POWER SYSTEM OPERATION CORPORATION LIMITED
NORTHERN REGIONAL LOAD DESPATCH CENTRE
DAILY OPERATION REPORT OF NORTHERN REGION

Power Supply Position in Northern Region For 01-Nov-2019

Date of Reporting:02-Nov-2019

1. Regional Availability/Demand:

Evening Peak (19:00) MW				Off-Peak (03:00) MW				Day Energy(Net MU)	
Demand Met	Shortage(-)/Surplus(+)	Requirement	Freq (Hz)	Demand Met	Shortage(-)/ Surplus(+)	Requirement	Freq (Hz)	Demand Met	Shortage
42,845	538	43,383	49.97	32,424	261	32,685	49.98	899	14.85

2(A)State's Load Deails (At State Periphery) in MU:

State	State's Control Area Generation (Net MU)							Drawal Sch	Act Drawal	UI	Requirement	Shortage	Consumption
	Thermal	Hydro	Gas/Naptha/ Diesel	Solar	Wind	OthersBiomass/Small Hyd/Co-gen etc.)	Total	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(Net MU)	(Net MU)
PUNJAB	53.86	11.87	0	1.65	0	1.05	68.42	44.65	42.86	-1.79	111.28	0	111.28
HARYANA	8.77	0.86	0	0.08	0	0.62	10.33	112.61	112.13	-0.48	122.46	0	122.46
RAJASTHAN	115.86	0.69	1.91	10.16	17.25	4.52	150.38	63.86	60.46	-3.4	210.84	0	210.84
DELHI	0	0	16.71	0	0	1.04	17.75	53.02	51.28	-1.74	69.03	0	69.03
UTTAR PRADESH	143.1	8.5	0	3.4	0	0.7	155.7	121.69	121.21	-0.48	281.26	4.35	276.91
UTTARAKHAND	0	10.67	0	0.41	0	0	11.08	21.83	22.22	0.39	33.3	0	33.3
HIMACHAL PRADESH	0	5.9	0	0	0	3.98	9.87	16.62	17.2	0.58	27.07	0	27.07
JAMMU & KASHMIR	0	7.99	0	0	0	0	7.99	37.47	36.18	-1.29	54.67	10.5	44.17
CHANDIGARH	0	0	0	0	0	0	0	3.54	3.6	0.06	3.6	0	3.6
Region	321.59	46.48	18.62	15.7	17.25	11.91	431.52	475.29	467.14	-8.15	913.51	14.85	898.66

2(B)State Demand Met (Peak and off-peak Hrs)

State	Evening Peak (19:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage(-)/Surplus(+)	UI	STOA/PX Transaction	Demand Met	Shortage(-) /Surplus(+)	UI	STOA/PX Transaction
PUNJAB	5,426	0	-126	-1,663	3,637	0	-63	-848
HARYANA	5,783	0	-186	381	4,432	0	66	421
RAJASTHAN	8,880	0	-286	-751	7,511	0	-75	161
DELHI	3,434	0	-180	114	2,127	0	-52	-419
UTTAR PRADESH	14,078	0	137	804	11,163	0	-1	69
UTTARAKHAND	1,597	0	-58	175	1,137	0	19	263
HIMACHAL PRADESH	1,299	0	-94	-698	846	0	101	258
JAMMU & KASHMIR	2,153	538	-32	393	1,478	261	-119	252
CHANDIGARH	194	0	-5	-100	94	0	-4	-40
Region	42,844	538	-830	-1,345	32,425	261	-128	117

2(C)State's Demand Met in MWs (Maximum Demand Met and Maximum requirement of the day details)

State	Maximum Demand, corresponding shortage and requirement details for the day				Maximum requirement, corresponding shortage and demand details for the day					
	Maximum Demand Met of the day	Time	Shortage(-) /Surplus(+) during at maximum demand	Requirement at the max demand met of the day	Maximum Requirement of the day	Time	Shortage(-) /Surplus(+) during at maximum Requirement	Demand Met at maximum requiremnet	Min Demand Met	Time
PUNJAB	5,426	19:00	0	5,426	5,426	19:00	0	5,426	3,637	3:00
HARYANA	5,783	19:00	0	5,783	5,783	19:00	0	5,783	4,432	3:00
RAJASTHAN	10,699	9:00	0	10,699	10,699	9:00	0	10,699	7,216	4:00
DELHI	3,434	19:00	0	3,434	3,434	19:00	0	3,434	2,073	4:00
UP	14,926	20:00	0	14,926	14,926	20:00	0	14,926	10,034	16:00
UTTARAKHAND	1,653	18:00	0	1,653	1,653	18:00	0	1,653	1,122	4:00
HP	1,496	8:00	0	1,496	1,496	8:00	0	1,496	846	3:00
J&K	2,345	20:00	586	2,932	2,932	20:00	586	2,345	1,217	2:00
CHANDIGARH	194	19:00	0	194	194	19:00	0	194	94	3:00
NR	42,845	19:00	538	43,383	43,383	19:00	538	42,845	32,104	4:00

3(A) State Entities Generation:

CHANDIGARH							
Station/Constituents	Inst. Capacity	N/A	N/A	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
NIL							
Total	0	0	0			0	0
Total	0	0	0			0	0

DELHI

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
RAJGHAT TPS(2 * 67.5)	135	0	0	0			
Total THERMAL	135	0	0			0	0
BAWANA GPS(2 * 253 + 4 * 216)	1,370	671	468	673		12.18	508
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	39	41	41.93		0.89	37
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	452	147	153	153.9		3.64	152
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,212	857	662			16.71	697
WIND	0	0	0	0			
BIOMASS(16)	16	34	38	44.79		1.04	43
SOLAR(2)	2	0	0	0			
Total DELHI	2,365	891	700			17.75	740

HARIYANA

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
DCRTPP (YAMUNA NAGAR)(2 * 300)	600	0	0	0			
JHAJJAR(CLP)(2 * 660)	1,320	0	0	0			
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	0	0	0			
RGTPP(KHEDAR)(2 * 600)	1,200	465	71	579	12:00	8.77	365
Total THERMAL	4,065	465	71			8.77	365
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	0	0			
Total GAS/NAPTHA/DIESEL	432	0	0			0	0
TOTAL HYDRO HARYANA(64.8)	65	24	36	39	22:00	0.86	36
Total HYDEL	65	24	36			0.86	36
WIND	0	0	0	0			
BIOMASS(106)	106	0	0	0		0.62	26
SOLAR(55.8)	56	0	0	0		0.08	3
Total HARYANA	4,724	489	107			10.33	430

HIMACHAL PRADESH

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BASPA (IPP) HPS(3 * 100)	300	72	83	0		1.8	75
MALANA (IPP) HPS(2 * 43)	86	80	0	0		0.46	19
OTHER HYDRO HP(372)	372	179	127	0		3.63	151
Total HYDEL	758	331	210			5.89	245
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(486)	486	203	151	0		3.98	166
Total SMALL HYDRO	486	203	151			3.98	166
Total HP	1,244	534	361			9.87	411

JAMMU & KASHMIR

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
GAS/DIESEL/OTHERS J&K(1 * 190)	190	0	0	0			
Total GAS/NAPTHA/DIESEL	190	0	0			0	0
BAGLIHAR (IPP) HPS(6 * 150)	900	257	257	0		6.16	257
OTHER HYDRO/IPP J&K(308)	308	92	53	0		1.83	76
Total HYDEL	1,208	349	310			7.99	333
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(98)	98	0	0	0			
Total SMALL HYDRO	98	0	0			0	0
Total J&K	1,496	349	310			7.99	333

PUNJAB

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
GOINDWAL(GVK)(2 * 270)	540	0	0	0			
GURU GOBIND SINGH TPS (ROPAR)(4 * 210)	840	0	0	0		-0.08	-3
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	0	0	0		-0.08	-3
RAJPURA(NPL) TPS(2 * 700)	1,400	1,223	919	1,320		27.13	1,130
TALWANDI SABO TPS(3 * 660)	1,980	1,433	616	1,638		26.89	1,120
Total THERMAL	5,680	2,656	1,535			53.86	2,244
ANANADPUR SAHIB HYDRO PLANT(2 * 33.5 + 2 * 33.5)	134	69	60	103		1.68	70
MUKERIAN HYDRO PLANT(6 * 15 + 6 * 19.5 + 2 * 9)	225	144	194	206		4.27	178
RANJIT SAGAR POWER PLANT (4 * 150)	600	120	120	150		2.85	119
SHANAN(4 * 15 + 1 * 50)	110	45	25	45		0.73	30
UBDC(3 * 15 + 3 * 15.5)	92	0	0	0		0	0
OTHER HYDRO PUNJAB	0	0	0	0		2.34	98
Total HYDEL	1,161	378	399			11.87	495
WIND	0	0	0	0			
BIOMASS(303)	303	0	0	0		1.05	44
SOLAR(859)	859	0	0	213		1.65	69
Total PUNJAB	8,003	3,034	1,934			68.43	2,852

RAJASTHAN

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BARSINGSAR (IPP) LTPS(2 * 125)	250	112	112	0		2.66	111
CHHABRA TPS(2 * 660 + 4 * 250)	2,320	1,492	1,207	0		32.6	1,358
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	899	816	0		21.74	906
KAWAI TPS(2 * 660)	1,320	1,144	858	0		23.06	961
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	582	570	0		11.1	463
RAJWEST (IPP) LTPS(8 * 135)	1,080	741	533	0		15.6	650
SURATGARH TPS (6 * 250)	1,500	372	365	0		9.11	380
VSLPP (IPP)(1 * 135)	135	0	0	0			
Total THERMAL	9,295	5,342	4,461			115.87	4,829
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	79	83	0		1.91	80
Total GAS/NAPTHA/DIESEL	601	79	83			1.91	80
RAPS-A(1 * 100 + 1 * 200)	300	166	165	0		3.85	160
Total NUCLEAR	300	166	165			3.85	160
TOTAL HYDRO RAJASTHAN(550)	550	28	29	0		0.69	29
Total HYDEL	550	28	29			0.69	29
WIND	4,292	774	191	0		17.25	719
BIOMASS(102)	102	28	28	0		0.67	28
SOLAR(3045)	3,045	1	0	0		10.16	423
Total RAJASTHAN	18,185	6,418	4,957			150.4	6,268

UTTAR PRADESH

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
ANPARA TPS(2 * 500 + 3 * 210)	1,630	945	949	0		22.3	929
ANPARA-C TPS(2 * 600)	1,200	1,022	949	0		23.7	988
ANPARA-D TPS(2 * 500)	1,000	943	937	0		21.5	896
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	1,021	1,128	0		24	1,000
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	348	248	0		6.9	288
LALITPUR TPS(3 * 660)	1,980	1,218	688	0		23.2	967
MEJA TPS(1 * 660)	660	0	0	0			
OBRA TPS (2 * 94 + 5 * 200)	1,188	470	472	0		11.3	471
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,380	594	349	0		10.2	425
ROSA TPS(4 * 300)	1,200	0	0	0			
TANDA TPS(4 * 110)	440	0	0	0			
TANDA TPS STAGE-II(1 * 660)	660	0	0	0			
Total THERMAL	14,433	6,561	5,720			143.1	5,964
ALAKHANANDA HEP(4 * 82.5)	330	165	152	0		3	125
VISHNUPARYAG HPS(4 * 110)	440	153	148	0		3.6	150
OTHER HYDRO UP(527)	527	216	50	0		1.9	79
Total HYDEL	1,297	534	350			8.5	354
WIND	0	0	0	0			
BIOMASS(26)	26	0	0	0			
SOLAR(798)	798	0	0	0		3.4	142
CO-GENERATION(1360)	1,360	30	30	0		0.7	29
Total OTHERs	1,360	30	30			0.7	29
Total UP	17,914	7,125	6,100			155.7	6,489

UTTARAKHAND

Station/Constituents	Inst. Capacity	19:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
TOTAL GAS UK(675)	675	0	0	0			
Total GAS/NAPTHA/DIESEL	675	0	0			0	0
OTHER HYDRO UK(1250)	1,250	559	401	624	07:00	10.67	445
Total HYDEL	1,250	559	401			10.67	445
WIND	0	0	0	0			
BIOMASS(127)	127	0	0	0			
SOLAR(100)	100	0	0	70	12:00	0.41	17
SMALL HYDRO(180)	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,332	559	401			11.08	462

3(B) Regional Entities Generation

Station/Constituents	Inst. Capacity	Declared Capacity	19:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)	ACT (MU)		
Aravali Power Company Private Ltd										
ISTPP (JHAJJAR)(3 * 500)	1,500	942.5	478	548	786	06:46	10.32	10.24	427	-0.08
Sub-Total	1,500	942.5	478	548	-	-	10.32	10.24	427	-0.08
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	1,207	1,223	558	1,223	19:00	18.49	18.55	773	0.06
DEHAR HPS(6 * 165)	990	470	480	165	480	19:00	4.91	5.05	210	0.14
PONG HPS(6 * 66)	396	252	258	258	258	19:00	4.83	4.9	204	0.07
Sub-Total	2,765	1,929	1,961	981	-	-	28.23	28.5	1,187	0.27
NHPC										
BAIRASIUL HPS(3 * 60)	180	120	122	0	124	18:00	0.52	0.53	22	0.01
CHAMERA HPS(3 * 180)	540	540	537	0	539	06:15	2.6	2.7	113	0.1
CHAMERA II HPS(3 * 100)	300	100	100	99	100	19:00	1.99	2.03	85	0.04
CHAMERA III HPS(3 * 77)	231	235	227	0	231	06:00	1.15	1.24	52	0.09
DHAULIGANGA HPS(4 * 70)	280	288	214	0	277	20:00	2.16	2.08	87	-0.08
DULHASTI HPS(3 * 130)	390	328	326	249	329	18:00	5.81	5.88	245	0.07
KISHANGANGA(3 * 110)	330	109	111	0	222	20:00	1.14	1.11	46	-0.03
PARBATI III HEP(4 * 130)	520	257	264	0	264	19:00	0.8	0.84	35	0.04
SALAL HPS(6 * 115)	690	575	588	575	588	19:00	4.54	5.04	210	0.5
SEWA-II HPS(3 * 40)	120	120	67	0	82	18:00	0.36	0.24	10	-0.12
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	60	71	66	73	18:45	1.42	1.51	63	0.09
URI HPS(4 * 120)	480	160	137	85	358	21:00	3.5	3.91	163	0.41
URI-II HPS(4 * 60)	240	78	84	81	177	10:00	2.29	2.37	99	0.08
Sub-Total	4,395	2,970	2,848	1,155	-	-	28.28	29.48	1,230	1.2
NPCL										
NAPS(2 * 220)	440	435	420	432	440	06:00	10.44	9.42	393	-1.02
RAPS-B(2 * 220)	440	350	393	396	396	01:00	8.4	8.41	350	0.01
RAPS-C(2 * 220)	440	416	460	461	462	06:00	9.98	9.98	416	0
Sub-Total	1,320	1,201	1,273	1,289	-	-	28.82	27.81	1,159	-1.01
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	406	0	0	0	-	0	0.03	1	0.03
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	642	0	0	0	-	0	0.03	1	0.03
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	410	243	218	313	-	5.92	5.7	238	-0.22
DADRI SOLAR(5)	5	0	0	0	2	11:40	0.02	0.01	0	-0.01
DADRI-I TPS(4 * 210)	840	768.6	238	240	238	19:00	5.18	5.14	214	-0.04
DADRI-II TPS(2 * 490)	980	464.27	490	283	490	19:00	6.58	6.86	286	0.28
KOLDAM HPS(4 * 200)	800	872	871	0	871	19:00	4.25	4.61	192	0.36
RIHAND-I STPS(2 * 500)	1,000	922.5	1,008	1,002	1,008	19:00	22.1	22.1	921	0
RIHAND-II STPS(2 * 500)	1,000	942.5	997	990	997	19:00	22.59	23.06	961	0.47
RIHAND-III STPS(2 * 500)	1,000	942.5	839	984	839	19:00	22.62	23.01	959	0.39
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,240	1,344	1,877	1,344	19:00	34.07	34.08	1,420	0.01
SINGRAULI SOLAR(15)	15	0	0	0	0	-	0.05	0.04	2	-0.01
UNCHAHAR I(2 * 210)	420	382.2	364	237	364	19:00	5.69	6.02	251	0.33
UNCHAHAR II TPS(2 * 210)	420	382.2	325	270	325	19:00	5.63	5.55	231	-0.08
UNCHAHAR III TPS(1 * 210)	210	191.1	203	117	203	19:00	2.84	3.07	128	0.23
UNCHAHAR IV TPS(1 * 500)	500	471.25	467	275	467	19:00	7.74	7.76	323	0.02
UNCHAHAR SOLAR(10)	10	0	0	0	0	-	0.04	0.04	2	0
Sub-Total	11,112	9,037.12	7,389	6,493	-	-	145.32	147.11	6,130	1.79
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,605	1,474	0	1,600	18:00	11	11.32	472	0.32
RAMPUR HEP(6 * 68.67)	412	442	417	0	443	18:00	3.06	3.29	137	0.23
Sub-Total	1,912	2,047	1,891	0	-	-	14.06	14.61	609	0.55
THDC										
KOTESHWAR HPS(4 * 100)	400	102	104	91	104	19:00	2.2	2.21	92	0.01
TEHRI HPS(4 * 250)	1,000	1,060	1,048	0	1,048	07:00	7	7.18	299	0.18
Sub-Total	1,400	1,162	1,152	91	-	-	9.2	9.39	391	0.19
Total	24,404	19,288.62	16,992	10,557			264.23	267.14	11,133	2.91

IPP/JV

Station/Constituents	Inst. Capacity	Declared Capacity	19:00	03:00	Day Peak		Day Energy		AVG. MW	UI
	(MW)	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	SCHD (MU)	ACT (MU)		
IPP										
ADHPL(IPP) HPS(2 * 96)	192	0	195	0	195	19:00	0.82	0.83	35	0.01
BUDHIL HPS (IPP)(2 * 35)	70	0	70	0	71	18:00	0.33	0.34	14	0.01
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	0	1,000	19:00	6.81	6.8	283	-0.01
MALANA2(2 * 50)	100	0	22	0	105	07:00	0.47	0.5	21	0.03
SAINJ HEP(2 * 50)	100	0	100	17	100	03:00	0.71	0.71	30	0
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	0	0	0	-	0	0.01	0	0.01
Sub-Total	1,762	0	1,387	17	-	-	9.14	9.19	383	0.05
SOLAR IPP										
ACME CHITTORGARH SOLAR ENERGY PVT LTD(1 * 250)	250	0	0	0	109	13:38	0.45	0.45	19	0
AZURE POWER INDIA PVT LTD.(4 * 50)	200	0	0	0	160	01:00	0.88	0.73	30	-0.15
AZURE POWER THIRTY FOUR PRIVATE LTD(1 * 130)	130	0	0	0	126	13:34	0.58	0.56	23	-0.02
MAHOBA SOLAR (UP) PRIVATE LTD(1 * 250)	250	0	0	0	203	14:15	0.94	0.85	35	-0.09
RENEW SOLAR POWER PVT LTD(50)	50	0	0	0	0	-	0.3	0.31	13	0.01
RENEW SOLAR POWER PVT LTD. BIKANER(1 * 250)	250	0	0	0	0	-	0.52	0.52	22	0
SB ENERGY FOUR PVT LTD(2 * 100)	200	0	0	0	200	12:16	1.25	1.4	58	0.15
TATA POWER RENEWABLE ENERGY LTD(1 * 150)	150	0	135	0	135	19:00	0.71	0.65	27	-0.06
Sub-Total	1,480	0	135	0	-	-	5.63	5.47	227	-0.16
Total	3,242	0	1,522	17			14.77	14.66	610	-0.11

Summary Section

	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	56,263	19,399	14,870	431.55	17,981
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		7,299	8,344	208.05	12,526
Total Regional Availability(Gross)	83,909	45,212	33,788	921.4	42,249

Total Hydro Generation

	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,734	10,110	2,244	95.77	3,990
State Control Area Hydro	6,289	2,203	1,735	46.47	1,936
Total Regional Hydro	19,023	12,313	3,979	142.24	5,926

Total Renewable Generation

	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	1,510	135	0	5.56	232
State Control Area Renewable	10,596	1,040	408	40.31	1,680
Total Regional Renewable	12,106	1,175	408	45.87	1,912

4(A) INTER-REGIONAL EXCHANGES (Import=(+ve) /Export =(-ve))

SL.No.	Element	19:00	03:00	Maximum Interchange (MW)		Import in MU	Export in MU	NET
		(MW)	MW	Import (MW)	Export (MW)			
Import/Export between EAST REGION and NORTH REGION								
1	132KV-Garhwa-Rihand	17	17	-	28	0	0.41	-0.41
2	132KV-Karmnasa (PG)-Sahupuri(UP)	-	-	-	-	-	-	-
3	132KV-Rihand-Sonnagar (PG)	-	-	-	-	-	-	-
4	220KV-Pusauli (PG)-Sahupuri(UP)	-33	12	46	18	0.45	0	0.45
5	400KV-Biharsharif (PG)-Balia(PG)	45	31	141	0	1.36	0	1.36
6	400KV-Biharsharif (PG)-Varanasi(PG)	-143	-132	0	150	0	2.41	-2.41
7	400KV-Motihari (DMT)-Gorakhpur(UP)	-	-	-	-	-	-	-
8	400KV-Muzaffarpur (PG)-Gorakhpur(UP)	276	88	476	0	5.67	0	5.67
9	400KV-Patna (PG)-Balia(PG)	679	502	883	0	16.67	0	16.67
10	400KV-Sasaram-Allahabad (PG)	9	15	53	0	0.67	0	0.67
11	400KV-Sasaram-Varanasi (PG)	181	174	181	0	3.99	0	3.99
12	765KV-Fatehpur (PG)-Sasaram.	-	1	169	60	1.57	0	1.57
13	765KV-Gaya (PG)-Balia(PG)	171	232	298	0	5.42	0	5.42
14	765KV-Gaya (PG)-Varanasi(PG)	24	-125	363	37	3.28	0	3.28
15	HVDC800KV-Alipurduar-Agra (PG)	400	400	400	0	9.74	0	9.74
Sub-Total EAST REGION		1,626	1,215	3,010	293	48.82	2.82	46
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli-Agra (PG)	400	400	400	0	9.51	0	9.51
Sub-Total NORTH_EAST REGION		400	400	400	0	9.51	0	9.51
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya (NT)-Malanpur(PG)	11	33	-	104	0	0.1	-0.1
2	220KV-Bhanpur-Modak	0	18	81	-	0.56	0	0.56

Import/Export between WEST REGION and NORTH REGION								
3	220KV-Ranpur-Bhanpur	-20	2	75	-	0.18	0	0.18
4	400KV-RAPS C (NP)-Sujalpur	40	194	238	42	2.43	0	2.43
5	400KV-Vindhyachal (PG)-Rihand(NT)	-968	-974	0	976	0	23.02	-23.02
6	400KV-Zerda (PG)-Bhinmal(PG)	21	108	329	50	1.9	0	1.9
7	400KV-Zerda (PG)-Kankroli(RJ)	24	5	94	7	0.85	0	0.85
8	765KV-0rai-Gwalior (PG)	-292	-366	0	431	0	8.63	-8.63
9	765KV-0rai-Jabalpur	930	1,507	1,633	0	31.44	0	31.44
10	765KV-0rai-Satna	1,209	1,344	1,404	0	31.01	0	31.01
11	765KV-Chittorgarh-Banaskata D/C	630	413	752	0	12.99	0	12.99
12	765KV-Gwalior (PG)-Agra(PG)	1,564	2,124	2,378	0	44.05	0	44.05
13	765KV-Phagi (RJ)-Gwalior(PG)	925	1,120	1,282	-	23.24	0	23.24
14	HVDC500KV-Mundra (JH)-Mohindergarh(JH)	1,099	1,101	1,103	0	26.73	0	26.73
15	HVDC500KV-Vindhyachal (PG)-Vindhaychal B/B	-500	-500	0	-500	0	8.05	-8.05
16	HVDC800KV-Champa (PG)-Kurukshetra(PG)(PG)	600	600	1,150	0	16.96	0	16.96
Sub-Total WEST REGION		5,273	6,729	10,519	1,110	192.34	39.8	152.54
TOTAL IR EXCHANGE		7,299	8,344	13,929	1,403	250.67	42.62	208.05

4(B) Inter Regional Schedule & Actual Exchange (Import=(+ve) /Export =(-ve)) in MU

	ISGS/(LT+MT) Schedule	BILT Schedule	PX Schedule	Total IR Schedule	Total IR Actual	NET IR UI
NR-ER	48.38	0.81	9.34	58.53	46	-12.53
NR-WR	162.53	-17.46	10.14	155.21	152.54	-2.67
Total	210.91	-16.65	19.48	213.74	208.05	-5.69

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

Element	Peak	Off-Peak	Maximum Interchange(MW)		Energy (MU)		Net Energy
	MW	MW	Import	Export	Import	Export	(MU)
132KV-Tanakpur(NH)-Mahendranagar(PG)	0	0		20		0.0283	-0.0283

5.Frequency Profile

RANGE(Hz)	< 49.2	< 49.7	< 49.8	< 49.9	< 50.0	>= 49.9 - <= 50.05	> 50.05 - <= 50.1	> 50.1 - <= 50.2	> 50.2	> 50.05
%	0	.2	1.4	12	58.4	77.1	8.4	2.3	.2	10.9

<----------Frequency (Hz)---------->

Maximum		Minimum		Average	Freq Variation	Standard	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time	Frequency	Index	Deviation	Max.	Min.	(% of Time)
50.25	13:02:20	49.67	17:40:30	49.98	0.052	0.069	50.1	49.82	22.9

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index
					< 380	< 390	> 420	> 430	(% of time)
Abdullapur(PG) - 400KV	425	02:50	407	10:10	0	0	22.22	0	22.22
Amritsar(PG) - 400KV	424	02:30	408	10:50	0	0	26.39	0	26.39
Ballabgarh(PG) - 400KV	424	03:05	405	10:10	0	0	25	0	25
Bareilly II(PG) - 400KV	419	06:00	403	17:55	0	0	0	0	0
Bareilly(UP) - 400KV	420	06:00	404	17:55	0	0	.35	0	.35
Baspa(HP) - 400KV	424	01:05	411	17:45	0	0	17.01	0	17.01
Bassi(PG) - 400KV	420	04:00	399	09:25	0	0	.69	0	.69
Bawana(DTL) - 400KV	425	03:05	408	10:10	0	0	31.6	0	31.6
Dadri HVDC(PG). - 400KV	426	03:00	410	10:10	0	0	39.93	0	39.93
Gorakhpur(PG) - 400KV	415	07:55	393	17:55	0	0	0	0	0
Hisar(PG) - 400KV	422	03:10	404	10:10	0	0	15.97	0	15.97
Kanpur(PG) - 400KV	415	03:05	405	17:55	0	0	0	0	0
Kashipur(UT) - 400KV					0	0	0	0	0
Kishenpur(PG) - 400KV	420	20:20	402	00:00	0	0	0	0	0
Moga(PG) - 400KV	420	20:30	408	10:10	0	0	0	0	0
Nallagarh(PG) - 400KV	424	01:05	411	17:45	0	0	17.01	0	17.01
Rihand HVDC(PG) - 400KV	409	01:35	402	17:50	0	0	0	0	0
Rihand(NT) - 400KV	407	01:25	402	17:55	0	0	0	0	0

6.1 Voltage Profile: 765kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index
					< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	791	04:00	770	09:25	0	0	0	0	0
Balia(PG) - 765KV	779	15:00	754	17:55	0	0	0	0	0
Bareilly II(PG) - 765KV	798	06:00	767	17:55	0	0	0	0	0
Bhiwani(PG) - 765KV	800	20:30	770	10:10	0	0	1.39	0	1.39
Fatehpur(PG) - 765KV	771	03:00	741	05:35	0	4.17	0	0	0
Jhatikara(PG) - 765KV	796	20:30	769	11:20	0	0	0	0	0
Lucknow II(PG) - 765KV	789	06:00	760	17:55	0	0	0	0	0
Meerut(PG) - 765KV	796	20:30	768	10:10	0	0	0	0	0
Moga(PG) - 765KV	793	20:30	760	07:20	0	0	0	0	0
Phagi(RJ) - 765KV	795	04:00	767	09:15	0	0	0	0	0
Unnao(UP) - 765KV	770	00:00	770	00:00	0	0	0	0	0

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

State	Off- Peak Hours (03:00)			Peak Hours (19:00)			Day Energy (MU)			
	Bilateral (MW)	IEX (MW)	PXIL (MW)	Bilateral (MW)	IEX (MW)	PXIL (MW)	ISGS /(LT+MT) Schedule	BILT Schedule	PX Schedule	Total (MU)
PUNJAB	-847.93	0	0	-949.78	-712.98	0	67.64	-22.3	-0.69	44.65
HARYANA	216.47	204.38	0	263.59	117.61	0	102.12	4.79	5.69	112.61
RAJASTHAN	-60.23	221.17	0	-60.23	-690.38	0	64.74	0.32	-1.2	63.86
DELHI	-269.04	-150.36	0	-95.5	209.04	0	52.51	-5.85	6.36	53.02
UTTAR PRADESH	85.62	-16.34	0	252.22	552.1	0	125.78	-4.32	0.23	121.69
UTTARAKHAND	174.58	88.01	0	174.58	0.1	0	13.19	4.19	4.45	21.83
HIMACHAL PRADESH	274.05	-16.03	0	-114.97	-582.56	0	14.35	5.08	-2.81	16.62
JAMMU & KASHMIR	-43.23	295.29	0	-43.8	436.64	0	28.73	-1.04	9.78	37.47
CHANDIGARH	0	-40.43	0	0	-99.97	0	4.47	0	-0.94	3.54
TOTAL	-469.71	585.69	0	-573.89	-770.4	0	473.53	-19.13	20.87	475.29

7(B). Short-Term Open Access Details

State	ISGS/(LT+MT) Schedule		Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
PUNJAB	3,702.55	2,468.61	-847.93	-1,155.56	0	-712.98	0	0
HARYANA	5,143.59	3,701.67	263.59	171.33	697.75	-346.08	0	0
RAJASTHAN	3,839.87	1,408.05	234.04	-60.23	222.24	-1,273.64	0	0
DELHI	2,791.3	1,800.76	-95.5	-297.66	807.42	-171.6	0	0
UTTAR PRADESH	7,107.12	4,350.68	366.21	-518.62	622.07	-491.37	0	0
UTTARAKHAND	945.18	387.57	174.58	174.58	381.05	0.1	0	0
HIMACHAL PRADESH	1,419.21	221.66	348.67	-114.97	253.24	-698.46	0	0
JAMMU & KASHMIR	1,716.06	801.7	-43.23	-43.8	467.54	-6.3	0	0
CHANDIGARH	298.79	135.95	0	0	0	-99.97	0	0

8.Major Reservoir Particulars

RESERVOIR	Parameters			Present Parameters		LAST YEAR		LAST DAY	
	MDDL (Mts)	FRL (Mts)	Energy Content at FRL	Level (Mts)	Energy (MU)	Level (Mts)	Energy (MU)	Inflow (m3/s)	Usage (m3/s)
Bhakra	445.62	513.59	1,728.8	507.28	1,411	508.4	1,470	275.72	501.55
Chamera-I	748.75	760	753.95	756	-	-	-	75.73	73.09
Gandhisagar	381	399.9	725	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	2.01	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.73	610.72	5	609.38	4	155	146.66
Pong	384.05	426.72	1,084	421.06	931	422	976	95.99	280
RPS	343.81	352.8	175.66	-	-	-	-	-	0
RSD	487.91	527.91	390.3	522.31	342	524.74	371	85.33	127.22
Rihand	252.98	268.22	860.5	-	-	-	-	-	0
Tehri	740.04	829.79	1,291.49	825.77	1,124	826.45	1,139	94.85	155
TOTAL	-	-	-	-	3,813	-	3,960	782.62	1,283.52

9. System Reliability Indices(Violation of TTC and ATC):

(i)%age of times N-1 Criteria was violated in the inter - regional corridors

WR	0
ER	0
Simultaneous	0

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

WR	0
ER	0
Simultaneous	0

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

Rihand-Dadri	0

10. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	2	25
DELHI	3	29
HARYANA	0	12
HIMACHAL PRADESH	1	18
JAMMU & KASHMIR	0	9
PUNJAB	0	10
RAJASTHAN	1	20
UTTAR PRADESH	0	7
UTTARAKHAND	1	13

11.Significant events (If any):

12.Grid Disturbance / Any Other Significant Event:

13.Weather Conditions :

14.Synchronisation of new generating units :

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

(i)500 MVA ICT-2 first time charged on No load through bay no. 409 at 10:32 Hrs at 400kV Prithla
(ii)400 kV Bus-II first time charged through bay no. 408 at 13:41 Hrs at 400kV Prithla
(iii)125 MVAR Bus reactor first time charged through bay no. 412 at 15:20 hrs at 400kV Prithla
(iv)400 kV Tie bay no. 411 first time charged at 15:55 hrs at 400kV Prithla
(v)220 kV Main Bus-1 first time charged at 17:02 hrs at 400kV Prithla
(vi)220 kV Main Bus-2 first time charged at 17:44 hrs at 400kV Prithla
(vii)220 kV Bus Coupler bay no. 206 first time charged at 18:35 Hrs at 400kV Prithla

16.Tripping of lines in pooling stations :

17.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.

Shift In Charge