

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 21.05.2015
Date of Reporting : 22.05.2015

I. Regional Availability/Demand:

Evening Peak (20:00 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
40408	1935	42343	50.16	39983	1494	41478	50.07	954.1	33.96

* 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	37.07	17.73		54.80	97.78	97.41	-0.37	152.21	0.00
Haryana	49.98	0.65		50.63	86.69	85.53	-1.16	136.16	0.00
Rajasthan	91.45	0.21	14.49	106.15	74.51	74.81	0.30	180.96	0.00
Delhi	23.70			23.70	81.77	78.74	-3.03	102.44	0.15
UP	130.40	15.58		145.98	130.48	129.62	-0.86	275.60	25.70
Uttarakhand		19.03		19.03	18.25	19.19	0.94	38.22	0.77
HP		21.14		21.14	4.27	4.89	0.61	26.03	0.00
J & K		14.61	0.00	14.61	22.18	22.08	-0.10	36.69	7.34
Chandigarh				0.00	5.74	5.76	0.27	5.76	0.00
Total	332.60	88.96	14.49	436.05	521.67	518.02	-3.40	954.07	33.96

* 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 (20:00 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	6163	0	-158	711	6261	0	72	989	6987
Haryana	6703	0	-44	288	5943	0	-114	290	6932
Rajasthan	6851	0	-95	467	7561	0	40	559	7943
Delhi	4269	0	-155	474	4278	0	-3	562	4946
UP	11537	1500	-44	923	11919	1220	241	989	12549
Uttarakhand	1807	80	124	170	1518	0	12	38	1807
HP	1056	0	-51	-1250	925	0	17	-1346	1222
J&K	1774	355	126	-337	1372	274	-6	-558	1842
Chandigarh	249	0	-16	20	206	0	15	0	299
Total	40408	1935	-313	1466	39983	1494	274	1523	42578

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

III. Regional Entities :

A. NTPC	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
Rihand I STPS (2*500)	1000	463	498	503	11.47	478	10.68	0.79	
Rihand II STPS (2*500)	1000	965	927	1048	23.42	976	21.74	1.69	
Rihand III STPS (2*500)	1000	932	1006	994	22.19	925	20.82	1.37	
Dadri I STPS (4*210)	840	815	713	605	15.71	655	14.96	0.74	
Dadri II STPS (2*490)	980	980	719	706	16.93	705	16.75	0.18	
Unchahar I TPS (2*210)	420	405	319	350	7.92	330	8.26	-0.34	
Unchahar II TPS (2*210)	420	401	352	291	7.56	315	8.06	-0.50	
Unchahar III TPS (1*220)	210	201	170	168	3.78	158	4.14	-0.36	
ISTPP (Jhajjar) (3*500)	1500	1500	672	648	14.11	588	14.67	-0.56	
Dadri GPS (4*130.19+2*154.51)	830	808	368	302	8.42	351	8.41	0.01	
Anta GPS (3*88.71+1*153.2)	419	380	234	226	5.56	232	5.49	0.07	
Auraiya GPS (4*111.19+2*109.30)	663	644	152	157	3.69	154	3.77	-0.08	
Dadri Solar	5	1	0	0	0.03	1	0.03	0.00	
Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03	
Singrauli Solar	15	3	0	0	0.08	3	0.07	0.01	
KHEP	400	0	200	200	4.80	200	0.00	4.80	
Sub Total (A)	11712	10189	8167	8008	186	7765	177	9	
B. NPC	NAPS (2*220)	440	372	413	431	9.16	382	8.93	0.23
RAPS- B (2*220)	440	87	272	123	1.62	68	2.09	-0.47	
RAPS- C (2*220)	440	131	160	0	0.69	29	3.15	-2.46	
Sub Total (B)	1320	590	845	554	11.47	478	14.17	-2.70	
C. NHPC	Chamera I HPS (3*180)	540	540	547	550	13.13	547	12.96	0.17
Chamera II HPS (3*100)	300	300	309	313	7.38	307	7.20	0.18	
Chamera III HPS (3*77)	231	231	237	238	5.61	234	5.55	0.06	
Bairasuil HPS(3*60)	180	179	184	123	4.26	178	4.20	0.06	
Salal-HPS (6*115)	690	666	673	673	16.24	677	15.97	0.27	
Tanakpur-HPS (3*40)	94	72	76	66	1.81	75	1.70	0.11	
Uri-I HPS (4*120)	480	475	475	476	11.62	484	11.40	0.22	
Uri-II HPS (4*60)	240	0	0	0	0.00	0	0.00	0.00	
Dhauliganga-HPS (4*70)	280	210	220	141	4.71	196	4.54	0.16	
Dulhasti-HPS (3*130)	390	387	405	398	9.44	393	9.29	0.15	
Sewa-II HPS (3*40)	120	119	131	130	3.08	128	2.86	0.22	
Parbati 3 (4*130)	520	260	265	0	2.98	124	2.93	0.06	
Sub Total (C)	4065	3440	3520	3107	80	3344	79	2	
D.SJVNL	NJPC (6*250)	1500	1605	1627	1621	38.48	1603	38.52	-0.04
Rampur HEP (6*68.67)	412	435	448	447	10.54	439	10.45	0.09	
Sub Total (D)	1912	2040	2075	2068	49.02	2043	48.97	0.05	
E. THDC	Tehri HPS (4*250)	1000	290	297	150	6.79	283	6.70	0.09
Koteshwar HPS (4*100)	400	146	300	101	3.51	146	3.50	0.01	
Sub Total (E)	1400	436	597	251	10.29	429	10.20	0.09	
F. BBMB	Bhakra HPS (3*108+2*126+6*157)	1514	821	1168	619	20.27	845	19.69	0.58
Dehar HPS (6*165)	990	605	825	495	14.97	624	14.51	0.46	
Pong HPS (6*66)	396	55	192	0	1.35	56	1.33	0.02	
Sub Total (F)	2900	1481	2185	1114	36.59	1525	35.53	1.06	
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	191	142	3.99	166	3.70	0.29
KARACHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1200	28.29	1179	28.53	-0.24	
Malana Stg-II HPS (2*50)	100	0	110	55	1.47	61	1.37	0.09	
Shree Cement TPS (2*150)	300	0	257	285	6.24	260	6.24	-0.01	
Budhil HPS(IPP)	70	0	70	35	1.40	58	1.47	-0.07	
Sub Total (G)	1662	0	1828	1717	41.38	1724	41.32	0.06	
H. Total Regional Entities (A-G)	24972	18176	19217	16819	415.37	17307	406.24	9.13	

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	260	160	5.13	214
	Guru Nanak Dev TPS(Bhatinda) (4*110)	440	100	90	2.30	96
	Guru Har Gobind Singh TPS(L.mbl) (2*210+2*250)	920	172	174	4.05	169
	Goindwal(GVK)		0	0	0.00	0
	Rajpura (2*700)	1400	1032	797	25.59	1066
	Talwandi Saboo (1*660)	660	0	0	0.00	0
	Thermal (Total)	4680	1564	1221	37.07	1545
	Total Hydro	1148	738	795	17.73	739
Total Punjab	5828	2302	2016	54.80	2283	
Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
	DCRTPP (Yamuna nagar) (2*300)	600	545	483	11.74	489
	Faridabad GPS (NTPC)	432	182	179	4.48	187
	RGTPP (khedar) (IPP) (2*600)	1200	1113	954	23.54	981
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP) (2*660)	1320	546	381	10.22	426
	Thermal (Total)	4944	2386	1997	49.98	2083
	Total Hydro	62	27	25	0.65	27
Total Haryana	5006	2413	2022	50.63	2110	
Rajasthan	kota TPS (2*110+2*195+3*210)	1240	519	524	12.99	541
	suratgarh TPS (6*250)	1500	376	390	9.82	409
	Chabra TPS (4*250)	1000	515	475	12.02	501
	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	21	50	0.81	34
	RAPS A (NPC) (1*100+1*200)	300	139	0	2.10	88
	Barsingar (NLC) (2*125)	250	61	66	1.39	58
	Giral LTPS (2*125)	250	0	0	0.00	0
	Rajwast LTPS (IPP) (8*135)	1080	603	826	18.05	752
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0
	Kalisindh Thermal(1*600)	600	434	459	10.76	448
	Kawai(Adani) (2*660)	1320	890	962	23.51	980
	Thermal (Total)	8276	3558	3752	91	3811
	Total Hydro	550	0	0	0.21	9
	Wind power	2798	386	811	12.61	525
	Biomass	99	25	25	0.59	25
	Solar	730	0	0	1.29	54
	Renewable/Others (Total)	3627	411	836	14.49	604
	Total Rajasthan	12453	3969	4588	106.15	4423
	UP	Anpara TPS (3*210+2*500)	1630	1253	1319	30.60
Obra TPS (2*50+2*94+5*200)		1194	463	461	11.10	463
Paricha TPS (2*110+2*220+2*250)		1140	781	810	19.70	821
Panki TPS (2*105)		210	135	126	3.10	129
Harduaganj TPS (1*60+1*105+2*250)		665	210	220	5.20	217
Tanda TPS (NTPC) (4*110)		440	380	380	8.60	358
Roza TPS (IPP) (4*300)		1200	864	959	21.30	888
Anpara-C (IPP) (2*600)		1200	1080	1091	25.80	1075
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	58	81	2.10	88
Anpara-D		500	0	0	0.00	0
Thermal (Total)		8629	5224	5447	128	5313
Vishnuparyag HPS (IPP)(including Alaknanda)		400	597	435	13.78	574
Other Hydro		527	71	86	1.80	75
Cogeneration		981	120	120	2.90	121
Total UP	10537	6012	6088	145.98	5508	
Uttarakhand	Total Hydro	1398	820	748	19.03	793
	Total Uttarakhand	1398	820	748	19.03	793
Delhi	Rajghat TPS (2*67.5)	135	0	36	0.38	16
	Delhi Gas Turbine (6x30 + 3x34)	282	122	75	2.08	86
	Praagati Gas Turbine (2x104+ 1x122)	330	278	274	6.70	279
	Rithala GPS (3*36)	95	0	0	0.00	0
	Bawana GPS (6*250)	1370	291	271	6.79	283
	Badarpur TPS (NTPC) (3*95+2*210)	705	333	326	7.75	323
	Thermal (Total)	2917	1024	982	23.70	988
	Total Delhi	2917	1024	982	23.70	988
HP	Baspa HPS (IPP) (2*150)	300	331	331	7.80	325
	Malana HPS (IPP) (2*43)	86	42	39	1.30	54
	Other Hydro	728	498	516	12.04	502
	Total HP	1114	871	886	21.14	881
J & K	Baglihar HPS (IPP) (3*150)	450	442	442	10.60	442
	Other Hydro/IPP	436	171	168	4.01	167
	Gas/Diesel/Others	209	0	0	0.00	0
	Total J & K	1094	613	610	14.61	609
Total State Control Area Generation		40347	18024	17940	436.05	17595
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5317.93	5741.55	126.24	5260
Total Regional Availability(Gross)		65319	42559	40500	977.66	40161

IV. Total Hydro Generation:

Regional Entities Hydro	11969	10078	8137	214.708123	8946
State Control Area Hydro	5684	3140	3150	88.96	3133
Total Regional Hydro	17654	13218	11287	303.67	12079

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

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	50	200	200	0	2.83	0.00	2.83
Gwalior-Agra (D/C)	1842	1812	2200	0	36.39	0.00	36.39
Zerda-Kankroli	-9	-75	0	203	0.00	2.17	-2.17
Zerda-Bhinmal	38	-31	66	117	0.00	0.52	-0.52
Malanpur-Auraiya	0	0	0	0	0.00	0.00	0.00
Badod-Kota/Morak	7	74	63	18	0.00	1.06	-1.06
Mundra-Mohindergarh(HVDC)	2003	2198	2215	0	52.05	0.00	52.05
Vindhychal - Rihand	494	494	513	0	11.46	0.00	11.46
Sub Total WR	4425	4672			102.74	3.75	98.99
Pusaui Bypass	-442	-361	0	486	0.00	7.64	-7.64
MZP- GKP (D/C)	359	288	541	0	9.21	0.00	9.21
Patna-Balia(D/C)	370	424	482	0	10.41	0.00	10.41
B'Sharif-Balia (D/C)	51	113	199	0	2.77	0.00	2.77
Pusaui-Balia	180	214	277	0	2.44	0.00	2.44
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusaui-Sahupuri	184	177	200	0	4.02	0.00	4.02
K'nasa-Sahupuri	0	0	1	0	0.00	0.00	0.00
Son Ngr-Rihand	-34	-37	0	42	0.00	0.78	-0.78
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
Sasaram - Fatehpur(765 KV)	225	252	363	0	6.81	0.00	6.81
Sub Total ER	893	1070			35.66	8.41	27.25
Total IR Exch	5318	5742			138.40	12.16	126.24

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

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
36.92	1.48	38.40	8.43	2.27	2.96	-1.98	0.84	-0.84

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
50.64	83.72	134.35	27.25	98.99	126.24	-23.39	15.27	-8.12

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

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
132 KV Tanakpur - Mahendarnagar	-15	-23	0	32	0	0	-0.48

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	0.44	0.96	10.07	58.43	73.61	12.73	3.63	0.00	NA

Frequency (Hz) <----->				Average Frequency Hz	Frequency Variation Index	Std. Dev. (Hz)	Frequency in 15 Min Block	
Maximum		Minimum					MAX	MIN
Freq	Time	Freq	Time					
50.21	6.03	49.65	22.13	49.98	0.05	0.07	50.17	49.90

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	405	08:03	399	14:57	0.0	0.0	0.0	0.0
Gorakhpur	400	415	05:16	394	18:55	0.0	0.0	0.0	0.0
Bareilly	400	418	08:00	396	20:00	0.0	0.1	0.0	0.0
Kanpur	400	413	18:03	394	23:17	0.0	0.0	0.0	0.0
Dadri	400	412	18:13	397	23:16	0.0	0.0	0.0	0.0
Ballabgarh	400	418	18:02	397	23:19	0.0	0.0	0.0	0.0
Bawana	400	414	18:03	397	23:08	0.0	0.0	0.0	0.0
Bassi	400	418	18:01	390	11:54	0.0	0.0	0.0	0.0
Hissar	400	404	18:01	387	23:16	0.0	5.8	0.0	0.0
Moga	400	410	18:02	396	23:08	0.0	0.0	0.0	0.0
Abdullapur	400	412	18:03	396	09:51	0.0	0.0	0.0	0.0
Nalagarh	400	411	04:03	397	16:09	0.0	0.0	0.0	0.0
Kishenpur	400	416	03:49	402	22:06	0.0	0.0	0.0	0.0
Wagoora	400	411	03:35	384	21:24	0.0	12.1	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	776	04:03	725	15:35	2.0	10.8	0.0	0.0
Balia	765	769	05:16	737	15:47	0.0	3.8	0.0	0.0
Moga	765	787	18:03	757	23:16	0.0	0.0	0.0	0.0
Agra	765	784	18:03	741	23:16	0.0	0.2	0.0	0.0
Bhiwani	765	790	18:02	758	22:55	0.0	0.0	0.0	0.0
Unnao	765	761	08:01	728	23:17	0.0	42.6	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 (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	487.22	644.48	480.19	461.24	875.58	713.02
Pong	426.72	384.05	405.50	352.07	403.30	296.79	164.07	91.66
Tehri	829.79	740.04	753.70	74.00	745.40	26.00	147.27	222.00
Koteswar	612.50	598.50	608.90	3.98	610.11	4.69	222.00	233.00
Chamera-I	760.00	748.75	757.17	0.00	0.00	0.00	387.44	355.77
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	522.82	10.40	520.28	8.15	342.93	384.32

* NA: Not Available

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

State	Off- Peak Hours (03:00 Hrs)			Peak Hours (20:00 Hrs)			Day Energy (MU)		
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MU)	IEX / PXIL (MU)	Total (MU)
Punjab	418	571	0	416	295	0	10.03	11.62	21.65
Delhi	623	-56	-4	514	-41	0	13.74	0.95	14.69
Haryana	68	221	0	64	223	0	1.59	5.19	6.78
HP	-661	-685	0	-509	-741	0	-13.43	-16.47	-29.90
J&K	-456	-101	0	-396	59	0	-10.67	-0.11	-10.78
CHD	0	0	0	0	20	0	0.24	0.48	0.72
Rajasthan	-121	678	2	-117	582	2	-2.86	18.30	15.44
UP	989	0	0	923	0	0	21.95	0.00	21.95
Uttarakhand	36	2	0	36	134	0	0.87	0.96	1.83
Total	896	629	-2	932	532	2	21.47	20.91	42.38

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	418	416	631	191	0	0
Delhi	662	475	428	-301	0	-4
Haryana	68	64	245	50	0	0
HP	-509	-661	-516	-912	0	0
J&K	-355	-545	133	-116	0	0
CHD	30	0	49	0	0	0
Rajasthan	-117	-121	1400	556	2	2
UP	1008	833	0	0	0	0
Uttarakhand	36	36	137	2	0	0

XI. System Constraints:**XII. Grid Disturbance / Any Other Significant Event:****XIII. Weather Conditions For 21.05.2015 :****XIV. Synchronisation of new generating units :****XV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / substation :**
0.00**XVI. Tripping of lines in pooling stations :****XVII. Complete generation loss in a generating station :**