

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 09.12.2016

Date of Reporting : 10.12.2016



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
41441	503	41944	50.05	29175	345	29520	50.06	846.03	10.34

* 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:

UI [OD:(+ve), UD: (-ve)]

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	Renewable/others \$	Total					
Punjab	55.46	7.65	1.28	64.39	45.76	45.23	-0.53	109.62	0.00
Haryana	41.30	0.44	0.00	41.74	75.43	73.54	-1.89	115.28	0.00
Rajasthan	109.50	5.66	22.39	137.55	66.84	67.12	0.28	204.67	0.14
Delhi	11.93		0.00	11.93	46.82	46.55	-0.27	58.48	0.01
UP	171.06	7.65	0.00	178.71	82.64	82.87	0.24	261.58	1.20
Uttarakhand		7.73	0.00	14.52	18.68	18.23	-0.44	32.76	0.00
HP		3.43	1.43	4.85	19.19	19.50	0.30	24.35	0.01
J & K		4.24	0.00	4.24	36.46	31.69	-4.77	35.93	8.98
Chandigarh				0.00	3.47	3.38	-0.10	3.38	0.00
Total	389.25	36.79	25.09	457.93	395.29	388.11	-7.18	846.03	10.34

* Shortage furnished by the respective constituent's Others include UP Co-generation and JK Diesel

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

UI/OA/PX [OD/Import: (+ve), UD/Export: (-ve)]

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	6147	0	-92	-542	3761	0	13	-459	6147	19:00	0
Haryana	6107	0	-409	-283	3311	0	-54	-504	6107	19:00	0
Rajasthan	8911	106	8	235	7841	0	158	329	10148	8:00	0
Delhi	3107	0	34	-588	1410	0	77	-531	3296	12:00	0
UP	12629	35	193	-200	9573	0	-203	126	12629	19:00	35
Uttarakhand	1719	0	-53	328	1079	0	67	195	1759	8:00	0
HP	1194	0	-24	267	735	0	-1	434	1370	8:00	4
J&K	1448	362	-519	778	1380	345	-163	719	1688	18:00	422
Chandigarh	179	0	-31	0	86	0	-5	0	191	9:00	0
Total	41441	503	-893	-4	29175	345	-110	310	41441	19:00	503

* STOA figures are at seller's boundary & PX figures are at regional boundary. # figures may not be at simultaneous hour.

Diversity is 1.05

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

III. Regional Entities :

Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW	Off Peak MW	Energy	Average	Schedule	UI
			(Gross)	(Gross)	(Net MU)	Sentout(MW)	Net MU	Net MU
A. NTPC								
Singrauli STPS (5*200+2*500)	2000	1803	1988	1440	41.10	1712	40.33	0.77
Rihand I STPS (2*500)	1000	947	950	735	20.12	838	19.82	0.30
Rihand II STPS (2*500)	1000	948	894	712	20.55	856	20.52	0.03
Rihand III STPS (2*500)	1000	948	924	715	20.36	848	20.35	0.01
Dadri I STPS (4*210)	840	815	397	307	6.98	291	7.24	-0.26
Dadri II STPS (2*490)	980	980	930	703	17.82	743	18.63	-0.80
Unchahar I TPS (2*210)	420	360	328	272	6.65	277	7.19	-0.54
Unchahar II TPS (2*210)	420	404	374	294	7.35	306	7.80	-0.45
Unchahar III TPS (1*210)	210	202	192	141	3.59	150	3.87	-0.28
ISTPP (Jhajjar) (3*500)	1500	1440	1321	919	22.90	954	23.00	-0.10
Dadri GPS (4*130.19+2*154.51)	830	805	279	279	6.53	272	7.28	-0.75
Anta GPS (3*88.71+1*153.2)	419	411	0	0	0.00	0	0.00	0.00
Auraiya GPS (4*111.19+2*109.30)	663	625	0	0	0.00	0	0.00	0.00
Dadri Solar(5)	5	1	0	0	0.01	0	0.01	0.00
Unchahar Solar(10)	10	1	0	0	0.03	1	0.02	0.01
Singrauli Solar(15)	15	1	0	0	0.02	1	0.01	0.00
KHEP(4*200)	800	870	860	435	2.39	99	2.61	-0.22
Sub Total (A)	12112	11560	9437	6952	176	7350	179	-2.29
B. NPC								
NAPS (2*220)	440	415	455	461	10.07	420	9.96	0.11
RAPS- B (2*220)	440	383	426	429	9.23	384	9.19	0.03
RAPS- C (2*220)	440	218	238	238	4.99	208	5.23	-0.24
Sub Total (B)	1320	1016	1119	1128	24.29	1012	24.38	-0.10
C. NHPC								
Chamera I HPS (3*180)	540	360	305	0	1.38	57	1.20	0.18
Chamera II HPS (3*100)	300	238	244	0	1.24	52	1.15	0.09
Chamera III HPS (3*77)	231	231	151	0	0.61	26	0.55	0.06
Bairasuli HPS(3*60)	180	120	124	0	0.47	20	0.43	0.04
Salal-HPS (6*115)	690	85	302	60	2.42	101	2.03	0.39
Tanakpur-HPS (3*31.4)	94	27	51	26	0.76	32	0.65	0.11
Uri-I HPS (4*120)	480	70	232	23	1.82	76	1.67	0.15
Uri-II HPS (4*60)	240	53	58	121	1.30	54	1.26	0.04
Dhauliganga-HPS (4*70)	280	210	213	0	0.97	41	0.91	0.06
Dulhasti-HPS (3*130)	390	257	266	0	3.11	129	3.00	0.11
Sewa-II HPS (3*40)	120	80	76	0	0.23	10	0.25	-0.02
Parbati 3 (4*130)	520	130	136	0	0.41	17	0.39	0.02
Sub Total (C)	4065	1861	2157	229	15	614	13	1.24
D.SJVNL								
NJPC (6*250)	1500	1610	1386	0	7.70	321	7.58	0.12
Rampur HEP (6*68.67)	412	442	427	0	2.16	90	2.11	0.05
Sub Total (D)	1912	2052	1813	0	9.85	411	9.69	0.17
E. THDC								
Tehri HPS (4*250)	1000	1065	1062	0	7.00	292	6.70	0.30
Koteshwar HPS (4*100)	400	100	200	93	2.44	102	2.41	0.03
Sub Total (E)	1400	1165	1262	93	9.44	393	9.11	0.33
F. BBMB								
Bhakra HPS (2*108+3*126+5*157)	1379	631	1015	386	15.22	634	15.15	0.07
Dehar HPS (6*165)	990	121	495	0	2.97	124	2.91	0.06
Pong HPS (6*66)	396	295	396	66	7.09	295	7.09	0.00
Sub Total (F)	2765	1048	1906	452	25.28	1053	25.15	0.13
G. IPP(s)/JV(s)								
ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	50	0	0.51	21	0.49	0.02
KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	630	0	4.09	170	4.03	0.06
Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
Shree Cement TPS (2*150)	300	0	-2	-1	0.04	2	0.00	0.04
Budhil HPS(IPP) (2*35)	70	0	0	0	0.16	7	0.15	0.01
Sub Total (G)	1662	0	678	-1	4.80	200	4.67	0.13
H. Total Regional Entities (A-G)	25237	18702	18373	8853	264.78	11033	265.17	-0.39

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	480	480	11.31	471
	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	789	791	18.25	761
	Goidwal(GVK) (2*270)	540	0	0	0.02	1

	Rajpura (2*700)	1400	510	330	9.92	414
	Talwandi Saboo (3*660)	1980	993	616	15.94	664
	Thermal (Total)	6560	2772	2217	55.46	2311
	Total Hydro	1000	383	204	7.65	319
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	1.07	45
	Solar	560	0	0	0.20	8
	Renewable(Total)	848	0	0	1.28	53
	Total Punjab	8408	3155	2421	64.39	2683
Haryana	Panipat TPS (2*210+2*250)	920	205	204	4.94	206
	DCRTPP (Yamuna nagar) (2*300)	600	528	466	12.01	500
	Faridabad GPS (NTPC)(2*137.75+1*156)	432	188	161	4.23	176
	RGTPP (khedar) (IPP) (2*600)	1200	0	0	0.00	0
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1173	738	20.12	838
	Thermal (Total)	4497	2094	1569	41.30	1721
	Total Hydro	62	23	9	0.44	18
	Wind Power	0	0	0	0.00	0
	Biomass	40	0	0	0.00	0
	Solar	0	0	0	0.00	0
	Renewable(Total)	40	0	0	0.00	0
	Total Haryana	4599	2117	1578	41.74	1739
	Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1112	976	23.39
suratgarh TPS (6*250)		1500	405	410	9.93	414
Chabra TPS (4*250)		1000	759	823	18.91	788
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	182	185	4.45	185
RAPS A (NPC) (1*100+1*200)		300	166	165	4.16	173
Barsingar (NLC) (2*125)		250	106	107	2.43	101
Giral LTPS (2*125)		250	0	0	0.00	0
Rajwest LTPS (IPP) (8*135)		1080	613	507	14.57	607
VS LIGNITE LTPS (IPP) (1*135)		135	0	0	0.00	0
Kalisindh Thermal(2*600)		1200	833	835	20.86	869
Kawai(Adani) (2*660)		1320	454	453	10.81	451
Thermal (Total)		8876	4630	4461	109.50	4562
Total Hydro		550	250	174	5.66	236
Wind power		4017	798	663	19.55	814
Biomass		99	14	14	0.33	14
Solar		1295	7	0	2.51	105
Renewable/Others (Total)		5411	819	677	22.39	933
Total Rajasthan		14837	5699	5312	137.55	5731
UP		Anpara TPS (3*210+2*500)	1630	1212	942	26.10
	Obra TPS (2*50+2*94+5*200)	1194	455	424	11.00	458
	Paricha TPS (2*110+2*220+2*250)	1160	583	578	14.80	617
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaqanj TPS (1*60+1*105+2*250)	665	389	316	8.90	371
	Tanda TPS (NTPC) (4*110)	440	279	200	6.16	257
	Roza TPS (IPP) (4*300)	1200	743	752	19.70	821
	Anpara-C (IPP) (2*600)	1200	871	635	19.00	792
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	58	58	1.40	58
	Anpara-D(2*500)	1000	872	717	19.10	796
	Lalitpur TPS(3*660)	1980	0	410	5.70	238
	Bara(2*660)	1320	869	725	20.00	833
	Thermal (Total)	12449	6331	5757	151.86	6328
	Vishnuparyag HPS (IPP)(4*110)	440	103	98	2.40	100
	Alakanada(4*82.5)	330	82	84	1.40	58
	Other Hydro	527	183	148	3.85	160
	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
	Renewable(Total)	128	0	0	0.00	0
	Total UP	14855	7499	6887	178.71	7446
	Uttarakhand	Other Hydro	1250	531	180	7.73
Total Gas		225	287	282	6.76	282
Wind Power		0	0	0	0.00	0
Biomass		127	0	0	0.00	0
Solar		20	0	0	0.03	1
Small Hydro (< 25 MW)		180	0	0	0.00	0
Renewable(Total)		327	0	0	0.03	1
Total Uttarakhand		1802	818	462	14.52	605
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.01	0
	Delhi Gas Turbine (6x30 + 3x34)	282	68	67	1.88	78
	Pragati Gas Turbine (2x104+ 1x122)	330	267	265	6.40	267
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	250	280	3.66	153
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	0.00	0
	Thermal (Total)	2917	585	612	11.93	497
	Wind Power	0	0	0	0.00	0
	Biomass	16	0	0	0.00	0
	Solar	2	0	0	0.00	0
	Renewable(Total)	18	0	0	0.00	0
	Total Delhi	2935	585	612	11.93	497
	HP	Baspa HPS (IPP) (3*100)	300	0	0	1.10
Malana HPS (IPP) (2*43)		86	0	0	0.29	12
Other Hydro		372	95	28	2.04	85
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	67	56	1.43	60
Renewable(Total)		486	67	56	1.43	60
Total HP		1244	162	84	4.85	202
J & K		Baqilhar HPS (IPP) (3*150+3*150)	900	126	126	3.10
	Other Hydro/IPP(including 98 MW Small Hydro)	308	85	23	1.14	47
	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	211	149	4	177

Total State Control Area Generation	50078	20246	17505	457.93	19080
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		5990.78	5659.33	172.31	7180
Total Regional Availability(Gross)	75315	44610	32018	895.03	37293

IV. Total Hydro Generation:

Regional Entities Hydro	12234	8679	1209	66.28	2762
State Control Area Hydro	7163	2215	1412	38.22	1876
Total Regional Hydro	19397	10894	2622	104.51	4637

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.06	3
State Control Area Renewable	7356	886	733	25.12	1047
Total Regional Renewable	7386	886	733	25.18	1049

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)	-50	-200	150	300	0.64	2.78	-2.15
765 KV Gwalior-Agra (D/C)	1451	1357	2189	0	39.83	0.00	39.83
400 KV Zerda-Kankroli	-247	-315	0	324	0.00	5.97	-5.97
400 KV Zerda-Bhimnal	-166	-214	0	291	0.00	3.89	-3.89
220 KV Auraiya-Malanpur	-106	-82	0	106	0.00	1.53	-1.53
220 KV Badod-Kota/Morak	-100	-123	0	47	0.00	2.59	-2.59
Mundra-Mohinderghar(HVDC Bipole)	2498	2496	2507	0.00	57.74	0.00	57.74
400 KV RAPP-C-Sujalpur	324	218	520	0	7.24	0.00	7.24
400 KV Vindhychal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1160	992	1557	0	29.53	0.00	29.53
Sub Total WR	4764	4129			134.98	16.77	118.21
400 kV Sasaram - Varanasi	-275	-273	293	0	9.90	0.00	9.90
400 kV Sasaram - Allahabad	69	70	84	0	1.66	0.00	1.66
400 KV MZP- GKP (D/C)	102	394	493	0	7.80	0.00	7.80
400 KV Patna-Balia(D/C) X 2	622	501	662	0	12.63	0.00	12.63
400 KV B'Sharif-Balia (D/C)	-10	140	281	29	3.79	0.00	3.79
765 KV Gaya-Balia	133	171	293	0	5.24	0.00	5.24
765 KV Gaya-Varanasi (D/C)	-382	-318	697	0	12.07	0.00	12.07
220 KV Pusaali-Sahupuri	150	135	189	0	3.64	0.00	3.64
132 KV K'nasa-Sahupuri	-32	0	0	32	0.00	0.51	-0.51
132 KV Son Ngr-Rihand	-43	-36	0	45	0.00	0.91	-0.91
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-147	-81	109	153	0.00	0.79	-0.79
400 KV Barh -GKP (D/C)	496	368	496	0	9.93	0.00	9.93
400 kV B'Sharif - Varanasi (D/C)	44	-41	219	73	1.62	0.00	1.62
Sub Total ER	727	1030			68.28	2.21	66.07
+/- 800 KV BiswanathChariali-Agra	500	500	0	500.00	0.00	11.96	-11.96
Sub Total NER	500	500			0.00	11.96	-11.96
Total IR Exch	5991	5659			203.26	30.94	172.31

VI(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
46.34	0.98	47.32	2.58	-8.23	14.10	0.53	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
64.00	103.65	167.65	54.11	118.21	172.31	-9.89	14.56	4.67

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	12	13	0	15	0	0	-0.07

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	0.30	9.84	50.41	67.36	17.72	5.14	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	18.01	49.74	6.52	50.00	0.050	0.00	0.00	32.64	

VIII(A). Voltage profile 400 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Volta ge Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	405	0:00	398	12:33	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	422	0:00	402	17:48	0.0	0.0	1.8	0.0	1.8
Bareilly(PG)400kV	400	424	0:00	397	22:44	0.0	0.0	15.1	0.0	15.1
Kanpur	400	422	0:03	401	15:10	0.0	0.0	1.2	0.0	1.2
Dadri	400	428	2:01	404	15:06	0.0	0.0	26.8	0.0	26.8
Ballabgarh	400	432	0:06	407	12:14	0.0	0.0	43.3	11.4	43.3
Bawana	400	429	0:04	406	15:11	0.0	0.0	39.3	0.0	39.3
Bassi	400	423	4:01	394	12:13	0.0	0.0	2.3	0.0	2.3
Hissar	400	421	3:59	395	15:11	0.0	0.0	0.0	0.0	0.0
Moga	400	422	0:01	399	15:09	0.0	0.0	18.7	0.0	18.7
Abdullapur	400	425	3:20	403	15:08	0.0	0.0	27.0	0.0	27.0
Nalagarh	400	430	2:02	408	15:10	0.0	0.0	33.1	0.0	33.1
Kishenpur	400	420	2:00	388	15:06	0.0	0.5	0.0	0.0	0.0
Wagoora	400	394	15:40	360	15:06	59.3	90.7	0.0	0.0	59.3
Amritsar	400	432	4:03	407	10:47	0.0	0.0	41.9	4.9	41.9
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	426	3:19	403	18:20	0.0	0.0	30.8	0.0	30.8
Rishikesh	400	422	20:39	394	9:38	0.0	0.0	2.9	0.0	2.9

VIII(B). Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Volta ge Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	781	0:15	740	9:39	0.0	0.9	0.0	0.0	0.0
Balia	765	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Moga	765	800	20:21	761	15:10	0.0	0.0	0.0	0.0	0.0

Agra	765	793	0:00	753	9:41	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	807	0:00	771	9:37	0.0	0.0	26.4	0.0	26.4
Unnao	765	778	0:03	739	14:54	0.0	6.4	0.0	0.0	0.0
Lucknow	765	808	0:00	767	15:11	0.0	0.0	3.4	0.0	3.4
Meerut	765	811	20:39	767	15:11	0.0	0.0	6.6	0.0	6.6
Jhatikara	765	808	0:00	767	15:11	0.0	0.0	19.1	0.0	19.1
Bareilly 765 kV	765	801	0:00	761	9:38	0.0	0.0	0.4	0.0	0.4
Anta	765	793	20:41	767	7:35	0.0	0.0	0.0	0.0	0.0
Phagi	765	799	20:21	764	9:42	0.0	0.0	0.0	0.0	0.0

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 ³ /s)	Usage (m ³ /s)
Bhakra	513.59	445.62	493.17	838.00	505.11	1312.37	183.01	473.43
Pong	426.72	384.05	410.78	524.54	414.39	656.23	56.58	460.83
Tehri	829.79	740.04	815.15	905.26	809.90	802.26	34.64	158.00
Koteshwar	612.50	598.50	610.14	4.60	611.00	4.95	158.00	160.50
Chamera-I	760.00	748.75	759.43	0.00	0.00	0.00	41.98	36.70
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	507.89	2.06	504.26	4.35	39.48	142.68

* 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 / PXIL (MU)	Total (MU)
Punjab	-461	2	0	-542	0	0	-13.96	2.29	-11.67
Delhi	-283	-249	0	-371	-217	0	-8.85	-1.52	-10.36
Haryana	-852	348	0	-543	260	0	-15.58	6.41	-9.17
HP	361	73	0	268	-1	0	9.64	-1.48	8.16
J&K	621	99	0	615	163	0	14.69	1.97	16.66
CHD	0	0	0	0	0	0	0.00	-0.01	-0.01
Rajasthan	-7	337	0	-7	243	0	4.40	12.51	16.91
UP	126	0	0	-100	-100	0	-6.35	-1.58	-7.93
Uttarakhand	327	-132	0	327	2	0	7.97	-0.61	7.36
Total	-169	479	0	-354	349	0	-8.03	17.97	9.94

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-441	-752	543	0	0	0
Delhi	-283	-460	321	-355	0	0
Haryana	-537	-874	355	-240	0	0
HP	550	243	73	-543	0	0
J&K	621	602	262	-284	0	0
CHD	0	0	15	-61	0	0
Rajasthan	450	-7	1590	-267	0	0
UP	161	-734	0	-100	0	0
Uttarakhand	358	327	142	-240	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. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
Punjab	3	17
Haryana	1	17
Rajasthan	3	15
Delhi	2	19
UP	2	18
Uttarakhand	4	60
HP	7	0
J & K	3	41
Chandigarh	4	29

XIII. System Constraints:

XIV. Grid Disturbance / Any Other Significant Event:

XV. Weather Conditions For 09.12.2016 :

Fog in some parts of NR.

XVI. Synchronisation of new generating units :

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

400kV Jalandhar – Samba Ckt1 charged at 16:45 hrs and ckt 2 at 17:38 hrs for the first time.

400kV Unchahar 401 bay and Station Transformer charged on no load from 400kV Side only for the first time at 18:45 hrs.

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 : 09.12.2016

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER