

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिड की पूर्ण स्वामित्व प्राप्त सार्वजनिक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 19.08.2015
Date of Reporting : 20.08.2015

I. Regional Availability/Demand:

Demand Met	Evening Peak (20:00 Hrs) MW			Off Peak (03:00 Hrs) MW			Day Energy (Net MU)		
	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
44018	2650	46668	49.99	39991	2341	42332	50.10	990.0	59.20

* 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	57.20	25.69		82.90	113.97	114.13	0.17	197.03	0.00
Haryana	28.70	0.48		29.18	124.84	124.54	-0.30	153.72	0.00
Rajasthan	76.80	7.32	26.24	110.36	57.21	62.35	5.14	172.70	0.18
Delhi	10.91			10.91	89.51	88.63	-0.88	99.54	0.09
UP	108.51	13.50		122.01	137.56	141.33	3.77	263.34	47.94
Uttarakhand		23.16		23.16	11.95	14.30	2.36	37.46	1.00
HP		24.99		24.99	-4.97	0.02	4.98	25.01	1.64
J & K		15.01	0.00	15.01	18.36	20.19	1.84	35.20	8.36
Chandigarh				0.00	6.29	5.98	0.27	5.98	0.00
Total	282.12	110.15	26.24	418.51	554.71	571.47	17.34	989.98	59.20

* 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	8782	0	-124	1513	7721	0	-97	1308	8794
Haryana	7758	0	47	1810	6063	0	29	1785	7838
Rajasthan	7433	118	185	-21	7210	0	628	-55	8158
Delhi	4462	0	-100	722	3757	0	98	744	4875
UP	11030	1575	210	680	11485	2150	-134	871	11968
Uttarakhand	1678	230	144	-112	1470	0	177	-460	1678
HP	860	290	338	-1352	991	0	240	-1619	1296
J&K	1751	438	231	-507	1080	191	-76	-668	1751
Chandigarh	264	0	-2	0	214	0	-9	-15	309
Total	44018	2650	930	2733	39991	2341	857	1892	45021

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

III. Regional Entities :

Entity	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	1594	1528	2027	39.15	1631	38.19	0.96
	Rihand I STPS (2*500)	1000	775	827	882	18.80	783	18.42	0.38
	Rihand II STPS (2*500)	1000	943	1033	983	22.61	942	22.41	0.19
	Rihand III STPS (2*500)	1000	480	510	489	11.38	474	11.42	-0.04
	Dadri I STPS (4*210)	840	600	390	282	8.35	348	8.63	-0.27
	Dadri II STPS (2*490)	980	970	941	711	19.87	828	20.94	-1.07
	Unchahar I TPS (2*210)	420	400	431	388	8.99	374	9.57	-0.58
	Unchahar II TPS (2*210)	420	400	439	379	8.87	370	9.53	-0.66
	Unchahar III TPS (1*220)	210	200	220	188	4.37	182	4.73	-0.36
	ISTPP (Jhajhar) (3*500)	1500	1436	943	613	15.81	659	15.64	0.17
	Dadri GPS (4*130.19+2*154.51)	830	604	170	173	4.06	169	4.33	-0.27
	Anta GPS (3*88.71+1*153.2)	419	396	-1	-1	0.00	0	0.00	0.00
	Auraiya GPS (4*111.19+2*109.30)	663	638	308	325	7.18	299	7.41	-0.23
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.02	1	0.06	-0.04
	Singrauli Solar	15	3	0	0	0.05	2	0.07	-0.02
	Sub Total (A)	12112	10288	8580	8279	190	7908	192	-2
B. NPC	NAPS (2*220)	440	373	404	423	8.89	370	8.95	-0.06
	RAPS- B (2*220)	440	388	414	434	9.19	383	9.31	-0.13
	RAPS- C (2*220)	440	280	220	415	6.29	262	6.71	-0.42
	Sub Total (B)	1320	1041	1038	1272	24.37	1015	24.98	-0.61
C. NHPC	Chamera I HPS (3*180)	540	534	546	540	13.00	542	12.82	0.19
	Chamera II HPS (3*100)	300	300	300	300	7.20	300	7.20	0.00
	Chamera III HPS (3*77)	231	177	236	156	4.30	179	4.24	0.07
	Bairasuil HPS(3*60)	180	165	123	181	3.06	128	2.98	0.08
	Salal-HPS (6*115)	690	648	671	671	16.10	671	15.55	0.55
	Tanakpur-HPS (3*40)	94	91	94	94	2.25	94	2.19	0.06
	Uri-I HPS (4*120)	480	431	464	449	10.69	445	10.35	0.34
	Uri-II HPS (4*60)	240	229	233	236	5.61	234	5.51	0.10
	Dhauliganga-HPS (4*70)	280	271	281	280	6.52	272	6.52	0.01
	Dulhasti-HPS (3*130)	390	386	400	399	9.37	391	9.26	0.11
	Sewa-II HPS (3*40)	120	106	125	0	1.53	64	1.40	0.13
	Parbati 3 (4*130)	520	260	263	265	4.87	203	4.81	0.06
	Sub Total (C)	4065	3600	3737	3570	85	3522	83	2
D.SJVNL	NJPC (6*250)	1500	176	0	0	4.87	203	4.46	0.41
	Rampur HEP (6*68.67)	412	48	0	0	1.28	53	1.16	0.12
	Sub Total (D)	1912	224	0	0	6.15	256	5.62	0.53
E. THDC	Tehri HPS (4*250)	1000	1050	1050	1050	25.18	1049	25.00	0.18
	Koteshwar HPS (4*100)	400	354	403	303	8.52	355	8.50	0.02
	Sub Total (E)	1400	1404	1453	1353	33.69	1404	33.50	0.19
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	1450	1462	1464	34.92	1455	34.80	0.12
	Dehar HPS (6*165)	990	590	595	600	14.21	592	14.17	0.04
	Pong HPS (6*66)	396	380	384	384	9.09	379	9.12	-0.03
	Sub Total (F)	2765	2420	2441	2448	58.22	2426	58.09	0.13
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	228	147	3.68	153	3.74	-0.07
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1180	0	6.00	250	5.26	0.74
	Malana Stg-II HPS (2*50)	100	0	112	111	2.45	102	2.38	0.07
	Shree Cement TPS (2*150)	300	0	296	276	6.73	280	6.61	0.12
	Budhil HPS(IPP) (2*35)	70	0	76	69	1.75	73	1.66	0.09
Sub Total (G)	1662	0	1892	603	20.60	858	19.65	0.95	
H. Total Regional Entities (A-G)	25237	18977	19141	17526	417.35	17390	416.32	1.03	

Diversity is 1.04

UI (OG:(+ve), UG: (-ve))

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	800	720	16.70	696	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	80	80	1.91	80	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	407	387	9.38	391	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura (2*700)	1400	1356	705	20.24	843	
	Talwandi Saboo (1*660)	660	390	334	8.97	374	
	Thermal (Total)	4700	3033	2226	57.20	2383	
	Total Hydro	1000	1076	1076	25.69	1071	
	Total Punjab	5700	4109	3302	82.90	3454	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
DCRTPP (Yamuna nagar) (2*300)		600	463	449	11.03	460	
Faridabad GPS (NTPC)		432	321	309	8.09	337	
RGTPP (khedar) (IPP) (2*600)		1200	470	365	9.58	399	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	0	0	0.00	0	
Thermal (Total)		4944	1254	1123	28.70	1196	
Total Hydro		62	21	20	0.48	20	
Total Haryana		5006	1275	1143	29.18	1216	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	594	514	13.72	572
		suratgarh TPS (6*250)	1500	421	381	9.78	407
		Chabra TPS (4*250)	1000	0	0	0.03	1
		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	169	170	4.14	172	
	RAPS A (NPC) (1*100+1*200)	300	161	162	3.95	165	
	Barsingsar (NLC) (2*125)	250	90	92	2.03	85	
	Giral LTPS (2*125)	250	0	0	0.00	0	
	Rajwest LTPS (IPP) (8*135)	1080	692	681	16.21	675	
	V/S LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	0	0	0.00	0	
	Kawai(Adani) (2*660)	1320	1007	960	26.95	1123	
	Thermal (Total)	8876	3134	2960	77	3200	
	Total Hydro	550	280	280	7.32	305	
	Wind power	3214	1336	1005	25.69	1071	
	Biomass	99	23	23	0.55	23	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	1359	1028	26.24	1093	
	Total Rajasthan	13469	4773	4268	110.36	4598	
	UP	Anpara TPS (3*210+2*500)	1630	1099	1126	26.20	1092
		Obra TPS (2*50+2*94+5*200)	1194	281	256	6.80	283
		Panicha TPS (2*110+2*220+2*250)	1140	556	756	15.00	625
		Panki TPS (2*105)	210	45	68	1.20	50
Harduaganj TPS (1*60+1*105+2*250)		665	526	514	12.30	513	
Tanda TPS (NTPC) (4*110)		440	290	260	6.51	271	
Roza TPS (IPP) (4*300)		1200	1094	1067	26.00	1083	
Anpara-C (IPP) (2*600)		1200	531	0	4.80	200	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	365	363	8.50	354	
Anpara-D(1*500)		500	0	0	0.00	0	
Lalitpur TPS(1*660)		660	0	0	0.00	0	
Thermal (Total)		9289	4787	4410	107	4471	
Vishnuparyag HPS (IPP)(4*110)		440	0	0	0.00	0	
Alakananda(4*82.5)		330	330	327	7.80	325	
Other Hydro		527	227	286	5.70	238	
Cogeneration		981	50	50	1.20	50	
Total UP		11567	5394	5073	122	5084	
Uttarakhand	Total Hydro	1398	909	978	23.16	965	
	Total Uttarakhand	1398	909	978	23.16	965	
Delhi	Rajghat TPS (2*67.5)	135	0	0	-0.02	-1	
	Delhi Gas Turbine (6x30 + 3x34)	282	32	37	0.71	29	
	Pragati Gas Turbine (2x104+ 1x122)	330	143	148	3.50	146	
	Riithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	-4	-4	-0.10	-4	
	Badarpur TPS (NTPC) (3*95+2*210)	705	320	315	6.83	284	
	Thermal (Total)	2917	491	496	10.91	454	
	Total Delhi	2917	491	496	10.91	454	
HP	Baspa HPS (IPP) (3*100)	300	331	331	7.90	329	
	Malana HPS (IPP) (2*43)	86	103	103	2.45	102	
	Other Hydro	878	594	612	14.65	610	
	Total HP	1264	1028	1046	24.99	1041	
J & K	Baglihar HPS (IPP) (3*150)	450	450	450	10.80	450	
	Other Hydro/IPP	560	179	184	4.21	176	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	629	634	15.01	626	
Total State Control Area Generation		42521	18608	16940	418.51	17438	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			8315	6529	166.79	6950	
Total Regional Availability(Gross)		67758	46064	40995	1002.66	41777	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	9991	8469	214.98	8958
State Control Area Hydro	6581	4500	4647	110	4590
Total Regional Hydro	18815	14491	13116	325.13	13547

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(HVDC B/B)	250	-250	250	250	1.39	3.25	-1.87
765 KV Gwalior-Agra (D/C)	2434	1382	2500	0	45.52	0.00	45.52
400 KV Zerda-Kankroli	-96	-174	0	251	0.00	4.42	-4.42
400 KV Zerda-Bhimmal	-131	-162	0	282	0.00	4.69	-4.69
220 KV Auraiya-Malanpur	-43	-72	0	99	0.00	1.28	-1.28
220 KV Badod-Kota/Morak	69	-6	69	15	0.18	0.00	0.18
Mundra-Mohinderqarh(HVDC Bipole)	2209	2506	2516	0	51.52	0.00	51.52
400 KV Vindhychal - Rihand	489	455	499	0	10.20	0.00	10.20
765 kV Phagi-Gwalior (D/C)	896	775	896	0	18.91	0.00	18.91
Sub Total WR	6077	4454			127.71	13.65	114.06
Pusauli Bypass/HVDC	400	400	400	0	9.03	0.00	9.03
400 KV MZP- GKP (D/C)	400	492	720	0	12.27	0.00	12.27
400 KV Patna-Balia(D/C) X 2	299	300	434	0	7.37	0.00	7.37
400 KV B'Sharif-Balia (D/C)	130	184	314	0	4.73	0.00	4.73
765 KV Pusauli-Balia	101	99	221	0	2.72	0.00	2.72
765 KV Gaya-Fatehpur	336	189	380	0	6.17	0.00	6.17
220 KV Pusauli-Sahupuri	170	142	172	0	3.07	0.00	3.07
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-20	-25	0	41	0.00	0.68	-0.68
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	132	66	242	11	2.94	0.00	2.94
400 KV Barh -GKP (D/C)	290	228	290	0	5.11	0.00	5.11
Sub Total ER	2238	2075			53.41	0.68	52.73
Total IR Exch	8315	6529			181.12	14.33	166.79

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
31.16	3.30	34.46	20.72	9.36	8.80	-0.17	2.85	-2.85
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
66.83	92.99	159.82	52.73	114.06	166.79	-14.10	21.07	6.97

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	-23	-29	0	43	0	1	-0.58

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	0.61	2.00	16.22	59.92	71.70	9.21	2.95	0.01	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	49.97	0.07	0.08	50.18	49.89
50.20	18.02	49.56	11.15					

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	407	18:35	400	22:12	0.0	0.0	0.0	0.0
Gorakhpur	400	420	07:01	399	22:11	0.0	0.0	0.0	0.0
Bareilly	400	414	18:29	398	14:32	0.0	0.0	0.0	0.0
Kanpur	400	421	05:06	400	22:11	0.0	0.0	0.1	0.0
Dadri	400	418	05:03	394	14:27	0.0	0.0	0.0	0.0
Ballabgarh	400	426	05:06	398	14:30	0.0	0.0	17.6	0.0
Bawana	400	423	05:07	398	14:55	0.0	0.0	4.5	0.0
Bassi	400	428	04:03	399	14:26	0.0	0.0	17.9	0.0
Hissar	400	418	05:03	394	14:30	0.0	0.0	0.0	0.0
Moga	400	414	05:03	396	14:30	0.0	0.0	0.0	0.0
Abdullapur	400	421	05:06	392	23:19	0.0	0.0	0.6	0.0
Nalagarh	400	426	03:36	407	14:51	0.0	0.0	31.2	0.0
Kishenpur	400	415	05:04	403	19:24	0.0	0.0	0.0	0.0
Wagoora	400	407	02:52	389	20:13	0.0	0.2	0.0	0.0
Amritsar	400	415	05:03	393	10:10	0.0	0.0	0.0	0.0
Kashipur	400	417	18:30	409	22:12	0.0	0.0	0.0	0.0
Hamirpur	400	402	00:00	402	00:00	0.0	0.0	0.0	0.0
Rishikesh	400	409	05:03	386	22:09	0.0	2.1	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	782	05:04	742	19:24	0.0	0.0	0.0	0.0
Balia	765	778	05:05	741	22:11	0.0	0.2	0.0	0.0
Moga	765	796	05:05	756	14:33	0.0	0.0	0.0	0.0
Agra	765	802	05:06	750	19:25	0.0	0.0	0.5	0.0
Bhiwani	765	804	03:46	761	14:20	0.0	0.0	6.3	0.0
Unnao	765	765	05:06	730	22:11	0.0	19.4	0.0	0.0
Lucknow	765	779	05:06	741	22:11	0.0	0.2	0.0	0.0
Meerut	765	810	05:03	760	14:28	0.0	0.0	16.2	0.0
Jhatikara	765	804	04:03	754	14:30	0.0	0.0	10.1	0.0
Bareilly	765	780	05:06	742	22:11	0.0	0.0	0.0	0.0
Anta	765	767	00:00	767	00:00	0.0	0.0	0.0	0.0
Phagi	765	798	03:47	754	14:24	0.0	0.0	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 (m ³ /s)	Usage (m ³ /s)
Bhakra	513.59	445.62	509.29	1515.08	509.65	1530.03	1321.91	1162.12
Pong	426.72	384.05	421.86	975.89	415.66	705.67	697.13	520.24
Tehri	829.79	740.04	814.65	895.26	812.00	842.28	702.27	573.00
Koteshwar	612.50	598.50	610.21	4.95	610.91	4.95	573.00	561.12
Chamera-I	760.00	748.75	757.10	0.00	0.00	0.00	375.28	352.41
Rihand	268.22	252.98	851.40	278.10	856.00	355.50	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	523.10	14.26	518.38	11.20	400.45	555.36

* 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	1280	27	0	1513	0	0	31.96	0.37	32.33
Delhi	418	326	0	483	238	0	10.25	9.20	19.44
Haryana	1576	209	0	1554	256	0	37.39	2.79	40.17
HP	-1119	-499	0	-918	-434	0	-23.56	-12.72	-36.28
J&K	-592	-76	0	-542	35	0	-13.95	-0.71	-14.66
CHD	0	-15	0	0	0	0	0.24	-0.09	0.14
Rajasthan	-753	699	0	-753	732	0	-18.08	15.99	-2.09
UP	871	0	0	680	0	0	17.94	0.00	17.94
Uttarakhand	-220	-239	0	-147	35	0	-4.50	-2.31	-6.81
Total	1460	432	0	1871	863	0	37.67	12.52	50.19

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1515	1263	53	0	0	0
Delhi	789	184	641	138	0	0
Haryana	1576	1532	282	-219	0	0
HP	-851	-1254	-406	-655	0	0
J&K	-491	-845	35	-152	0	0
CHD	29	0	0	-35	0	0
Rajasthan	-753	-753	756	559	0	0
UP	1215	493	0	0	0	0
Uttarakhand	-147	-220	38	-252	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 19.08.2015 :
cloudy weather and scattered rain in parts of NR

XIV. Synchronisation of new generating units :

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

XVI. Tripping of lines in pooling stations :

XVII. Complete generation loss in a generating station :