	2.33
765 KV Gaya-Balia	125	158	277	0	4.62	0.00	4.62
765 KV Gaya-Varanasi (D/C)	123	201	337	0	4.01	0.00	4.01
220 KV Pusauli-Sahupuri	99	71	102	0	2.04	0.00	2.04
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	0	0	0	0	0.00	0.46	-0.46
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-103	-27	182	112	0.44	0.00	0.44
400 KV Mothari -GKP (D/C)	-240	-120	0	244	0.00	3.80	-3.80
400 kV B'Sharif - Varanasi (D/C)	107	11	107	130	0.16	0.00	0.16
+/- 800 KV HVDC Alipurduar-Agra	150	0	150	0	2.61	0.00	2.61
<b>Sub Total ER</b>	<b>1400</b>	<b>1879</b>			<b>51.55</b>	<b>4.26</b>	<b>47.29</b>
+/- 800 KV HVDC BiswanathCharialli-Agra	500	500	700	0.00	10.67	0.00	10.67
<b>Sub Total NER</b>	<b>500</b>	<b>500</b>			<b>10.67</b>	<b>0.00</b>	<b>10.67</b>
<b>Total IR Exch</b>	<b>6068</b>	<b>6194</b>			<b>170.84</b>	<b>12.66</b>	<b>158.18</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
48.33	0.68	49.01	-0.34	-36.91	2.53	-1.11	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
51.20	114.30	165.50	57.96	100.21	158.18	6.77	-14.09	-7.32

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

Element	Peak(19:00 Hrs) MW	Off Peak(03:00 Hrs) MW	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
			Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-27	0	0	-27	0	0	0.14

**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	1.61	23.72	70.34	67.13	7.07	2.40	0.02	0.00

Frequency (Hz)				Average Frequency	Frequency Variation	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum					MAX (Hz)	MIN (Hz)	
Freq	Time	Freq	Time	Hz	Index				
50.20	12.01	49.74	6.13	49.96	0.075	0.074	50.11	49.81	32.87

**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	412	3:59	400	13:52	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	416	2:26	398	17:27	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	420	4:01	404	9:36	0.0	0.0	0.0	0.0	0.0
Kanpur	400	420	21:48	406	9:26	0.0	0.0	0.0	0.0	0.0
Dadri	400	424	1:51	410	10:43	0.0	0.0	29.9	0.0	29.9
Ballabhgarh	400	424	4:02	408	6:37	0.0	0.0	16.5	0.0	16.5
Bawana	400	424	4:00	407	18:08	0.0	0.0	25.8	0.0	25.8
Bassi	400	425	4:01	400	6:24	0.0	0.0	7.7	0.0	7.7
Hissar	400	423	4:01	403	6:39	0.0	0.0	1.4	0.0	1.4
Moga	400	422	3:59	405	6:52	0.0	0.0	1.8	0.0	1.8
Abdullapur	400	428	23:25	408	17:49	0.0	0.0	36.3	0.0	36.3
Nalagarh	400	430	3:59	411	17:50	0.0	0.0	40.2	0.0	40.2
Kishenpur	400	421	3:59	400	17:49	0.0	0.0	0.3	0.0	0.3
Wagoora	400	398	12:19	377	11:12	9.6	70.7	0.0	0.0	9.6
Amritsar	400	429	2:30	409	17:54	0.0	0.0	32.4	0.0	32.4
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	419	0:00	419	0:00	0.0	0.0	0.0	0.0	0.0

Rishikesh	400	421	4:02	402	10:42	0.0	0.0	0.1	0.0	0.1
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**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	785	21:58	750	7:55	0.0	0.0	0.0	0.0	0.0
Balia	765	789	4:01	762	17:27	0.0	0.0	0.0	0.0	0.0
Moga	765	798	13:01	763	6:37	0.0	0.0	0.0	0.0	0.0
Agra	765	797	13:01	769	6:42	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	807	4:00	780	6:20	0.0	0.0	8.8	0.0	8.8
Unnao	765	776	3:59	751	9:35	0.0	0.0	0.0	0.0	0.0
Lucknow	765	795	4:00	768	9:36	0.0	0.0	0.0	0.0	0.0
Meerut	765	807	4:00	778	6:36	0.0	0.0	16.6	0.0	16.6
Jhatikara	765	809	4:01	777	6:37	0.0	0.0	15.2	0.0	15.2
Bareilly 765 kV	765	799	3:59	771	9:34	0.0	0.0	0.0	0.0	0.0
Anta	765	790	4:00	768	6:15	0.0	0.0	0.0	0.0	0.0
Phagi	765	801	4:01	769	6:23	0.0	0.0	0.9	0.0	0.9

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)	nflow (m <sup>3</sup> /s)	Usage (m <sup>3</sup> /s)
Bhakra	513.59	445.62	504.62	1298.95	495.37	914.64	166.84	374.35
Pong	426.72	384.05	414.59	656.23	411.87	555.85	45.31	305.71
Tehri	829.79	740.04	818.80	978.26	817.80	958.25	45.82	149.00
Koteshwar	612.50	598.50	611.18	5.16	610.25	4.69	149.00	149.40
Chamera-I	760.00	748.75	756.88	0.00	0.00	0.00	51.80	48.29
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	509.31	3.22	509.79	2.35	50.13	99.27

\* NA: Not Available

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

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (19:00 Hrs)			Day Energy (MU)			
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX (MU)	PXIL (MU)	Total (MU)
Punjab	-719	2	0	-719	-611	0	-18.27	-3.29	-21.56	
Delhi	-954	-268	0	-557	-7	0	-17.70	-3.27	-20.97	
Haryana	-698	172	0	-698	135	0	-22.99	1.63	-21.35	
HP	290	80	0	213	-12	0	7.75	-1.31	6.44	
J&K	500	88	0	500	157	0	12.00	2.58	14.58	
CHD	0	0	0	0	-10	0	0.00	-0.10	-0.10	
Rajasthan	0	124	0	-8	-329	0	2.60	5.02	7.61	
UP	87	0	0	-53	-68	0	-4.52	-1.52	-6.04	
Uttarakhand	96	158	0	96	257	0	2.49	4.30	6.79	
<b>Total</b>	<b>-1398</b>	<b>355</b>	<b>0</b>	<b>-1225</b>	<b>-489</b>	<b>0</b>	<b>-38.65</b>	<b>4.03</b>	<b>-34.61</b>	

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-719	-821	2	-765	0	0
Delhi	-556	-954	209	-683	0	0
Haryana	-601	-1370	172	-306	0	0
HP	416	110	147	-734	0	0
J&K	500	500	304	-332	0	0
CHD	0	0	29	-92	0	0
Rajasthan	185	-8	1916	-661	0	0
UP	87	-537	0	-72	0	0
Uttarakhand	155	96	370	-120	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	16
Haryana	0	11
Rajasthan	2	23
Delhi	6	41
UP	0	12
Uttarakhand	1	24
HP	4	20
J & K	3	23
Chandigarh	5	37

**XIII. System Constraints:**

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

**XV. Weather Conditions For 28.11.2017 :**

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

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

1) 220kV Allahabad - NCR Naini I & II first time charged at 11.45 hrs and 12.51 hrs respectively  
at 400kV Dasna first time charged on no load at 16.11 hrs and 16.46 hrs respectively

2) 400kV,315 MVA ICT I & II

**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 : 28.11.2017

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER