

पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पब्लिसिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



उत्तरी क्षेत्रीय भार प्रेषण केंद्र

CIN: U40105DL2009GOI188682

Power Supply Position in Northern Region for 20.09.2015
Date of Reporting : 21.09.2015

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
40150	1499	41649	50.00	41747	3904	45651	50.13	945.2	53.73

* 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	43.99	15.74		59.73	76.23	73.58	-2.64	133.31	0.00
Haryana	31.28	0.75		32.02	101.05	95.27	-5.77	127.30	0.00
Rajasthan	121.40	4.80	11.82	138.01	53.31	55.74	2.43	193.75	0.00
Delhi	17.20			17.20	82.44	82.14	-0.30	99.34	0.02
UP	132.22	17.51		149.73	144.35	147.78	3.44	297.51	45.97
Uttarakhand		20.59		20.59	14.24	15.58	1.34	36.17	0.00
HP		15.05		15.05	8.96	5.79	-3.17	20.84	0.00
J & K		13.19	0.00	13.19	19.66	19.67	0.01	32.86	7.74
Chandigarh				0.00	4.43	4.14	0.27	4.14	0.00
Total	346.08	87.62	11.82	445.51	504.66	499.70	-4.40	945.21	53.73

* 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	5286	0	-294	486	6523	0	29	870	6769
Haryana	5688	0	-322	1862	6246	0	-74	1920	6543
Rajasthan	8226	0	103	56	8752	0	142	309	8913
Delhi	4077	0	-246	573	4462	1	298	575	4833
UP	12493	1070	173	470	12093	3700	595	570	13148
Uttarakhand	1542	0	-71	174	1531	0	56	137	1635
HP	928	0	-284	-734	808	0	-23	-526	1049
J&K	1717	429	1	-148	1150	203	-51	-297	1853
Chandigarh	193	0	-40	0	181	0	1	0	195
Total	40150	1499	-980	2738	41747	3904	974	3557	43397

* 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	1688	1460	1842	37.98	1583	38.16	-0.18
	Rihand I STPS (2*500)	1000	810	639	839	16.99	708	16.90	0.09
	Rihand II STPS (2*500)	1000	943	712	984	19.76	823	20.07	-0.31
	Rihand III STPS (2*500)	1000	480	360	467	9.76	406	10.16	-0.40
	Dadri I STPS (4*210)	840	768	589	662	14.47	603	15.06	-0.58
	Dadri II STPS (2*490)	980	970	703	966	17.42	726	18.48	-1.06
	Unchahar I TPS (2*210)	420	195	138	207	3.50	146	4.14	-0.64
	Unchahar II TPS (2*210)	420	400	313	408	7.02	293	8.35	-1.33
	Unchahar III TPS (1*220)	210	200	142	212	3.44	144	4.17	-0.72
	ISTPP (Jhajjar) (3*500)	1500	1436	651	612	14.19	591	14.40	-0.21
	Dadri GPS (4*130.19+2*154.51)	830	800	372	368	8.38	349	8.83	-0.45
	Anta GPS (3*88.71+1*153.2)	419	391	228	215	5.34	222	5.89	-0.56
	Auraiya GPS (4*111.19+2*109.30)	663	635	0	0	0.00	0	0.00	0.00
	Dadri Solar	5	1	0	0	0.02	1	0.03	-0.01
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.04
	Singrauli Solar	15	3	0	0	0.05	2	0.08	-0.03
	KHEP	800	845	842	0	6.73	280	7.28	-0.55
	Sub Total (A)	12112	10569	7149	7782	165	6878	172	-7
	B. NPC	NAPS (2*220)	440	370	421	418	9.07	378	8.88
RAPS- B (2*220)		440	185	209	212	4.54	189	4.44	0.10
RAPS- C (2*220)		440	390	430	436	9.32	388	9.36	-0.04
Sub Total (B)		1320	945	1060	1066	22.93	956	22.68	0.25
C. NHPC	Chamera I HPS (3*180)	540	535	541	0	2.98	124	2.93	0.05
	Chamera II HPS (3*100)	300	300	302	101	4.40	183	4.35	0.04
	Chamera III HPS (3*77)	231	229	232	82	2.81	117	2.81	0.00
	Bairasuli HPS(3*60)	180	179	183	0	1.31	55	1.25	0.06
	Salal-HPS (6*115)	690	501	671	392	12.61	525	12.07	0.55
	Tanakpur-HPS (3*40)	94	80	77	76	2.00	83	1.93	0.07
	Uri-I HPS (4*120)	480	166	312	138	4.21	176	3.98	0.23
	Uri-II HPS (4*60)	240	98	183	90	2.45	102	2.34	0.11
	Dhauliganga-HPS (4*70)	280	279	284	79	3.57	149	3.38	0.19
	Dulhasti-HPS (3*130)	390	386	395	402	9.35	389	9.26	0.08
	Sewa-II HPS (3*40)	120	119	116	0	0.41	17	0.40	0.01
	Parbati 3 (4*130)	520	390	130	0	2.50	104	2.47	0.03
	Sub Total (C)	4065	3263	3426	1360	49	2025	47	1
	D. SJVNL	NJPC (6*250)	1500	1350	1356	1014	27.08	1128	27.21
Rampur HEP (6*68.67)		412	432	372	297	7.75	323	7.47	0.28
Sub Total (D)		1912	1782	1728	1311	34.83	1451	34.68	0.16
E. THDC	Tehri HPS (4*250)	1000	1080	1085	232	6.04	252	5.98	0.06
	Koteshwar HPS (4*100)	400	108	201	93	2.59	108	2.60	-0.01
Sub Total (E)	1400	1188	1286	325	8.63	360	8.58	0.05	
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	793	1223	672	18.90	788	19.03	-0.12
	Dehar HPS (6*165)	990	488	825	570	11.73	489	11.72	0.01
	Pong HPS (6*66)	396	314	384	318	7.42	309	7.54	-0.11
	Sub Total (F)	2765	1595	2432	1560	38.06	1586	38.28	-0.22
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	113	92	1.74	73	1.31	0.43
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	900	750	14.82	618	14.72	0.10
	Malana Stg-II HPS (2*50)	100	0	110	25	1.10	46	1.02	0.08
	Shree Cement TPS (2*150)	300	0	288	295	6.36	265	6.53	-0.18
	Budhil HPS(IPP) (2*35)	70	0	45	35	0.75	31	0.93	-0.18
Sub Total (G)	1662	0	1455	1198	24.77	1032	24.51	0.26	
H. Total Regional Entities (A-G)	25237	19342	18536	14601	342.90	14287	347.96	-5.06	

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	210	890	11.63	485	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	90	90	1.92	80	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	172	535	7.45	310	
	Goindwal(GVK)		0	0	0.00	0	
	Rajpura (2*700)	1400	700	702	15.73	655	
	Talwandi Saboo (1*660)	660	335	329	7.27	303	
	Thermal (Total)	4700	1507	2546	43.99	1833	
	Total Hydro	1000	600	705	15.74	656	
	Total Punjab	5700	2107	3251	59.73	2489	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	0	0	0.00	0
DCRTPP (Yamuna nagar) (2*300)		600	450	225	9.40	392	
Faridabad GPS (NTPC)		432	316	318	7.42	309	
RGTPP (khedra) (IPP) (2*600)		1200	353	747	14.45	602	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	0	0	0.00	0	
Thermal (Total)		4944	1119	1290	31.28	1303	
Total Hydro		62	31	31	0.75	31	
Total Haryana		5006	1150	1321	32.02	1334	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	786	838	19.15	798
		suratgarh TPS (6*250)	1500	940	1013	23.12	963
		Chabra TPS (4*250)	1000	296	408	8.80	367
		Dholpur GPS (3*110)	330	88	87	2.13	89
	Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	190	187	4.63	193	
	RAPS A (NPC) (1*100+1*200)	300	160	160	3.94	164	
	Barsingar (NLC) (2*125)	250	95	97	2.10	88	
	Giral LTPS (2*125)	250	68	58	1.23	51	
	Rajwest LTPS (IPP) (8*135)	1080	506	928	19.34	806	
	VS LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	975	1080	25.00	1042	
	Kawai(Adani) (2*660)	1320	437	600	11.95	498	
	Thermal (Total)	8876	4541	5456	121	5058	
	Total Hydro	550	231	185	4.80	200	
	Wind power	3214	616	349	11.25	469	
	Biomass	99	24	24	0.57	24	
	Solar	730	0	0	0.00	0	
	Renewable/Others (Total)	4043	640	373	11.82	492	
	Total Rajasthan	13469	5412	6014	138.01	5751	
	UP	Anpara TPS (3*210+2*500)	1630	915	922	21.90	913
Obra TPS (2*50+2*94+5*200)		1194	470	438	10.55	440	
Paricha TPS (2*110+2*220+2*250)		1140	635	616	15.15	631	
Panki TPS (2*105)		210	54	68	1.56	65	
Harduaganj TPS (1*60+1*105+2*250)		665	443	444	10.57	441	
Tanda TPS (NTPC) (4*110)		440	187	184	4.49	187	
Roza TPS (IPP) (4*300)		1200	1076	1072	25.67	1069	
Anpara-C (IPP) (2*600)		1200	1080	1081	25.70	1071	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	345	365	8.53	355	
Anpara-D(1*500)		500	0	0	0.59	25	
Lalitpur TPS(1*660)		660	345	118	6.31	263	
Thermal (Total)		9289	5550	5308	131	5459	
Vishnuparyag HPS (IPP)(4*110)		440	435	435	10.45	435	
Alaknanda(4*82.5)		330	197	245	5.10	213	
Other Hydro		527	86	69	1.96	82	
Cogeneration		981	50	50	1.20	50	
Total UP		11567	6318	6107	150	6239	
Uttarakhand	Total Hydro	1398	864	815	20.59	858	
	Total Uttarakhand	1398	864	815	20.59	858	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	33	33	0.85	35	
	Prahati Gas Turbine (2x104+ 1x122)	330	263	264	6.05	252	
	Rithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	248	249	5.94	248	
	Badarpur TPS (NTPC) (3*95+2*210)	705	213	178	4.36	182	
	Thermal (Total)	2917	757	724	17.20	717	
	Total Delhi	2917	757	724	17.20	717	
HP	Baspa HPS (IPP) (3*100)	300	217	217	5.28	220	
	Malana HPS (IPP) (2*43)	86	75	51	1.07	45	
	Other Hydro	878	401	301	8.70	362	
	Total HP	1264	693	569	15.05	627	
J & K	Baqilhar HPS (IPP) (3*150)	450	450	450	10.80	450	
	Other Hydro/IPP	560	98	99	2.39	99	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	548	549	13.19	549	
Total State Control Area Generation		42521	17849	19350	445.51	18563	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			5691.67	9161.82	179.16	7465	
Total Regional Availability(Gross)		67758	42077	43113	967.57	40315	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	10837	5423	154.51	6438
State Control Area Hydro	6581	3685	3603	88	3651
Total Regional Hydro	18815	14522	9026	242.13	10089

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	Import	Export	
Vindhychal(HVDC B/B)	-250	150	200	250	2.36	1.73	0.63		
765 KV Gwalior-Agra (D/C)	1990	2985	3160	0	54.55	0.00	54.55		
400 KV Zerda-Kankroli	-28	142	142	227	0.00	1.01	-1.01		
400 KV Zerda-Bhinmal	15	192	200	203	0.24	0.00	0.24		
220 KV Auraiya-Malanpur	-12	-3	0	29	0.00	0.12	-0.12		
220 KV Badod-Kota/Morak	-32	36	29	-88	0.00	-0.57	0.57		
Mundra-Mohindergarh(HVDC Bipole)	1352	2197	2218	0	46.38	0.00	46.38		
400 KV Vindhychal - Rihand	332	314	437	0	7.82	0.00	7.82		
765 KV Phagi-Gwalior (D/C)	974	1039	1046	0	19.67	0.00	19.67		
Sub Total WR	4341	7052			131.02	2.29	128.73		
Pusauli Bypass/HVDC	400	400	400	0	9.05	0.00	9.05		
400 KV MZP- GKP (D/C)	332	414	668	0	11.11	0.00	11.11		
400 KV Patna-Balia(D/C) X 2	246	373	464	0	8.33	0.00	8.33		
400 KV B'Sharif-Balia (D/C)	117	221	338	0	5.14	0.00	5.14		
765 KV Pusauli-Balia	55	167	222	0	1.52	0.00	1.52		
765 KV Gaya-Fatehpur	34	161	203	28	2.39	0.00	2.39		
220 KV Pusauli-Sahupuri	0	184	212	0	2.19	0.00	2.19		
132 KV K'nasa-Sahupuri	0	0	0	0	4.80	0.00	4.80		
132 KV Son Ngr-Rihand	-34	-46	0	-46	0.00	-0.78	0.78		
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00		
765 KV Sasaram - Fatehpur	-49	15	86	121	0.00	0.01	-0.01		
400 KV Barh -GKP (D/C)	250	221	261	0	5.13	0.00	5.13		
Sub Total ER	1351	2110			49.67	-0.77	50.43		
+/- 800 KV BiswanathChariali-Agra	0	0	0	0	0	0	0		
Sub Total NER	0	0			0	0	0		
Total IR Exch	5692	9162			180.68	1.52	179.16		

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
32.85	3.44	36.28	16.34	22.16	-0.07	19.09	1.09	-1.09
Total IR Schedule (MU)								
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
53.64	117.45	171.10	50.43	128.73	179.16	-3.21	11.27	8.06

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	Import	Export	
132 KV Tanakpur - Mahendarnagar	-37	-20	0	37	0	0	-0.41		

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	0.00	0.13	2.14	32.30	60.30	23.10	12.49	2.00	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					
50.33	16.06	49.77	2.13	50.03	0.062	0.071	50.35	50.00

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	16:16	398	00:02	0.0	0.0	0.0	0.0
Gorakhpur	400	417	16:07	395	23:27	0.0	0.0	0.0	0.0
Barilly	400	405	00:00	405	00:00	0.0	0.0	0.0	0.0
Kanpur	400	421	16:06	407	00:02	0.0	0.0	0.3	0.0
Dadri	400	422	16:07	405	00:00	0.0	0.0	3.6	0.0
Ballabgarh	400	426	16:06	411	00:02	0.0	0.0	32.6	0.0
Bawana	400	426	17:03	412	19:24	0.0	0.0	27.6	0.0
Bassi	400	426	16:05	411	19:26	0.0	0.0	36.2	0.0
Hissar	400	425	16:06	409	00:04	0.0	0.0	12.7	0.0
Moga	400	424	14:00	407	19:26	0.0	0.0	21.4	0.0
Abdullapur	400	428	16:07	410	00:00	0.0	0.0	20.0	0.0
Nalagarh	400	432	06:01	419	00:00	0.0	0.0	89.7	11.5
Kishenpur	400	423	04:01	404	19:07	0.0	0.0	17.4	0.0
Wagoora	400	413	00:00	395	00:00	0.0	0.0	0.0	0.0
Amritsar	400	427	14:07	410	18:59	0.0	0.0	46.4	0.0
Kashipur	400	420	16:04	408	00:02	0.0	0.0	0.0	0.0
Hamirpur	400	0	00:00	0	00:00	0.0	0.0	0.0	0.0
Rishikesh	400	416	16:07	374	11:58	1.4	1.4	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	786	08:05	738	19:28	0.0	2.0	0.0	0.0
Balia	765	775	16:06	740	23:27	0.0	1.6	0.0	0.0
Moga	765	816	14:03	774	19:14	0.0	0.0	51.3	0.0
Agra	765	799	09:04	758	19:26	0.0	0.0	0.0	0.0
Bhiwani	765	810	16:04	784	00:00	0.0	0.0	35.8	0.0
Unnao	765	766	16:06	731	00:03	0.0	15.4	0.0	0.0
Lucknow	765	779	16:08	741	00:04	0.0	0.1	0.0	0.0
Meerut	765	816	16:08	780	19:26	0.0	0.0	42.1	0.0
Jhatikara	765	807	17:03	782	00:00	0.0	0.0	22.7	0.0
Barilly	765	787	16:06	745	00:02	0.0	0.0	0.0	0.0
Anta	765	768	00:00	768	00:00	0.0	0.0	0.0	0.0
Phagi	765	801	16:07	773	00:00	0.0	0.0	0.7	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	511.04	1605.30	511.56	1620.46	452.28	534.93
Pong	426.72	384.05	420.92	931.43	416.93	755.83	108.65	428.77
Tehri	829.79	740.04	822.65	1058.00	821.75	1038.00	193.78	133.00
Koteshwar	612.50	598.50	609.65	4.44	611.95	5.73	133.00	170.59
Chamera-I	760.00	748.75	754.76	0.00	0.00	0.00	134.69	81.03
Rihand	268.22	252.98	0.00	0.00	0.00	0.00	0.00	0.00
RPS	352.80	343.81	1152.28	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	511.24	6.19	516.42	9.51	124.67	267.63

* 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	559	311	0	309	177	0	11.91	7.02	18.93
Delhi	148	428	-2	575	0	-2	8.36	5.07	13.43
Haryana	1723	197	0	1723	139	0	41.38	3.21	44.59
HP	-438	-88	0	-388	-346	0	-9.72	-4.01	-13.73
J&K	-432	135	0	-432	284	0	-10.36	4.77	-5.59
CHD	0	0	0	0	0	0	0.00	0.00	0.00
Rajasthan	-247	554	2	-389	443	2	-6.64	6.83	0.18
UP	570	0	0	470	0	0	11.17	0.00	11.17
Uttarakhand	-94	230	0	-249	422	0	-2.96	5.94	2.98
Total	1789	1768	0	1619	1120	0	43.15	28.83	71.98

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	559	309	326	177	0	0
Delhi	689	31	670	-68	-2	-2
Haryana	1726	1722	197	-263	0	0
HP	-388	-438	-58	-360	0	0
J&K	-432	-432	373	-15	0	0
CHD	0	0	0	0	0	0
Rajasthan	-247	-390	555	-936	2	2
UP	590	386	0	0	0	0
Uttarakhand	-80	-249	447	113	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 20.09.2015 :

Normal

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 :