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 21.01.2015
Date of Reporting : 22.01.2015

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
39377	1700	41077	50.09	29693	779	30472	50.05	842.0	56.19

* 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	Actual Drawal	UI	Consumption	Shortages *
	Thermal	Hydro	Renewable/others $	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(MU)
Punjab	46.57	6.23		52.80	36.54	36.55	0.00	89.35	0.00
Haryana	73.02	0.39		73.41	46.18	49.50	3.32	122.91	0.00
Rajasthan	124.23	5.15	5.31	134.69	69.66	74.14	4.48	208.83	0.00
Delhi	23.47			23.47	46.64	46.05	-0.59	69.51	0.03
UP	156.40	5.40		161.80	79.86	80.76	0.90	242.56	48.16
Uttarakhand		9.54		9.54	26.00	27.28	1.28	36.81	0.59
HP		4.12		4.12	21.18	21.58	0.40	25.69	0.00
J & K		4.25	0.00	4.25	36.45	37.73	1.28	41.98	7.41
Chandigarh				0.00	3.93	4.35	0.27	4.35	0.00
Total	**423.68**	**35.07**	**5.31**	**464.07**	**366.43**	**377.93**	**11.34**	**842.00**	**56.19**

* 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				# Max(hourly) Demand Met of Day (MW)
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	4471	0	-5	-372	2848	0	4	-299	4821
Haryana	5944	0	193	-819	3626	0	-105	-785	6371
Rajasthan	9291	0	132	872	7944	0	108	1149	10060
Delhi	3322	0	-269	-129	1616	0	-53	-963	3990
UP	11215	1300	-100	100	9830	480	127	74	11215
Uttarakhand	1844	75	-61	717	1263	0	96	483	1844
HP	1228	0	-77	436	776	0	-16	452	1362
J&K	1842	325	1	724	1692	299	119	679	1958
Chandigarh	220	0	-1	15	98	0	14	-31	243
Total	**39377**	**1700**	**-187**	**1543**	**29693**	**779**	**293**	**759**	**39377**

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

Diversity is 1.06

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	1450	1581	1561	37.92	1580	34.80	3.12
	Rihand I STPS (2*500)	1000	820	876	808	21.02	876	19.50	1.51
	Rihand II STPS (2*500)	1000	900	949	769	22.23	926	20.84	1.39
	Rihand III STPS (2*500)	1000	807	1004	396	20.56	857	18.50	2.06
	Dadri I STPS (4*210)	840	815	663	615	17.20	717	16.16	1.04
	Dadri II STPS (2*490)	980	980	933	733	21.30	888	21.05	0.25
	Unchahar I TPS (2*210)	420	404	388	305	9.50	396	9.26	0.23
	Unchahar II TPS (2*210)	420	402	389	307	9.31	388	8.82	0.50
	Unchahar III TPS (1*220)	210	200	200	148	4.60	192	4.39	0.21
	ISTPP (Jhajjhar) (3*500)	1500	1500	1014	892	21.92	913	23.42	-1.50
	Dadri GPS (4*130.19+2*154.51)	830	848	337	306	8.29	345	8.14	0.14
	Anta GPS (3*88.71+1*153.2)	419	426	200	230	5.69	237	5.68	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	679	151	180	4.05	169	4.07	-0.03
	Dadri Solar	5	1	0	0	0.01	0	0.02	-0.01
	Unchahar Solar	10	3	0	0	0.02	1	0.07	-0.05
	Singrauli Solar	15	1	0	0	0.00	0	0	-0.02
	Sub Total (A)	**11312**	**10236**	**8685**	**7250**	**204**	**8483**	**195**	**9**
B. NPC	NAPS (2*220)	440	400	427	433	9.35	390	9.60	-0.25
	RAPS- B (2*220)	440	413	451	457	9.89	412	9.91	-0.02
	RAPS- C (2*220)	440	212	231	234	4.92	205	5.09	-0.16
	Sub Total (B)	**1320**	**1025**	**1109**	**1124**	**24.16**	**1007**	**24.60**	**-0.44**
C. NHPC	Chamera I HPS (3*180)	540	534	136	0	1.69	70	1.60	0.09
	Chamera II HPS (3*100)	300	300	308	0	0.98	41	0.95	0.03
	Chamera III HPS (3*77)	231	231	157	0	0.38	16	0.35	0.03
	Bairasuil HPS(3*60)	180	90	120	0	0.40	17	0.37	0.03
	Salal-HPS (6*115)	690	89	224	126	2.26	94	2.13	0.13
	Tanakpur-HPS (3*40)	94	25	25	25	0.65	27	0.60	0.05
	Uri-I HPS (4*120)	480	93	207	59	2.37	99	2.23	0.13
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	154	209	0	0.98	41	0.86	0.12
	Dulhasti-HPS (3*130)	390	258	273	0	2.50	104	2.40	0.10
	Sewa-II HPS (3*40)	120	119	37	0	0.23	10	0.36	-0.12
	Parbati 3 (4*130)	520	0	0	0	0.00	0	0.00	0.00
	Sub Total (C)	**4065**	**1892**	**1696**	**210**	**12**	**518**	**12**	**1**
D.SJVNL	NJPC (6*250)	1500	1507	1602	0	6.21	259	6.10	0.11
	Rampur HEP (4*68.67)	275	300	297	0	1.50	63	1.47	0.03
	Sub Total (D)	**1775**	**1807**	**1899**	**0**	**7.71**	**321**	**7.57**	**0.14**
E. THDC	Tehri HPS (4*250)	1000	874	730	0	8.70	363	8.90	-0.20
	Koteshwar HPS (4*100)	400	134	291	90	3.28	137	3.20	0.08
	Sub Total (E)	**1400**	**1008**	**1021**	**90**	**11.98**	**499**	**12.10**	**-0.12**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	508	1092	338	12.25	510	12.19	0.06
	Dehar HPS (6*165)	990	119	330	0	2.81	117	2.85	-0.04
	Pong HPS (6*66)	396	140	312	0	3.29	137	3.37	-0.08
	Sub Total (F)	**2900**	**767**	**1734**	**338**	**18.35**	**764**	**18.40**	**-0.06**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	0	0	0.03	1	0.34	-0.30
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	772	0	3.20	133	3.11	0.08
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	141	76	2.94	123	4.37	-1.43
	Budhil HPS(IPP)	70	0	0	0	0.00	0	0.00	0.00
	Sub Total (G)	1662	0	913	76	6.18	257	7.83	-1.65
H. Total Regional Entities (A-G)		**24434**	**16735**	**17057**	**9088**	**284.42**	**11851**	**277.10**	**7.31**

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	550	480	12.39	516
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	65	80	1.94	81
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	383	384	9.51	396
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	637	350	12.80	533
	Talwandi Saboo (1*660)	660	349	350	9.93	414
	Thermal (Total)	**4680**	**1984**	**1644**	**46.57**	**1940**
	Total Hydro	1148	203	123	6.23	260
	Total Punjab	**5828**	**2187**	**1767**	**52.80**	**2200**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	443	431	10.63	443
	DCRTPP (Yamuna nagar) (2*300)	600	526	487	12.22	509
	Faridabad GPS (NTPC)	432	342	281	7.64	318
	RGTPP (khedar) (IPP) (2*600)	1200	1161	746	24.71	1030
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	1076	394	17.81	742
	Thermal (Total)	**4944**	**3548**	**2339**	**73.02**	**3043**
	Total Hydro	62	9	13	0.39	16
	Total Haryana	**5006**	**3557**	**2352**	**73.41**	**3059**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	696	860	20.49	854
	suratgarh TPS (6*250)	1500	1326	1128	29.67	1236
	Chabra TPS (3*250)	750	642	592	14.46	602
	Dholpur GPS (3*110)	330	100	98	2.45	102
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	210	220	4.78	199
	RAPS A (NPC) (1*100+1*200)	300	147	150	4.09	170
	Barsingsar (NLC) (2*125)	250	191	159	4.14	173
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwest LTPS (IPP) (8*135)	1080	821	732	17.16	715
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	0	0	0.00	0
	Kawai(Adani) (2*660)	1320	1195	1114	26.99	1124
	Thermal (Total)	**8026**	**5328**	**5053**	**124**	**5176**
	Total Hydro	550	254	130	5.15	215
	Wind power	2798	129	256	4.62	192
	Biomass	99	25	25	0.60	25
	Solar	730	0	0	0.10	4
	Renewable/Others (Total)	3627	154	281	5.31	221
	Total Rajasthan	**12203**	**5736**	**5464**	**134.69**	**5612**
UP	Anpara TPS (3*210+2*500)	1630	1400	1379	32.90	1371
	Obra TPS (2*50+2*94+5*200)	1194	350	322	8.00	333
	Paricha TPS (2*110+2*220+2*250)	1140	783	771	19.10	796
	Panki TPS (2*105)	210	0	0	0.00	0
	Harduaganj TPS (1*60+1*105+2*250)	665	456	497	11.10	463
	Tanda TPS (NTPC) (4*110)	440	388	383	9.30	388
	Roza TPS (IPP) (4*300)	1200	1035	819	23.60	983
	Anpara-C (IPP) (2*600)	1200	1031	1037	24.70	1029
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	402	280	8.50	354
	Thermal (Total)	**8129**	**5845**	**5488**	**137.20**	**5717**
	Vishnuparyag HPS (IPP)	400	68	66	1.60	67
	Other Hydro	527	235	221	3.80	158
	Cogeneration	981	800	800	19.20	800
	Total UP	**10037**	**6948**	**6575**	**161.80**	**6675**
Uttarakhand	Total Hydro	1398	586	335	9.54	397
	Total Uttarakhand	**1398**	**586**	**335**	**9.54**	**397**
Delhi	Rajghat TPS (2*67.5)	135	43	41	0.92	38
	Delhi Gas Turbine (6x30 + 3x34)	282	156	158	3.75	156
	Pragati Gas Turbine (2x104+ 1x122)	330	159	150	3.78	157
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	329	229	7.15	298
	Badarpur TPS (NTPC) (3*95+2*210)	705	338	325	7.88	328
	Thermal (Total)	2917	1025	904	23.47	978
	Total Delhi	**2917**	**1025**	**904**	**23.47**	**978**
HP	Baspa HPS (IPP) (2*150)	300	30	0	1.06	44
	Malana HPS (IPP) (2*43)	86	0	0	0.17	7
	Other Hydro	728	138	73	2.89	120
	Total HP	**1114**	**168**	**73**	**4.12**	**172**
J & K	Baglihar HPS (IPP) (3*150)	450	150	120	3.25	135
	Other Hydro/IPP	436	78	18	1.00	42
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**228**	**138**	**4.25**	177
Total State Control Area Generation		**39597**	**20435**	**17608**	**464.07**	**19270**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**3351**	**1776**	**112.04**	**4668**
Total Regional Availability(Gross)		**64032**	**40844**	**28471**	**860.52**	**35788**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**7122**	**638**	**53.71**	**2238**
State Control Area Hydro	**5684**	**1683**	**1033**	**35.07**	**1395**
Total Regional Hydro	**17116**	**8805**	**1671**	**88.78**	**3633**

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
	MW	MW	Import	Export	Import	Export	MU
Vindhychal B/B	50	-50	50	50	0.65	0.56	0.09
Gwalior-Agra (D/C)	721	692	1686	0	28.17	0.00	28.17
Zerda-Kankroli	-140	-299	0	299	0.00	3.11	-3.11
Zerda-Bhinmal	-56	-201	85	201	0.00	0.82	-0.82
Malanpur-Auraiya	-100	-110	0	150	0.00	2.84	-2.84
Badod-Kota/Morak	19	-85	20	127	0.00	1.08	-1.08
Mundra-Mohindergarh(HVDC)	2001	1998	2004	0	48.36	0.00	48.36
Vindhyachal - Rihand	-492	-476	504	0	11.69	0.00	11.69
Sub Total WR	**2003**	**1469**			**88.86**	**8.40**	**80.46**
Pusauli Bypass	300	-456	300	498	3.73	4.14	-0.41
MZP- GKP (D/C)	34	-102	327	174	2.05	0.00	2.05
Patna-Balia(D/C)	430	381	915	0	12.96	0.00	12.96
B'Sharif-Balia (D/C)	-97	63	153	217	0.27	0.00	0.27
Pusauli-Balia	-44	67	126	92	0.52	0.00	0.52
Gaya-Fatehpur (765 Kv)	369	234	544	0	9.55	0.00	9.55
Pusauli-Sahupuri	142	137	169	0	2.98	0.00	2.98
K'nasa-Sahupuri	0	0	0	0	0.48	0.96	-0.48
Son Ngr-Rihand	-40	-42	0	47	0.00	0.91	-0.91
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	254	25	412	0	5.04	0.00	5.04
Sub Total ER	**1348**	**307**			**37.58**	**6.01**	**31.57**
Total IR Exch	**3351**	**1776**			**126.44**	**14.41**	**112.04**

V(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
27.09	0.22	27.31	11.71	-5.32	7.25	18.44	0.22	-0.22

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Incids Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
46.49	66.86	113.36	31.57	80.46	112.04	-14.92	13.60	-1.32

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	2.08	12.62	32.92	60.15	43.22	12.31	7.38	4.20	NA

<---------- Frequency (Hz) ---------->				Average	Frequency	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum		Frequency	Variation		MAX	MIN
Freq	Time	Freq	Time	Hz	Index		(Hz)	(Hz)
50.31	21.31.00	49.56	7.17.30	49.96	0.19	0.13	50.31	49.76

VII. Voltage profile 400 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV
Rihand	400	412	03:32	403	09:07	0.0	0.0	0.0	0.0
Gorakhpur	400	408	23:47	395	17:17	0.0	0.0	0.0	0.0
Bareilly	400	422	03:11	399	14:47	0.0	0.0	6.4	0.0
Kanpur	400	420	03:11	398	09:09	0.0	0.0	0.0	0.0
Dadri	400	421	02:33	402	09:11	0.0	0.0	4.6	0.0
Ballabhgarh	400	428	02:34	405	09:23	0.0	0.0	37.4	0.0
Bawana	400	426	02:53	408	14:47	0.0	0.0	28.3	0.0
Bassi	400	431	05:02	221	10:46	16.6	16.6	29.7	0.6
Hissar	400	416	20:52	398	14:47	0.0	0.0	0.0	0.0
Moga	400	423	20:52	406	09:45	0.0	0.0	11.2	0.0
Abdullapur	400	0	00:00	396	00:00	0.0	0.0	0.0	0.0
Nalagarh	400	429	20:53	403	09:43	0.0	0.0	35.0	0.0
Kishenpur	400	420	23:58	395	18:22	0.0	0.0	0.0	0.0
Wagoora	400	408	14:44	367	18:23	36.3	64.9	0.0	0.0

VIII. Voltage profile 765 kV

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	779	23:24	731	09:21	0.0	11.1	0.0	0.0
Balia	765	783	03:43	743	09:23	0.0	0.0	0.0	0.0
Moga	765	800	20:52	769	09:42	0.0	0.0	0.0	0.0
Agra	765	798	23:55	750	08:38	0.0	0.0	0.0	0.0
Bhiwani	765	802	20:52	770	14:47	0.0	0.0	0.4	0.0
Unnao	765	770	03:12	730	10:16	0.0	34.2	0.0	0.0

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	493.89	858.11	497.62	1006.54	99.14	368.43
Pong	426.72	384.05	402.62	281.22	409.27	474.29	57.00	236.05
Tehri	829.79	740.04	801.95	646.00	804.60	704.00	36.45	210.00
Koteshwar	612.50	598.50	609.21	4.21	609.98	4.44	210.00	215.00
Chamera-I	760.00	748.75	759.05	0.00	0.00	0.00	40.88	45.28
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	503.03	1.92	509.49	2.54	34.95	158.27

*** 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 / PXIL (MU)	Total (MU)
Punjab	-410	110	0	-379	7	0	-8.62	1.02	-7.61
Delhi	-891	-41	-31	-489	370	-10	-10.96	3.27	-7.69
Haryana	-943	157	1	-939	120	1	-23.54	1.59	-21.95
HP	533	-81	0	504	-68	0	13.48	-2.92	10.56
J&K	684	-5	0	486	238	0	13.20	2.86	16.06
CHD	-31	0	0	0	15	0	-0.25	0.75	0.50
Rajasthan	487	661	2	487	383	2	15.66	13.80	29.46
UP	74	0	0	100	0	0	-1.67	0.00	-1.67
Uttarakhand	291	146	46	291	409	17	6.99	8.51	15.49
Total	**-205**	**946**	**18**	**61**	**1473**	**9**	**4.29**	**28.87**	**33.16**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-328	-410	189	0	0	0
Delhi	21	-891	487	-41	-10	-31
Haryana	-939	-1067	158	-547	1	1
HP	605	479	10	-544	0	0
J&K	684	438	287	-57	0	0
CHD	0	-31	73	0	0	0
Rajasthan	843	487	1081	105	2	2
UP	178	-389	0	0	0	0
Uttarakhand	291	291	459	111	46	16

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 21.01.2015 :

Fog observed in most parts of NR.

XIV. Synchronisation of new generating units :

0.00

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

1. First time Charging of 400kV Bus reactor at Nakodar Punjab is done at 16.13hrs on 21.01.15.

2. First time charging of 400kV Main bay Ratangarh-1 at 18.54 and 400kV Mainbay Neemrana-1 at 19.57hrs at Sikar Substation

XVI. Tripping of lines in pooling stations :

XVII. Complete generation loss in a generating station :

Report for : 21.01.2015 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**