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 15.12.2016
Date of Reporting : 16.12.2016

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
41753	1216	42969	50.05	29390	348	29739	50.06	868.70	10.31

* 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	58.86	7.64	1.48	67.98	37.80	37.49	-0.32	105.47	0.00
Haryana	45.64	0.34	0.00	45.98	77.33	77.44	0.11	123.42	0.00
Rajasthan	121.70	4.40	9.12	135.22	71.68	73.75	2.06	208.96	0.81
Delhi	14.16		0.00	14.16	43.07	43.48	0.41	57.64	0.00
UP	185.19	8.58	0.00	193.77	83.47	82.89	-0.58	276.66	0.53
Uttarakhand		7.53	0.00	12.93	21.28	20.38	-0.90	33.30	0.00
HP		2.80	1.35	4.16	19.50	19.81	0.31	23.97	0.02
J & K		3.73	0.00	3.73	37.89	32.07	-5.81	35.80	8.95
Chandigarh				0.00	3.54	3.48	-0.06	3.48	0.00
Total	425.55	35.02	11.96	477.93	395.56	390.78	-4.78	868.70	10.31

* 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	5572	0	-121	-865	3230	0	125	-462	5596	8:00	0
Haryana	6093	0	-180	-216	3490	0	58	-498	6093	19:00	0
Rajasthan	9109	522	216	665	7872	0	276	281	9263	9:00	70
Delhi	3088	0	33	-409	1365	0	-71	-629	3179	11:00	0
UP	13036	275	-324	-202	10152	0	306	127	13036	19:00	275
Uttarakhand	1731	0	81	445	1097	0	-127	515	1857	8:00	0
HP	1266	0	7	173	703	0	-10	449	1356	8:00	0
J&K	1677	419	-195	930	1393	348	-226	813	1859	1:00	465
Chandigarh	181	0	-5	-20	87	0	-10	0	204	9:00	0
Total	41753	1216	-489	501	29390	348	322	596	41753	19:00	1216

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

Diversity is 1.02

III. Regional Entities :

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

	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
A. NTPC	Singrauli STPS (5*200+2*500)	2000	1863	2008	1765	43.88	1828	42.62	1.27
	Rihand I STPS (2*500)	1000	743	475	545	12.09	504	16.16	-4.06
	Rihand II STPS (2*500)	1000	952	991	723	21.38	891	21.29	0.09
	Rihand III STPS (2*500)	1000	952	988	719	21.02	876	21.14	-0.12
	Dadri I STPS (4*210)	840	815	209	209	4.04	168	4.36	-0.33
	Dadri II STPS (2*490)	980	980	971	693	17.70	737	18.55	-0.86
	Unchahar I TPS (2*210)	420	361	334	268	6.89	287	7.67	-0.78
	Unchahar II TPS (2*210)	420	405	349	280	7.46	311	8.55	-1.09
	Unchahar III TPS (1*210)	210	203	182	136	3.73	156	4.29	-0.56
	ISTPP (Jhajjhar) (3*500)	1500	1440	998	602	15.96	665	15.85	0.11
	Dadri GPS (4*130.19+2*154.51)	830	752	248	273	6.21	259	6.70	-0.49
	Anta GPS (3*88.71+1*153.2)	419	377	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	0.02	1	0.02	0.00
	Unchahar Solar(10)	10	2	0	0	0.00	0	0.04	-0.04
	Singrauli Solar(15)	15	2	0	0	0.06	3	0.05	0.01
	KHEP(4*200)	800	803	533	0	2.11	88	2.61	-0.50
	Sub Total (A)	**12112**	**11273**	**8286**	**6213**	**163**	**6773**	**170**	**-7.34**
B. NPC	NAPS (2*220)	440	413	449	455	9.97	416	9.91	0.06
	RAPS- B (2*220)	440	384	429	428	9.23	384	9.22	0.01
	RAPS- C (2*220)	440	218	239	239	5.04	210	5.23	-0.19
	Sub Total (B)	**1320**	**1015**	**1117**	**1122**	**24.24**	**1010**	**24.36**	**-0.12**
C. NHPC	Chamera I HPS (3*180)	540	360	228	0	1.43	60	1.20	0.23
	Chamera II HPS (3*100)	300	201	210	0	1.15	48	1.10	0.05
	Chamera III HPS (3*77)	231	185	209	0	0.57	24	0.56	0.02
	Bairasuil HPS(3*60)	180	163	70	0	0.45	19	0.55	-0.10
	Salal-HPS (6*115)	690	98	305	35	2.29	95	2.36	-0.07
	Tanakpur-HPS (3*31.4)	94	23	31	32	0.73	31	0.54	0.19
	Uri-I HPS (4*120)	480	77	223	23	2.10	87	1.85	0.24
	Uri-II HPS (4*60)	240	54	121	41	1.35	56	1.29	0.06
	Dhauliganga-HPS (4*70)	280	210	206	0	1.06	44	0.98	0.08
	Dulhasti-HPS (3*130)	390	257	262	0	3.12	130	3.00	0.12
	Sewa-II HPS (3*40)	120	80	63	0	0.24	10	0.25	-0.01
	Parbati 3 (4*130)	520	130	131	0	0.43	18	0.39	0.04
	Sub Total (C)	**4065**	**1837**	**2059**	**131**	**15**	**621**	**14**	**0.85**
D.SJVNL	NJPC (6*250)	1500	1615	1616	0	6.64	277	6.70	-0.06
	Rampur HEP (6*68.67)	412	442	438	0	1.84	77	1.86	-0.02
	Sub Total (D)	**1912**	**2057**	**2054**	**0**	**8.48**	**353**	**8.56**	**-0.08**
E. THDC	Tehri HPS (4*250)	1000	1060	1032	0	7.13	297	7.00	0.13
	Koteshwar HPS (4*100)	400	100	200	91	2.46	102	2.41	0.05
	Sub Total (E)	**1400**	**1160**	**1232**	**91**	**9.59**	**400**	**9.41**	**0.18**
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	634	1014	387	15.03	626	15.21	-0.18
	Dehar HPS (6*165)	990	122	495	0	3.13	130	2.92	0.21
	Pong HPS (6*66)	396	161	396	66	4.94	206	3.86	1.07
	Sub Total (F)	**2765**	**916**	**1905**	**453**	**23.09**	**962**	**21.99**	**1.10**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	67	0	0.45	19	0.45	0.00
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	630	0	3.46	144	3.67	-0.21
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	-1	-1	-0.04	-2	0.00	-0.04
	Budhil HPS(IPP) (2*35)	70	0	0	0	0.19	8	0.19	0.00
	Sub Total (G)	**1662**	**0**	**696**	**-1**	**4.07**	**170**	**4.32**	**-0.25**
H. Total Regional Entities (A-G)		**25237**	**18259**	**17349**	**8009**	**246.95**	**10289**	**252.60**	**-5.66**

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	530	510	12.18	508
	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	563	569	13.46	561
	Goindwal(GVK) (2*270)	540	0	0	-0.02	-1

	Rajpura (2*700)	1400	610	330	12.76	532
	Talwandi Saboo (3*660)	1980	864	616	20.50	854
	Thermal (Total)	**6560**	**2567**	**2025**	58.86	**2453**
	Total Hydro	1000	375	233	7.64	318
	Wind Power	0	0	0	0.00	0
	Biomass	288	0	0	1.22	51
	Solar	560	0	0	0.26	11
	Renewable(Total)	**848**	**0**	**0**	**1.48**	**62**
	Total Punjab	**8408**	**2942**	**2258**	**67.98**	**2833**
Haryana	Panipat TPS (2*210+2*250)	920	433	216	8.78	366
	DCRTPP (Yamuna nagar) (2*300)	600	554	464	12.06	502
	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	1185	732	24.81	1034
	Thermal (Total)	**4497**	**2172**	**1412**	**45.64**	**1902**
	Total Hydro	62	7	8	0.34	14
	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**	**2179**	**1420**	**45.98**	**1916**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	1153	1051	26.20	1092
	suratgarh TPS (6*250)	1500	871	791	19.80	825
	Chabra TPS (4*250)	1000	920	919	21.60	900
	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	167	170	4.30	179
	RAPS A (NPC) (1*100+1*200)	300	170	171	4.20	175
	Barsingsar (NLC) (2*125)	250	0	0	0.00	0
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	825	821	19.40	808
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	1120	1119	26.20	1092
	Kawai(Adani) (2*660)	1320	0	0	0.00	0
	Thermal (Total)	**8876**	**5226**	**5042**	**121.70**	**5071**
	Total Hydro	550	216	199	4.40	183
	Wind power	4017	328	281	6.49	271
	Biomass	99	11	11	0.27	11
	Solar	1295	7	0	2.36	98
	Renewable/Others (Total)	5411	346	292	9.12	380
	Total Rajasthan	**14837**	**5788**	**5533**	**135.22**	**5634**
UP	Anpara TPS (3*210+2*500)	1630	1233	995	28.44	1185
	Obra TPS (2*50+2*94+5*200)	1194	475	401	10.77	449
	Paricha TPS (2*110+2*220+2*250)	1160	837	580	17.02	709
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	527	407	11.36	474
	Tanda TPS (NTPC) (4*110)	440	282	201	6.21	259
	Roza TPS (IPP) (4*300)	1200	1080	765	23.22	968
	Anpara-C (IPP) (2*600)	1200	527	302	11.56	482
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	81	58	1.61	67
	Anpara-D(2*500)	1000	872	874	21.02	876
	Lalitpur TPS(3*660)	1980	597	601	14.29	596
	Bara(2*660)	1320	877	723	20.48	853
	Thermal (Total)	**12449**	**7388**	**5907**	**165.99**	**6916**
	Vishnuparyag HPS (IPP)(4*110)	440	93	88	2.21	92
	Alaknanada(4*82.5)	330	75	0	2.00	83
	Other Hydro	527	245	132	4.38	182
	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**	**8601**	**6927**	**193.77**	**8074**
Uttarakhand	Other Hydro	1250	590	215	7.53	314
	Total Gas	225	287	177	5.36	223
	Wind Power	0	0	0	0.00	0
	Biomass	127	0	0	0.00	0
	Solar	20	0	0	0.04	2
	Small Hydro (< 25 MW)	180	0	0	0.00	0
	Renewable(Total)	327	0	0	0.04	2
	Total Uttarakhand	1802	877	392	12.93	539
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	68	69	1.92	80
	Pragati Gas Turbine (2x104+ 1x122)	330	261	264	6.16	257
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	248	280	6.08	253
	Badarpur TPS (NTPC) (3*95+2*210)	705	0	0	0.00	0
	Thermal (Total)	**2917**	**577**	**613**	**14.16**	**590**
	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**	**577**	**613**	**14.16**	**590**
HP	Baspa HPS (IPP) (3*100)	300	27	0	1.05	44
	Malana HPS (IPP) (2*43)	86	44	0	0.28	12
	Other Hydro	372	67	38	1.47	61
	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	65	50	1.35	56
	Renewable(Total)	**486**	**65**	**50**	**1.35**	**56**
	Total HP	**1244**	**203**	**88**	**4.16**	**173**
J & K	Baglihar HPS (IPP) (3*150+3*150)	900	101	88	2.16	90
	Other Hydro/IPP(including 98 MW Small Hydro)	308	85	23	1.57	65
	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**	**186**	**111**	**4**	**155**

Total State Control Area Generation	**50078**	**21353**	**17342**	**477.93**	**19914**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		**5898**	**5803**	**180.03**	**7501**
Total Regional Availability(Gross)	**75315**	**44599**	**31154**	**904.91**	**37705**

IV. Total Hydro Generation:

Regional Entities Hydro	**12234**	**8479**	**674**	**62.10**	**2588**
State Control Area Hydro	**7163**	**2277**	**1251**	**36.37**	**1741**
Total Regional Hydro	**19397**	**10756**	**1925**	**98.47**	**4328**

V. Total Renewable Generation:

Regional Entities Renewable	**30**	**0**	**0**	**0.08**	**3**
State Control Area Renewable	**7356**	**411**	**342**	**12.00**	**500**
Total Regional Renewable	**7386**	**411**	**342**	**12.08**	**503**

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

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	MU
Vindhychal(HVDC B/B)	-500	-500	0	-500	0.00	12.24	-12.24
765 KV Gwalior-Agra (D/C)	1950	1807	2604	0	52.84	0.00	52.84
400 KV Zerda-Kankroli	-51	-120	25	126	0.00	1.08	-1.08
400 KV Zerda-Bhinmal	115	-22	155	60	1.38	0.00	1.38
220 KV Auraiya-Malanpur	-97	-61	0	100	0.00	1.54	-1.54
220 KV Badod-Kota/Morak	56	-54	7	68	0.00	0.93	-0.93
Mundra-Mohindergarh(HVDC Bipole)	1798	1803	2004	0.00	43.75	0.00	43.75
400 KV RAPPC-Sujalpur	-315	-248	429	0	8.12	0.00	8.12
400 KV Vindhyachal-Rihand	0	0	0	0	0.00	0.00	0.00
765 kV Phagi-Gwalior (D/C)	1095	1006	1601	0	32.55	0.00	32.55
Sub Total WR	**4051**	**3611**			**138.64**	**15.79**	**122.85**
400 kV Sasaram - Varanasi	272	256	276	0	6.33	0.00	6.33
400 kV Sasaram - Allahabad	67	85	101	0	1.94	0.00	1.94
400 KV MZP- GKP (D/C)	26	341	462	0	7.17	0.00	7.17
400 KV Patna-Balia(D/C) X 2	622	642	861	0	17.15	0.00	17.15
400 KV B'Sharif-Balia (D/C)	-92	125	224	92	2.54	0.00	2.54
765 KV Gaya-Balia	171	182	301	0	5.48	0.00	5.48
765 KV Gaya-Varanasi (D/C)	-302	-378	837	0	13.24	0.00	13.24
220 KV Pusauli-Sahupuri	160	116	164	0	3.01	0.00	3.01
132 KV K'nasa-Sahupuri	-26	-28	0	34	0.00	0.51	-0.51
132 KV Son Ngr-Rihand	-26	-26	0	30	0.00	0.60	-0.60
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-156	-97	126	156	0.00	0.42	-0.42
400 KV Barh -GKP (D/C)	520	506	662	0	12.88	0.00	12.88
400 kV B'Sharif - Varanasi (D/C)	111	-32	207	111	1.00	0.00	1.00
Sub Total ER	**1347**	**1692**			**70.74**	**1.53**	**69.21**
+/- 800 KV BiswanathCharialli-Agra	500	500	0	600.00	0.00	12.03	-12.03
Sub Total NER	**500**	**500**			**0.00**	**12.03**	**-12.03**
Total IR Exch	**5898**	**5803**			**209.38**	**29.34**	**180.03**

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**
45.05	0.80	45.85	2.52	-6.31	20.21	0.00	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**
68.58	105.94	174.52	57.18	122.85	180.03	-11.39	16.91	5.51

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

Element	Peak(19:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	MU
132 KV Tanakpur - Mahendarnagar	-29	-30	0	31	0	1	-0.55

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	0.69	11.44	56.35	70.09	13.46	5.02	0.00	0.00

<---------- Frequency (Hz) ---------->				Average	Frequency	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum		Minimum		Frequency	Variation		MAX	MIN	
Freq	**Time**	**Freq**	**Time**	**Hz**	**Index**		(Hz)	(Hz)	
50.20	5.00	49.76	7.37	49.99	0.053	0.072	50.12	49.84	29.91

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	0:00	400	6:33	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	419	3:04	398	17:41	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	422	1:46	399	11:37	0.0	0.0	6.1	0.0	6.1
Kanpur	400	417	1:40	396	11:20	0.0	0.0	0.0	0.0	0.0
Dadri	400	426	0:30	401	11:40	0.1	0.1	26.3	0.0	26.4
Ballabhgarh	400	431	1:51	402	11:40	0.0	0.0	40.4	0.6	40.4
Bawana	400	429	2:01	402	11:39	0.0	0.0	38.0	0.0	38.0
Bassi	400	421	21:59	391	11:19	0.0	0.0	0.3	0.0	0.3
Hissar	400	420	2:05	389	11:39	0.0	0.3	0.0	0.0	0.0
Moga	400	422	2:02	395	11:38	0.0	0.0	2.9	0.0	2.9
Abdullapur	400	425	21:33	402	11:40	0.0	0.0	22.1	0.0	22.1
Nalagarh	400	426	1:56	408	11:23	0.0	0.0	38.8	0.0	38.8
Kishenpur	400	424	1:57	393	11:40	0.0	0.0	15.9	0.0	15.9
Wagoora	400	400	22:58	363	15:37	43.4	78.7	0.0	0.0	43.4
Amritsar	400	425	21:53	396	11:37	0.0	0.0	26.1	0.0	26.1
Kashipur	400	0	0:00	0	0:00	0.0	0.0	0.0	0.0	0.0
Hamirpur	400	421	21:33	396	11:38	0.0	0.0	0.1	0.0	0.1
Rishikesh	400	421	2:01	390	8:43	0.0	0.0	0.3	0.0	0.3

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	777	0:30	738	11:21	0.0	1.9	0.0	0.0	0.0
Balia	765	790	3:04	755	11:20	0.0	0.0	0.0	0.0	0.0
Moga	765	803	2:01	751	11:39	0.0	0.0	3.2	0.0	3.2

Agra	765	791	2:01	750	11:20	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	811	2:02	757	11:19	0.0	0.0	20.6	0.0	20.6
Unnao	765	781	1:47	733	9:27	0.0	9.3	0.0	0.0	0.0
Lucknow	765	801	1:45	764	9:15	0.0	0.0	0.6	0.0	0.6
Meerut	765	808	21:54	760	11:21	0.0	0.0	9.0	0.0	9.0
Jhatikara	765	809	2:01	756	11:40	0.0	0.0	17.5	0.0	17.5
Bareilly 765 kV	765	796	1:45	751	14:55	0.0	0.0	0.0	0.0	0.0
Anta	765	798	2:04	764	9:12	0.0	0.0	0.0	0.0	0.0
Phagi	765	800	2:04	761	9:11	0.0	0.0	0.0	0.0	0.0

Note : "0" in Max / Min Col -> Telemetry Outage

IX. Reservior Parameters:

Name of Reservior	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	491.64	788.17	503.90	1258.87	166.19	460.63
Pong	426.72	384.05	410.00	494.27	413.41	611.20	57.40	329.01
Tehri	829.79	740.04	813.35	870.00	808.15	766.00	39.61	163.00
Koteshwar	612.50	598.50	610.01	4.57	611.13	5.20	163.00	162.03
Chamera-I	760.00	748.75	759.67	0.00	0.00	0.00	42.81	38.41
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	507.08	2.28	502.53	4.19	35.76	109.21

*** 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	-464	2	0	-545	-320	0	-14.04	-0.89	-14.93
Delhi	-284	-344	0	-373	-36	0	-8.90	-2.78	-11.68
Haryana	-847	349	0	-548	332	0	-15.71	7.55	-8.16
HP	382	67	0	265	-92	0	9.65	-1.40	8.25
J&K	617	196	0	611	319	0	15.29	3.61	18.90
CHD	0	0	0	0	-20	0	0.00	-0.15	-0.15
Rajasthan	-7	288	0	-7	672	0	6.47	12.50	18.97
UP	127	0	0	-102	-100	0	-7.15	-1.79	-8.94
Uttarakhand	310	205	0	310	135	0	7.53	4.67	12.20
Total	**-167**	**763**	**0**	**-389**	**890**	**0**	**-6.86**	**21.32**	**14.46**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-443	-756	2	-713	0	0
Delhi	-284	-463	241	-513	0	0
Haryana	-548	-881	354	-73	0	0
HP	545	241	67	-431	0	0
J&K	704	598	338	-198	0	0
CHD	0	0	0	-41	0	0
Rajasthan	640	-7	1106	166	0	0
UP	152	-842	0	-100	0	0
Uttarakhand	342	243	436	-252	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	**5.90%**
ER	**0.00%**
Simultaneous	**28.82%**

(iii)%age of times Angular Difference on Important Buses was beyond permissible limits(40 deg.)

Rihand - Dadri	**0.00%**

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	2	20
Rajasthan	2	22
Delhi	2	21
UP	1	17
Uttarakhand	4	28
HP	4	30
J & K	3	39
Chandigarh	3	24

XIII.System Constraints:

XIV. Grid Disturbance / Any Other Significant Event:

XV. Weather Conditions For 15.12.2016 :

Dense 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 :

First time charging at Unchahar(IV) 1.400 KV Bay No 402 & 403 at 1851 Hrs & 1824 Hrs. respectively
2.400 KV Bay No 408 & 409 at 1754 Hrs & 1756 Hrs. respectively
3.400 kV Bus-I(Unchahar) at 1756 Hrs
4.400 kV Unchahar-Fatehpur-I first time synchronized at Unchahar at 1756 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 : 15.12.2016

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER