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 29.03.2015
Date of Reporting : 30.03.2015

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
29763	918	30681	49.90	29815	1770	31584	50.06	730.2	33.04

* 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	45.72	7.59		53.30	38.42	36.61	-1.80	89.92	0.00
Haryana	34.26	0.54		34.80	55.35	51.08	-4.26	85.88	0.00
Rajasthan	105.68	0.49	12.33	118.50	49.58	47.94	-1.64	166.44	0.00
Delhi	20.94			20.94	41.82	40.83	-0.99	61.77	0.08
UP	126.85	6.61		133.46	98.68	102.19	3.51	235.65	26.32
Uttarakhand		11.73		11.73	18.75	19.34	0.59	31.07	0.00
HP		12.10		12.10	9.92	11.41	1.49	23.50	0.00
J & K		12.68	0.00	12.68	22.48	20.08	-2.40	32.76	6.65
Chandigarh				0.00	3.25	3.22	0.27	3.22	0.00
Total	**333.44**	**51.73**	**12.33**	**397.50**	**338.24**	**332.70**	**-5.23**	**730.20**	**33.04**

* 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	3701	0	-14	-19	3620	0	79	-218	4788
Haryana	4146	0	-39	157	3302	0	-136	199	5262
Rajasthan	5693	0	-553	507	7105	0	-100	565	8046
Delhi	2577	0	-240	-214	2173	73	-29	-724	2924
UP	9392	630	-183	142	10337	1435	-1	129	10818
Uttarakhand	1459	0	18	346	1248	0	114	275	1508
HP	975	0	65	-754	809	0	112	-185	1189
J&K	1658	288	252	263	1110	262	5	121	1799
Chandigarh	162	0	-13	0	110	0	19	0	169
Total	**29763**	**918**	**-707**	**429**	**29815**	**1770**	**63**	**163**	**34064**

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

Diversity is 1.07

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	1945	1526	2098	43.52	1813	40.16	3.36
	Rihand I STPS (2*500)	1000	920	798	996	19.12	797	17.54	1.57
	Rihand II STPS (2*500)	1000	475	384	524	9.69	404	8.82	0.87
	Rihand III STPS (2*500)	1000	979	760	971	19.20	800	17.68	1.52
	Dadri I STPS (4*210)	840	815	598	660	16.06	669	15.43	0.63
	Dadri II STPS (2*490)	980	480	346	402	9.09	379	8.97	0.12
	Unchahar I TPS (2*210)	420	405	279	371	7.07	295	7.49	-0.41
	Unchahar II TPS (2*210)	420	403	309	333	6.93	289	6.99	-0.06
	Unchahar III TPS (1*220)	210	201	156	139	3.39	141	3.37	0.02
	ISTPP (Jhajjhar) (3*500)	1500	1500	801	763	16.63	693	17.21	-0.58
	Dadri GPS (4*130.19+2*154.51)	830	818	354	298	8.39	350	8.35	0.04
	Anta GPS (3*88.71+1*153.2)	419	172	0	0	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	657	155	162	3.78	158	3.79	-0.01
	Dadri Solar	5	1	0	0	0.01	0	0.02	-0.01
	Unchahar Solar	10	3	0	0	0.04	2	0.06	-0.03
	Singrauli Solar	15	3	0	0	0.04	2	0	-0.03
	Sub Total (A)	**11312**	**9775**	**6466**	**7717**	**163**	**6790**	**156**	**7**
B. NPC	NAPS (2*220)	440	385	426	433	9.46	394	9.25	0.21
	RAPS- B (2*220)	440	397	397	397	9.53	397	9.53	0.00
	RAPS- C (2*220)	440	205	212	215	4.45	185	4.92	-0.47
	Sub Total (B)	**1320**	**987**	**1035**	**1045**	**23.44**	**977**	**23.70**	**-0.26**
C. NHPC	Chamera I HPS (3*180)	540	534	554	543	10.12	422	10.00	0.12
	Chamera II HPS (3*100)	300	300	302	30	5.39	225	5.34	0.05
	Chamera III HPS (3*77)	231	231	234	0	3.43	143	3.40	0.03
	Bairasuil HPS(3*60)	180	179	179	180	4.14	173	4.14	0.00
	Salal-HPS (6*115)	690	432	460	440	9.87	411	10.36	-0.49
	Tanakpur-HPS (3*40)	94	45	56	60	1.09	46	1.03	0.06
	Uri-I HPS (4*120)	480	394	477	476	9.77	407	9.61	0.16
	Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00
	Dhauliganga-HPS (4*70)	280	210	210	0	2.27	94	2.20	0.07
	Dulhasti-HPS (3*130)	390	387	401	0	5.46	228	5.30	0.16
	Sewa-II HPS (3*40)	120	119	130	128	3.07	128	2.85	0.21
	Parbati 3 (4*130)	520	209	0	0	1.14	47	1.14	0.00
	Sub Total (C)	**4065**	**3039**	**3002**	**1856**	**56**	**2323**	**55**	**0**
D.SJVNL	NJPC (6*250)	1500	1605	1432	0	11.77	490	11.56	0.20
	Rampur HEP (4*68.67)	275	420	356	0	3.25	135	3.19	0.06
	Sub Total (D)	**1775**	**2025**	**1788**	**0**	**15.02**	**626**	**14.76**	**0.26**
E. THDC	Tehri HPS (4*250)	1000	748	572	0	6.45	269	6.40	0.05
	Koteshwar HPS (4*100)	400	117	302	91	2.82	118	2.80	0.02
	Sub Total (E)	**1400**	**865**	**874**	**91**	**9.28**	**386**	**9.20**	**0.08**
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	517	864	395	13.08	545	12.42	0.66
	Dehar HPS (6*165)	990	465	495	495	11.75	490	11.16	0.59
	Pong HPS (6*66)	396	29	186	0	0.67	28	0.69	-0.02
	Sub Total (F)	**2900**	**1011**	**1545**	**890**	**25.50**	**1063**	**24.27**	**1.24**
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	145	0	0.80	33	0.77	0.03
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	850	0	6.31	263	6.36	-0.05
	Malana Stg-II HPS (2*50)	100	0	0	0	0.00	0	0.00	0.00
	Shree Cement TPS (2*150)	300	0	78	174	3.94	164	3.94	0.00
	Budhil HPS(IPP)	70	0	72	0	0.58	24	0.56	0.01
	Sub Total (G)	1662	0	1145	174	11.63	485	11.63	0.00
H. Total Regional Entities (A-G)		**24434**	**17702**	**15855**	**11773**	**303.58**	**12649**	**294.87**	**8.71**

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	340	500	9.38	391
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	110	190	3.18	133
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	346	518	10.15	423
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	705	708	15.72	655
	Talwandi Saboo (1*660)	660	352	346	7.29	304
	Thermal (Total)	**4680**	**1853**	**2262**	**45.72**	**1905**
	Total Hydro	1148	327	292	7.59	316
	Total Punjab	**5828**	**2180**	**2554**	**53.30**	**2221**
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	-0.05	-2
	DCRTPP (Yamuna nagar) (2*300)	600	483	469	11.22	467
	Faridabad GPS (NTPC)	432	192	133	4.06	169
	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	757	754	19.03	793
	Thermal (Total)	**4944**	**1432**	**1356**	**34.26**	**1427**
	Total Hydro	62	22	19	0.54	23
	Total Haryana	**5006**	**1454**	**1375**	**34.80**	**1450**
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	872	866	20.68	862
	suratgarh TPS (6*250)	1500	572	759	15.84	660
	Chabra TPS (3*250)	750	751	761	18.32	763
	Dholpur GPS (3*110)	330	0	0	0.00	0
	Ramgarh GPS (1*3 + 1*35.5 +2*37.5 +1*110 +1*50)	271	183	218	5.03	210
	RAPS A (NPC) (1*100+1*200)	300	162	167	4.15	173
	Barsingsar (NLC) (2*125)	250	169	197	4.54	189
	Giral LTPS (2*125)	250	78	80	1.60	67
	Rajwest LTPS (IPP) (8*135)	1080	445	765	14.22	592
	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	860	879	21.31	888
	Thermal (Total)	**8026**	**4092**	**4692**	**106**	**4403**
	Total Hydro	550	20	83	0.49	21
	Wind power	2798	446	177	11.61	484
	Biomass	99	30	30	0.72	30
	Solar	730	0	0	0.00	0
	Renewable/Others (Total)	3627	476	207	12.33	514
	Total Rajasthan	**12203**	**4588**	**4982**	**118.50**	**4937**
UP	Anpara TPS (3*210+2*500)	1630	1387	1387	32.70	1362
	Obra TPS (2*50+2*94+5*200)	1194	473	444	10.77	449
	Paricha TPS (2*110+2*220+2*250)	1140	599	689	15.96	665
	Panki TPS (2*105)	210	144	95	2.66	111
	Harduaganj TPS (1*60+1*105+2*250)	665	170	230	5.04	210
	Tanda TPS (NTPC) (4*110)	440	293	390	8.29	345
	Roza TPS (IPP) (4*300)	1200	765	802	19.28	803
	Anpara-C (IPP) (2*600)	1200	540	540	12.97	540
	Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)	450	0	0	0.00	0
	Thermal (Total)	**8129**	**4371**	**4577**	**107.65**	**4486**
	Vishnuparyag HPS (IPP)	400	105	108	2.54	106
	Other Hydro	527	125	282	4.07	170
	Cogeneration	981	800	800	19.20	800
	Total UP	**10037**	**5401**	**5767**	**133.46**	**5455**
Uttarakhand	Total Hydro	1398	496	474	11.73	489
	Total Uttarakhand	**1398**	**496**	**474**	**11.73**	**489**
Delhi	Rajghat TPS (2*67.5)	135	29	38	1.08	45
	Delhi Gas Turbine (6x30 + 3x34)	282	79	81	1.87	78
	Pragati Gas Turbine (2x104+ 1x122)	330	154	273	5.29	220
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	308	269	7.47	311
	Badarpur TPS (NTPC) (3*95+2*210)	705	154	162	5.23	218
	Thermal (Total)	2917	724	823	20.94	872
	Total Delhi	**2917**	**724**	**823**	**20.94**	**872**
HP	Baspa HPS (IPP) (2*150)	300	114	0	1.31	54
	Malana HPS (IPP) (2*43)	86	12	0	0.67	28
	Other Hydro	728	437	396	10.12	422
	Total HP	**1114**	**563**	**396**	**12.10**	**504**
J & K	Baglihar HPS (IPP) (3*150)	450	438	440	10.53	439
	Other Hydro/IPP	436	94	76	2.15	89
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	**1094**	**532**	**516**	**12.68**	528
Total State Control Area Generation		**39597**	**15938**	**16887**	**397.50**	**16457**
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			**2070**	**1817**	**48.82**	**2034**
Total Regional Availability(Gross)		**64032**	**33863**	**30477**	**749.90**	**31140**

IV. Total Hydro Generation:

Regional Entities Hydro	**11432**	**8204**	**2837**	**112.66**	**4694**
State Control Area Hydro	**5684**	**2085**	**2062**	**51.73**	**2050**
Total Regional Hydro	**17116**	**10289**	**4899**	**164.39**	**6744**

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	-500	-500	0	500	0.00	11.56	-11.56
Gwalior-Agra (D/C)	1086	1100	1491	0	25.85	0.00	25.85
Zerda-Kankroli	-295	-426	0	476	0.00	9.28	-9.28
Zerda-Bhinmal	-241	-357	0	458	0.00	7.78	-7.78
Malanpur-Auraiya	-55	-87	0	98	0.00	1.61	-1.61
Badod-Kota/Morak	-171	-189	0	220	0.00	2.78	-2.78
Mundra-Mohindergarh(HVDC)	1497	1698	1703	0	37.98	0.00	37.98
Vindhyachal - Rihand	494	481	515	0	11.91	0.00	11.91
Sub Total WR	**1815**	**1720**			**75.75**	**33.01**	**42.73**
Pusauli Bypass	-421	-477	0	546	0.00	10.22	-10.22
MZP- GKP (D/C)	-16	-42	69	179	0.00	0.52	-0.52
Patna-Balia(D/C)	374	370	493	0	10.19	0.00	10.19
B'Sharif-Balia (D/C)	-15	-37	0	128	0.00	0.41	-0.41
Pusauli-Balia	117	52	118	0	0.88	0.00	0.88
Gaya-Fatehpur (765 Kv)	0	40	155	17	1.38	0.00	1.38
Pusauli-Sahupuri	188	171	188	0	3.63	0.00	3.63
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-34	0	53	0.00	0.74	-0.74
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	64	54	139	0	1.89	0.00	1.89
Sub Total ER	**255**	**97**			**17.97**	**11.88**	**6.09**
Total IR Exch	**2070**	**1817**			**93.71**	**44.90**	**48.82**

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
13.87	0.23	14.10	3.13	-2.38	3.72	-1.10	2.83	-2.83

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
23.78	35.96	59.75	6.09	42.73	48.82	-17.70	6.77	-10.93

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	0.76	3.26	15.03	44.62	50.60	18.39	13.95	2.12	0.00

<---------- Frequency (Hz) ---------->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time	Hz			(Hz)	(Hz)
50.29	17.04	49.64	19.13	50.00	0.10	0.10	0.00	0

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	409	21:44	400	16:01	0.0	0.0	0.0	0.0
Gorakhpur	400	415	17:05	390	13:35	0.0	0.0	0.0	0.0
Bareilly	400	427	23:00	411	07:00	0.0	0.0	0.0	0.0
Kanpur	400	421	04:15	401	13:36	0.0	0.0	0.5	0.0
Dadri	400	425	22:55	404	10:48	0.0	0.0	29.9	0.0
Ballabhgarh	400	432	23:30	403	10:06	0.0	0.0	38.1	2.2
Bawana	400	426	04:10	404	11:12	0.0	0.0	34.0	0.0
Bassi	400	423	21:25	398	11:36	0.0	0.0	4.9	0.0
Hissar	400	419	21:22	395	13:34	0.0	0.0	0.0	0.0
Moga	400	421	04:04	403	13:36	0.0	0.0	2.5	0.0
Abdullapur	400	427	23:28	396	18:50	0.0	0.0	32.6	0.0
Nalagarh	400	429	01:15	384	14:25	0.0	4.9	40.4	0.0
Kishenpur	400	226	03:21	214	19:39	100.0	100.0	0.0	0.0
Wagoora	400	409	04:36	378	19:43	1.0	23.7	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	781	21:40	745	13:35	0.0	0.0	0.0	0.0
Balia	765	767	17:18	738	13:35	0.0	1.3	0.0	0.0
Moga	765	801	21:49	765	13:35	0.0	0.0	0.0	0.0
Agra	765	792	21:40	755	10:24	0.0	0.0	0.0	0.0
Bhiwani	765	808	21:40	770	09:30	0.0	0.0	19.5	0.0
Unnao	765	771	21:40	737	13:36	0.0	4.1	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	480.36	468.02	482.33	511.55	429.76	412.15
Pong	426.72	384.05	402.63	281.22	402.35	273.51	113.13	49.95
Tehri	829.79	740.04	774.20	252.76	778.40	302.66	75.96	183.00
Koteshwar	612.50	598.50	611.29	5.20	611.65	5.20	183.00	187.00
Chamera-I	760.00	748.75	757.40	0.00	0.00	0.00	275.37	273.61
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	509.10	2.92	512.85	2.03	326.86	140.95

*** 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	-322	104	0	-282	263	0	-7.03	6.00	-1.03
Delhi	-657	-27	-41	-463	290	-41	-11.65	2.04	-9.62
Haryana	65	134	0	61	96	0	0.92	2.51	3.43
HP	161	-347	0	-85	-668	0	2.56	-10.72	-8.16
J&K	530	-409	0	317	-54	0	9.45	-4.67	4.79
CHD	0	0	0	0	0	0	0.00	-0.11	-0.11
Rajasthan	-4	567	2	0	505	2	-0.04	12.24	12.20
UP	129	0	0	142	0	0	2.42	0.00	2.42
Uttarakhand	90	158	27	158	161	27	3.45	4.54	7.99
Total	**-7**	**181**	**-12**	**-152**	**592**	**-12**	**0.08**	**11.83**	**11.91**

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	-277	-323	379	3	0	0
Delhi	-402	-657	333	-66	-41	-41
Haryana	65	13	138	86	0	0
HP	168	-85	-244	-801	0	0
J&K	530	317	-54	-409	0	0
CHD	0	0	0	-25	0	0
Rajasthan	0	-4	570	453	2	2
UP	176	20	0	0	0	0
Uttarakhand	158	90	361	36	27	27

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 29.03.2015 :

Rainfall/Cloudy

XIV. Synchronisation of new generating units :

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

765 kV Lucknow-Bareilly first time charged at 00:48 hrs on 30-03-2015

765 kV Bus 1 & 2 at bareily charged at 20:02 hrs and 19:32 hrs respectively on 29-03-2015

Unit # 2 (200 MW) of Koldam HEPP was test synchronised at 07:42 hrs on 30-03-2015.

XVI. Tripping of lines in pooling stations :

XVII. Complete generation loss in a generating station :

Report for : 29.03.2015 **पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER**