



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

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

Date of Reporting:02-Oct-2019

1. Regional Availability/Demand:

Evening Peak (20:00) 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
46,345	1,215	47,560	50.02	36,836	175	37,011	50.02	963	7.65

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	39.78	14.44	0	3.08	0	2.06	59.36	72.78	72.12	-0.66	131.48	0	131.48
HARYANA	37.08	1.01	0.46	0.12	0	0.54	39.21	116.84	117.82	0.98	157.03	0	157.03
RAJASTHAN	95.35	2.58	1.96	13.23	12.71	4.46	130.28	72.78	69.67	-3.11	199.95	0	199.95
DELHI	0	0	15.71	0	0	1.05	16.76	76.7	76.01	-0.69	92.78	0.01	92.77
UTTAR PRADESH	115.38	19.9	0	3.1	0	0.7	139.08	146.84	145.08	-1.76	284.16	0	284.16
UTTARAKHAND	0	20.41	0	0.52	0	0	20.92	13.67	14.39	0.72	35.31	0	35.31
HIMACHAL PRADESH	0	12.71	0	0	0	9.04	21.75	5.61	4.77	-0.84	26.61	0.09	26.52
JAMMU & KASHMIR	0	15.96	0	0	0	0	15.96	18.73	15.77	-2.96	39.28	7.55	31.73
CHANDIGARH	0	0	0	0	0	0	0	4.48	3.86	-0.62	3.86	0	3.86
Region	287.59	87.01	18.13	20.05	12.71	17.85	443.32	528.43	519.49	-8.94	970.46	7.65	962.81

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

State	Evening Peak (20:00) MW				Off-Peak (03:00) MW			
	Demand Met	Shortage(-)/Surplus(+)	UI	STOA/PX Transaction	Demand Met	Shortage(-)/Surplus(+)	UI	STOA/PX Transaction
PUNJAB	5,970	0	153	-227	4,767	0	-70	-24
HARYANA	7,457	0	36	1,087	6,072	0	88	1,086
RAJASTHAN	8,586	0	-263	1	7,752	0	-56	125
DELHI	4,351	0	64	568	3,326	0	62	318
UTTAR PRADESH	14,884	690	-284	1,480	11,537	0	-72	837
UTTARAKHAND	1,600	0	-105	-113	1,335	0	39	-172
HIMACHAL PRADESH	1,196	0	-10	-1,184	942	0	-117	-415
JAMMU & KASHMIR	2,100	525	127	-73	992	175	-90	-370
CHANDIGARH	201	0	-21	-91	114	0	-29	0
Region	46,345	1,215	-303	1,448	36,837	175	-245	1,385

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	6,087	19:00	0	6,087	6,087	19:00	0	6,087	4,710	4:00
HARYANA	7,457	20:00	0	7,457	7,457	20:00	0	7,457	5,859	8:00
RAJASTHAN	8,998	10:00	0	8,998	8,998	10:00	0	8,998	7,498	5:00
DELHI	4,424	16:00	0	4,424	4,424	16:00	0	4,424	3,049	6:00
UP	14,929	19:00	280	15,209	15,209	19:00	280	14,929	10,054	16:00
UTTARAKHAND	1,760	19:00	0	1,760	1,760	19:00	0	1,760	1,335	3:00
HP	1,406	8:00	0	1,406	1,406	8:00	0	1,406	905	2:00
J&K	2,100	20:00	525	2,625	2,625	20:00	525	2,100	849	9:00
CHANDIGARH	209	19:00	0	209	209	19:00	0	209	113	4:00
NR	46,345	20:00	1,215	47,560	47,560	20:00	1,215	46,345	35,975	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	20:00	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	505	410	0		11.23	468
DELHI GAS TURBINES(3 * 34 + 6 * 30)	282	39	38	0		0.84	35
PRAGATI GAS TURBINES(1 * 121.2 + 2 * 104.6)	452	142	149	0		3.64	152
RITHALA GPS(3 * 36)	108	0	0	0			
Total GAS/NAPTHA/DIESEL	2,212	686	597			15.71	655
WIND	0	0	0	0			
BIOMASS(16)	16	40	32	0		1.05	44
SOLAR(2)	2	0	0	0			
Total DELHI	2,365	726	629			16.76	699

HARIYANA							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
DCRTPP (YAMUNA NAGAR)(2 * 300)	600	559	471	0		11.96	498
JHAJJAR(CLP)(2 * 660)	1,320	1,171	517	0		20.15	840
MAGNUM DIESEL (IPP)(4 * 6.3)	25	0	0	0			
PANIPAT TPS(2 * 210 + 2 * 250)	920	236	204	0		4.98	208
RGTPP(KHEDAR)(2 * 600)	1,200	0	0	0			
Total THERMAL	4,065	1,966	1,192			37.09	1,546
FARIDABAD GPS(1 * 156.07 + 2 * 137.75)	432	0	161	0		0.46	19
Total GAS/NAPTHA/DIESEL	432	0	161			0.46	19
TOTAL HYDRO HARYANA(64.8)	65	38	41	0		1.01	42
Total HYDEL	65	38	41			1.01	42
WIND	0	0	0	0			
BIOMASS(106)	106	0	0	0		0.54	23
SOLAR(55.8)	56	0	0	0		0.12	5
Total HARYANA	4,724	2,004	1,394			39.22	1,635

HIMACHAL PRADESH							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BASPA (IPP) HPS(3 * 100)	300	180	201	0		4.47	186
MALANA (IPP) HPS(2 * 43)	86	41	34	0		1.03	43
OTHER HYDRO HP(372)	372	343	284	0		7.21	300
Total HYDEL	758	564	519			12.71	529
WIND	0	0	0	0			
BIOMASS	0	0	0	0			
SOLAR	0	0	0	0			
SMALL HYDRO(486)	486	419	344	0		9.04	377
Total SMALL HYDRO	486	419	344			9.04	377
Total HP	1,244	983	863			21.75	906

JAMMU & KASHMIR							
Station/Constituents	Inst. Capacity	20:00	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	588	587	0		14.13	589
OTHER HYDRO/IPP J&K(308)	308	113	53	0		1.83	76
Total HYDEL	1,208	701	640			15.96	665
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	701	640			15.96	665

PUNJAB							
Station/Constituents	Inst. Capacity	20:00	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		-0.09	-4
GURU HARGOBIND SINGH TPS (LEHRA MOHABBAT)(2 * 210 + 2 * 250)	920	0	0	0		-0.13	-5
RAJPURA(NPL) TPS(2 * 700)	1,400	1,315	1,100	1,320		25.48	1,062
TALWANDI SABO TPS(3 * 660)	1,980	1,063	308	1,063		14.53	605
Total THERMAL	5,680	2,378	1,408			39.79	1,658
ANANADPUR SAHIB HYDRO PLANT(2 * 33.5 + 2 * 33.5)	134	0	0	0			
MUKERIAN HYDRO PLANT(6 * 15 + 6 * 19.5 + 2 * 9)	225	0	0	0			
RANJIT SAGAR POWER PLANT (4 * 150)	600	0	0	0			
SHANAN(4 * 15 + 1 * 50)	110	0	0	0			
UBDC(3 * 15 + 3 * 15.5)	92	0	0	0			
OTHER HYDRO PUNJAB	0	468	461	498		14.44	602
Total HYDEL	1,161	468	461			14.44	602
WIND	0	0	0	0			
BIOMASS(303)	303	0	0	0		2.06	86
SOLAR(859)	859	0	0	347		3.08	128
Total PUNJAB	8,003	2,846	1,869			59.37	2,474

RAJASTHAN							
Station/Constituents	Inst. Capacity	20:00	03:00	Day Peak		Day Energy	AVG. MW
	(MW)	Peak MW	Off Peak MW	(MW)	Hrs	(MU)	
BARSINGSAR (IPP) LTPS(2 * 125)	250	114	113	0		2.55	106
CHHABRA TPS(2 * 660 + 4 * 250)	2,320	1,305	1,534	0		33.42	1,393
GIRAL (IPP) LTPS(2 * 125)	250	0	0	0			
KALISINDH TPS(2 * 600)	1,200	458	427	0		10.99	458
KAWAI TPS(2 * 660)	1,320	559	485	0		11.93	497
KOTA TPS(2 * 110 + 2 * 195 + 3 * 210)	1,240	565	567	0		14	583
RAJWEST (IPP) LTPS(8 * 135)	1,080	689	968	0		16.57	690
SURATGARH TPS (6 * 250)	1,500	361	29	0		5.89	245
VSLPP (IPP)(1 * 135)	135	0	0	0			
Total THERMAL	9,295	4,051	4,123			95.35	3,972
DHOLPUR GPS(3 * 110)	330	0	0	0			
RAMGARH GPS(1 * 110 + 1 * 35.5 + 1 * 50 + 2 * 37.5)	271	82	82	0		1.96	82
Total GAS/NAPTHA/DIESEL	601	82	82			1.96	82
RAPS-A(1 * 100 + 1 * 200)	300	169	172	0		3.97	165
Total NUCLEAR	300	169	172			3.97	165
TOTAL HYDRO RAJASTHAN(550)	550	83	124	0		2.58	108
Total HYDEL	550	83	124			2.58	108
WIND	4,292	1,226	447	0		12.71	530
BIOMASS(102)	102	20	20	0		0.49	20
SOLAR(3045)	3,045	0	0	0		13.23	551
Total RAJASTHAN	18,185	5,631	4,968			130.29	5,428

UTTAR PRADESH							
Station/Constituents	Inst. Capacity	20:00	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	1,422	1,408	0		32.6	1,358
ANPARA-C TPS(2 * 600)	1,200	999	860	0		20	833
ANPARA-D TPS(2 * 500)	1,000	925	931	0		20.8	867
BAJAJ ENERGY PVT LTD (IPP) TPS(10 * 45)	450	0	0	0			
BARA PPGCL TPS(3 * 660)	1,980	1,042	694	0		19.7	821
HARDUAGANJ TPS(1 * 105 + 1 * 60 + 2 * 250)	665	0	0	0			
LALITPUR TPS(3 * 660)	1,980	1,120	337	0		13.5	563
MEJA TPS(1 * 660)	660	0	0	0			
OBRA TPS (2 * 94 + 5 * 200)	1,188	163	138	0		3.4	142
PARICHA TPS(2 * 110 + 2 * 210 + 2 * 250)	1,380	0	0	0			
ROSA TPS(4 * 300)	1,200	0	0	0			
TANDA TPS(4 * 110)	440	0	0	0			
TANDA TPS STAGE-II(1 * 660)	660	418	0	0		5.38	224
Total THERMAL	14,433	6,089	4,368			115.38	4,808
ALAKHANANDA HEP(4 * 82.5)	330	346	347	0		8.3	346
VISHNUPARYAG HPS(4 * 110)	440	391	386	0		9.2	383
OTHER HYDRO UP(527)	527	153	78	0		2.4	100
Total HYDEL	1,297	890	811			19.9	829
WIND	0	0	0	0			
BIOMASS(26)	26	0	0	0			
SOLAR(798)	798	0	0	0		3.1	129
CO-GENERATION(1360)	1,360	30	30	0		0.7	29
Total OTHERs	1,360	30	30			0.7	29
Total UP	17,914	7,009	5,209			139.08	5,795

UTTARAKHAND							
Station/Constituents	Inst. Capacity	20:00	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	865	866	872	18:00	20.41	850
Total HYDEL	1,250	865	866			20.41	850
WIND	0	0	0	0			
BIOMASS(127)	127	0	0	0			
SOLAR(100)	100	0	0	78	11:00	0.52	22
SMALL HYDRO(180)	180	0	0	0			
Total SMALL HYDRO	180	0	0			0	0
Total UTTARAKHAND	2,332	865	866			20.93	872

(B) Regional Entities Generation										
Station/Constituents	Inst. Capacity	Declared Capacity	20:00	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	1,413.75	0	0	0	-	0	-	-	0
Sub-Total	1,500	1,413.75	0	0	-	-	0	0	0	0
BBMB										
BHAKRA HPS(2 * 108 + 3 * 126 + 5 * 157)	1,379	1,204	1,230	431	1,230	19:00	18.4	18.46	769	0.06
DEHAR HPS(6 * 165)	990	465	480	480	480	19:00	11.21	11.48	478	0.27
PONG HPS(6 * 66)	396	248	252	192	252	19:00	4.84	4.85	202	0.01
Sub-Total	2,765	1,917	1,962	1,103	-	-	34.45	34.79	1,449	0.34
NHPC										
BAIRASIUL HPS(3 * 60)	180	120	121	0	123	19:00	0.96	1.01	42	0.05
CHAMERA HPS(3 * 180)	540	534	359	179	541	18:15	5.8	5.89	245	0.09
CHAMERA II HPS(3 * 100)	300	100	101	0	101	20:00	1.65	1.71	71	0.06
CHAMERA III HPS(3 * 77)	231	235	227	76	229	19:00	3.17	3.23	135	0.06
DHAULIGANGA HPS(4 * 70)	280	292	276	210	281	19:00	4.88	4.93	205	0.05
DULHASTI HPS(3 * 130)	390	328	326	328	333	19:00	7.7	7.69	320	-0.01
KISHANGANGA(3 * 110)	330	328	332	82	332	19:00	2.61	2.62	109	0.01
PARBATI III HEP(4 * 130)	520	60	154	0	527	03:00	1.79	1.87	78	0.08
SALAL HPS(6 * 115)	690	410	458	715	715	02:00	11.01	11.73	489	0.72
SEWA-II HPS(3 * 40)	120	130	79	0	122	19:00	0.4	0.42	18	0.02
TANAKPUR HPS(1 * 31.42 + 2 * 31.4)	94	90	98	98	99	05:00	2.11	2.28	95	0.17
URI HPS(4 * 120)	480	160	172	137	439	21:00	5.08	5.38	224	0.3
URI-II HPS(4 * 60)	240	90	94	121	223	01:00	2.95	3.13	130	0.18
Sub-Total	4,395	2,877	2,797	1,946	-	-	50.11	51.89	2,161	1.78
NPCL										
NAPS(2 * 220)	440	390	422	421	431	13:00	9.36	9.27	386	-0.09
RAPS-B(2 * 220)	440	352	396	397	398	05:00	8.45	8.46	353	0.01
RAPS-C(2 * 220)	440	205	228	227	228	-	4.92	4.83	201	-0.09
Sub-Total	1,320	947	1,046	1,045	-	-	22.73	22.56	940	-0.17
NTPC										
ANTA GPS(1 * 153.2 + 3 * 88.71)	419	128	172	149	254	04:42	1.72	1.59	66	-0.13
AURAIYA GPS(2 * 109.3 + 4 * 111.19)	663	98	543	185	543	20:00	5.22	5.18	216	-0.04
DADRI GPS(2 * 154.51 + 4 * 130.19)	830	240	476	120	476	-	4.8	3.83	160	-0.97
DADRI SOLAR(5)	5	0	0	0	4	13:09	0.02	0.02	1	0
DADRI-I TPS(4 * 210)	840	768.6	0	0	0	-	7.74	7.43	310	-0.31
DADRI-II TPS(2 * 490)	980	464.27	0	0	0	-	6.33	6.18	258	-0.15
KOLDAM HPS(4 * 200)	800	872	788	0	869	19:00	9.25	9.71	405	0.46
RIHAND-I STPS(2 * 500)	1,000	922.5	992	990	992	20:00	22.16	22.14	923	-0.02
RIHAND-II STPS(2 * 500)	1,000	942.5	1,003	992	1,003	20:00	22.64	22.7	946	0.06
RIHAND-III STPS(2 * 500)	1,000	942.5	991	968	991	20:00	22.63	22.98	958	0.35
SINGRAULI STPS(2 * 500 + 5 * 200)	2,000	1,510	1,635	1,638	1,648	22:00	36.12	36.02	1,501	-0.1
SINGRAULI SOLAR(15)	15	0	0	0	0	-	0.04	0.04	2	0
UNCHAHAH I(2 * 210)	420	0	0	0	0	-	0	-	-	0
UNCHAHAH II TPS(2 * 210)	420	382.2	387	260	387	20:00	5.64	6.48	270	0.84
UNCHAHAH III TPS(1 * 210)	210	191.1	193	109	193	20:00	2.82	3.11	130	0.29
UNCHAHAH IV TPS(1 * 500)	500	471.25	490	298	490	20:00	7.15	7.57	315	0.42
UNCHAHAH SOLAR(10)	10	0	0	0	0	-	0.02	0.02	1	0
Sub-Total	11,112	7,932.92	7,670	5,709	-	-	154.3	155	6,462	0.7
SJVNL										
NATHPA-JHAKRI HPS(6 * 250)	1,500	1,605	1,485	769	1,507	22:00	23.8	24.07	1,003	0.27
RAMPUR HEP(6 * 68.67)	412	442	406	223	441	19:00	6.61	7.04	293	0.43
Sub-Total	1,912	2,047	1,891	992	-	-	30.41	31.11	1,296	0.7
THDC										
KOTESHWAR HPS(4 * 100)	400	406	407	271	407	20:00	6.37	6.43	268	0.06
TEHRI HPS(4 * 250)	1,000	1,060	992	734	1,025	19:00	20.14	20.29	845	0.15
Sub-Total	1,400	1,466	1,399	1,005	-	-	26.51	26.72	1,113	0.21
Total	24,404	18,600.67	16,765	11,800			318.51	322.07	13,421	3.56

IPP/JV										
Station/Constituents	Inst. Capacity	Declared Capacity	20:00	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	76	64	94	23:00	1.99	1.72	72	-0.27
BUDHIL HPS (IPP)(2 * 35)	70	0	70	36	71	18:00	0.97	1.01	42	0.04
KARCHAM WANGTOO HPS(4 * 250)	1,000	0	1,000	625	1,000	18:30	13.2	12.98	541	-0.22
MALANA2(2 * 50)	100	0	30	35	107	23:00	0.96	1.02	43	0.06
SAINJ HEP(2 * 50)	100	0	99	64	99	20:00	1.68	1.67	70	-0.01
SHREE CEMENT (IPP) TPS(2 * 150)	300	0	0	0	0	-	0	-	-	0
Sub-Total	1,762	0	1,275	824	-	-	18.8	18.4	768	-0.4
SOLAR IPP										
AZURE POWER INDIA PVT LTD.(4 * 50)	200	0	0	0	152	11:30	0.88	0.8	33	-0.08
AZURE POWER THIRTY FOUR PRIVATE LTD(1 * 130)	130	0	0	0	117	12:58	0.66	0.65	27	-0.01
MAHOBASOLAR (UP) PRIVATE LTD(1 * 250)	250	0	0	0	200	13:00	1.36	1.17	49	-0.19
RENEW SOLAR POWER PVT LTD(50)	50	0	0	0	50	13:09	0.32	0.27	11	-0.05
SB ENERGY FOUR PVT LTD(2 * 100)	200	0	0	0	200	11:46	1.22	1.01	42	-0.21
TATA POWER RENEWABLE ENERGY LTD(1 * 150)	150	0	0	0	128	-	0.97	0.97	40	0
Sub-Total	980	0	0	0	-	-	5.41	4.87	202	-0.54
Total	2,742	0	1,275	824			24.21	23.27	970	-0.94

Summary Section					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Total State Control Area Generation	56,263	20,765	16,438	443.36	18,473
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]		9,656	9,761	201.12	10,673
Total Regional Availability(Gross)	83,409	48,461	38,823	989.82	43,536

Total Hydro Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Hydro	12,734	10,112	5,870	172.62	7,193
State Control Area Hydro	6,289	3,609	3,462	87.01	3,625
Total Regional Hydro	19,023	13,721	9,332	259.63	10,818

Total Renewable Generation					
	Inst. Capacity	PEAK	OFF-PEAK	Day Energy	Day AVG.
Regional Entities Renewable	1,010	0	0	4.95	206
State Control Area Renewable	10,596	1,705	843	45.94	1,914
Total Regional Renewable	11,606	1,705	843	50.89	2,120

4(A) INTER-REGIONAL EXCHANGES (Import=(+ve) /Export =(-ve))								
SL.No.	Element	20:00	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	-	-	-	-	-	-	-
2	132KV-Karmnasa (PG)-Sahupuri(UP)	-	-	-	-	-	-	-
3	132KV-Rihand-Sonnagar (PG)	-	-	-	-	-	-	-
4	220KV-Pusauli (PG)-Sahupuri(UP)	138	82	140	0	2.26	0	2.26
5	400KV-Biharsharif (PG)-Baliala(PG)	128	53	200	0	2.99	0	2.99
6	400KV-Biharsharif (PG)-Varanasi(PG)	238	136	0	238	0	3.14	-3.14
7	400KV-Motihari (DMT)-Gorakhpur(UP)	-	-	-	-	-	-	-
8	400KV-Muzaffarpur (PG)-Gorakhpur(UP)	216	410	568	0	10.15	0	10.15
9	400KV-Patna (PG)-Baliala(PG)	581	579	601	0	8.97	0	8.97
10	400KV-Sasaram-Allahabad (PG)	18	45	60	0	0.91	0	0.91
11	400KV-Sasaram-Varanasi (PG)	173	150	178	0	3.69	0	3.69
12	765KV-Fatehpur (PG)-Sasaram.	-	-85	53	143	0	1.05	-1.05
13	765KV-Gaya (PG)-Baliala(PG)	227	301	358	0	5.37	0	5.37
14	765KV-Gaya (PG)-Varanasi(PG)	212	109	7	212	0	1.72	-1.72
15	HVDC800KV-Alipurduar-Agra (PG)	1,200	1,350	1,350	0	31.11	0	31.11
Sub-Total EAST REGION		3,131	3,130	3,515	593	65.45	5.91	59.54
Import/Export between NORTH_EAST REGION and NORTH REGION								
1	HVDC800KV-BiswanathCharialli-Agra (PG)	600	740	740	0	15.78	0	15.78
Sub-Total NORTH_EAST REGION		600	740	740	0	15.78	0	15.78
Import/Export between WEST REGION and NORTH REGION								
1	220KV-Auraiya (NT)-Malanpur(PG)	-90	-52	-	110	0	1.24	-1.24
2	220KV-Bhanpur-Modak	37	38	85	-	1.2	0	1.2
3	220KV-Ranpur-Bhanpur	15	14	73	-	0.65	0	0.65
4	400KV-RAPS C (NP)-Sujalpur	99	187	260	0	4.05	0	4.05

Import/Export between WEST REGION and NORTH REGION								
5	400KV-Vindhyachal (PG)-Rihand(NT)	-941	-927	-	969	0	22.98	-22.98
6	400KV-Zerda (PG)-Bhinmal(PG)	36	120	195	158	2.07	0	2.07
7	400KV-Zerda (PG)-Kankroli(RJ)	48	65	96	12	1.4	0	1.4
8	765KV-0rai-Gwalior (PG)	-190	-233	0	285	0	5.58	-5.58
9	765KV-0rai-Jabalpur	934	1,024	1,122	0	22.73	0	22.73
10	765KV-0rai-Satna	1,163	1,141	1,193	0	28.17	0	28.17
11	765KV-Chittorgarh-Banaskata D/C	675	695	875	0	15	0	15
12	765KV-Gwalior (PG)-Agra(PG)	1,464	1,402	1,798	0	33.6	0	33.6
13	765KV-Phagi (RJ)-Gwalior(PG)	727	766	895	-	17.91	0	17.91
14	HVDC500KV-Mundra (JH)-Mohindergarh(JH)	1,198	901	1,203	0	23.34	0	23.34
15	HVDC500KV-Vindhyachal (PG)-Vindhaychal B/B	-500	-500	0	500	0	12.04	-12.04
16	HVDC800KV-Champa (PG)-Kurukshetra(PG)(PG)	1,250	1,250	1,250	0	17.52	0	17.52
Sub-Total WEST REGION		5,925	5,891	9,045	2,034	167.64	41.84	125.8
TOTAL IR EXCHANGE		9,656	9,761	13,300	2,627	248.87	47.75	201.12

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	36.74	5.71	2.23	44.68	59.54	14.86
NR-WR	155.31	20.73	-8.39	167.65	125.8	-41.85
Total	192.05	26.44	-6.16	212.33	201.12	-11.21

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)	27.01	0	0	27	0	0.219	-0.219

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	0	.4	4.5	34.6	79.5	15.1	.9	0	15.9

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

Maximum		Minimum		Average	Freq Variation Index	Standard Deviation	Freq. in 15 mnt blk		Freq Dev Index
Frequency	Time	Frequency	Time				Max.	Min.	
50.16	13:04:00	49.76	16:44:40	50.01	0.027	0.052	50.1	49.85	20.5

6.Voltage Profile: 400kV

	Maximum		Minimum		Voltage (in %)				Voltage Deviation Index (% of time)
					< 380	< 390	> 420	> 430	
Abdullapur(PG) - 400KV	422	03:05	402	18:45	0	0	9.72	0	9.72
Amritsar(PG) - 400KV	425	03:15	402	02:30	0	0	23.26	0	23.26
Ballabgarh(PG) - 400KV	421	03:05	400	18:45	0	0	3.13	0	3.13
Bareilly II(PG) - 400KV	417	03:05	398	18:45	0	0	0	0	0
Bareilly(UP) - 400KV	418	03:15	399	18:45	0	0	0	0	0
Baspa(HP) - 400KV	420	01:00	403	18:45	0	0	20.83	0	20.83
Bassi(PG) - 400KV	423	03:15	403	18:45	0	0	11.81	0	11.81
Bawana(DTL) - 400KV	423	03:05	403	18:45	0	0	15.63	0	15.63
Dadri HVDC(PG). - 400KV	422	03:00	422	03:00	2.08	2.08	5.21	0	7.29
Gorakhpur(PG) - 400KV	419	16:00	400	18:45	0	0	0	0	0
Hisar(PG) - 400KV	423	03:05	402	18:45	0	0	15.63	0	15.63
Kanpur(PG) - 400KV	416	03:00	400	18:45	0	0	0	0	0
Kashipur(UT) - 400KV					0	0	0	0	0
Kishenpur(PG) - 400KV	420	23:05	402	00:00	0	0	0	0	0
Moga(PG) - 400KV	422	03:15	404	18:45	0	0	16.32	0	16.32
Nallagarh(PG) - 400KV	420	01:00	403	18:45	0	0	20.83	0	20.83
Rihand HVDC(PG) - 400KV	404	16:00	404	16:00	.35	.35	0	0	.35
Rihand(NT) - 400KV	403	16:00	403	16:00	.35	.35	0	0	.35

6.1 Voltage Profile: 765kV

	Maximum	Minimum	Voltage (in %)	Voltage Deviation Index
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					< 728	< 742	> 800	> 820	
Anta RS(RJ) - 765KV	796	02:35	780	18:45	0	0	0	0	0
Balia(PG) - 765KV	786	16:00	758	18:45	0	0	0	0	0
Bareilly II(PG) - 765KV	796	03:00	760	18:45	0	0	0	0	0
Bhiwani(PG) - 765KV	800	01:05	774	18:45	0	0	0	0	0
Fatehpur(PG) - 765KV	775	16:00	748	18:45	0	0	0	0	0
Jhatikara(PG) - 765KV	801	03:15	767	18:45	0	0	2.08	0	2.08
Lucknow II(PG) - 765KV	792	16:00	759	18:45	0	0	0	0	0
Meerut(PG) - 765KV	806	03:05	771	09:50	0	0	8.68	0	8.68
Moga(PG) - 765KV	800	03:15	765	18:45	0	0	0	0	0
Phagi(RJ) - 765KV	803	03:00	779	18:45	0	0	5.9	0	5.9
Unnao(UP) - 765KV	774	03:50	745	18:45	0	0	0	0	0

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

State	Off- Peak Hours (03:00)			Peak Hours (20:00)			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	-24.14	0	0	-226.86	0	0	74.36	-1.39	-0.2	72.78
HARYANA	873.62	212.47	0	932.19	155	0	88.32	21.63	6.89	116.84
RAJASTHAN	-59.93	184.76	0	-59.93	61.08	0	70.53	-1.44	3.69	72.78
DELHI	113.36	204.33	0	150.79	417.7	0	60.49	3.29	12.92	76.7
UTTAR PRADESH	777.43	59.53	0	1,414.33	65.18	0	137.75	15.79	-6.7	146.84
UTTARAKHAND	0	-172.31	0	0	-113.24	0	17.48	0	-3.82	13.67
HIMACHAL PRADESH	-226.08	-188.79	0	-332.45	-851.37	0	22.75	-6.41	-10.74	5.61
JAMMU & KASHMIR	-71.7	-298.25	0	-72.91	0	0	22.86	-1.74	-2.4	18.73
CHANDIGARH	0	0	0	0	-90.53	0	5.61	0	-1.12	4.48
TOTAL	1,382.56	1.74	0	1,805.16	-356.18	0	500.15	29.73	-1.48	528.43

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	3,585.52	2,851.59	-24.14	-429.58	0	-202.72	0	0
HARYANA	4,351.43	3,047.78	932.19	873.62	709.44	7.13	0	0
RAJASTHAN	3,402.9	2,250.3	-59.93	-59.93	185.34	-5.43	0	0
DELHI	3,066.73	2,103.45	178.5	112.39	949.83	84.28	0	0
UTTAR PRADESH	7,017.85	4,875.08	1,419.53	116.7	121.6	-1,611.39	0	0
UTTARAKHAND	1,026.14	494.8	0	0	0	-260.59	0	0
HIMACHAL PRADESH	1,478.12	592.41	-219.54	-368.02	-153.69	-951.83	0	0
JAMMU & KASHMIR	1,426.82	672.74	-71.7	-72.91	0	-298.25	0	0
CHANDIGARH	314.86	162.41	0	0	0	-97.58	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	510.36	1,560	507.68	1,441	604.54	483.37
Chamera-I	748.75	760	753.95	-	-	-	-	-	0
Gandhisagar	381	399.9	725	-	-	-	-	-	0
Jawahar Sagar	295.78	298.7	2.01	-	-	-	-	-	0
Koteshwar	598.5	612.5	610.73	611.18	5	610.31	5	435	424.18
Pong	384.05	426.72	1,084	422.43	1,006	424.44	1,098	343.6	276.68
RPS	343.81	352.8	175.66	-	-	-	-	-	0
RSD	487.91	527.91	390.3	523.53	3	526.93	10	159.26	118.73
Rihand	252.98	268.22	860.5	262.4	443	264.14	554	-	0
Tehri	740.04	829.79	1,291.49	827.4	1,159	826.55	1,141	276.23	435
TOTAL	-	-	-	-	4,176	-	4,249	1,818.63	1,737.96

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
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10. Zero Crossing Violations

State	No. of violations(Maximum 8 in a day)	Maximum number of continuous blocks without sign change
CHANDIGARH	1	13
DELHI	2	15
HARYANA	1	21
HIMACHAL PRADESH	0	10
JAMMU & KASHMIR	3	29
PUNJAB	1	13
RAJASTHAN	2	21
UTTAR PRADESH	1	13
UTTARAKHAND	7	77

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 :

125 MVAR Bus Reactor at 400kV Masoli (UP) first time charged at 17.32 Hrs.
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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