

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सख्यक कंपनी)

उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 16.02.2016
Date of Reporting : 17.02.2016



I. Regional Availability/Demand:

Demand Met	Evening Peak (19:00 Hrs) MW			Freq* (Hz)	Off Peak (03:00 Hrs) MW			Demand Met	Day Energy (Net MU)	
	Shortage	Requirement	Requirement		Shortage	Requirement	Requirement		Demand Met	Shortage
38154	1114	39268	39268	50.05	30708	540	31248	50.04	838.5	42.34

* 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:

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	38.00	7.32		45.31	58.44	59.46	1.02	104.77	0.00
Haryana	39.65	0.34		40.00	81.45	81.33	-0.12	121.32	0.00
Rajasthan	108.49	4.65	33.08	146.21	63.38	65.51	2.13	211.71	0.00
Delhi	13.91			13.91	45.11	45.06	-0.05	58.97	0.12
UP	122.00	1.56		123.56	109.34	110.45	1.11	234.01	31.98
Uttarakhand		9.68		9.68	24.41	25.44	1.03	35.12	0.00
HP		2.91		2.91	22.19	22.57	0.38	25.48	0.00
J & K		5.40	0.00	5.40	38.11	38.12	0.00	43.51	10.24
Chandigarh				0.00	3.45	3.57	0.27	3.57	0.00
Total	322.04	31.86	33.08	386.98	445.88	451.49	5.76	838.47	42.34

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

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

State	Evening Peak (19:00 Hrs) MW				Off Peak (03:00 Hrs) MW				# Max(hourly) Demand Met of Day (MW)
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	5004	0	91	-298	3530	0	9	231	5393
Haryana	6334	0	-10	18	3450	0	-40	-19	6365
Rajasthan	8655	0	-42	107	8377	0	177	676	10059
Delhi	2835	0	-206	-699	1434	0	54	-1530	3398
UP	10374	565	-31	-575	10189	230	-17	135	10726
Uttarakhand	1544	40	-49	581	1113	0	89	340	1648
HP	1183	0	-87	467	769	0	25	343	1412
J&K	2037	509	86	781	1756	310	26	724	2037
Chandigarh	188	0	-1	0	90	0	0	-30	207
Total	38154	1114	-249	381	30708	540	323	870	39109

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

Diversity is: 1.05

III. Regional Entities :

Entity	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	1890	1997	1778	44.38	1849	44.17	0.21
	Rihand I STPS (2*500)	1000	668	388	683	13.92	580	14.05	-0.13
	Rihand II STPS (2*500)	1000	964	839	826	21.27	886	21.09	0.18
	Rihand III STPS (2*500)	1000	974	1018	1040	22.38	933	22.53	-0.15
	Dadri I STPS (4*210)	840	815	623	599	13.53	564	13.82	-0.29
	Dadri II STPS (2*490)	980	980	796	706	16.71	696	17.13	-0.41
	Unchahar I TPS (2*210)	420	398	351	321	7.96	332	8.09	-0.13
	Unchahar II TPS (2*210)	420	404	319	308	7.29	304	7.33	-0.04
	Unchahar III TPS (1*220)	210	202	151	146	3.76	157	3.88	-0.12
	ISTPP (Jhajjar) (3*500)	1500	1475	1032	629	17.32	722	17.69	-0.37
	Dadri GPS (4*130.19+2*154.51)	830	815	391	497	11.12	463	11.66	-0.54
	Anta GPS (3*88.71+1*153.2)	419	415	0	0	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	656	295	300	6.98	291	7.13	-0.15
	Dadri Solar	5	1	0	0	0.02	1	0.02	0.00
	Unchahar Solar	10	1	0	0	0.03	1	0.03	-0.01
	Singrauli Solar	15	1	0	0	0.03	1	0.03	-0.01
	KHEP	800	527	0	0	2.00	83	1.97	0.03
Sub Total (A)	12112	11187	8200	7833	189	7862	191	-2	
B. NPC	NAPS (2*220)	440	408	449	453	9.93	414	9.79	0.13
	RAPS- B (2*220)	440	388	426	428	9.25	385	9.31	-0.06
	RAPS- C (2*220)	440	425	456	457	9.90	412	10.20	-0.30
	Sub Total (B)	1320	1221	1331	1338	29.07	1211	29.30	-0.23
C. NHPC	Chamera I HPS (3*180)	540	385	368	0	2.08	87	1.79	0.30
	Chamera II HPS (3*100)	300	200	208	0	0.98	41	0.95	0.03
	Chamera III HPS (3*77)	231	160	154	0	0.50	21	0.48	0.02
	Bairasuli HPS(3*60)	180	150	155	0	0.47	19	0.45	0.02
	Salal-HPS (6*115)	690	109	265	104	2.96	123	2.62	0.34
	Tanakpur-HPS (3*40)	94	16	19	15	0.42	18	0.39	0.03
	Uri-I HPS (4*120)	480	219	231	210	5.38	224	5.25	0.13
	Uri-II HPS (4*60)	240	139	183	175	3.41	142	3.32	0.09
	Dhauliganga-HPS (4*70)	280	242	154	0	0.75	31	0.63	0.12
	Dulhasi-HPS (3*130)	390	390	401	0	0.25	10	2.20	-1.95
Sewa-II HPS (3*40)	120	119	126	0	0.36	15	0.37	-0.01	
Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00	
Sub Total (C)	4065	2130	2265	504	18	732	18	-1	
D.SJVNL	NJPC (6*250)	1500	1605	1619	0	6.53	272	6.42	0.11
	Rampur HEP (6*68.67)	412	354	373	0	1.77	74	1.67	0.10
Sub Total (D)	1912	1959	1992	0	8.30	346	8.09	0.21	
E. THDC	Tehri HPS (4*250)	1000	792	792	0	7.65	319	7.60	0.05
	Koteshwar HPS (4*100)	400	130	403	94	3.17	132	3.13	0.04
Sub Total (E)	1400	922	1195	94	10.82	451	10.73	0.09	
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	719	1128	594	17.16	715	17.26	-0.10
	Dehar HPS (6*165)	990	104	495	0	2.39	100	2.51	-0.11
	Pong HPS (6*66)	396	302	364	246	7.04	294	7.24	-0.20
	Sub Total (F)	2765	1125	1987	840	26.59	1108	27.01	-0.42
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.38	16	0.36	0.02
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	625	0	3.38	141	3.60	-0.22
	Malana Stg-II HPS (2*50)	100	0	0	0	0.16	7	0.15	0.01
	Shree Cement TPS (2*150)	300	0	297	298	7.10	296	7.15	-0.05
	Budhi HPS(IPP) (2*35)	70	0	0	0	0.14	6	0.14	0.00
	Sub Total (G)	1662	0	922	298	11.16	465	11.40	-0.24
H. Total Regional Entities (A-G)	25237	18544	17892	10907	292.19	12174	295.58	-3.39	

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	160	160	3.73	156
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	0	0	-0.02	-1
	Guru Har Gobind Singh TPS(L.mbt) (2*210+2*250)	920	0	0	-0.09	-4
	Goindwal(GVK)	0	0	236	0.00	0
	Rajpura (2*700)	1400	1293	698	24.52	1022
	Talwandi Saboo (2*660)	1320	356	330	9.85	411
	Thermal (Total)	5360	1809	1424	38.00	1583
	Total Hydro	1000	303	304	7.32	305
	Total Punjab	6360	2112	1728	45.31	1888
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	629	596	14.27
DCRTPP (Yamuna nagar) (2*300)		600	551	457	12.48	520
Faridabad GPS (NTPC)		432	202	0	1.71	71
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	537	367	11.21	467
Thermal (Total)		4944	1919	1420	39.65	1652
Total Hydro		62	19	17	0.34	14
Total Haryana		5006	1938	1437	40.00	1666
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	854	816	20.80
	suratgarh TPS (6*250)	1500	383	380	9.06	378
	Chabra TPS (4*250)	1000	583	575	13.80	575
	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	210	178	4.51	188
	RAPS A (NPC) (1*100+1*200)	300	0	0	0.00	0
	Barsingsar (NLC) (2*125)	250	177	176	3.80	158
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	563	491	14.29	596
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(2*600)	1200	848	849	20.24	843
	Kawai(Adani) (2*660)	1320	875	859	21.98	916
	Thermal (Total)	8876	4493	4324	108	4520
	Total Hydro	550	222	201	4.65	194
	Wind power	3214	1126	1354	29.30	1221
	Biomass	99	20	20	0.48	20
	Solar	730	0	0	3.29	137
	Renewable/Others (Total)	4043	1146	1374	33.08	1378
	Total Rajasthan	13469	5861	5899	146.21	6092
	UP	Anpara TPS (3*210+2*500)	1630	1317	768	23.65
Obra TPS (2*50+2*94+5*200)		1194	464	428	10.25	427
Paricha TPS (2*110+2*220+2*250)		1140	794	792	18.26	761
Panki TPS (2*105)		210	0	0	0.00	0
Harduaaganj TPS (1*60+1*105+2*250)		665	549	555	12.81	534
Tanda TPS (NTPC) (4*110)		440	374	367	8.67	361
Roza TPS (IPP) (4*300)		1200	540	563	16.34	681
Anpara-C (IPP) (2*600)		1200	536	540	12.82	534
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	0	0	0.00	0
Anpara-D(1*500)		500	0	0	0.00	0
Lalitpur TPS(2*660)		1320	0	0	0.00	0
Bara(2*660)		1320	0	0	0.00	0
Thermal (Total)		11269	4574	4013	103	4283
Vishnuparyag HPS (IPP)(4*110)		440	64	58	1.47	61
Alakanada(4*82.5)		330	83	0	0.09	4
Other Hydro		527	104	153	0.00	0
Cogeneration		981	800	800	19.20	800
Total UP	13547	5625	5024	124	5148	
Uttarakhand	Total Hydro	1398	575	292	9.68	403
	Total Uttarakhand	1398	575	292	9.68	403
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0
	Delhi Gas Turbine (6x30 + 3x34)	282	37	35	0.94	39
	Praagati Gas Turbine (2x104+ 1x122)	330	146	145	3.49	146
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (4*216+2*253)	1370	253	251	5.99	250
	Badarpur TPS (NTPC) (3*95+2*210)	705	163	160	3.49	145
	Thermal (Total)	2917	599	592	13.91	580
	Total Delhi	2917	599	592	13.91	580
HP	Baspa HPS (IPP) (3*100)	300	0	0	0.90	38
	Malana HPS (IPP) (2*43)	86	0	0	0.18	8
	Other Hydro	878	116	47	1.83	76
	Total HP	1264	116	47	2.91	121
J & K	Baglihar HPS (IPP) (3*150)	450	143	142	3.42	143
	Other Hydro/IPP	560	107	66	1.97	82
	Gas/Diesel/Others	190	0	0	0.00	0
	Total J & K	1200	250	208	5.40	225
Total State Control Area Generation		45161	17076	15227	386.98	16124
J. Net Inter Regional Exchange (Import (+ve)/Export (-ve))			6137	5662	171.93	7164
Total Regional Availability(Gross)		70398	41104	31796	851.10	35462

IV. Total Hydro Generation:

Regional Entities Hydro	12234	8064	1438	69.18	2883
State Control Area Hydro	6581	1736	1280	32	1328
Total Regional Hydro	18815	9800	2718	101.05	4210

V(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 MU
	MW	MW	MW	MW	Import	Export	Import	Export	
Vindhychal(HVDC B/B)	250	-400	-400	250	250	500	1.20	4.98	-3.78
765 KV Gwalior-Agra (D/C)	2232	2492	2492	3346	0	0	69.87	0.00	69.87
400 KV Zerda-Kankroli	-205	-267	-267	0	271	0	0.00	3.85	-3.85
400 KV Zerda-Bhinmal	-119	-206	-206	27	232	0	0.00	2.33	-2.33
220 KV Auraiya-Malanpur	-115	-77	-77	0	115	0	0.00	1.86	-1.86
220 KV Badod-Kota/Morak	-39	-17	-17	22	39	0	0.00	0.00	0.00
Mundra-Mohindergarh(HVDC Bipole)	2498	2303	2303	2506	0	0	59.43	0.00	59.43
400 KV Vindhychal - Rihand	0	0	0	0	0	0	0.00	0.00	0.00
765 KV Phagi-Gwalior (D/C)	856	732	732	1272	0	0	24.25	0.00	24.25
Sub Total WR	5358	4560	4560				154.75	13.02	141.73
Pusauli Bypass/HVDC	200	200	200	200	0	0	4.92	0.00	4.92
400 KV MZP- GKP (D/C)	-388	-326	-326	0	556	0	0.00	7.61	-7.61
400 KV Patna-Balia(D/C) X 2	425	573	573	708	0	0	14.71	0.00	14.71
400 KV B' Sharif-Balia (D/C)	-142	-82	-82	70	178	0	0.00	0.98	-0.98
765 KV Gaya-Balia	145	238	238	405	0	0	3.20	0.00	3.20
765 KV Gaya-Fatehpur	126	32	32	249	0	0	1.63	0.00	1.63
220 KV Pusauli-Sahupuri	79	162	162	169	0	0	3.00	0.00	3.00
132 KV K'nasa-Sahupuri	0	0	0	0	0	0	0.96	0.00	0.96
132 KV Son Ngr-Rihand	27	24	24	0	29	0	0.00	0.59	-0.59
132 KV Garhwa-Rihand	0	0	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	-108	-193	-193	252	193	0	0.00	0.50	-0.50
400 KV Barh -GKP (D/C)	415	474	474	552	0	0	11.47	0.00	11.47
Sub Total ER	779	1102	1102				39.88	9.68	30.20
+/- 800 KV BiswanathCharialli-Agra	0	0	0	0	0	0	0.00	0.00	0.00
Sub Total NER	0	0	0				0.00	0.00	0.00
Total IR Exch	6137	5662	5662				194.63	22.70	171.93

V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)			Power Exchange Shdli (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR	
36.64	0.06	36.70	2.89	-2.48	-0.01	23.48	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	
39.58	135.99	175.56	30.20	141.73	171.93	-9.37	5.74	-3.63	

V(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 MU
	MW	MW	MW	MW	Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	27	-30	-30	0	33	0	0	1	-0.71

VI. 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	0.16	5.39	48.43	75.65	13.67	4.83	0.56	0.00

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block		Freq Dev Index (% of Time)
Maximum	Minimum		MIN				MAX		
Freq	Time	Freq	Time	Hz	Index		(Hz)	(Hz)	
50.26	18.02	49.78	9.17	50.00	0.040	0.063	50.22	49.95	24.35

VII. Voltage profile 400 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviation Index (% of Time)
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV	
Rihand	400	406	21:43	398	05:59	0.0	0.0	0.0	0.0	0.0
Gorakhpur	400	419	05:03	404	10:07	0.0	0.0	0.0	0.0	0.0
Bareilly(PG)400kV	400	422	05:02	399	15:42	0.0	0.0	0.4	0.0	0.4
Kanpur	400	421	05:01	405	09:12	0.0	0.0	0.3	0.0	0.3
Dadr	400	420	01:27	402	09:14	0.0	0.0	0.0	0.0	0.0
Ballabgarh	400	430	01:28	408	09:12	0.0	0.0	35.5	0.0	35.5
Bawana	400	431	01:25	407	10:06	0.0	0.0	38.0	2.8	38.0
Bassi	400	427	05:01	396	09:12	0.0	0.0	9.3	0.0	9.3
Hissar	400	424	02:01	396	10:06	0.0	0.0	14.0	0.0	14.0
Moga	400	424	01:41	395	11:17	0.0	0.0	16.7	0.0	16.7
Abdullapur	400	425	20:46	400	11:19	0.0	0.0	20.5	0.0	20.5
Nalagarh	400	435	02:00	398	11:17	0.0	0.0	43.6	19.4	43.6
Kishenpur	400	422	01:41	390	11:19	0.0	0.0	10.4	0.0	10.4
Wagoora	400	395	03:00	365	11:20	69.7	82.1	0.0	0.0	69.7
Amritsar	400	426	20:38	400	15:39	0.0	0.0	25.6	0.0	25.6
Kashipur	400	422	05:01	412	09:07	0.0	0.0	8.4	0.0	8.4
Hamirpur	400	427	01:59	391	10:05	0.0	0.0	24.4	0.0	24.4
Rishkesh	400	418	05:02	391	09:11	0.0	0.0	0.0	0.0	0.0

VIII. Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)				Voltage Deviation Index (% of Time)
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV	
Fatehpur	765	774	21:55	736	09:12	0.0	2.3	0.0	0.0	0.0
Balia	765	780	17:14	739	10:09	0.0	0.8	0.0	0.0	0.0
Moga	765	803	02:01	758	11:17	0.0	0.0	3.4	0.0	3.4
Agra	765	790	21:55	747	09:15	0.0	0.0	0.0	0.0	0.0
Bhiwani	765	805	01:24	763	09:13	0.0	0.0	30.5	0.0	30.5
Unnao	765	775	05:03	745	15:46	0.0	0.0	0.0	0.0	0.0
Lucknow	765	789	05:03	756	10:09	0.0	0.0	0.0	0.0	0.0
Meerut	765	812	01:26	768	09:15	0.0	0.0	22.1	0.0	22.1
Jhatikara	765					0.0	0.0	31.7	0.0	31.7
Bareilly 765 kV	765	786	21:52	752	15:40	0.0	0.0	0.0	0.0	0.0
Anta	765	782	05:01	760	09:13	0.0	0.0	0.0	0.0	0.0
Phagi	765	792	05:00	748	09:58	0.0	0.0	0.0	0.0	0.0

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	491.36	778.26	486.35	627.57	148.55	539.78
Pong	426.72	384.05	401.50	252.05	399.48	209.93	56.55	506.59
Tehri	829.79	740.04	779.65	316.28	790.55	453.12	60.24	224.00
Koteshwar	612.50	598.50	611.24	4.95	610.12	4.69	224.00	208.76
Chamera-I	760.00	748.75	757.50	0.00	0.00	0.00	40.07	55.91
Rihand	268.22	252.98	846.80	206.60	848.70	234.80	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	495.81	0.00	501.03	2.95	45.98	0.00

* 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	-96	327	0	-271	-27	0	-2.67	6.74	4.07
Delhi	-1038	-491	0	-704	5	0	-18.06	-2.95	-21.01
Haryana	-319	300	0	-273	291	0	-8.92	7.12	-1.80
HP	164	179	0	384	84	0	9.80	0.33	10.13
J&K	724	0	0	767	14	0	15.92	-0.14	15.77
CHD	-30	0	0	0	0	0	-0.24	-0.06	-0.30
Rajasthan	-3	676	3	-3	107	3	8.58	11.05	19.64
UP	135	0	0	-575	0	0	-8.05	0.00	-8.05
Uttarakhand	193	147	0	193	388	0	4.75	5.54	10.28
Total	-272	1139	3	-482	860	3	1.10	27.63	28.73

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-68	-271	327	-27	0	0
Delhi	-502	-1068	315	-492	0	0
Haryana	-273	-572	312	231	0	0
HP	588	164	228	-463	0	0
J&K	767	589	98	-152	0	0
CHD	0	-30	0	-30	0	0
Rajasthan	847	-3	688	-198	3	2
UP	180	-629	0	0	0	0
Uttarakhand	221	193	392	141	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	1.04%

(ii)%age of times ATC violated on the inter-regional corridors

WR	0.00%
ER	0.00%
Simultaneous	20.83%

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

Rihand - Dadri	0.00%
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XII. System Constraints:

XIII. Grid Disturbance / Any Other Significant Event:

XIV. Weather Conditions For 16.02.2016 :

Normal

XV. Synchronisation of new generating units :

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

- 1) 765 kV Balia-Varanasi, 1st time charged from Balia end without line reactor at Varanasi end at 17:10 Hrs and switched off at 17:16 Hrs.
- 2) 765 kV Balia-Varanasi IInd time charged with line reactor at Varanasi 18:23 Hrs and synchronized at 18:31 Hrs from Varanasi end, hold for a minute and tripped on phase to phase fault at 18:32 Hrs.

XVII. Tripping of lines in pooling stations :

XVIII. Complete generation loss in a generating station :