

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 24.08.2015
Date of Reporting : 25.08.2015

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
44930	2769	47699	49.99	39238	1118	40356	50.10	1010.4	56.05

* 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	37.97	22.99		60.96	116.91	115.39	-1.52	176.36	0.00
Haryana	39.71	0.56		40.27	120.45	120.41	-0.04	160.68	0.23
Rajasthan	111.49	4.32	22.19	137.99	64.37	64.98	0.61	202.97	0.00
Delhi	8.88			8.88	89.65	90.53	0.87	99.41	0.29
UP	122.59	11.90		134.49	135.42	136.18	0.77	270.67	47.05
Uttarakhand		22.53		22.53	12.61	14.71	2.10	37.24	0.78
HP		22.45		22.45	0.90	2.62	1.72	25.07	0.00
J & K		14.58	0.00	14.58	18.91	17.80	-1.11	32.38	7.70
Chandigarh				0.00	6.06	5.59	0.27	5.59	0.00
Total	320.64	99.32	22.19	442.15	565.28	568.21	3.67	1010.36	56.05

* 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	7871	0	116	1785	6520	0	-199	1951	8140
Haryana	8185	0	-116	1893	6221	0	176	1827	8387
Rajasthan	8171	0	-14	55	8426	0	152	213	9107
Delhi	4462	12	-69	785	3734	0	119	593	4969
UP	11251	2235	-52	318	10989	950	-622	317	11963
Uttarakhand	1805	75	148	-112	1358	0	41	-436	1805
HP	1149	0	108	-1324	844	0	75	-1608	1205
J&K	1789	447	176	-456	953	168	-223	-946	1809
Chandigarh	247	0	-30	0	194	0	-23	0	289
Total	44930	2769	267	2945	39238	1118	-504	1911	46022

* 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	1865	2064	1902	45.29	1887	44.27	1.01
	Rihand I STPS (2*500)	1000	430	481	353	9.73	405	9.38	0.35
	Rihand II STPS (2*500)	1000	951	1008	727	21.20	883	20.40	0.80
	Rihand III STPS (2*500)	1000	480	514	348	10.47	436	10.18	0.29
	Dadri I STPS (4*210)	840	600	399	297	7.84	327	8.02	-0.18
	Dadri II STPS (2*490)	980	970	937	719	18.33	764	19.41	-1.07
	Unchahar I TPS (2*210)	420	400	436	313	8.29	345	8.53	-0.24
	Unchahar II TPS (2*210)	420	390	439	263	7.48	312	7.92	-0.44
	Unchahar III TPS (1*220)	210	200	192	129	3.77	157	3.93	-0.16
	ISTPP (Jhajjar) (3*500)	1500	1436	852	610	15.09	629	15.38	-0.29
	Dadri GPS (4*130.19+2*154.51)	830	523	318	301	7.61	317	7.94	-0.33
	Anta GPS (3*88.71+1*153.2)	419	398	182	-1	1.67	70	1.78	-0.11
	Auraiya GPS (4*111.19+2*109.30)	663	640	212	146	4.15	173	4.14	0.01
	Dadri Solar	5	1	0	0	0.02	1	0.03	0.00
	Unchahar Solar	10	3	0	0	0.03	1	0.06	-0.03
	Singrauli Solar	15	3	0	0	0.07	3	0.07	0.00
	KHEP	800	657	847	845	15.75	656	15.76	0.00
	Sub Total (A)	12112	9947	8881	6952	177	7366	177	0
	B. NPC	NAPS (2*220)	440	377	406	417	8.97	374	9.05
RAPS- B (2*220)		440	188	188	188	4.51	188	4.51	0.00
RAPS- C (2*220)		440	375	375	375	9.00	375	9.00	0.00
Sub Total (B)		1320	940	969	980	22.49	937	22.56	-0.07
C. NHPC	Chamera I HPS (3*180)	540	534	545	545	13.05	544	12.82	0.24
	Chamera II HPS (3*100)	300	300	305	302	7.24	301	7.20	0.04
	Chamera III HPS (3*77)	231	229	234	237	5.32	222	5.21	0.11
	Bairasui HPS (3*60)	180	179	179	60	2.37	99	2.20	0.17
	Salal-HPS (6*115)	690	643	671	670	16.03	668	15.44	0.59
	Tanakpur-HPS (3*40)	94	91	88	94	2.25	94	2.18	0.07
	Uri-I HPS (4*120)	480	372	462	375	9.59	400	8.97	0.62
	Uri-II HPS (4*60)	240	217	189	225	5.41	225	5.20	0.21
	Dhauliganga-HPS (4*70)	280	280	284	285	6.26	261	6.10	0.16
	Dulhasti-HPS (3*130)	390	360	399	403	8.67	361	8.65	0.02
	Sewa-II HPS (3*40)	120	119	128	0	1.46	61	1.40	0.06
	Parbati 3 (4*130)	520	130	131	131	3.16	132	3.12	0.04
	Sub Total (C)	4065	3455	3616	3327	81	3367	78	2
	D. SJVNL	NJPC (6*250)	1500	1605	1615	1624	38.65	1610	38.52
Rampur HEP (6*68.67)		412	428	426	430	10.39	433	10.27	0.11
Sub Total (D)		1912	2033	2041	2054	49.04	2043	48.79	0.25
E. THDC	Tehri HPS (4*250)	1000	1050	1057	1010	18.23	759	18.00	0.23
	Koteshwar HPS (4*100)	400	258	402	301	6.35	264	6.20	0.15
	Sub Total (E)	1400	1308	1459	1311	24.57	1024	24.20	0.37
F. BBMB	Bhakra HPS (2*108+3*126+5*157)	1379	894	1456	493	21.37	890	21.46	-0.09
	Dehar HPS (6*165)	990	560	660	560	13.64	568	13.43	0.21
	Pong HPS (6*66)	396	295	384	384	7.03	293	7.08	-0.05
	Sub Total (F)	2765	1749	2500	1437	42.03	1751	41.97	0.06
G. IPP(s)/JV(s)	ALLAIN DUHANGAN HPS(IPP) (2*96)	192	0	145	111	2.76	115	3.27	-0.51
	KARCHAM WANGTOO HPS(IPP) (4*250)	1000	0	1200	1065	26.70	1113	26.55	0.15
	Malana Stg-II HPS (2*50)	100	0	110	74	1.88	78	1.77	0.11
	Shree Cement TPS (2*150)	300	0	296	241	6.49	270	6.44	0.05
	Budhil HPS(IPP) (2*35)	70	0	38	39	1.68	70	1.80	-0.12
Sub Total (G)	1662	0	1789	1530	39.51	1646	39.83	-0.32	
H. Total Regional Entities (A-G)	25237	19432	21254	17591	435.24	18135	433.02	2.22	

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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	420	320	7.67	319	
	Guru Nanak Dev TPS(Bhatinda) (2*110+2*120)	460	107	80	1.91	79	
	Guru Hargobind Singh TPS(L.mbt) (2*210+2*250)	920	216	191	4.04	168	
	Goindwal(GVK)	0	0	0	0.00	0	
	Rajpura (2*700)	1400	727	712	16.88	703	
	Talwandi Saboo (1*660)	660	339	342	7.49	312	
	Thermal (Total)	4700	1809	1645	37.97	1582	
	Total Hydro	1000	1062	866	22.99	958	
	Total Punjab	5700	2871	2511	60.96	2540	
	Haryana	Panipat TPS (4*110+2*210+2*250)	1367	448	448	10.14	423
DCRTPP (Yamuna nagar) (2*300)		600	460	453	11.50	479	
Faridabad GPS (NTPC)		432	179	318	5.35	223	
RGTPP (khedar) (IPP) (2*600)		1200	239	0	2.75	114	
Magnum Diesel (IPP)		25	0	0	0.00	0	
Jhajjar(CLP) (2*660)		1320	404	371	9.98	416	
Thermal (Total)		4944	1730	1590	39.71	1655	
Total Hydro		62	18	25	0.56	23	
Total Haryana		5006	1748	1615	40.27	1678	
Rajasthan		kota TPS (2*110+2*195+3*210)	1240	1039	1042	25.45	1060
		suratgarh TPS (6*250)	1500	1028	764	23.21	967
		Chabra TPS (4*250)	1000	97	194	2.43	101
		Dholpur GPS (3*110)	330	40	60	1.39	58
		Ramgarh GPS (1*37.5 + 1*35.5 +2*37.5 +1*110 +1*50)	271	149	150	3.87	161
	RAPS A (NPC) (1*100+1*200)	300	166	157	4.00	167	
	Barsingar (NLC) (2*125)	250	139	147	4.00	167	
	Giral LTPS (2*125)	250	86	86	1.62	67	
	Rajwest LTPS (IPP) (8*135)	1080	828	929	20.21	842	
	V/S LIGNITE LTPS (IPP) (1*135)	135	0	0	0.00	0	
	Kalisindh Thermal(2*600)	1200	0	0	0.00	0	
	Kawal(Adani) (2*660)	1320	1086	1200	25.32	1055	
	Thermal (Total)	8876	4658	4729	111	4645	
	Total Hydro	550	69	229	4.32	180	
	Wind power	3214	619	502	19.82	826	
	Biomass	99	19	19	0.45	19	
	Solar	730	0	0	1.92	80	
	Renewable/Others (Total)	4043	638	521	22.19	925	
	Total Rajasthan	13469	5365	5479	137.99	5750	
	UP	Anpara TPS (3*210+2*500)	1630	1238	1348	31.00	1292
		Obra TPS (2*50+2*94+5*200)	1194	335	412	9.00	375
		Panicha TPS (2*110+2*220+2*250)	1140	680	636	16.00	667
Panki TPS (2*105)		210	54	59	1.30	54	
Harduaganj TPS (1*60+1*105+2*250)		665	472	479	11.20	467	
Tanda TPS (NTPC) (4*110)		440	186	180	4.49	187	
Roza TPS (IPP) (4*300)		1200	1071	1080	24.80	1033	
Anpara-C (IPP) (2*600)		1200	540	540	13.00	542	
Bajaj Energy Pvt.Ltd(IPP) TPS (10*45)		450	365	363	7.60	317	
Anpara-D(1*500)		500	0	0	0.00	0	
Lalitpur TPS(1*660)		660	0	280	3.00	125	
Thermal (Total)		9289	4941	5377	121	5058	
Vishnuparyag HPS (IPP)(4*110)		440	0	0	0.00	0	
Alakananda(4*82.5)		330	330	252	7.70	321	
Other Hydro		527	215	86	4.20	175	
Cogeneration		981	50	50	1.20	50	
Total UP		11567	5536	5765	134	5604	
Uttarakhand	Total Hydro	1398	960	943	22.53	939	
	Total Uttarakhand	1398	960	943	22.53	939	
Delhi	Rajghat TPS (2*67.5)	135	0	0	0.00	0	
	Delhi Gas Turbine (6x30 + 3x34)	282	32	33	0.78	33	
	Pragati Gas Turbine (2x104+ 1x122)	330	144	8	1.42	59	
	Riithala GPS (3*36)	95	0	0	0.00	0	
	Bawana GPS (4*216+2*253)	1370	0	0	0.00	0	
	Badarpur TPS (NTPC) (3*95+2*210)	705	314	317	6.68	278	
	Thermal (Total)	2917	489	359	8.88	370	
	Total Delhi	2917	489	359	8.88	370	
HP	Baspa HPS (IPP) (3*100)	300	331	331	7.84	326	
	Malana HPS (IPP) (2*43)	86	87	67	1.69	71	
	Other Hydro	878	528	550	12.92	538	
	Total HP	1264	946	948	22.45	935	
J & K	Baglihar HPS (IPP) (3*150)	450	440	440	10.55	440	
	Other Hydro/IPP	560	173	184	4.02	168	
	Gas/Diesel/Others	190	0	0	0.00	0	
	Total J & K	1200	613	624	14.58	607	
Total State Control Area Generation		42521	18528	18244	442.15	18423	
J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]			6969	5196	154.27	6428	
Total Regional Availability(Gross)		67758	46752	41030	1031.66	42986	

IV. Total Hydro Generation:

Regional Entities Hydro	12234	11917	10224	243.55	10148
State Control Area Hydro	6581	4213	3973	99	4138
Total Regional Hydro	18815	16130	14197	342.87	14286

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)	50	-150	50	150	0.28	2.69	-2.41
765 KV Gwalior-Agra (D/C)	1986	1371	2263	0	43.85	0.00	43.85
400 KV Zerda-Kankroli	-118	-128	0	278	0.00	3.86	-3.86
400 KV Zerda-Bhimmal	-101	-104	0	268	0.00	3.39	-3.39
220 KV Auraiya-Malanpur	52	78	0	95	0.00	1.07	-1.07
220 KV Badod-Kota/Morak	8	-12	73	45	0.30	0.00	0.30
Mundra-Mohinderqarh(HVDC Bipole)	2010	1005	2011	0	34.33	0.00	34.33
400 KV Vindhychal - Rihand	494	501	508	0	11.83	0.00	11.83
765 kV Phagi-Gwalior (D/C)	1057	813	1208	0	25.36	0.00	25.36
Sub Total WR	5438	3374			115.96	11.01	104.95
Pusauli Bypass/HVDC	400	400	400	0	9.14	0.00	9.14
400 KV MZP- GKP (D/C)	260	520	692	0	12.25	0.00	12.25
400 KV Patna-Balia(D/C) X 2	204	254	407	0	6.67	0.00	6.67
400 KV B'Sharif-Balia (D/C)	49	144	310	0	4.27	0.00	4.27
765 KV Pusauli-Balia	29	41	106	0	0.58	0.00	0.58
765 KV Gaya-Fatehpur	211	123	401	0	6.12	0.00	6.12
220 KV Pusauli-Sahupuri	149	151	182	0	3.57	0.00	3.57
132 KV K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
132 KV Son Ngr-Rihand	-40	-40	0	42	0.00	0.85	-0.85
132 KV Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
765 KV Sasaram - Fatehpur	29	4	206	22	2.27	0.00	2.27
400 KV Barh -GKP (D/C)	240	225	282	0	5.32	0.00	5.32
Sub Total ER	1531	1822			50.17	0.85	49.33
Total IR Exch	6969	5196			166.13	11.86	154.27

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
27.53	4.03	31.57	20.56	9.46	9.76	-0.28	2.13	-2.13
Total IR Schedule (MU)								
Through ER	Through WR Incids Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
64.02	89.53	153.55	49.33	104.95	154.27	-14.70	15.41	0.72

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	-26	-7	0	29	0	0	-0.37

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	4.16	22.41	78.98	74.09	2.94	0.60	0.00	0.00

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
50.15	18.02	49.71	22.10	49.94	0.08	0.07	50.13	49.86

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	408	06:05	400	22:11	0.0	0.0	0.0	0.0
Gorakhpur	400	419	06:02	400	12:47	0.0	0.0	0.0	0.0
Bareilly	400	402	00:00	402	00:00	0.0	0.0	0.0	0.0
Kanpur	400	414	18:01	400	11:14	0.0	0.0	0.0	0.0
Dadri	400	418	06:02	397	22:10	0.0	0.0	0.0	0.0
Ballabgarh	400	423	04:02	401	22:08	0.0	0.0	14.2	0.0
Bawana	400	418	06:02	399	22:10	0.0	0.0	0.0	0.0
Bassi	400	423	04:02	402	11:14	0.0	0.0	3.4	0.0
Hissar	400	413	03:04	396	11:14	0.0	0.0	0.0	0.0
Moga	400	413	04:02	399	22:10	0.0	0.0	0.0	0.0
Abdullapur	400	410	03:00	393	22:11	0.0	0.0	0.0	0.0
Nalagarh	400	420	06:02	404	14:15	0.0	0.0	0.0	0.0
Kishenpur	400	418	07:52	403	21:07	0.0	0.0	0.0	0.0
Wagoora	400	414	07:53	388	20:37	0.0	3.7	0.0	0.0
Amritsar	400	413	01:18	168	04:10	0.0	0.0	0.0	0.0
Kashipur	400	417	17:58	408	14:20	0.0	0.0	0.0	0.0
Hamirpur	400	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Rishikesh	400	400	17:52	382	14:19	0.0	26.6	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	780	00:00	742	11:14	0.0	0.0	0.0	0.0
Balia	765	775	06:02	739	14:18	0.0	2.4	0.0	0.0
Moga	765	791	06:03	761	22:10	0.0	0.0	0.0	0.0
Agra	765	795	04:02	758	11:14	0.0	0.0	0.0	0.0
Bhiwani	765	789	18:00	766	11:14	0.0	0.0	0.0	0.0
Unnao	765	772	06:02	739	11:14	0.0	2.8	0.0	0.0
Lucknow	765	782	06:03	744	14:21	0.0	0.0	0.0	0.0
Meerut	765	804	06:02	766	11:16	0.0	0.0	4.1	0.0
Jhatikara	765	785	00:00	785	00:00	0.0	0.0	0.0	0.0
Bareilly	765	0	00:00	9999	00:00	0.0	0.0	0.0	0.0
Anta	765	788	04:05	765	11:11	0.0	0.0	0.0	0.0
Phagi	765	793	04:02	760	11:15	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	510.10	1560.04	509.83	1545.02	874.17	642.74
Pong	426.72	384.05	422.62	1020.81	416.20	718.14	413.62	396.78
Tehri	829.79	740.04	815.25	902.26	812.05	842.28	492.48	440.00
Koteshwar	612.50	598.50	610.34	5.20	610.94	4.97	440.00	418.07
Chamera-I	760.00	748.75	756.78	0.00	0.00	0.00	318.12	353.30
Rihand	268.22	252.98	852.40	294.60	855.40	345.30	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	521.87	12.17	516.65	11.53	345.37	561.24

* 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	1584	367	0	1582	203	0	38.01	7.69	45.70
Delhi	468	125	0	631	154	0	10.95	5.89	16.84
Haryana	1635	191	0	1687	207	0	38.39	3.29	41.68
HP	-1119	-489	0	-918	-406	0	-23.08	-11.35	-34.43
J&K	-542	-405	0	-491	35	0	-12.28	-2.50	-14.78
CHD	0	0	0	0	0	0	0.24	0.00	0.24
Rajasthan	-498	709	2	-498	551	2	-11.94	16.79	4.85
UP	317	0	0	318	0	0	8.11	0.00	8.11
Uttarakhand	-188	-248	0	-147	35	0	-3.68	-1.39	-5.07
Total	1658	251	2	2165	779	2	44.71	18.43	63.14

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

State	Bilateral (MW)		IEX (MW)		PXIL (MW)	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum
Punjab	1584	1582	385	201	0	0
Delhi	1051	184	572	-69	0	0
Haryana	1687	1532	233	-80	0	0
HP	-851	-1172	-388	-634	0	0
J&K	-491	-542	35	-405	0	0
CHD	29	0	0	0	0	0
Rajasthan	-498	-498	906	486	2	2
UP	404	268	0	0	0	0
Uttarakhand	-136	-188	59	-252	0	0

XI. System Constraints:

XII. Grid Disturbance / Any Other Significant Event:

XIII. Weather Conditions For 24.08.2015 :
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 :