

'86년도 世界 總발전량 前年보다 1억MWH 이상증가

전세계 평균 利用率은 64% 정도

전세계 22개국의 전력회사들로부터 입수된 자료를 집계한 「Nucleonics Week」誌의 발표에 따르면 전세계 發電爐의 1986년도 총발전량은 전년도 보다 1억MWH 이상 증가된 것으로 나타났다. 그러나 신규의 대형 발전로가 계통에 투입된 것을 감안한다면 플랜트의 평균발전량은 1985년 수준이다.

소련, 동독, 불가리아, 체코 및 루마니아와 같이 발전량을 공개하지 않는 나라들을 제외하고 전세계적으로 14기의 발전로가 신규로 계통에 추가돼 총발전설비용량이 6.88% 증가, 247,

884MW가 되었다. 이들 신규 유니트에 의한 총발전량은 8.77% 증가, 1985년의 1,276,945,360 MWH에서 1,388,951,823 MWH로 증가하였다. 유니트당 발전량은 1985년의 4,513,251 MWH 보다 약간 많은 4,524,273 MWH였다.

1985년에는 발전용량은 16.6%, 발전량은 20.3% 증가했었다. 미국 플랜트들의 평균이용율은 1984년에 55.49%, 1985년에 58.91%였으나 작년에는 58.76%였다. 전세계적으로는 이용율이 1985년에 62.7%였으나 작년에는 64%에 가까웠다.

1986年度 上位圈 20基 原電 (發電量基準)

Plant	Type	1986			1985	
		MW Gross	Generation	Cap. Factor	Generation	Cap. Factor
Grohnde A-1	PWR	1,365	10,793,330	90.26	11,476,900	95.98
Philippsburg-2	PWR	1,350	10,749,516	90.90	9,877,372	83.52
Ohi-2	PWR	1,175	10,229,080	99.38	7,107,845	69.06
Kruemmel	BWR	1,316	9,888,318	85.78	9,711,211	84.24
Grafenrheinfeld	PWR	1,290	9,204,053	81.45	10,260,430	90.80
Gundremmingen-B	BWR	1,310	8,766,867	76.40	9,651,835	84.11
Oskarshamn-3	BWR	1,100	8,744,717	90.75	4,020,778	49.77
Paluel-3	PWR	1,345	8,674,260	73.62	1,505,180	50.72
Gundremmingen-C	BWR	1,310	8,444,908	73.59	99,606,760	83.71
Forsmark-3	BWR	1,100	8,357,454	86.73	4,296,409	53.18
Waterford-3	PWR	1,153	8,215,802	81.34	2,663,029	33.17
Doel-4	PWR	1,040	8,182,643	89.82	4,577,200	38.21

Fukushima II -1	BWR	1,100	8,072,520	83.77	8,486,710	88.07
Fukushima I -6	BWR	1,100	8,056,620	83.61	5,578,800	57.90
Byron-1	PWR	1,175	7,835,642	76.13	3,117,891	36.13
Unterweser	PWR	1,300	7,689,531	67.52	10,473,579	91.97
Zion-2	PWR	1,085	7,655,706	80.55	5,358,835	56.38
Forsmark-1	BWR	940	7,613,165	92.46	5,835,968	70.87
Leibstadt	BWR	1,045	7,604,460	83.07	7,125,790	77.84
Callaway	PWR	1,192	7,579,195	72.58	8,472,763	81.14

1986年度 上位圏 20基 原電 (利用率基準)

Plant	Type	1986			1985	
		MW Gross	Generation	Cap Factor	Generation	Cap. Factor
Ikata-2	PWR	566	4,955,999	99.96	3,899,437	78.65
Mihama-3	PWR	826	7,210,518	99.65	5,237,436	72.38
Genkai-2	PWR	559	4,869,654	99.44	4,060,485	82.92
St. Lucie-1	PWR	853	7,428,640	99.42	6,197,850	82.94
Ohi-2	PWR	1,175	10,229,080	99.38	7,107,845	69.06
Hunterston A-2	GW	169	1,445,320	97.90	1,169,461	81.45
Bruce-5	PHWR	885	7,544,140	97.31	5,323,600	70.26
Mihama-1	PWR	340	2,867,247	96.27	2,373,374	79.69
Calvert Cliffs-2	PWR	880	7,315,988	94.91	5,863,321	76.06
Olkiluoto-2	BWR	735	6,063,089	94.17	5,625,098	87.37
Pickering-8	PHWR	540	3,827,059	94.04	*	*
Point Lepreau	PHWR	680	5,597,178	93.96	5,800,721	97.38
Bruce-7	PHWR	890	5,642,776	93.68	*	*
Kori-6	PWR	950	5,258,475	93.37	*	*
Bruce-4	PHWR	904	7,375,814	93.14	5,360,270	67.69
Takahama-3	PWR	870	7,091,336	93.05	6,429,430	84.36
Forsmark-1	BWR	940	7,613,165	92.46	5,835,968	70.87
Yankee	PWR	185	1,486,858	91.75	1,263,886	78.41
Loviisa-1	PWR	465	3,705,318	90.96	3,788,682	93.01
Pickering-5	PHWR	540	4,302,936	90.96	3,664,550	77.47
Phillipsburg-2	PWR	1,350	10,749,516	90.90	9,877,372	83.52
Millstone-1	BWR	690	5,490,700	90.84	4,839,600	80.07
Oskarshamn-3	BWR	1,100	8,744,717	90.75	4,020,778	49.77
Beznau-2	PWR	364	2,890,278	90.64	2,743,219	86.03
Grohnde A-1	PWR	1,365	10,793,330	90.26	11,476,900	95.98

1985~86年度 美國内 製作會社別 發電量 및 利用率

Plant	Utility	Gross MW	1986		1985	
			Generation	Cap. Factor	Generation	Cap. Factor
WESTINGHOUSE :						
Yankee	Yankee Atomic Power	185	1,486,858	91.75	1,263,886	78.41
Summer	South Carolina E&G	954	7,478,800	89.49	5,498,600	65.80
Prairie Island-1	Northern States Power	560	4,384,570	89.38	3,909,170	79.69
Ginna	Rochester Gas & Electric	496	3,795,756	87.36	3,807,449	87.63
Point Beach-1	Wisconsin Electric Power	524	3,942,290	85.88	3,506,440	76.39
Prairie Island-2	Northern States Power	560	3,707,240	83.39	3,822,540	77.92
Farley-2	Alabama Power Co.	861	6,286,582	83.35	5,776,406	76.59
Kewanee	Wisconsin Public Service.	563	4,044,100	82.00	3,881,200	78.70
Zion-2	Commonwealth Edison Co.	1,085	7,655,706	80.55	5,358,835	56.38
Farley-1	Alabama Power Co.	861	6,059,588	80.34	6,209,066	82.32
North Anna-1	Virginia Power	947	6,645,023	80.10	6,105,445	73.60
Millstone-3	Northeast Utilities	1,208	6,697,738	79.13 a	*	*
Robinson-2	Carolina P&L	739	5,055,007	78.09	5,503,430	85.01
Point Beach-2	Wisconsin Electric Power	524	3,581,780	78.03	3,760,169	81.92
North Anna-2	Virginia Power	947	6,318,623	76.17	7,183,077	86.59
Byron-1	Commonwealth Edison Co.	1,175	7,835,642	76.13	3,117,891	36.13
Turkey Point-3	Florida P&L	728	4,763,306	74.69	3,615,850	56.70
Salem-1	Public Service E&G	1,136	7,401,990	74.38	9,347,386	93.93
Callaway	Union Electric	1,192	7,579,195	72.58	8,472,763	81.14
Cook-1	Indiana & Michigan Elec.	1,089	6,918,330	72.52	2,205,650	23.12
Trojan	Portland Gen. Electric	1,178	7,466,547	72.36	7,391,253	69.39
Diablo Canyon-2	Pacific Gas & Electric	1,164	7,155,299	70.17	632,800	31.46
Wolf Creek	Kansas Gas & Electric	1,192	7,071,144	67.72	4,037,224	65.18
Beaver Valley-1	Duquesne Light Co.	887.7	5,082,190	65.36	6,287,000	80.85
Surry-2	Virginia Power	824	4,710,806	65.26	4,297,830	59.54
Surry-1	Virginia Power	824	4,703,517	65.16	5,919,970	82.01
Indian Point-3	N. Y. Power Authority	1,013	5,740,080	64.69	4,827,020	54.40
McGuire-2	Duke Power	1,220	6,489,423	60.72	5,862,844	54.86
Diablo Canyon-1	Pacific Gas & Electric	1,136	5,619,400	56.47	6,255,532	61.03
Salem-2	Public Service E & G	1,158	5,600,660	55.21	5,267,443	51.93
Zion-1	Commonwealth Edison Co.	1,085	5,151,259	54.20	5,047,360	53.10
Catawba-1	Duke Power	1,205	5,596,463	53.02	4,588,819	45.73
McGuire-1	Duke Power	1,220	5,423,974	50.75	7,082,008	66.27
Cook-2	Indiana & Michigan Elec.	1,133	4,531,450	45.66	6,206,590	62.53
Indian Point-2	Consolidated Edison	1,022	4,007,290	44.76	6,932,860	77.44
Connecticut Yankee	Northeast Utilities	616	2,282,055	42.29	4,871,679	90.28
Catawba-2	Duke Power	1,205	1,962,906	29.77 a	*	.
Turkey Point-4	Florida P&L	728	1,842,276	28.89	5,450,175	85.46
San Onofre-1	Southern Calif. Edison	456	963,563	24.12	2,618,768	65.56

Sequoyah-2	Tenn. Valley Authority	1,183	0	0.00	5,845,100	56.40
Sequoyah-1	Tenn. Valley Authority	1,183	0	0.00	4,239,970	40.91
Totals		37,967	203,038,426		196,007,498	
Average		926	4,952,157	64.19	5,025,833	67.49

GENERAL ELECTRIC :

Mills tone-1	Northeast Utilities	690	5,490,700	90.84	4,839,600	80.07
Brunswick-1	Carolina P&L	849	6,157,579	82.79	1,994,643	26.82
Big Rock Point	Consumers Power Co.	75	534,427	81.34	383,936	58.44
Fitzpatrick	N. Y. Power Authority	849.7	5,966,700	80.16	4,408,130	56.99
Limerick-1	Phila. Electric Co.	1,140	7,508,790	75.19	1,253,237	19.74
Peach Bottom-2	Phila. Electric Co.	1,098	7,158,040	74.42	2,494,300	25.93
Monticello	Northern States Power	580	3,527,335	69.42	4,466,224	87.90
Quad Cities-2	Commonwealth Edison Co.	833	4,942,510	67.73	4,763,383	65.28
Dresden-2	Commonwealth Edison Co.	834	4,902,902	67.11	3,278,422	44.87
Susquehanna-1	Penna. Power & Light	1,085	6,088,546	64.06	5,512,461	58.00
Quad Cities-1	Commonwealth Edison Co.	833	4,634,033	63.51	6,343,924	86.94
Duane Arnold	Iowa Electric L & P	566	3,146,111	63.45	2,068,707	41.72
LaSalle-2	Commonwealth Edison Co.	1,122	5,951,503	60.55	3,625,074	36.88
Cooper	Nebraska Public Power	801	4,205,035	59.93	1,115,477	15.90
Susquehanna-2	Penna. Power & Light	1,085	5,691,494	59.88	7,828,238	82.36
Nine Mile Point-1	Niagara Mohawk Power	640	3,250,298	57.97	5,088,667	90.77
Hatch-1	Georgia Power Co.	809	3,825,220	53.98	4,986,310	70.01
WNP-2	WPPSS	1,150	5,396,020	53.56	5,396,320	53.57
Hatch-2	Georgia Power Co.	820	3,813,710	53.09	5,621,940	78.27
Peach Bottom-3	Phila. Electric Co.	1,098	5,062,292	52.63	3,486,130	36.24
Vermont Yankee	Vermont Yankee	540	2,172,932	45.94	3,166,154	66.93
Brunswick-2	Carolina P & L	849	3,042,795	40.91	5,177,638	69.62
Grand Gulf-1	Mississippi P & L	1,306	4,333,610	37.88	4,575,790	40.00
River Bend	Gulf States Utilities	991	3,262,997p	37.59	20,660	2.95
Oyster Creek	GPU Nuclear	650	1,372,015	24.10	3,739,700	65.68
LaSalle-1	Commonwealth Edison Co.	1,122	2,191,283	22.29	5,028,751	51.16
Dresden-3	Commonwealth Edison Co.	832	1,583,406	21.73	4,632,256	63.56
Pilgrim	Boston Edison	685	1,068,000	17.80	5,144,390	85.73
Browns Ferry-1	Tenn. Valley Authority	1,098	0	0.00	1,652,650	17.18
Browns Ferry-2	Tenn. Valley Authority	1,098	0	0.00	0	0.00
Browns Ferry-3	Tenn. Valley Authority	1,098	0	0.00	1,557,174	16.19
Total		27,227	116,280,283		113,650,286	
Average		878	3,750,977	50.96	3,666,138	51.47

Combustion Engineering :

St. Lucie-1	Florida P&L	853	7,428,640	99.42	6,197,850	82.94
Calvert Cliffs-2	Baltimore G&E	880	7,315,988	94.91	5,863,321	76.06
St. Lucie-2	Florida P&L	853	6,487,470	86.82	6,456,980	86.41
Fort Calhoun	Omaha Public Power	501	3,782,157	86.18	3,214,944	73.25
Maine Yankee	Maine Yankee Atomic Power	864	6,461,290	85.37	5,566,440	73.55
Waterford-3	Louisiana P&L	1,153	8,215,802	81.34	2,663,029	33.17
Calvert Cliffs-1	Baltimore G&E	890	6,087,181	78.08	4,559,431	58.48
San Onofre-3	Southern Calif. Edison	1,127	7,190,830	72.84	4,004,575	40.56
Millstone-2	Northeast Utilities	881	5,376,000	69.66	3,659,800	47.42
San Onofre-2	Southern Calif. Edison	1,127	6,724,713	68.12	5,480,329	55.51
Arkansas Nuclear I-2	Arkansas P&L	943	5,411,619	65.51	4,972,486	60.19
Palo Verde-1	Arizona NPP	1,307	6,411,200	56.00	1,336,700	20.88
Palo Verde-2	Arizona NPP	1,307	3,368,500	41.62a	*	*
Palisades	Consumers Power Co.	810	896,530	12.64	5,599,610	78.92
Total		13,496	81,157,920		59,575,494	
Average		964	5,796,994	71.32	4,582,730	60.57

Babcock & Wilcox :

Oconee-3	Duke Power	911	6,353,020	79.61	5,103,120	63.95
Oconee-2	Duke Power	911	6,101,180	76.45	5,324,425	66.72
Three Mile Island-1	GPU Nuclear	871	5,126,918	67.19	907,823	11.90
Oconee-1	Duke Power	911	5,047,030	63.24	7,410,160	92.85
Arkansas Nuclear I-1	Arkansas P&L	903	3,936,840	49.77	5,472,454	69.18
Crystal River-3	Florida Power Corp.	868	2,798,909	36.81	3,015,600	39.66
Rancho Seco	Sacramento MUD	967	0	0.00	2,091,223	24.69
Davis-Besse	Toledo Edison Co.	934	0	0.00	2,087,278	25.51
Total		7,276	29,363,897		31,412,083	
Average		910	3,670,487	46.63	3,926,510	49.31

Other :

Fort St. Vrain	General Atomic	342	85,402	2.85	0	0.00
EBR-2	Argonne Natl. Lab.	16	103,973	72.82	109,233	76.50
LaCrosse	Dairyland Power Coop.	55	171,282	35.55	342,433	71.07
Hanford-1	WPPSS	862	3,348,579	44.35	2,942,814	38.97