

पाँवर 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 21.11.2016
Date of Reporting : 22.11.2016



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
38777	913	39690	50.10	26937	363	27300	0.00	785.71	16.85

* 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	34.85	8.15	0.31	43.31	45.12	45.65	0.53	88.96	0.00
Haryana	22.45	0.47	0.00	22.92	81.92	81.00	-0.92	103.92	0.00
Rajasthan	102.17	5.17	9.58	116.92	71.75	74.58	2.83	191.50	6.98
Delhi	14.26		0.00	14.26	39.80	40.55	0.76	54.82	0.01
UP	157.99	6.76	0.00	164.75	85.99	86.85	0.86	251.60	0.69
Uttarakhand		7.86	0.00	13.54	17.50	17.54	0.03	31.08	0.00
HP		3.97	1.77	5.75	17.93	18.14	0.21	23.89	0.00
J & K		5.45	0.00	5.45	34.28	31.26	-3.01	36.71	9.18
Chandigarh				0.00	3.19	3.24	0.06	3.24	0.00
Total	331.72	37.83	11.66	386.89	397.47	398.81	1.34	785.71	16.85

* Shortage furnished by the respective constituent. \$ 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	4550	0	-197	-456	2615	0	127	-454	4550	19:00	0
Haryana	5877	0	-6	1	2652	0	12	-329	5877	19:00	0
Rajasthan	8440	336	193	475	7424	0	121	454	9088	8:00	971
Delhi	2893	0	100	-255	1375	0	-49	-565	2958	12:00	0
UP	12248	140	101	-49	9757	0	67	99	12248	19:00	140
Uttarakhand	1627	0	-321	245	1011	0	2	263	1687	18:00	0
HP	1226	0	65	121	667	0	-66	398	1361	8:00	0
J&K	1747	437	-155	332	1452	363	-154	355	1747	19:00	437
Chandigarh	170	0	-24	-30	84	0	2	-30	174	8:00	0
Total	38777	913	-243	384	26937	363	63	190	38777	19:00	913

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

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III. Regional Entities :

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

	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	1811	1878	1585	41.44	1727	41.06	0.39	
	Rihand I STPS (2*500)	1000	892	988	736	19.52	814	19.59	-0.06	
	Rihand II STPS (2*500)	1000	963	992	720	21.82	909	21.63	0.18	
	Rihand III STPS (2*500)	1000	963	1012	726	21.50	896	21.43	0.07	
	Dadri I STPS (4*210)	840	815	176	151	3.93	164	4.09	-0.16	
	Dadri II STPS (2*490)	980	980	455	352	9.43	393	10.29	-0.87	
	Unchahar I TPS (2*210)	420	360	329	262	6.99	291	7.39	-0.40	
	Unchahar II TPS (2*210)	420	404	380	290	7.70	321	8.21	-0.51	
	Unchahar III TPS (1*210)	210	202	164	133	3.72	155	3.96	-0.25	
	ISTPP (Jhajihar) (3*500)	1500	985	499	368	11.60	483	11.86	-0.27	
	Dadri GPS (4*130.19+2*154.51)	830	805	282	362	8.15	339	8.57	-0.42	
	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	624	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	-0.01	
	Singrauli Solar(15)	15	2	0	0	0.05	2	0.06	0.00	
	KHEP(4*200)	800	699	627	624	2.58	108	2.34	0.24	
	Sub Total (A)	12112	10917	7782	6309	158	6603	161	-2.07	
	B. NPC	NAPS (2*220)	440	409	436	449	10.64	443	9.82	0.82
		RAPS- B (2*220)	440	381	424	426	9.17	382	9.14	0.03
		RAPS- C (2*220)	440	220	236	234	4.97	207	5.28	-0.31
Sub Total (B)		1320	1010	1096	1109	24.78	1033	24.24	0.54	
C. NHPC		Chamera I HPS (3*180)	540	540	232	0	2.05	85	1.80	0.25
	Chamera II HPS (3*100)	300	201	209	0	1.37	57	1.25	0.12	
	Chamera III HPS (3*77)	231	231	150	0	0.78	33	0.70	0.08	
	Bairasuil HPS(3*60)	180	120	122	0	0.59	25	0.53	0.06	
	Salal-HPS (6*115)	690	306	35	302	3.01	125	2.56	0.45	
	Tanakpur-HPS (3*31.4)	94	30	31	61	0.90	37	0.72	0.17	
	Uri-I HPS (4*120)	480	81	122	25	2.15	90	1.95	0.20	
	Uri-II HPS (4*60)	240	56	40	77	1.42	59	1.36	0.07	
	Dhauliganga-HPS (4*70)	280	210	211	0	1.25	52	1.16	0.09	
	Dulhasti-HPS (3*130)	390	383	387	0	3.94	164	3.70	0.24	
	Sewa-II HPS (3*40)	120	80	74	0	0.20	8	0.25	-0.05	
	Parbati 3 (4*130)	520	200	224	0	0.63	26	0.57	0.06	
	Sub Total (C)	4065	2238	1838	465	18	762	17	1.76	
	D.SJVNL	NJPC (6*250)	1500	1605	1621	0	8.81	367	8.59	0.22
		Rampur HEP (6*88.67)	412	371	297	0	2.27	95	2.25	0.02
		Sub Total (D)	1912	1976	1918	0	11.08	462	10.83	0.25
	E. THDC	Tehri HPS (4*250)	1000	1075	1058	0	6.62	276	6.40	0.22
Koteshwar HPS (4*100)		400	96	179	94	2.41	100	2.30	0.11	
Sub Total (E)		1400	1171	1237	94	9.03	376	8.70	0.33	
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	553	1011	392	13.46	561	13.26	0.19	
	Dehar HPS (6*165)	990	159	495	145	3.92	163	3.82	0.11	
	Pong HPS (6*66)	396	170	330	66	4.05	169	4.07	-0.02	
	Sub Total (F)	2765	881	1836	603	21.43	893	21.15	0.28	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	80	0	0.58	24	0.53	0.05	
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	745	0	4.68	195	4.38	0.30	
	Malana Stg-II HPS (2*50)	100	0	0	0	0.32	13	0.30	0.02	
	Shree Cement TPS (2*150)	300	0	-1	-1	-0.04	-2	0.00	-0.04	
	Budhil HPS(IPP) (2*35)	70	0	0	38	0.23	10	0.23	0.01	
	Sub Total (G)	1662	0	824	37	5.78	241	5.45	0.33	
H. Total Regional Entities (A-G)	25237	18194	16531	8618	248.86	10369	247.44	1.42		

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	0	0	-0.12	-5	
	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	-0.06	-3	
	Goindwal(GVK) (2*270)	540	0	0	-0.02	-1	
	Rajpura (2*700)	1400	660	330	13.32	555	
	Talwandi Saboo (3*660)	1980	700	616	21.74	906	
	Thermal (Total)	6560	1360	946	34.85	1452	
	Total Hydro	1000	334	353	8.15	340	
	Wind Power	0	0	0	0.00	0	
	Biomass	288	10	10	0.25	10	
	Solar	560	2	2	0.06	2	
	Renewable(Total)	848	13	13	0.31	13	
	Total Punjab	8408	1707	1312	43.31	1805	
	Haryana	Panipat TPS (2*210+2*250)	920	0	0	0.00	0
		DCRTPP (Yamuna nagar) (2*300)	600	553	468	11.84	493
Faridabad GPS (NTPC)(2*137.75+1*156)		432	0	0	0.00	0	
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	591	368	10.61	442	
Thermal (Total)		4497	1144	836	22.45	935	
Total Hydro		62	15	15	0.47	20	
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	1159	851	22.92	955	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	1147	936	26.43	1101
		suratgarh TPS (6*250)	1500	438	414	10.51	438
	Chabra TPS (4*250)	1000	679	570	15.80	658	
	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	151	159	3.96	165	
	RAPS A (NPC) (1*100+1*200)	300	0	165	0.72	30	
	Barsingsar (NLC) (2*125)	250	112	112	2.54	106	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	837	640	19.31	805	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	364	650	8.67	361	
	Kawai(Adani) (2*660)	1320	623	470	14.23	593	
	Thermal (Total)	8876	4351	4116	102.17	4257	
	Total Hydro	550	211	212	5.17	215	
	Wind power	4017	293	601	8.98	374	
	Biomass	99	16	16	0.32	13	
	Solar	1295	5	0	0.28	12	
	Renewable/Others (Total)	5411	314	617	9.58	399	
	Total Rajasthan	14837	4876	4945	116.92	4872	
UP	Anpara TPS (3*210+2*500)	1630	1199	805	26.55	1106	
	Obra TPS (2*50+2*94+5*200)	1194	311	298	7.26	302	
	Paricha TPS (2*110+2*220+2*250)	1160	582	576	14.74	614	
	Panki TPS (2*105)	210	68	68	1.59	66	
	Harduaganj TPS (1*60+1*105+2*250)	665	306	309	8.11	338	
	Tanda TPS (NTPC) (4*110)	440	277	207	6.14	256	
	Roza TPS (IPP) (4*300)	1200	558	563	15.15	631	
	Anpara-C (IPP) (2*600)	1200	1049	999	23.25	969	
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	281	282	7.07	295	
	Anpara-D(2*500)	1000	436	455	10.76	448	
	Lalitpur TPS(3*660)	1980	364	358	9.50	396	
	Bara(2*660)	1320	571	538	13.48	562	
	Thermal (Total)	12449	6002	5458	143.59	5983	
	Vishnuparyag HPS (IPP)(4*110)	440	112	112	2.67	111	
	Alaknada(4*82.5)	330	159	75	1.67	69	
	Other Hydro	527	197	29	2.42	101	
	Cogeneration	981	600	600	14.40	600	
	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	7070	6274	164.75	6865		
Uttarakhand	Other Hydro	1250	607	191	7.86	327	
	Total Gas	225	239	291	5.64	235	
	Wind Power	0	0	0	0.00	0	
	Biomass	127	0	0	0.00	0	
	Solar	20	0	0	0.05	2	
	Small Hydro (< 25 MW)	180	0	0	0.00	0	
	Renewable(Total)	327	0	0	0.05	2	
	Total Uttarakhand	1802	846	482	13.54	564	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	77	77	1.91	80	
	Pragati Gas Turbine (2x104+ 1x122)	330	265	265	6.44	268	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	250	280	6.02	251	
	Badarpur TPS (NTPC) (3*95+2*210)	705	-4	-4	-0.10	-4	
	Thermal (Total)	2917	588	618	14.26	594	
	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	588	618	14.26	594		

HP	Baspa HPS (IPP) (3*100)	300	28	0	1.47	61
	Malana HPS (IPP) (2*43)	86	30	0	0.34	14
	Other Hydro	372	84	100	2.17	90
	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	82	70	1.77	74
	Renewable(Total)	486	82	70	1.77	74
	Total HP	1244	224	170	5.75	239
	J & K	Baglihar HPS (IPP) (3*150+3*150)	900	200	88	2.68
Other Hydro/IPP(including 98 MW Small Hydro)		308	138	93	2.77	115
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	338	181	5	227
Total State Control Area Generation		50078	16808	14834	386.89	16121
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		6208	6029	179.67	7486	
Total Regional Availability(Gross)	75315	39547	29480	815.43	33976	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	8281	1786	67.99	2833
State Control Area Hydro	7163	2436	1629	39.60	1887
Total Regional Hydro	19397	10717	3416	107.60	4720

V. Total Renewable Generation:

Regional Entities Renewable	30	0	0	0.11	5
State Control Area Renewable	7356	409	700	11.71	488
Total Regional Renewable	7386	409	700	11.82	492

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	
Vindhyhall(HVDC B/B)	-400	-500	0	500	0.00	10.64	-10.64
765 KV Gwalior-Agra (D/C)	2089	1557	2450	0	49.48	0.00	49.48
400 KV Zerda-Kankroli	-72	-117	42	171	0.00	1.28	-1.28
400 KV Zerda-Bhinmal	4	-59	170	144	0.28	0.00	0.28
220 KV Auraiya-Malanpur	-77	-102	0	109	0.00	1.97	-1.97
220 KV Badod-Kota/Morak	70	116	0	123	1.94	0.00	1.94
Mundra-Mohindergarh(HVDC Bipole)	1173	1173	1185	0.00	28.43	0.00	28.43
400 KV RAPP- Sujalpur	267	144	360	0	5.69	0.00	5.69
400 KV Vindhyachal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1461	1330	1935	0	39.94	0.00	39.94
Sub Total WR	4515	3542			125.76	13.88	111.88
400 kV Sasaram - Varanasi	147	140	160	0	5.02	0.00	5.02
400 kV Sasaram - Allahabad	-1	-1	18	13	0.03	0.00	0.03
400 KV MZP- GKP (D/C)	-94	213	377	94	3.96	0.00	3.96
400 KV Patna-Balia(D/C) X 2	313	592	595	0	11.56	0.00	11.56
400 KV B'Sharif-Balia (D/C)	16	74	241	0	2.67	0.00	2.67
765 KV Gaya-Balia	233	231	348	0	6.86	0.00	6.86
765 KV Gaya-Varanasi (D/C)	305	405	651	0	11.67	0.00	11.67
220 KV Pusauli-Sahupuri	-190	-140	192	0	3.84	0.00	3.84
132 KV K'nasa-Sahupuri	-24	-26	0	28	0.00	0.46	-0.46
132 KV Son Ngr-Rihand	-26	-40	0	42	0.00	0.80	-0.80
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-170	-119	73	196	0.00	1.85	-1.85
400 KV Barh -GKP (D/C)	366	438	480	0	9.60	0.00	9.60
400 kV B'Sharif - Varanasi (D/C)	118	20	155	118	0.00	0.32	-0.32
Sub Total ER	993	1787			55.20	3.43	51.77
+/- 800 KV Biswanath Charialli-Agra	700	700	700	0.00	16.02	0.00	16.02
Sub Total NER	700	700			16.02	0.00	16.02
Total IR Exch	6208	6029			196.99	17.31	179.67

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
48.38	1.28	49.66	-0.44	-9.63	4.98	14.60	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
54.20	115.74	169.94	67.79	111.88	179.67	13.59	-3.85	9.73

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	-29	0	0	30	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	0.50	16.09	61.17	68.68	11.93	3.37	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	17.02	49.75	17.40	49.98	0.056	0.071	0.00	0.00	31.32

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	410	12:52	402	5:30	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	422	13:02	403	17:56	0.0	0.0	4.3	0.0	4.3
Bareilly(PG)400kV	400	421	0:04	395	10:49	0.0	0.0	1.7	0.0	1.7
Kanpur	400	419	0:45	398	10:49	0.0	0.0	0.0	0.0	0.0
Dadri	400	425	1:58	125	10:52	2.6	2.6	25.4	0.0	28.0
Ballabgarh	400	432	0:49	404	11:21	0.0	0.0	46.6	12.7	46.6
Bawana	400	429	1:58	409	11:21	0.0	0.0	42.3	0.0	42.3
Bassi	400	425	19:42	378	10:50	0.0	0.1	5.8	0.0	5.8
Hissar	400	423	1:58	403	6:25	0.0	0.0	13.4	0.0	13.4
Moga	400	426	0:04	407	11:20	0.0	0.0	28.1	0.0	28.1
Abdullapur	400	427	21:58	408	5:47	0.0	0.0	36.3	0.0	36.3
Nalagarh	400	436	2:02	412	6:55	0.0	0.0	53.5	25.7	53.5
Kishenpur	400	423	0:05	398	6:50	0.0	0.0	12.8	0.0	12.8
Wagoora	400	408	13:04	370	18:10	15.9	64.8	0.0	0.0	15.9
Amritsar	400	434	1:57	411	11:21	0.0	0.0	48.1	18.2	48.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	428	23:21	407	11:20	0.0	0.0	24.0	0.0	24.0
Rishikesh	400	418	0:03	396	6:30	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 Deviat
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	778	0:50	736	10:49	0.0	0.0	0.0	0.0	0.0
Balia	765	792	0:40	766	6:29	0.0	0.0	0.0	0.0	0.0
Moga	765	808	0:03	773	11:41	0.0	0.0	18.2	0.0	18.2
Agra	765	793	19:42	753	6:28	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	809	1:59	773	11:21	0.0	0.0	28.5	0.0	28.5
Unnao	765	773	0:48	743	10:54	0.0	0.0	0.0	0.0	0.0
Lucknow	765	803	0:50	772	10:54	0.0	0.0	2.2	0.0	2.2
Meerut	765	810	20:02	758	6:38	0.0	0.0	5.5	0.0	5.5
Jhatikara	765	808	1:58	770	11:10	0.0	0.0	21.0	0.0	21.0
Bareilly 765 kV	765	796	0:50	759	10:56	0.0	0.0	0.0	0.0	0.0
Anta	765	803	1:58	769	9:43	0.0	0.0	11.0	0.0	11.0
Phagi	765	805	20:03	710	10:52	0.1	0.1	1.3	0.0	1.4

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	496.41	960.37	507.46	1426.07	168.03	387.12
Pong	426.72	384.05	412.45	577.87	416.71	743.22	61.05	258.45
Tehri	829.79	740.04	819.30	990.26	813.75	877.26	42.80	147.00
Koteswar	612.50	598.50	610.10	4.95	610.80	4.95	147.00	185.64
Chamera-I	760.00	748.75	759.59	0.00	0.00	0.00	55.79	54.91
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	510.64	2.87	506.68	3.26	44.39	129.74

* 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	-456	1	0	-456	0	0	-13.56	0.01	-13.55
Delhi	-210	-354	0	-293	38	0	-7.97	-2.07	-10.05
Haryana	-596	267	0	-311	312	0	-9.84	7.42	-2.42
HP	292	106	0	198	-77	0	7.73	-1.06	6.67
J&K	355	0	0	332	0	0	8.67	-0.07	8.60
CHD	-30	0	0	-30	0	0	-0.36	0.00	-0.36
Rajasthan	-7	461	0	-7	482	0	6.70	14.95	21.65
UP	99	0	0	-49	0	0	-6.43	-0.55	-6.99
Uttarakhand	146	117	0	146	98	0	3.71	3.20	6.91
Total	-408	598	0	-469	853	0	-11.36	21.82	10.45

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-456	-719	1	0	0	0
Delhi	-170	-484	278	-498	0	0
Haryana	-167	-629	343	151	0	0
HP	439	198	106	-607	0	0
J&K	413	306	0	-15	0	0
CHD	0	-30	0	0	0	0
Rajasthan	659	-7	1349	459	0	0
UP	161	-747	0	-100	0	0
Uttarakhand	182	146	274	1	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	2	19
Haryana	1	14
Rajasthan	1	21
Delhi	5	26
UP	1	13
Uttarakhand	4	31
HP	3	28
J & K	2	19
Chandigarh	4	39

XIII. System Constraints:**XIV. Grid Disturbance / Any Other Significant Event:****XV. Weather Conditions For 21.11.2016 :**

Normal

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

Bay No. 417 and 400 kV Bus 2 first time charged at 400kV Orai (UP) at 1758Hrs.

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.