

to forecasts, such as those in Table I-8, which project a significant reduction in the growth rate in electric power use nationally.

Part of the explanation for the changes in electric energy use that have occurred since 1973 can be found in the changes in energy prices that have occurred since that year -- which also served as a major cause of the accompanying recession. The dramatic fuel price increases of 1973-1974 resulted in significant increases in the price of electricity, as shown in Table I-11 for Maryland (13). The more recent years from 1975 to 1977 experienced far more moderate price increases in electricity (also shown in Table I-11), and have been accompanied by a resumption of growth in electric power usage.

As the data in Table I-10 and Figure I-9 show, recent experience indicates a resumption of growth in electric power use in Maryland. In order to meet that growing demand for electricity, utilities and government agencies must project future levels of demand and develop an appropriate generation expansion plan.

The Maryland Power Plant Siting Act requires that each utility file annually with the Maryland Public Service Commission a Ten-Year Plan showing a forecast of peak load for each of the next ten years, plans for changes in generating capacity and transmission lines, and possible and proposed power plant sites (14). The Public Service Commission compiles these filings into an annual Ten-Year Plan of Maryland Electric Utilities. The 1978 Ten-Year Plan, as amended is included in this report as Appendix A.

Figure I-10 shows the growth projections of each of the successive Plans as well as updates of those projections presented in cases currently before the Maryland PSC (15). These projections, which are compiled directly from the forecasts prepared by the individual utilities, have experienced a pattern of successive reductions in projected growth rates similar to the forecasts reported nationally by the Regional Reliability Councils to the Federal Energy Regulatory Commission (see Figure I-6). Projected average annual growth rates in peak demand for the State have declined with each successive report, from the 9.4% rate reported in the 1973 Plan to the 4.5% rate reported in the 1978 Plan. The most recent projections, taken from cases currently before the Maryland PSC show a growth rate of 4.0%.

Neither the filings by the Maryland utilities nor the Commission's Ten-Year Plan contain any description of the forecasting methods used, supporting documentation, forecasts disaggregated by customer class, or a forecast of energy consumption. However, some of these issues have been explored by the Commission in a case intended to evaluate the adequacy of the utilities' long-range plans (16). Testimony presented by the Maryland utilities in that case indicates that each utility takes a different approach to forecasting. While some of the Maryland utilities use a simple extrapolation of historical trends modified in some way by the judgement of the utility forecaster, others have begun to use a more sophisticated statistical or "econometric" approach.

Over the past two decades, a number of sophisticated techniques have been developed to forecast the future demand for electric power. These approaches utilize statistical or mathematical models to determine the effects of relevant factors on electric energy usage based on historical data. Factors

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Over the past two decades, a number of sophisticated techniques have been developed to forecast the future demand for electric power. These approaches utilize statistical or mathematical models to determine the effects of relevant factors on electric energy usage based on historical data. Factors

Table I-11. Electrical bills in Maryland, 1971-1977, in current dollars

Year	Residential ^(a)		Commercial ^(b)		Industrial ^(c)	
	Bill	% Change	Bill	% Change	Bill	% Change
1970	11.63	--	--	--	--	--
1971	12.33	6.0	52.07	--	1,259	--
1972	13.83	12.2	59.05	13.4	1,425	13.2
1973	14.83	7.2	62.75	6.2	1,543	8.2
1974	16.08	8.4	66.42	5.8	1,684	9.1
1975	21.97	36.6	85.44	28.6	2,386	41.7
1976	22.08	0.5	88.29	3.3	2,346	- 1.7
1977	22.78	3.2	92.15	4.4	2,454	4.6

1971-1973		20.3		20.5		22.6
1973-1975		41.1		36.2		54.6
1975-1977		3.7		7.8		2.8

(a) State average bill for 500 kWh per month on January 1

(b) State average bill for 1,500 kWh per month at 12 kW on January 1

(c) State average bill for 60,000 kWh per month at 300 KW on January 1

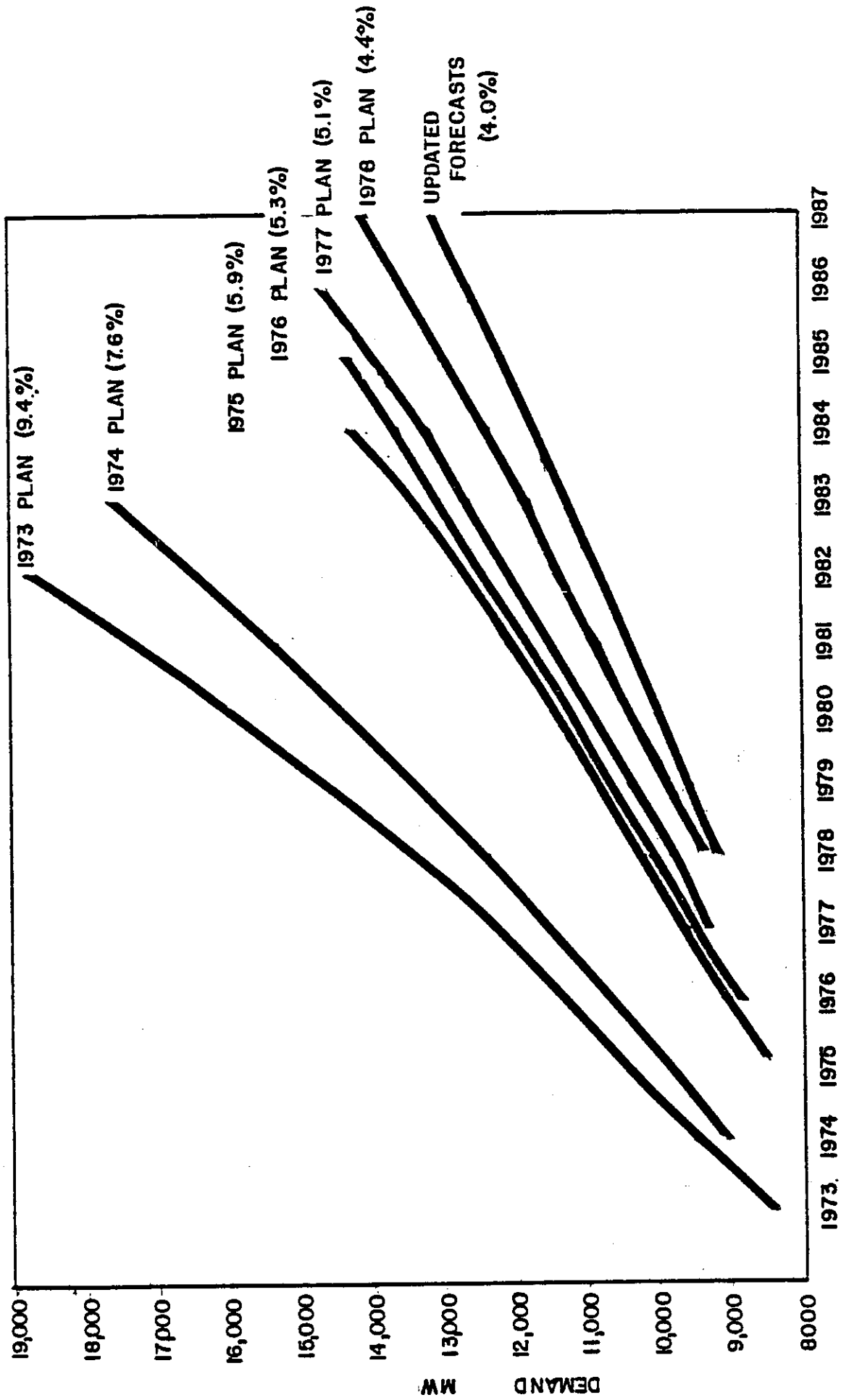


Figure I-10. 1973-1978 projections of peak demand by Maryland electric utilities

incorporated in these models usually include the price of electricity and alternative fuels, personal income, industrial production, weather, and population. The models have the advantage of explicitly and quantitatively identifying the relationships between the appropriate factors and the demand for electricity (17).

In conjunction with the Department of State Planning, the Power Plant Siting Program has prepared forecasts for two Maryland utilities (BG&E and PEPCO) as part of a program designed to prepare independent forecasts for all of the major generating utilities. Forecasts for the Allegheny Power System and the Delmarva Power and Light Company will be completed in 1979. The econometric forecasts prepared for PEPCO and BG&E are included in the full state forecast prepared by the Department of State Planning and included in this Report as Appendix B.

Table I-12 presents the energy and peak demand forecast from the Department of State Planning for the years through 1987. As shown in the last line in Table I-12, total electric consumption in Maryland is expected to grow by 5.07% annually over the next ten years. Peak demand for the State is expected to grow by 3.33%. While this growth rate represents an increase from the 2.57% anticipated for the 1977-1980 period and from the negligible growth experienced during the 1975-1977 period (see Table I-18 at the end of this Chapter and Table B-5g of Appendix B), it represents a significant reduction from the 9.3% annual growth rate experienced from 1966 to 1972.

Table I-12 also includes a column showing an estimated load factor for the State as a whole. A state-wide load factor is not appropriate for planning purposes, since capacity decisions are made separately by each utility. The State load factor is included here only as a general indication of likely over-all trends in capacity usage.

As can be seen from the Table, growth in energy consumption is expected to exceed the growth in peak demand over the 1977-1987 forecast period. The implication of this relatively slower peak load growth, and the accompanying improvement in the load factor estimate from .38 to .45 over the same period, is that on a statewide basis, power plant capacity of the Maryland utilities will be more fully utilized than it is now. Should system demand forecasts indicate that this trend will continue, then the State may require future expansion of relatively more efficient base-load capacity.* This conclusion will be more fully explored below.

Figure I-11 shows the demand forecast for each of the Maryland utilities reported in the Department of State Planning report in Appendix B. The figure shows the noncoincident peak demand for each utility, and accumulates them for a state total.

System reliability considerations require that each utility possess generating capacity in excess of its projected peak load at any given moment in time, as a margin of safety in the event that system load is greater than forecast, or in the event of an unanticipated unit outage. The reserve margin

* Capacity planning decisions are made on the basis of an analysis of alternative generating plan options on electric utility revenue requirements.

Table I-12. Projected energy sales and peak demand in Maryland, 1977-1987 (a)

Year	Energy (MWh)		Peak Demand (MW)	State Load Factor (b)
	Residential	Non-Residential		
1977 (actual)	10,717,522	20,934,984	9,438	0.38
1980	11,989,620	24,857,772	10,186	0.41
1985	15,625,985	31,541,607	12,179	0.44
1987	17,392,838	34,494,714	13,098	0.45
<u>Average Annual Growth Rates</u>				
1977-1980	3.81	5.89	2.57	
1980-1985	5.44	4.88	3.64	
1985-1987	5.50	4.58	3.70	
1977-1987	4.96	5.12	3.33	

(a) Data from Appendix B

(b) The load factor estimates produced here are computed on the basis of energy sales, rather than on the basis of system energy net of losses ("net energy for load") properly used to compute the load factor of an electric utility.

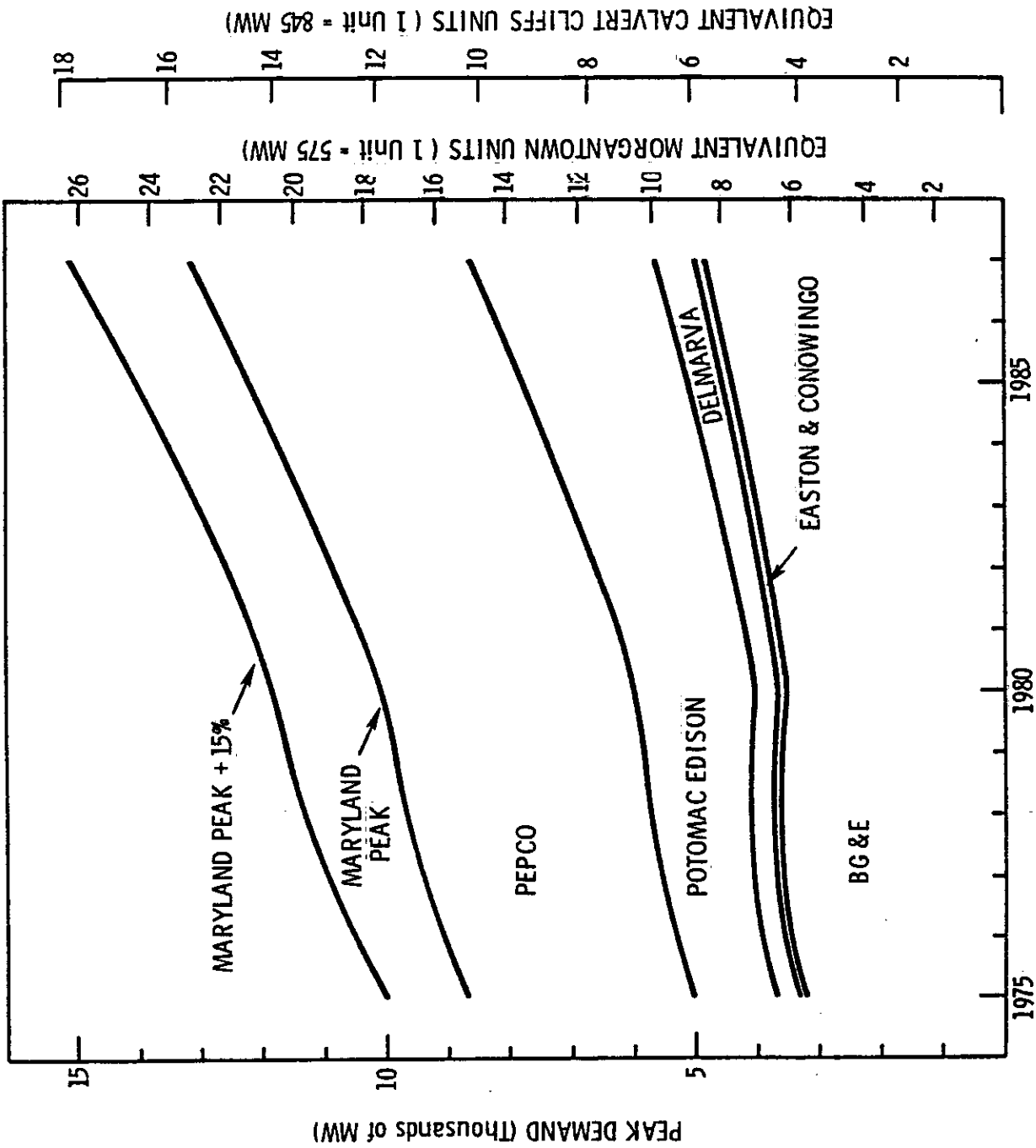


Figure I-11. Peak demand forecast for State of Maryland, 1977-1987

required by reliability council or power pool agreements varies for each utility, and is a function of the operating record of the utility's generating plant and the extent of its interconnections with other utilities, as well as a function of the level of demand. For planning purposes, the desired level of reserve capacity is usually considered to be from 15% to 20% above peak demand.

A 15% reserve margin has been applied to the State peak demand in Figure I-11, and the total capacity required to meet Maryland's peak demand and reserve requirements shown in the top line of Figure I-11. For comparison, the right-hand scale of the Figure shows the number of units the size of Calvert Cliffs (845 MW nuclear) or Morgantown (575 MW coal) that are equivalent to this level of generating capacity. By 1987, Maryland's peak demand is forecast to be the equivalent of 15.5 Calvert Cliffs units or 23.2 Morgantown units. With a 15% reserve margin, the total generating requirement is the equivalent of 17.8 Calvert Cliffs units (an increase over present capacity of 3.3 units) and 26.2 Morgantown units (an increase of 5.8 units).

Table I-18 at the end of this Chapter contains a set of tables which present past data and future projections by both the Power Plant Siting Program and the utilities themselves for each Maryland generating utility. The tables include residential, non-residential, and total energy consumption, and peak demand for each year from 1966 to 1987, as well as annual, 5-year, and 10-year growth rates for each. Table I-18 also includes data on generating capacity, load factor, and reserve margin. Table I-1 provides data on imports and exports of power by Maryland utilities for each year from 1966 to 1977.

E. Maryland Utilities: Capacity Trends and Plans

The total generating capacity of power plants located in Maryland is 8,633.5 MW, an increase of 913.5 MW over that reported in the 1975 CEIR. In addition, 594 MW of capacity is owned by BG&E as part ownership of two Pennsylvania plants, Jaystone and Conemaugh, owned principally by Philadelphia Electric. A further 1,969 MW of capacity located in the District of Columbia and Pennsylvania is owned by PEPCO, including part ownership of the Conemaugh plant.

The locations of the operating plants and proposed sites for which land has been acquired are shown in Figure I-12. The table which accompanies Figure I-12 gives the capacity, fuel type, and duty cycle of each plant. Where more than one fuel type is used for a single plant, the larger component is listed first (i.e., oil/coal indicates that a mixture of oil and coal is used, but oil represents the larger amount of fuel). Table I-19 at the end of this chapter provides the capacity ratings of each of the existing and planned units of the plants owned by Maryland utilities, including the plants located outside of the State. Table I-19 also indicates the fuel type for each unit.

The data shown in Table I-19 at the end of this Chapter indicate that the newer generating units constructed in Maryland have tended to be larger than their predecessors, and they are most often designed as base-load units. The rates of growth in demand over the past ten years, and the improvement in load factors forecast for the future, have made it economically desirable to increase

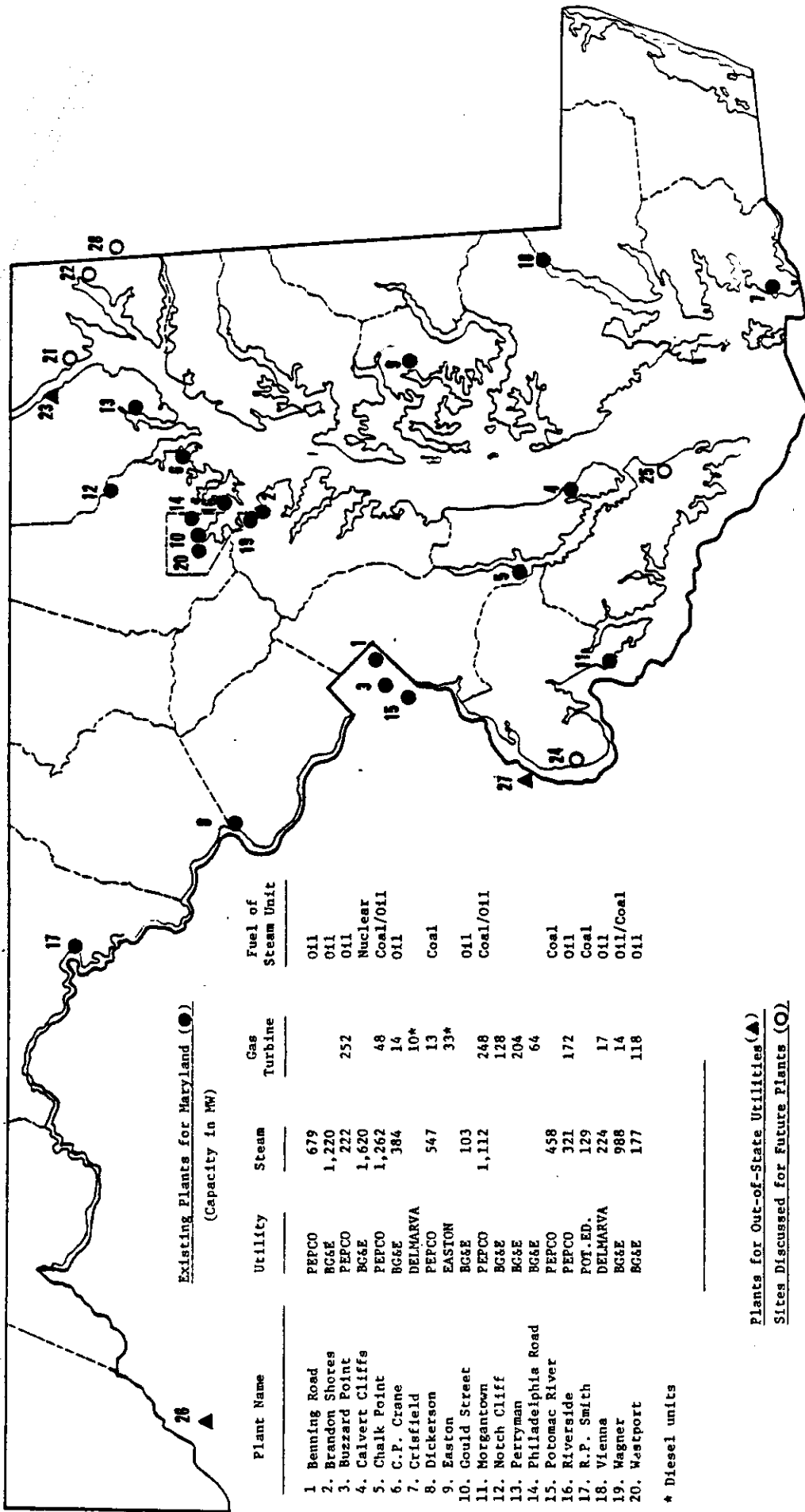


Figure I-12. Location of electric power plants in the Maryland region

the proportion of generation coming from these units with lower operating cost. Technological improvements in generating systems have resulted in lower operating costs for larger units operated over a longer period of the duty cycle. As a result, base load units tend to be larger than other units, and they generate electricity at substantial cost savings.

Given the cost characteristics of base load plants, there are two conditions in which it is generally desirable to add base load capacity rather than cycling or peaking units. If base demand ("A" of Figure I-8) is growing rapidly enough, the most appropriate plant expansion can be a base load unit even if demand in the non-base load periods ("B" and "C" of Figure I-8) is growing more rapidly and the system load factor is declining. The precise point which determines the relative desirability of base-load versus cycling capacity is determined by factors which include the relative and absolute rates of demand growth during the three time periods (i.e., the change in the shape of the load curve), the operating costs of new units, and the operating costs of existing base load units if they were switched to cycling capacity.

Base-load capacity is also desirable when the system load factor is improving and base-period growth is occurring more rapidly, filling in the demand "valleys." Under those circumstances, the choice is most likely to be base-load. Depending on the cost reduction that results from improved technology, and assuming no differences in environmental and other impacts, it is quite possible that a system whose load factor is improving rapidly enough may be justified in adding base-load capacity even in the absence of peak load growth.

Total system energy growth in the period from 1966 to 1972 occurred at an annual rate of 9.2% in Maryland, and was accompanied by a slightly higher peak load growth rate of 9.3%. The load factor improvements being forecast for the future indicate that baseload capacity additions may be appropriate in the future, although these additions are likely to be made at a slower pace than occurred in the last ten years.

The growth in consumption for the utilities operating in Maryland was accompanied by major changes in the fuel mix used in generation. Table I-13 shows the changes in generation for the four major Maryland systems from 1960 to 1977 (18).^{*} During that period, Maryland utilities experienced a major change in the annual growth in net electric generation, which dropped from an annual rate of 11.4% for the 1960-1968 period to the 6.7% decline experienced in 1974-1975. At the same time, changing technology, fuel prices, transportation costs, and pollution control requirements led to major changes in fuel mix.

* The four systems included in Tables I-13 to I-15 are the Allegheny Power System, Baltimore Gas and Electric Company, Delmarva Power and Light Company, and Potomac Electric Power Company. Because generating capacity is planned on a system-wide basis by these utilities, rather than for the Maryland portion of their service areas alone, the data in these tables includes the entire systems except as noted.

Table I-13. Maryland electricity generation by source, 1960-1977 (millions of kWh and percent of total)

Year	Total 10 ⁶ kWh	Coal		Petroleum		Natural Gas		Nuclear		Hydroelectric	
		10 ⁶ kWh	%	10 ⁶ kWh	%	10 ⁶ kWh	%	10 ⁶ kWh	%	10 ⁶ kWh	%
1960	9,316	7,792	83.6	84	0.9	7	0.1	--	--	1,433	15.4
1961	9,808	8,490	86.6	94	1.0	5	0.1	--	--	1,219	12.4
1962	11,013	9,692	88.0	98	0.9	6	0.1	--	--	1,217	11.1
1963	12,552	11,404	90.9	114	0.9	8	0.1	--	--	1,026	8.2
1964	13,991	12,681	90.6	123	0.9	5	0.1	--	--	1,182	8.4
1965	17,361	15,993	92.1	134	0.8	5	0.1	--	--	1,229	7.1
1966	18,944	17,397	91.8	131	0.7	19	0.1	--	--	1,397	7.4
1967	21,020	18,782	89.4	173	0.8	38	0.2	--	--	2,027	9.6
1968	22,054	19,614	88.9	707	3.2	45	0.2	--	--	1,688	7.7
1969	21,514	17,466	81.2	2,156	10.0	452	2.1	--	--	1,440	6.7
1970	23,594	14,942	63.3	5,844	24.8	745	3.2	--	--	2,063	8.7
1971	24,179	13,351	55.2	8,229	34.0	639	2.6	--	--	1,960	8.1
1972	27,349	11,688	42.7	12,901	47.2	478	1.7	--	--	2,282	8.3
1973	27,603	10,188	36.9	14,664	53.1	587	2.1	--	--	2,164	7.8
1974	28,821	10,001	34.7	15,989	55.4	862	3.0	--	--	1,969	6.8
1975	26,877	9,481	35.3	10,656	39.6	43	0.2	4,386	16.3	2,311	8.6
1976	31,235	12,885	41.3	9,820	31.4	21	0.1	6,426	20.6	2,088	6.7
1977	33,612	11,122	33.1	9,562	28.5	29	0.1	10,881	32.4	2,018	6.0

During the 1960-1965 period, 85-90% of Maryland electricity was produced from coal. As late as 1968 that proportion was still 89%. But by 1972, only four year later, the proportion of electricity generated from coal had been cut in half, dropping to 43% -- a reduction much larger than that experienced for utilities nationally. Coal was replaced by oil, which increased during this period from 3% to 47% as a proportion of total generation -- increasing by a factor of 15. This trend continued in Maryland through 1974. By 1975, the introduction of the first nuclear unit at Calvert Cliffs and increased prices for both foreign and domestic oil reversed the increasing share of generation coming from oil. From 1974 to 1977, that share dropped from 55% to 29%, while nuclear power increased from 0% to 32% and the proportion of generation using coal remained essentially constant.

Table I-14 shows the historic and projected capacity of the utility systems serving Maryland for the 1966-1997 time period. Over the historic portion of this period, from 1966 to 1977, capacity trends followed a pattern similar to the generation pattern shown in Table I-13. In comparing the two tables, however, the different pattern of use for the major plant types is evident. While in 1977 oil units represented 33.6% of total capacity for Maryland utilities, they provided only 28.5% of total generation. Conversely, nuclear power plants represented only 9.6% of total capacity, but accounted for 32.4% of generation. Because of operating cost characteristics, many of the existing oil units are operated on a cycling or peaking basis, while the nuclear units and most of the coal units are operated as base-load plants. The existing nuclear units tend to have the lowest operating costs of the plants owned by these systems.

Future additions to generating capacity for the four Maryland systems are shown in the upper portion of Table I-14 (19). It should be noted that plans for the 1987-1997 period do not include plant location, and are regarded by the utilities as tentative and subject to change.

The plans for the 1977-1987 time period, which includes plants under construction or in advanced planning, maintain the current capacity mix relatively unchanged. Plans for the 1987-1997 time frame, which permit a response to recent changes in fuel prices, technology and national energy and environmental policies, show a marked reduction in relative and absolute oil capacity, and a shift towards nuclear and pumped storage. As noted in the table, a review of nuclear policy by one of the Maryland utilities may lead to an increase in the proportion of coal capacity.

The lower half of Table I-14 presents similar capacity data, but does not include capacity additions in Maryland for either the APS or DP&L systems during the 1987-1997 period. Due to the multi-state nature of these systems and the tentative non-site-specific nature of the plans for this period, it is not possible to indicate likely additions to Maryland generating capacity for those systems at this time. Capacity additions by BG&E and PEPCO are assumed to be located in or adjacent to Maryland or the District of Columbia. Therefore, the additions to capacity indicated in the lower half of Table I-14 represent additions that are likely to occur within or adjacent to Maryland or the District of Columbia.

Current plans call for a 1987 capacity mix within Maryland that is little changed from the present. The small shifts that occur in the mix result

Table I-14. Generating capacity by fuel type, 1966-1997, in MW

Year	Total MW	Avg. Ann. Growth %	Coal		Petroleum		Natural Gas		Nuclear		Hydro.		Pumped Storage		Unknown	
			MW	%	MW	%	MW	%	MW	%	MW	%	MW	%	MW	%
Total for Maryland Utilities (a)																
1966	8,072	8.3	7,147	88.5	177	2.2	40	0.5	--	--	708	8.8	--	--	--	--
1977	19,307	3.3	10,130	52.5	6,484	33.6	128	0.7	1,857	9.6	744	3.7	--	--	--	--
1987	26,665	4.3	14,847	55.7	7,917	30.0	128	0.5	1,940	7.3	833	3.1	1,000	3.8	--	--
1997	40,640		19,902	49.0	7,562	18.6	128	0.3	7,025 (b)	17.3	833	2.0	3,290	8.1	1,900	4.7
Total for Existing and Planned Generating Units in Maryland (c)																
1966	4,724	8.1	4,068	86.1	--	--	10	0.2	--	--	646	13.7	--	--	--	--
1977	11,076	2.2	3,923	35.4	4,759	43.0	128	0.2	1,620	14.6	646	5.8	--	--	--	--
1987	13,739	2.7	5,098	37.1	6,122	44.6	128	0.9	1,620	11.8	771	5.6	--	--	--	--
1997	17,984		6,698	37.2	5,567	31.0	128	0.7	2,920	16.2	771	4.3	1,300	7.2	600	3.3

- (a) Generating capacity reported is the capacity for the full APS, BGE, DP&L, and PEPCO systems, Easton, Deep Creek Lake, and Comowingo.
- (b) The Allegheny Power System is currently reviewing projected nuclear capacity for the 1987-1997 time period. A reduction in this capacity is likely to result in an increase in coal capacity for the system.
- (c) Generating capacity reported includes all existing and planned units in Maryland through 1987. Only additions by BGE and PEPCO are included in 1987-1997 additions to capacity.

from the fact that no new nuclear capacity is planned for the state during this time period and from retirement of older coal and oil units. By 1997, however, Maryland utilities anticipate that retirements of older oil units and the addition of new coal and nuclear capacity and the construction of energy storage systems (either pumped hydro or air) will alter the capacity mix. Oil capacity is expected to decline in absolute amount during that time period.

Finally, the capacity projections indicated in Table I-14 indicate that while the capacity growth rate during the second half of the forecast period is likely to be higher than during the first half, it will remain below the 8.3% annual growth experienced from 1966 to 1977. Capacity growth during the 1977 to 1987 period will remain lower than demand growth as utilities use the excess capacity that currently exists. Over the next twenty years, the projections in Table I-14 indicate that the four systems plan to add capacity that is equivalent to 25.2 Calvert Cliffs nuclear units, or 37.1 Morgantown coal units. The capacity additions within Maryland indicated in the lower half of Table I-14 are the equivalent of 8.2 Calvert Cliffs units, or 12.0 Morgantown units.

Table I-15 presents the load forecasts and planned capacity in Maryland for each Maryland utility and for the State as a whole. Capacity plans are those listed in the 1978 Ten-Year Plan (Appendix A of this report), modified by subsequent submissions to the Maryland PSC. Peak demand forecasts are taken from the report by the Department of State Planning (Appendix B of this report) and Table I-18 at the end of this chapter.

The capacity and demand data presented in the table are presented in a form that is consistent with the data shown in the Public Service Commission's Ten-Year Plan. Capacity and demand forecasts presented in that form do not provide a complete indication of the capacity available to serve Maryland demand. In the case of Potomac Edison, for example, 1978 peak demand in Maryland is projected to be 1018 MW, but 129 MW of capacity is available in Maryland. However, the entire APS system of which Potomac Edison is a part has 6679 MW of capacity available to serve a system peak of 5510 MW, which is 343 MW (or 5.4%) more than is necessary to meet peak demand plus a 15% reserve margin.

In planning for future additions to generating capacity, the planning area considered by utilities is the entire service territory of the system. Electricity produced in one part of the system is sent out over the utility's transmission and distribution lines to all points in the system. In evaluating the adequacy of the long-range plans of the utilities serving Maryland, it is necessary to evaluate the load and capacity forecasts and plans for the system as a whole.

Table I-16 presents projections of total system demand, total system capacity, and reserve margins for the years 1978 to 1987 for each of the utilities serving Maryland. Figure I-13 shows both total system peak demand plus a 15% reserve requirement and total system capacity from Table I-16. This data is taken from Table I-18.

The data in Table I-16 and Figure I-13 indicate that the current capacity plans of Maryland utilities will give the state an adequate supply of electric power over the next ten years. Based on the demand projections in the Table,

Table I-15. Peak demand and generating capacity in Maryland, (a) for Maryland utilities, 1978-1987 (b)

	PE/MD (c)		BGE (d)		DPEL/MD. (c)		PESCO (d)		CONOWINGO (c)		TOTAL STATE (d)	
	Peak	D Capacity	D	C	D	C	D	C	D	C	D	C (e)
1978	1,071	129	3,234	5,162	390	296	4,011	5,003	86	-0-	8,801	10,120
1979	1,135	129	3,357	5,162	412	296	4,123	4,990	90	-0-	9,117	10,485
1980	1,212	129	3,510	5,162	436	296	4,191	4,990	94	-0-	9,443	10,859
1981	1,283	129	3,676	5,162	462	296	4,242	4,990	98	-0-	9,761	11,225
1982	1,360	129	3,849	5,721	493	308	4,284	5,231	103	-0-	10,089	11,602
1983	1,443	129	4,029	5,721	523	308	4,322	5,231	107	-0-	10,424	11,988
1984	1,537	129	4,219	6,331	554	308	4,358	5,231	112	-0-	10,780	12,397
1985	1,632	129	4,418	6,456	589	308	4,393	5,631	117	-0-	11,149	12,821
1986	1,739	129	4,620	6,456	621	333	4,420	5,631	122	-0-	11,522	13,250
1987	1,854	129	4,833	6,798	652	697	4,453	5,631	128	-0-	11,920	13,708

Average

Annual

Growth

Rate

6.3%

4.6%

5.6%

1.2%

4.5%

3.4%

Headings: Peak Demand - D Capacity - C

(a) For Potomac Edison and Delmarva Power and Light, only the peak demand and capacity in Maryland is included.

(b) Data from Appendix B

(c) Utility forecast

(d) PPS/DSP forecast

(e) 1987 capacity differs from value in Table I-14 mainly because Easton, Deep Creek Lake and Conowingo are not included here.

Table I-16. System peak demand and generating capacity of Maryland utilities, (a) 1978-1987

	MPS (b)		EGGE (c)		DPEL/DSD (b)		PEPCO (c)		CONWINCO (b)		TOTAL STATE (c)			
	D	R	D	R	D	R	D	R	D	R	D+15%	R		
1978	5,460	6,429	3,234	5,162	1,710	2,227	4,011	5,003	86	-0-	14,501	16,676	18,821	29.8
1979	5,750	7,055	3,357	5,162	1,800	2,310	4,123	4,990	90	-0-	15,120	17,388	19,517	29.1
1980	6,100	7,681	3,510	5,162	1,890	2,710	4,191	4,990	94	-0-	15,785	18,153	20,543	30.1
1981	6,395	7,681	3,676	5,162	1,890	2,709	4,242	4,990	98	-0-	16,301	18,746	20,542	26.0
1982	6,765	7,681	3,849	5,721	2,070	2,722	4,284	5,231	103	-0-	17,071	19,632	21,355	25.1
1983	7,005	8,311	4,029	5,721	2,170	2,722	4,322	5,231	107	-0-	17,633	20,278	21,985	24.7
1984	7,480	8,941	4,219	6,331	2,270	2,722	4,358	5,231	112	-0-	18,439	21,205	23,225	26.0
1985	7,870	9,571	4,418	6,456	2,370	2,821	4,393	5,631	117	-0-	19,168	22,043	24,479	27.7
1986	8,290	10,071	4,620	6,456	2,470	2,846	4,420	5,631	122	-0-	19,922	22,910	25,004	25.5
1987	8,620	10,571	4,833	6,798	2,590	3,141	4,453	5,631	128	-0-	20,624	23,718	26,141	26.8
Average Annual Growth Rate	5.2%		4.6%		4.7%		1.2%		4.5%		4.0%			

Headings: Peak Demand - D Capacity - C Reserve Margin - R
(a) Includes the complete service territories of the Allegheny Power System (including Potomac Edison) and Delmarva Power and Light. Data from Table I-18.

(b) Utility forecast
(c) PPSF/DSP forecast

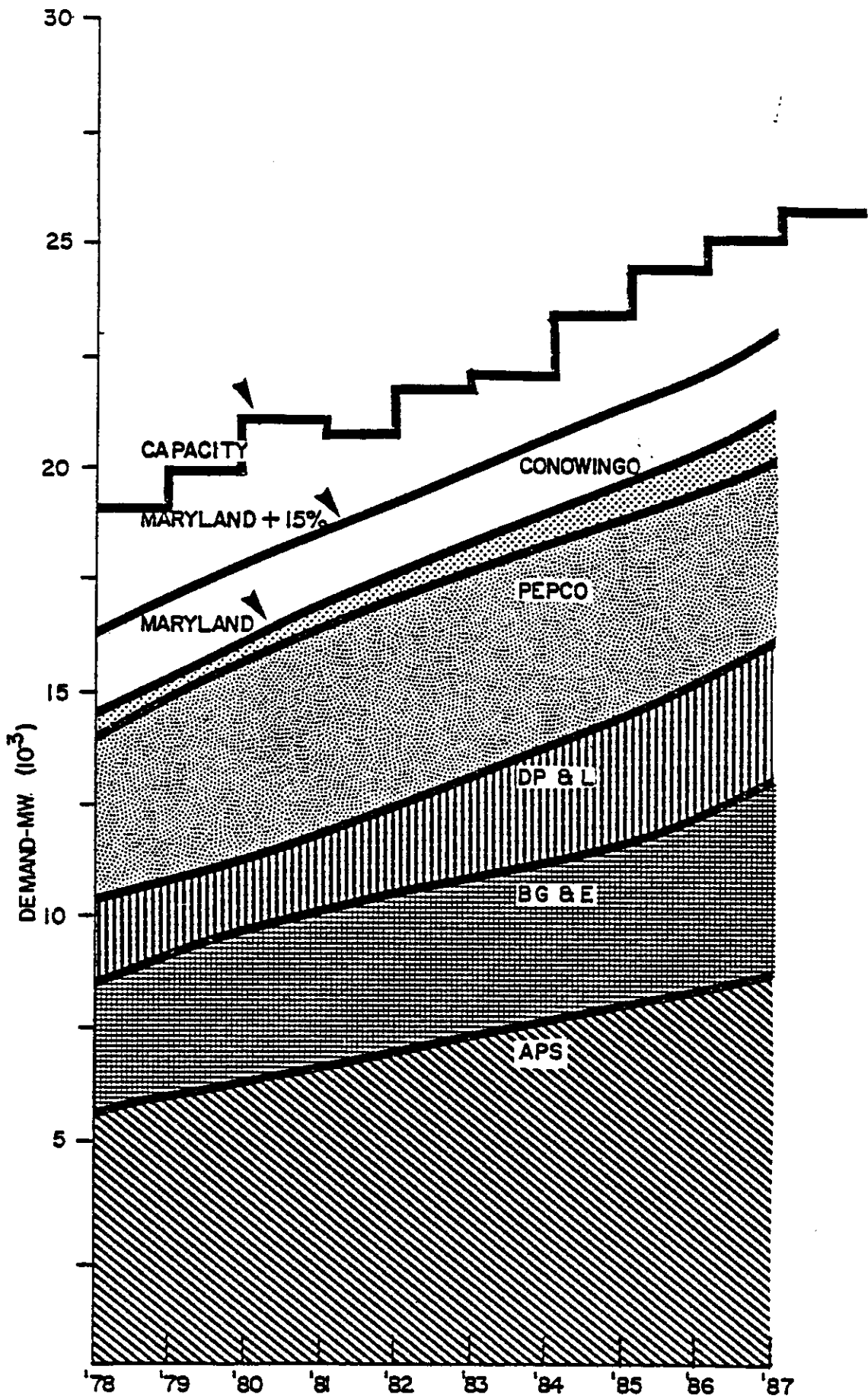


Figure I-13. Peak demand and capacity forecast for electric utility systems serving Maryland, 1977-1987

the reserve margin for all Maryland utilities taken together will range from 25% to 30% during those years. As was indicated earlier, desired reserve capacity ranges from 15% to 20%, depending on such factors as plant size and reliability and the extent of interconnection.

The state-wide average annual growth rate projected for peak demand from Table I-16 was 4.0%. An average annual growth rate of 5% over the period would result in a reserve margin of approximately 16% by 1987, indicating that even under conditions of growth in peak demand that are more rapid than anticipated, the state is likely to have adequate supplies of electricity over this time period.

Based on all available forecasts, it is expected that each of the individual utilities serving Maryland will have adequate generating capacity and reserves over the next ten years, as measured by a minimum reserve level of 15%. However, Table I-16 also shows that there is some variation in the adequacy of the electric power supply of the individual utilities.

Based on the APS forecast, the APS system is expected to fall below the 20% reserve level for a four-year period in the early 1980's. In one year, 1982, reserve capacity is expected to fall below 15%, the lowest level anticipated for any Maryland utility. Based on the PPSP forecast, the BG&E system is projected to have 40% to 50% reserve capacity through most of the period, well in excess of the 20% reserve level. (Table I-18 includes the most recent forecast prepared by BG&E, which indicates reserve levels falling in the 20% to 30% range during the 1978-1987 forecast period.) Based on the DP&L forecast, the DP&L system is expected to maintain reserves above 20% level until the mid-1980's, and above 15% throughout the entire period. The PEPCO system is anticipated to experience reserve levels which drop below 20% in 1980 and 1981, based on the PPSP forecast for that system. The forecast prepared by PEPCO projects levels falling below 20 from 1981 to 1984. Both forecasts indicate that reserves are likely to remain above 15% throughout the entire forecast period.

The adequacy of the APS system reserves depends on capacity additions planned for each of the years 1983 through 1987. APS has announced the indefinite suspension for financial reasons of the three Lower Armstrong units planned for 1983, 1984, and 1985, and the Corps of Engineers has denied a permit necessary for the construction of the Davis pumped storage units planned for 1986 and 1987. This denial is currently under litigation. In addition, a Federal Power Commission permit for Davis is under litigation in the Federal courts.

Table I-17 shows that the level of reserves for the APS without any of these units would drop below 15% in 1983, and below 0% in 1985 (20). The construction of Davis alone would not prevent reserves from dropping below 0% in this period. Without large purchases of capacity from other systems or other alternative plans, it is likely that the APS system will be unable to meet its anticipated load. Comparison of the data in Tables I-16 and I-17 shows that without the Davis and Lower Armstrong units, state-wide reserves drop below 15% by 1987, indicating that the capacity planned by other Maryland utilities may be barely adequate to meet APS requirements, assuming no other changes in the forecasts for this period. Reliance on the continuous use of

Table I-17. Effects of capacity changes on the APS system

Year	Peak Demand	Planned Capacity	Capacity Without Lower Armstrong	Reserve Margin	Capacity Without Lower Armstrong or Davis	Reserve Margin
1983	7,005	8,311	7,681	9.7	7,681	9.7
1984	7,480	8,941	7,681	2.9	7,681	2.9
1985	7,870	9,571	7,681	(-2.4)	7,681	(-2.4)
1986	8,290	10,071	8,181	(-1.3)	7,681	(-7.3)
1987	8,620	10,571	8,681	(0.7)	7,681	(-10.9)

large imports of power may result in reduced system reliability for all the systems involved, however. The ability of the APS system to meet projected electric power demand in the Potomac Edison service territory is currently the subject of investigation by the Maryland Public Service Commission.

The 1978 Ten Year Plan (Appendix A) lists the additions to generating capacity planned within Maryland for the next ten years. Plant additions by Maryland utility systems which are located outside of Maryland are not all included in the Ten Year Plan, but are included in Table I-18. The new units planned within Maryland have been included in the map in Figure I-12, above.

As can be seen from the plant statistics in Tables I-19 (21) and I-20 (22) and the map of Figure I-12, older plants in Maryland, as elsewhere, were located near load centers in urbanized areas. Examples can be seen in BG&E's Gould Street and Westport plants and PEPCO's Benning Road and Buzzard Point units. As was discussed in the 1975 CEIR, the introduction of high voltage transmission lines (of 230 kv or greater) has reduced the cost of siting power plants further from metropolitan areas by reducing line losses and right-of-way requirements. Suitable sites for large power plants of the scale most commonly used for baseload units are difficult to find in urban areas. The high population densities of urban areas violate Nuclear Regulatory Commission population criteria for location of nuclear plants (23), and also result in a concentration of transportation and industrial activities which cause high air pollution levels (see Chapter II). Further, the pollution control devices required by the Clean Air Act Amendments (see Chapter II) require large landfill areas for coal-burning plants. For a 1,200 MW coal unit, approximately 1,100 acres are required for waste disposal over the operating life of the plant. Tracts of this size are rarely available in urban areas, necessitating off-site disposal for such wastes.

All of these trends and constraints favor the siting of large base load and cycling power plants in non-urban areas. The 1975 CEIR depicted the shift away from urban siting. Of the plants and sites included in the current Ten Year Plan, only Brandon Shores is within 20 miles of a metropolitan area. The sites currently listed in the Ten Year Plan follow the trend of siting outside of metropolitan areas.

The 1978 Ten Year Plan lists new units planned at seven sites in Maryland, as well as six sites at which no units are currently planned. These Maryland sites are described briefly, by utility, in Table I-20.

Table I-18. Projected and actual energy demand, capability and growth rates for Maryland utilities. 1966 through 1987

Table I-18a. Allegheny Power System (total system) ^(a)

Year and Growth Rates (b)	Energy Sales (MWh) (c)			Peak Load (MW) (c)		Capacity (MW) (c)	Reserve Margin (%)	Load Factor
	Residential	Non-Residential	Total	Summer	Winter			
<u>1966</u>	3,711,236	11,000,930	14,712,166	2,425	2,661	2,343	- 12.0	68.9
1					7.13			
5								
10								
<u>1967</u>	4,027,051	11,279,560	15,306,611	2,453	2,863	2,646	- 5.8	67.7
1	8.51	2.53	4.04	1.15	7.59			
5								
10								
<u>1968</u>	4,409,112	12,253,335	16,662,447	2,749	3,017	3,222	6.8	68.8
1	9.49	8.63	8.86	12.07	5.38			
5								
10								
<u>1969</u>	4,845,511	13,357,748	18,203,259	2,941	3,343	3,809	14.0	67.7
1	9.90	9.01	9.25	6.98	10.81			
5								
10								
<u>1970</u>	5,318,888	14,800,349	20,119,237	3,206	3,785	4,293	17.6	68.0
1	9.77	10.80	10.53	9.01	13.22			
5								
10								
<u>1971</u>	5,694,162	15,584,594	21,278,756	3,327	3,769	4,819	27.3	69.3
1	7.08	5.30	5.76	5.77	0.42			
5	8.94	7.21	7.66	6.53	7.21			
10								
<u>1972</u>	6,136,732	16,678,103	22,814,835	3,622	4,039	5,503	37.2	69.9
1	7.77	7.02	7.22	8.87	7.16			
5	8.79	8.14	8.30	8.11	7.12			
10								
<u>1973</u>	6,614,299	18,057,714	24,672,013	4,040	4,230	5,965	41.0	71.6
1	7.78	8.27	8.14	11.54	4.73			
5	8.45	8.06	8.17	8.00	6.99			
10								
<u>1974</u>	6,808,969	18,134,728	24,943,697	3,916	4,272	6,663	57.6	73.6
1	2.94	0.43	1.10	3.07	0.99			
5	7.04	6.31	6.50	5.89	5.03			
10								
<u>1975</u>	7,228,634	16,732,955	23,961,589	3,959	4,650	6,429	40.1	64.8
1	6.16	7.73	3.94	1.10	8.85			
5	6.33	2.48	3.56	4.31	4.20			
10					6.47			
<u>1976</u>	7,523,518	19,180,935	26,704,453	4,284	5,031	6,429	28.8	66.1
1	4.08	14.63	11.45	8.21	8.19			
5	5.73	4.24	4.65	5.19	5.95			
10	7.32	5.72	6.14	5.86	6.58			
<u>1977</u>	8,095,776	20,151,533	28,247,309	4,539	5,174	6,429	24.3	68.7
1	7.61	5.06	5.78	5.95	2.84			
5	5.67	3.86	4.36	4.62	5.08			
10	7.23	5.97	6.32	6.35	6.10			
<u>1978</u>	8,521,000	20,340,236	28,861,236	4,720	5,460	6,429	17.7	66.6
1	5.25	0.94	2.17	3.99	5.53			
5	5.20	2.41	3.19	3.16	5.24			
10	6.81	5.20	5.65	5.55	6.11			
<u>1979</u>	9,007,000	21,735,500	30,742,500	4,870	5,750	7,055	22.7	66.7
1	5.70	6.86	6.52	3.18	5.31			
5	5.75	3.69	4.27	4.46	6.12			
10	6.40	4.99	5.38	5.17	5.57			

Table I-18a. Allegheny Power System (Continued)

Year and Growth Rates (b)	Energy Sales (MWh) (c)			Peak Load (MW) (c)		Capacity (MW) (c)	Reserve Margin (%)	Load Factor
	Residential	Non-Residential	Total	Summer	Winter			
<u>1980</u>	9,529,000	22,807,200	32,336,200	5,170	6,100	7,681	25.9	65.5
1	5.80	4.93	5.18	6.16	6.09			
5	5.68	6.39	6.18	5.48	5.58			
10	6.00	4.42	4.86	4.89	4.89			
<u>1981</u>	10,086,000	23,716,000	33,802,000	5,390	6,395	7,681	20.1	65.3
1	5.85	3.98	4.53	4.26	4.84			
5	6.04	4.34	4.83	4.70	4.91			
10	5.88	4.29	4.74	4.94	5.43			
<u>1982</u>	10,634,000	25,048,500	35,682,500	5,625	6,765	7,681	13.5	65.8
1	5.43	5.62	5.56	4.36	5.79			
5	5.61	4.45	4.78	4.38	5.51			
10	5.65	4.15	4.57	4.50	5.29			
<u>1983</u>	11,234,000	26,027,200	37,261,200	5,875	7,005	8,311 ^(a)	18.6	65.6
1	5.64	3.91	4.42	4.44	3.55			
5	5.68	5.05	5.24	4.48	5.11			
10	5.44	3.72	4.21	3.82	5.17			
<u>1984</u>	11,833,000	27,202,800	39,035,800	6,205	7,480	8,941 ^(a)	19.5	64.6
1	5.33	4.52	4.76	5.62	6.78			
5	5.61	4.59	4.89	4.96	5.40			
10	5.68	4.14	4.58	4.71	5.76			
<u>1985</u>	12,485,000	28,501,400	40,986,400	6,560	7,870	9,571 ^(a)	21.6	64.6
1	5.51	4.77	5.00	5.72	5.21			
5	5.55	4.56	4.86	4.88	5.23			
10	5.62	5.47	5.51	5.18	5.40			
<u>1986</u>	13,143,000	29,732,000	42,875,000	6,850	8,290	10,071 ^(c)	21.5	64.2
1	5.27	4.32	4.61	4.42	5.34			
5	5.44	4.63	4.87	4.91	5.33			
10	5.74	4.48	4.85	4.81	5.12			
<u>1987</u>	13,849,000	30,900,600	44,749,600	7,130	8,620	10,571 ^(c)	22.6	64.0
1	5.37	3.93	4.37	4.09	3.98			
5	5.43	4.29	4.63	4.86	4.97			
10	5.52	4.37	4.71	4.62	5.24			

(a) Data represents the entire APS system, including Potomac Edison, West Penn Power Co., Monongahela Power Co.

(b) 1 yr growth, percent
 5 yr avg. growth, percent
 10 yr avg. growth, percent

(c) Forecast prepared by APS

Table I-18b. Potomac Edison Company (Maryland Portion)*

Year and Growth Rates (b)	Energy Sales (MWh) (c)			Peak Load (MW) (c)		Capacity (MW) (c)	Reserve Margin (%) (d)	Load Factor (d)
	Residential	Non-Residential	Total	Summer	Winter			
<u>1966</u>	488,702	931,649	1,420,351		336	129		
1								
5								
10								
<u>1967</u>	539,658	1,014,555	1,554,213		362	129		
1	10.43	8.90	9.42		7.74			
5								
10								
<u>1968</u>	599,608	1,114,952	1,714,560		390	129		
1	11.11	9.90	10.32		7.73			
5								
10								
<u>1969</u>	664,953	1,221,389	1,886,342		420	129		
1	10.90	9.55	10.02		7.69			
5								
10								
<u>1970</u>	730,579	1,894,813	2,625,392		550	129		
1	9.87	55.14	39.18		30.95			
5								
10								
<u>1971</u>	787,501	2,504,470	3,301,971		601	129		
1	7.79	32.18	25.77		9.27			
5	10.01	21.87	18.38		12.33			
10								
<u>1972</u>	850,904	2,624,932	3,475,836		656	129		
1	8.05	4.81	5.27		9.15			
5	9.53	20.94	17.47		12.63			
10								
<u>1973</u>	929,917	2,784,849	3,714,766		682	129		
1	9.29	6.09	6.87		3.96			
5	9.17	20.09	16.72		11.83			
10								
<u>1974</u>	985,282	2,725,246	3,710,528		693	129		
1	5.95	2.14	0.12		1.61			
5	8.18	17.41	14.49		10.53			
10								
<u>1975</u>	1,065,026	2,629,187	3,694,213		802	129		
1	8.09	3.52	0.44		15.73			
5	7.83	6.77	7.07		7.84			
10								
<u>1976</u>	1,142,266	3,911,928	5,054,194		916	129		
1	7.25	48.79	36.81		14.21			
5	7.72	11.90	8.89		8.79			
10	8.86	15.43	13.53		10.55			
<u>1977</u>	1,234,939	4,118,514	5,353,453		1,018	129		
1	8.11	5.28	5.92		2.13			
5	7.73	9.43	9.02		9.19			
10	8.63	15.04	13.17		10.89			
<u>1978</u>			5,632,368		1,071	129		
1			5.21		5.21			
5			8.68		9.45			
10			12.63		10.63			
<u>1979</u>			5,969,184		1,135	129		
1			5.98		5.98			
5			9.98		10.37			
10			12.21		10.45			

Table I-18b. Potomac Edison Company (Maryland Portion) (Continued)

Year and Growth Rates ^(b)	Energy Sales (MWh) ^(c)			Peak Load (MW) ^(c)		Capacity (MW) ^(c)	Reserve Margin (%) ^(d)	Load Factor ^(d)
	Residential	Non-Residential	Total	Summer	Winter			
<u>1980</u>			6,373,894		1,212	129		
1			6.78		6.78			
5			11.53		8.61			
10			9.28		8.22			
<u>1981</u>			6,747,404		1,283	129		
1			5.86		5.86			
5			5.95		6.97			
10			7.41		7.88			
<u>1982</u>			7,152,248		1,360	129		
1			6.00		6.00			
5			5.96		5.96			
10			7.48		7.56			
<u>1983</u>			7,588,536		1,443	129		
1			6.10		6.10			
5			6.14		6.14			
10			7.40		7.78			
<u>1984</u>			8,082,549		1,537	129		
1			6.51		6.51			
5			6.25		6.25			
10			8.10		8.29			
<u>1985</u>			8,582,051		1,632	129		
1			6.18		6.18			
5			6.13		6.13			
10			8.79		7.36			
<u>1986</u>			9,145,033		1,739	129		
1			6.56		6.56			
5			6.27		6.27			
10			6.11		6.62			
<u>1987</u>			9,749,520		1,854	129		
1			6.61		6.61			
5			6.39		6.39			
10			6.18		6.18			

(a) Data represents only the Maryland portion of the Potomac Edison Service territory

(b) 1 yr growth, percent
5 yr avg. growth, percent
10 yr avg. growth, percent

(c) Forecast prepared by Allegheny Power System

(d) Not calculated separately for Maryland portion of system.

Table I-18c. Baltimore Gas and Electric Company

Year and Growth Rates (a)	Energy Sales (MWh) (b)			Peak Load (MW) (b)		Capacity (MW) (c)	Reserve Margin (%)	Load Factor	BG&E Forecast (c)	
	Residential	Non-Residential	Total	Summer	Winter				Summer Peak	Reserve Margin
1966	2,347,000	6,306,000	8,653,000	1,817	1,422	1,866	2.7	58.9		
1										
5										
10										
1967	2,548,461	6,797,355	9,345,816	1,927	1,558	2,095	8.7	59.8		
1	8.58	7.79	8.01	6.05	9.56					
5										
10										
1968	2,933,422	7,238,078	10,171,500	2,179	1,683	1,898	- 12.9	57.7		
1	15.11	6.48	8.83	13.08	8.02					
5										
10										
1969	3,285,000	7,880,000	11,165,000	2,306	1,792	2,046	- 11.3	59.7		
1	11.99	8.87	9.77	5.83	6.48					
5										
10										
1970	3,664,564	8,306,165	11,970,729	2,496	1,954	2,290	- 8.3	59.0		
1	11.55	5.41	7.22	8.24	9.04					
5										
10										
1971	3,864,160	8,620,399	12,484,559	2,605	2,053	2,290	- 12.1	58.7		
1	5.45	3.78	4.29	4.37	5.07					
5	10.49	6.25	7.61	7.47	7.62					
10										
1972	4,102,000	8,889,000	12,991,000	2,960	2,006	2,917	- 1.5	53.9		
1	6.16	3.12	4.06	13.63	- 2.29					
5	9.99	5.51	6.81	8.96	5.18					
10										
1973	4,617,840	9,722,929	14,340,819	3,334	2,302	3,491	4.7	52.7		
1	12.58	9.38	10.39	12.64	14.76					
5	9.50	6.08	7.11	8.88	6.46					
10										
1974	4,469,140	9,520,845	13,989,985	3,190	2,177	3,294	3.2	53.9		
1	(- 3.22)	(- 2.08)	(- 2.45)	- 4.32	- 5.43					
5	6.35	3.86	4.61	6.71	3.97					
10										
1975	4,664,000	9,194,000	13,858,000	3,256	2,301	4,402	35.2	52.4		
1	4.36	- 3.43	- 0.94	2.07	5.10					
5	4.94	2.05	2.97	5.46	3.32					
10										
1976	4,887,793	9,870,413	14,758,206	3,234	2,418	4,408	36.3	56.2		
1	4.80	7.36	6.50	- 0.68	5.08					
5	4.81	2.12	3.40	4.42	3.33					
10	7.61	4.58	5.48	5.93	5.45					
1977	5,231,000	10,231,000	15,462,000	3,588	2,640	5,162	43.9	52.7		
1	7.02	3.65	4.77	10.95	9.18					
5	4.98	2.85	3.54	3.92	5.65					
10	7.46	4.17	5.16	6.41	5.42					
1978	5,070,266	10,912,507	15,982,773	3,234	2,770	5,162	59.6		3,740	38.0
1	(- 3.07)	6.66	3.37	(- 9.87)	4.92				4.24	
5	1.89	2.34	2.19	(- 0.61)	3.77				2.32	
10	5.62	4.19	4.62	4.03	5.11				5.55	
1979	5,292,654	11,282,637	16,575,291	3,357	2,900	5,162	53.8		3,930	31.3
1	4.39	3.39	3.71	3.80	4.69				5.08	
5	3.44	3.45	3.45	1.03	5.90				4.26	
10	4.89	3.65	4.03	3.83	4.93				5.48	

Table I-18c. Baltimore Gas and Electric Company (Continued)

Year and Growth Rates (a)	Energy Sales (MWh) (b)			Peak Load (MW) (b)		Capacity (MW) (c)	Reserve Margin (%)	Load Factor	BG&E Forecast (c)	
	Residential	Non-Residential	Total	Summer	Winter				Summer Peak	Reserve Margin
<u>1980</u>	5,553,091	11,993,630	17,546,721	3,510	3,046	5,162	47.1		4,110	25.6
1	4.92	6.30	5.86	4.56	5.03				4.58	
5	3.55	5.46	4.83	1.93	5.77				4.77	
10	4.24	3.74	3.90	3.47	4.54				5.11	
<u>1981</u>	5,823,603	12,719,192	18,542,795	3,676	3,190	5,162	40.4		4,310	19.8
1	4.87	6.05	5.68	4.73	4.73				4.87	
5	3.57	5.20	4.67	2.60	5.70				5.91	
10	4.19	3.97	4.04	3.50	4.51				5.16	
<u>1982</u>	6,121,884	13,464,105	19,585,989	3,849	3,342	5,721	48.6		4,520	26.6
1	5.12	5.86	5.63	4.71	4.76				4.87	
5	3.20	5.65	4.84	1.41	4.83				4.73	
10	4.09	4.24	4.19	2.66	5.24				4.32	
<u>1983</u>	6,446,135	14,234,493	20,680,628	4,029	3,505	5,721	42.0		4,730	21.0
1	5.30	5.72	5.59	4.68	4.88				4.65	
5	4.92	5.46	5.29	4.49	4.82				4.81	
10	3.39	3.89	3.73	1.91	4.29				3.56	
<u>1984</u>	6,796,829	15,036,050	21,832,879	4,219	3,675	6,331	50.1		4,940	28.2
1	5.44	5.63	5.57	4.72	4.85				4.44	
5	5.13	5.91	5.66	4.68	4.85				4.68	
10	4.28	4.68	4.55	2.84	5.38				4.47	
<u>1985</u>	7,174,723	15,874,458	23,049,181	4,418	3,855	6,456	46.1		5,160	25.1
1	5.56	5.58	5.57	4.72	4.90				4.45	
5	5.26	5.77	5.61	4.71	4.82				4.66	
10	4.40	5.16	5.22	3.10	5.30				4.71	
<u>1986</u>	7,576,536	16,713,496	24,290,026	4,620	4,042	6,456	39.7		5,390	19.8
1	5.60	5.29	5.38	4.57	4.85				4.46	
5	5.40	5.61	5.55	4.68	4.85				4.57	
10	4.48	5.41	5.11	3.63	5.27				5.24	
<u>1987</u>	8,007,837	17,596,305	25,604,142	4,833	4,239	6,798	40.7		5,630	20.7
1	5.69	5.28	5.41	4.61	4.87				4.45	
5	5.52	5.50	5.50	4.66	4.87				4.49	
10	4.35	5.57	5.17	3.02	4.85				4.61	

- (a) 1 yr growth, percent
5 yr avg. growth, percent
10 yr avg. growth, percent
- (b) Forecast prepared by PPSP
- (c) Forecast prepared by BG&E

Table I-18d. Delmarva Power and Light Company (total system) (a)

Year and Growth Rates (b)	Energy Sales (MWh) (c)			Peak Load (MW)(c)		Capacity (MW) (c)	Reserve Margin (%)	Load Factor
	Residential	Non- Residential (d)	Total	Summer	Winter			
<u>1966</u>	838,548	2,636,665	3,475,213	710	617	799	12.5	62.8
1								
5								
10								
<u>1967</u>	910,547	2,855,780	3,766,327	748	680	836	11.8	64.7
1	8.59	8.31	8.38	5.28	10.18			
5								
10								
<u>1968</u>	1,037,222	3,409,021	4,446,243	898	751	864	- 3.8	63.1
1	13.91	19.37	18.05	20.12	10.54			
5								
10								
<u>1969</u>	1,108,945	3,743,009	4,851,954	955	859	853	- 10.6	65.0
1	6.91	9.80	9.12	6.30	14.33			
5								
10								
<u>1970</u>	1,280,420	3,897,514	5,177,934	1,045	947	1,045	0.0	63.7
1	15.46	4.13	6.72	9.47	10.33			
5								
10								
<u>1971</u>	1,380,763	4,093,144	5,473,907	1,135	986	1,210	6.6	62.0
1	7.8 ^A	5.02	5.72	8.61	4.08			
5	10.49	9.19	9.51	9.83	9.84			
10								
<u>1972</u>	1,463,821	4,457,292	5,921,113	1,259	1,043	1,237	- 1.7	61.0
1	6.02	8.90	8.17	10.94	5.76			
5	9.96	9.31	9.47	10.99	8.95			
10								
<u>1973</u>	1,629,640	4,771,818	6,401,458	1,508	1,201	1,406	- 6.8	55.1
1	11.33	7.06	8.11	19.76	15.14			
5	9.46	6.96	7.56	10.92	9.84			
10								
<u>1974</u>	1,597,471	4,641,354	6,238,825	1,447	1,144	1,801	24.5	55.8
1	- 1.97	- 2.73	- 2.54	- 4.03	- 4.73			
5	7.57	4.40	5.16	8.68	5.91			
10								
<u>1975</u>	1,672,180	4,345,147	6,017,327	1,463	1,187	1,959	33.8	53.8
1	5.48	- 6.38	- 3.55	- 1.11	3.73			
5	2.71	2.20	3.05	6.96	4.61			
10								
<u>1976</u>	1,787,663	4,473,186	6,260,849	1,434	1,276	1,971	37.4	57.3
1	6.91	2.95	4.05	- 1.98	7.51			
5	5.30	1.79	2.72	4.79	4.11			
10	7.86	5.43	6.06	7.28	7.54			
<u>1977</u>	1,924,723	4,612,038	6,536,761	1,609	1,402	2,052	27.5	52.8
1	7.67	3.10	4.41	12.21	9.88			
5	5.63	0.68	2.00	5.03	6.09			
10	7.77	4.91	5.69	7.97	7.51			
<u>1978</u>	1,949,612	4,843,885	6,793,497	1,710	N/A	2,227	30.2	N/A
1	1.29	5.03	3.93	6.26				
5	3.65	0.30	1.20	2.55				
10	6.51	3.58	4.33	6.65				
<u>1979</u>	2,099,950	5,181,002	7,280,952	1,800	N/A	2,310	28.3	N/A
1	7.71	6.96	7.18	5.26				
5	5.62	7.22	3.14	4.46				
10	6.59	3.30	4.14	6.55				

Table I-18d. Delmarva Power and Light Company (total system) (Continued)

Year and Growth Rates(b)	Energy Sales (MWh) (c)			Peak Load (MW)(c)		Capacity (MW) (c)	Reserve Margin (%)	Load Factor
	Residential	Non- (d) Residential	Total	Summer	Winter			
<u>1980</u>	2,249,924	5,393,335	7,643,259	1,890	N/A	2,710	43.4	N/A
1	7.14	4.10	4.98	5.00				
5	6.12	4.42	4.90	5.25				
10	5.80		3.97	6.11				
<u>1981</u>	2,380,702	5,876,192	8,384,075	1,980	N/A	2,709	36.8	N/A
1	11.47	8.95	9.69	4.76				
5	5.90	5.61	6.01	6.66				
10	5.60	3.30	4.36	5.72				
<u>1982</u>	2,507,883	5,925,941	8,433,824	2,070	N/A	2,722	31.5	N/A
1	5.34	0.85	0.59	4.55				
5	5.44	5.14	5.23	5.16				
10	5.53	2.89	3.60	5.10				
<u>1983</u>	2,637,650	6,192,999	8,830,649	2,170	N/A	2,722	25.4	N/A
1	5.17	4.51	4.71	4.83				
5	6.23	5.04	5.39	4.88				
10	4.93	2.64	3.27	3.71				
<u>1984</u>	2,775,979	6,430,890	9,206,869	2,270	N/A	2,722	19.9	N/A
1	5.24	3.84	4.26	4.61				
5	5.74	4.42	4.81	4.75				
10	5.68	3.31	3.97	4.61				
<u>1985</u>	2,906,426	6,705,276	9,611,752	2,370	N/A	2,821	19.0	N/A
1	4.70	0.84	4.40	4.41				
5	5.25	4.45	3.98	4.63				
10	5.68	4.43	4.79	4.94				
<u>1986</u>	3,046,865	7,035,350	10,082,215	2,470	N/A	2,846	15.2	N/A
1	4.83	4.92	4.89	4.22				
5	5.06	3.67	3.76	4.52				
10	5.48	4.63	4.88	5.59				
<u>1987</u>	3,194,811	7,405,925	10,600,736	2,590	N/A	3,141	21.3	N/A
1	4.86	5.27	5.14	4.86				
5	4.96	4.56	4.68	4.58				
10	5.20	4.85	4.95	4.87				

(a) Excludes energy sales to Dover and Easton; includes only the portion of Dover and Easton peak demand provided by DP&L

(b) 1 yr growth, percent
5 yr avg. growth, percent
10 yr avg. growth, percent

(c) Forecast prepared by DP&L

(d) Excludes sales for resale in Maryland

Table I-18e. Delmarva Power and Light Company of Maryland^(a)

Year and Growth Rates ^(b)	Energy Sales (MWh) ^(c)			Peak Load (MW) ^(c)		Capacity (MW) ^(c)	Reserve Margin (%) ^(d)	Load Factor ^(d)
	Residential	Non-Residential	Total	Summer	Winter			
<u>1966</u>	198,797	299,477	498,274	141	116	105		
1								
5								
10								
<u>1967</u>	220,454	327,383	547,837	149	139	105		
1	10.89	9.32	9.95	5.67	19.83			
5								
10								
<u>1968</u>	253,058	367,772	620,830	177	155	132		
1	14.79	12.34	13.32	18.79	11.51			
5								
10								
<u>1969</u>	288,757	410,236	698,493	197	164	132		
1	14.11	11.55	12.59	11.30	5.81			
5								
10								
<u>1970</u>	321,865	451,257	773,122	210	206	132		
1	14.47	10.00	10.61	6.60	25.61			
5								
10								
<u>1971</u>	354,861	480,329	835,190	227	227	282		
1	10.25	6.44	8.03	8.10	10.19			
5	12.29	9.91	10.88	9.99	14.37			
10								
<u>1972</u>	389,453	510,769	900,222	278	233	282		
1	9.75	6.34	7.79	22.47	2.64			
5	12.05	9.30	10.44	13.28	10.88			
10								
<u>1973</u>	441,381	563,605	1,004,986	327	290	252		
1	13.33	10.34	11.64	17.63	24.46			
5	11.77	8.91	10.11	13.06	13.35			
10								
<u>1974</u>	457,947	569,227	1,027,174	319	275	252		
1	3.75	1.00	2.21	2.45	5.17			
5	9.66	6.77	8.01	10.12	10.89			
10								
<u>1975</u>	483,370	593,163	1,076,533	342	294	252		
1	5.55	4.21	4.81	7.21	6.91			
5	8.47	5.62	6.85	10.25	7.37			
10								
<u>1976</u>	542,509	647,974	1,190,483	315	347	252		
1	12.23	9.24	10.58	7.89	18.03			
5	6.85	6.17	7.35	6.77	8.86			
10	10.56	8.02	9.10	8.37	11.58			
<u>1977</u>	623,778	733,443	1,357,221	384	400	252		
1	14.98	13.19	14.01	21.90	15.27			
5	9.88	7.50	8.56	6.67	11.41			
10	10.96	8.40	9.50	9.93	11.15			
<u>1978</u>	655,911	787,717	1,443,630	390	N/A	252		
1	5.15	7.40	6.37	1.56				
5	8.24	6.92	7.51	3.59				
10	9.99	7.91	8.80	8.22				
<u>1979</u>	704,979	863,973	1,568,955	412	N/A	252		
1	7.48	9.68	8.68	5.64				
5	9.01	8.70	8.84	5.25				
10	9.34	7.73	8.43	7.66				

Table I-18e. Delmarva Power and Light Company of Maryland (Continued)

Year and Growth Rates(b)	Energy Sales (MWh) (c)			Peak Load (MW) (c)		Capacity (MW) (c)	Reserve Margin (%) (d)	Load Factor (d)
	Residential	Non-Residential	Total	Summer	Winter			
<u>1980</u>	749,888	921,654	1,671,545	436	N/A	252		
1	6.37	6.67	6.54	5.83				
5	9.18	9.21	9.20	4.98				
10	8.83	7.40	8.02	7.58				
<u>1981</u>	800,740	978,465	1,779,211	462	N/A	252		
1	6.78	6.16	6.44	5.96				
5	8.10	8.59	8.37	7.96				
10	8.48	7.37	7.86	7.36				
<u>1982</u>	853,336	1,045,251	1,898,589	493	N/A	252		
1	6.57	6.83	6.71	6.71				
5	6.47	7.34	6.94	5.12				
10	8.16	7.42	7.75	5.90				
<u>1983</u>	905,688	1,114,185	2,019,876	523	N/A	252		
1	6.13	6.59	6.39	6.09				
5	6.67	7.18	6.95	6.04				
10	7.45	7.05	7.23	4.81				
<u>1984</u>	960,747	1,168,717	2,129,465	554	N/A	252		
1	6.08	4.89	5.43	5.93				
5	6.39	6.23	6.30	6.10				
10	7.69	7.46	7.56	5.67				
<u>1985</u>	1,014,699	1,241,103	2,255,805	589	N/A	252		
1	5.62	6.19	5.93	6.32				
5	6.24	6.13	6.18	6.20				
10	7.70	7.66	7.68	5.59				
<u>1986</u>	1,072,143	1,323,171	2,395,316	621	N/A	252		
1	5.66	6.61	6.18	5.43				
5	6.01	6.22	6.13	6.09				
10	7.05	7.40	7.24	7.02				
<u>1987</u>	1,129,042	1,405,751	2,534,794	652	N/A	618		
1	5.31	6.24	5.82	4.99				
5	5.76	6.11	5.95	5.75				
10	6.11	6.72	6.45	5.44				

(a) Data represents the Maryland portion of the DP&L system; data excludes sales to Easton; data includes only the portion of the Easton peak provided by DP&L

(b) 1 yr growth, percent
5 yr avg. growth, percent
10 yr avg. growth, percent

(c) Forecast prepared by DP&L, Easton not included in plant capacity.

(d) Not calculated separately for Maryland portion of system.

Table I-18f. Potomac Electric Power Company (total system)^(a)

Year and Growth Rates (b)	Energy Sales (MWh) ^(c)			Peak Load (MW) ^(c)		Capacity (MW) ^(d)	Reserve Margin (%)	Load Factor	PEPCO Forecast ^(d)	
	Residential	Non-Residential	Total	Summer	Winter				Summer Peak	Reserve Margin
<u>1966</u>	1,978,031	5,660,581	7,638,612	2,123	1,249	2,363	11.3	N/A		
1										
5										
10										
<u>1967</u>	2,084,517	6,194,069	8,278,586	2,283	1,385	2,395	4.9	N/A		
1	5.38	9.42	8.38	7.54	10.89					
5										
10										
<u>1968</u>	2,401,544	6,915,402	9,316,946	2,627	1,520	2,973	13.2	N/A		
1	15.21	11.65	12.54	15.07	9.75					
5										
10										
<u>1969</u>	2,648,658	7,605,966	10,254,624	2,759	1,622	2,973	7.8	N/A		
1	10.29	9.98	10.06	5.02	6.71					
5										
10										
<u>1970</u>	2,931,982	8,251,123	11,183,105	2,908	1,813	3,708	27.5	N/A		
1	10.70	8.48	9.05	5.40	11.78					
5										
10										
<u>1971</u>	3,037,526	8,696,058	11,733,584	3,045	1,919	4,259	39.9	N/A		
1	3.60	5.39	4.92	4.71	5.85					
5	8.96	8.97	8.96	7.48	8.97					
10										
<u>1972</u>	3,121,794	9,068,504	12,190,298	3,479	1,990	4,454	28.0	N/A		
1	2.77	4.28	3.89	14.25	3.70					
5	8.41	7.92	8.05	8.79	7.52					
10										
<u>1973</u>	3,529,039	9,704,095	13,233,134	3,680	2,159	4,721	28.3	N/A		
1	13.05	7.01	8.55	5.78	8.49					
5	2.48	7.01	7.27	6.97	7.27					
10										
<u>1974</u>	3,304,222	8,884,725	12,188,947	3,502	2,012	4,933	40.9	N/A		
1	- 6.37	- 8.44	- 7.89	- 4.84	- 6.81					
5	4.52	3.16	3.52	4.88	4.40					
10										
<u>1975</u>	3,399,452	9,322,077	12,721,529	3,623	2,145	5,190	43.3	N/A		
1	2.88	4.92	4.37	3.46	6.61					
5	3.00	2.47	2.61	4.49	3.42					
10										
<u>1976</u>	3,484,531	4,603,245	13,087,776	3,500	2,334	5,010	43.1	N/A		
1	2.50	3.02	2.88	- 3.39	8.81					
5	2.78	2.00	2.21	2.82	3.99					
10	6.38	5.43	5.53	5.13	6.45					
<u>1977</u>	3,617,267	10,029,546	13,646,813	3,857	2,508	5,013	30.0	N/A		
1	3.81	4.44	4.27	10.20	7.46					
5	2.99	2.03	2.28	2.82	4.74					
10	5.67	4.94	5.13	5.38	6.12					
<u>1978</u>	3,761,400	10,472,600	14,234,000	4,011		5,003	24.7	N/A	3,922	27.6
1	3.98	4.42	4.30	3.99					1.69	
5	1.28	1.54	1.47	1.74					1.28	
10	4.59	4.24	4.33	4.32					4.09	
<u>1979</u>	3,907,300	10,821,300	14,728,600	4,123		4,990	21.0	N/A	4,007	24.5
1	3.88	3.33	3.47	2.79					2.17	
5	3.41	4.02	3.86	3.32					14.77	
10	3.96	3.59	3.69	4.10					3.80	

Table I-18f. Potomac Electric Power Company (total system) (Continued)

Year and Growth Rates (b)	Energy Sales (MWh) (c)			Peak Load (MW) (c)		Capacity (MW) (d)	Reserve Margin (%)	Load Factor	PEPCO Forecast (d)	
	Residential	Non-Residential	Total	Summer	Winter				Summer Peak	Reserve Margin
<u>1980</u>	4,058,700	11,076,400	15,135,100	4,191		4,990	19.1	N/A	4,098	21.8
1	3.87	2.36	2.76	1.65					2.27	
5	3.61	3.51	3.54	2.96					13.82	
10	3.31	2.99	3.07	3.72					3.49	
<u>1981</u>	4,231,600	11,276,200	15,507,800	4,242		4,990	17.6	N/A	4,220	18.2
1	4.26	1.80	2.46	1.22					2.97	
5	3.96	3.26	3.45	3.92					12.58	
10	3.37	2.63	2.83	3.37					3.32	
<u>1982</u>	4,404,100	11,423,700	15,827,800	4,284		5,231	22.1	N/A	4,350	20.3
1	4.08	1.31	2.06	0.99					3.08	
5	4.01	2.64	3.01	2.12					2.43	
10	3.50	2.34	2.65	2.10					2.26	
<u>1983</u>	4,590,300	11,571,800	16,162,100	4,322		5,231	21.0	N/A	4,484	16.7
1	4.23	1.30	2.11	0.89					3.08	
5	4.06	2.02	2.57	1.50					2.71	
10	2.66	1.76	2.02	1.62					2.00	
<u>1984</u>	4,790,300	11,703,800	16,494,100	4,358		5,231	20.0	N/A	4,563	14.6
1	4.36	1.14	2.05	0.83					1.76	
5	4.16	1.58	2.29	1.11					2.63	
10	3.78	2.79	3.07	2.29					2.68	
<u>1985</u>	4,999,700	11,824,000	16,823,700	4,393		5,631	28.2	N/A	4,638	21.4
1	4.37	1.03	2.00	0.80					1.64	
5	4.26	1.31	2.14	0.95					2.51	
10	3.93	2.41	2.83	1.95					2.50	
<u>1986</u>	5,234,900	11,853,400	17,088,300	4,420		5,631	27.4	N/A	4,712	19.5
1	4.70	2.49	1.57	0.61					1.60	
5	4.35	1.00	1.96	0.83					2.23	
10	4.15	2.13	2.70	2.36					3.02	
<u>1987</u>	5,484,400	11,961,700	17,446,100	4,453		5,631	26.5	N/A	4,787	17.6
1	4.77	0.91	2.09	0.75					1.59	
5	4.49	0.93	1.97	0.78					1.93	
10	4.25	1.78	2.49	1.45					2.18	

(a) Data includes the entire PEPCO system; data excludes energy sales to SMECO; data includes SMECO peak

(b) 1 yr growth, percent
5 yr avg. growth, percent
10 yr avg. growth, percent

(c) Forecast prepared by PPSP

(d) Forecast prepared by PEPCO

Table I-19. Generating capability and fuel type by generating unit for Maryland utilities

For all utilities:

1. GT units are gas turbines; IC units are diesels; all other units are steam.
2. Changes in net capability include additions, retirements and deratings.
3. Station total is given as capability at peak season (Tables A and B, Winter; Tables C and D, Summer)
4. For stations with joint ownership capability listed in the tables is the utility's share of total station capability. The total capability of jointly owned units is as follows:

		<u>Summer</u>	<u>Winter</u>
Conemaugh	1	850	850
	2	850	850
	IC 1	11	11
Dickerson	4	800	800
Keystone	1	840	850
	2	840	850
	IC 3-6	11	11
Peach Bottom	2	1,051	1,055
	3	1,035	1,035
Safe Harbor		228	228
Existing Expansion		188	188
Salem	1	1,090	1,090
	2	1,115	1,115
	GT 3	38	48

Table I-19a. Allegheny power system (the Potomac Edison Company, West Penn Power Company, Monongahela Power Company)

Unit	Year	Net Capability (MW)		Fuel Type	Station Total	
		Summer	Winter			
<u>Existing System</u>						
Albright	1	1952	73	76	Coal	292
	2	1952	73	76	Coal	
	3	1952	137	140	Coal	
Armstrong	1	1958	173	180	Coal	360
	2	1959	176	180	Coal	
Celanese	1	1937	7	10	Cogen.(Nat.Gas)	10
Ft. Martin	1	1967	276	276	Coal	831
	2	1968	555	555	Coal	
Hatfield's Ferry	1	1969	500	555	Coal	1,660
	2	1970	500	555	Coal	
	3	1971	500	550	Coal	
Harrison	1	1972	640	640	Coal	1,920
	2	1973	640	640	Coal	
	3	1974	640	640	Coal	
Hydro Stations (8)			7	10	Hydro	10
Lake Lynn	1-4	1926	52	52	Hydro	52
Milesburg	1	1950	22	23	Oil	46
	2	1950	22	23	Oil	
Mitchell	1	1948	85	89	Oil	469
	2	1949	84	89	Oil	
	3	1963	282	291	Coal	
Riverton	1	1949	38	39	Oil	39
Rivesville	5	1943	46	48	Coal	142
	6	1951	91	94	Coal	
R.P. Smith	3	1947	38	39	Coal	129
	4	1958	89	90	Coal	
Springdale	7	1945	85	86	Oil	223
	8	1954	134	137	Oil	
Willow Island	1	1949	57	58	Coal	246
	2	1960	181	188	Coal	
<u>Additions and 1978-1987</u>						
Celanese	1	1978	(7)	(10)	Cogen.(Nat.Gas)	1,252
Pleasants	1	1979	626	626	Coal	
	2	1980	626	626	Coal	
Lower Armstrong	1	1983	630	630	Coal	1,390
	2	1984	630	630	Coal	
	3	1985	630	630	Coal	
Davis	1	1986	250	250	Hydro	1,000
	2	1986	250	250	Hydro	
	3	1987	250	250	Hydro	
	4	1987	250	250	Hydro	
<u>Long Range Additions, 1988-1997</u>				3,455	Fossil	
				3,785	Nuclear	
				990	Hydro	
Total Existing System			6,203	6,429		
Total Net Additions to 1987			4,135	4,132		
Total Planned System to 1987			10,338	10,561		
Total Long Range Additions, 1988-1997				8,230		

Table I-19b. Baltimore Gas and Electric Company

Unit	Year	Net Capability (MW)		Fuel Type	Station Total	
		Summer	Winter			
<u>Existing System</u>						
Calvert Cliffs	1	1975	810	820	Nuclear	1,620
	2	1977	810	820	Nuclear	
Conemaugh(a)	1	1970	90	90	Coal	181
	2	1971	90	90	Coal	
IC A-D	1970	1	1	Oil		
C.P. Crane	1	1961	192	193	Oil	398
	2	1963	192	193	Oil	
GT 1	1967	14	17	Oil		
Gould St.	3		103	104	Oil	103
Keystone (20.99%)(a)	1		176	179	Coal	355
	2		177	178	Coal	
IC 3-6			2	2	Oil	
Notch Cliff	GT 1-4		64	68	Gas	128
	GT 5-8		64	68	Gas	
Perryman	GT 1-4		204	240	Oil	204
Philadelphia Rd.	GT 1-4		64	68	Oil	64
Riverside	1		58	59	Oil	493
	2		59	60	Oil	
	3		61	62	Oil	
	4		78	79	Oil	
	5		65	66	Oil	
	GT 6		128	132	Oil	
	GT 7		22	25	Oil	
	GT 8		22	25	Oil	
H.A. Wagner	1		137	138	Oil	1,002
	2		134	135	Oil	
	3		319	321	Coal	
	4		398	400	Oil	
GT 1			14	17	Oil	
Westport	1		19	19	Oil	295
	13		16	16	Oil	
	14		16	16	Oil	
	3		58	59	Oil	
GT 5			68	69	Oil	
Safe Harbor Entitlement		1931	152	152	Hydro	152
Bethlehem Steel Entitlement		--	167	169	Oil	167
<u>Additions and (Removals), 1978-1987</u>						
Brandon Shores	1	1982	610	620	Oil	
	2	1984	610	620	Oil	
Westport	1	1982	(19)	(19)	Oil	
	13	1982	(16)	(16)	Oil	
	14	1982	(16)	(16)	Oil	
Safe Harbor Entitlement		1985	125	125	Hydro	
Dickerson(a)	4	1987	400	400	Coal	
Westport	3	1987	(58)	(59)	Oil	
Long Range Additions, 1988-1997			400		Oil	
			1,600		Coal	
			1,300		Nuclear	
			800		Hydro	
			(955)		Oil	
Total Existing System			5,162	5,232		
Total Net Additions to 1987			<u>1,536</u>	<u>1,655</u>		
Total Planned System to 1987			6,798	6,887		
Total Long Range Additions, 1988-1997			3,145			

(a) Stations with joint ownership

Table I-19c. Delmarva Power and Light Company

Unit	Year	Net Capability (MW)		Fuel Type	Station Total			
		Summer	Winter					
<u>Existing System</u>								
Bayview	IC 1	1964	2	2	Oil	12		
	IC 2	1964	2	2	Oil			
	IC 3	1964	2	2	Oil			
	IC 4	1964	2	2	Oil			
	IC 5	1964	2	2	Oil			
	IC 6	1964	2	2	Oil			
Cape Charles	IC 1	1947	0.8	0.8	Oil	1.6		
	IC 2	1936	0.8	0.8	Oil			
Christiana	GT 11	1973	20	26	Oil	40		
	GT 14	1973	20	26	Oil			
Conemaugh(a)	1		32	32	Coal	63.4		
	2		31	31	Coal			
	IC A-D		0.4	0.4	Oil			
Crisfield	IC 1	1968	2.5	2.5	Oil	10		
	IC 2	1968	2.5	2.5	Oil			
	IC 3	1968	2.5	2.5	Oil			
	IC 4	1968	2.5	2.5	Oil			
Delaware City	1	1956	27	27	Oil	136.5		
	2	1956	27	27	Oil			
	3	1961	65.5	66.5	Oil			
	GT 10	1968	17	21	Oil			
Easton	IC 3	1936	0.5	0.5	Oil	32.6		
	IC 4	1941	0.6	0.6	Oil			
	IC 5	1947	0.8	0.8	Oil			
	IC 6	1950	1.2	1.2	Oil			
	IC 7	1954	2.4	2.4	Oil			
	IC 8	1957	2.5	2.5	Oil			
	IC 9	1961	2.2	2.2	Oil			
	IC 10	1966	3.5	3.5	Oil			
	11	1968	3.6	3.6	Oil			
	12	1970	4.1	4.1	Oil			
	13	1973	5.6	5.6	Oil			
	14	1973	5.6	5.6	Oil			
	Edge Moor	1	1951	70	70		Oil	816
		2	1951	70	70		Oil	
3		1954	82	82	Oil			
4		1966	167	167	Oil			
5		1973	412	412	Oil			
GT 10		1963	15	15	Oil			
Indian River	1	1957	89	90	Coal	357		
	2	1959	89	90	Coal			
	3	1970	162	165	Coal			
	GT 10	1967	17	19	Oil			
Kent	GT 1	1964	12	15	Oil	12		
Keystone (a)	1	1967	31	31	Coal	62.4		
	2	1968	31	32	Coal			
	IC 3-6	1968	0.4	0.4	Oil			
Madison Street	GT 1	1962	11	14	Oil	11.5		
	IC 2	1948	0.5	0.5	Oil			
McKee Run (Dover)	1	1961	15	15	Oil	135		
	2	1961	15	15	Oil			
	3	1975	105	105	Oil			
Peach Bottom(a)	2	1967	79	79	Nuclear	157		
	3	1974	78	78	Nuclear			
Salem (a)	1	1977	80	81	Nuclear	83		
	GT 3	1971	3	4				

Table I-19c. Delmarva Power and Light Company (Continued)

Unit	Year	Net Capability (MW)		Fuel Type	Station Total	
		Summer	Winter			
Tasley	IC 1	1929	0.3	0.3	Oil	27.3
	IC 2	1937	0.5	0.5	Oil	
	IC 3	1929	0.5	0.5	Oil	
	GT 10	1972	26	33	Oil	
Vienna	5	1948	17	17	Oil	241.5
	6	1949	17	17	Oil	
	7	1951	40	40	Oil	
	8	1971	150	155	Oil	
	GT 10	1968	17	19	Oil	
	IC A	1965	0.5	0.5	Oil	
West	GT 1	1964	16	20	Oil	16
<u>Additions and (Removals), 1978-1987</u>						
Easton	21-22	1978	12.5	12.5	Oil	
Easton	3	1978	(0.5)	(0.5)	Oil	
Salem(a)	2	1979	83.0	83.0	Nuclear	
Indian River	4	1980	400.0	400.0	Coal	
Easton	4	1981	(0.6)	(0.6)	Oil	
Easton	23-24	1982	12.5	12.5	Oil	
Easton	7	1984	(0.5)	(0.5)	Oil	
Unidentified		1985	100.0	100.0	Oil	
Easton	25-28	1986	25.0	25.0	Oil	
Edge Moor	1	1987	(70.0)	(70.0)	Oil	
Vienna	5-6	1987	(34.0)	(34.0)	Oil	
Easton	5	1987	(0.8)	(0.8)	Oil	
Easton	8	1987	(0.5)	(0.5)	Oil	
Vienna	9	1987	400.0	400.0	Coal	
<u>Long Range Additions, 1988-1997</u>			200		Fossil	
			1,300		Unidentified	
Total Existing System			2,214.8	2,266.8		
Total Net Additions to 1987			<u>926.1</u>	<u>926.1</u>		
Total Planned System to 1987			3,140.9	3,192.9		
Total Long Range Additions 1988-1997			1,500			1,500

(a) Stations with joint ownership

Table I-19d. Potomac Electric Power Company

Unit	Year	Net Capability (MW)		Fuel Type	Station Total	
		Summer	Winter			
<u>Existing System</u>						
Benning Road	10	1927	28	28	Oil	679
	11(b)	1929	(23)	(23)	Oil	
	12	1931	28	28	Oil	
	13	1947	47	47	Oil	
	14	1952	26	26	Oil	
	15	1968	275	275	Oil	
Buzzard Point	16	1972	275	275	Oil	474
	1(c)	1933	(28)	(28)	Oil	
	2	1938	30	30	Oil	
	3	1940	48	50	Oil	
	4	1942	48	50	Oil	
	5	1943	48	50	Oil	
	6	1945	48	50	Oil	
	GT East	1968	124	160	Oil	
GT West	1968	128	160	Oil		
Chalk Point	1	1964	330	330	Coal	1,310
	2	1965	330	330	Coal	
	3	1975	602	602	Oil	
	GT 1	1957	18	18	Oil	
	GT 2	1974	30	35	Oil	
Conemaugh(a)	1	1970	83	83	Coal	166
	2	1971	82	82	Coal	
	IC A-D	1970	1	1	Oil	
Dickerson	1	1959	182	182	Coal	560
	2	1960	183	183	Coal	
	3	1962	182	182	Coal	
	GT 1	1967	13	13	Oil	
Morgantown	1	1970	556	556	Coal	1,360
	2	1971	556	556	Coal	
	GT 1	1970	16	20	Oil	
	GT 2	1971	16	20	Oil	
	GT 3	1972	54	65	Oil	
	GT 4	1972	54	65	Oil	
	GT 5	1972	54	65	Oil	
	GT 6	1972	54	65	Oil	
Potomac River	1	1949	86	87	Coal	458
	2	1950	66	67	Coal	
	3	1954	102	102	Coal	
	4	1956	102	102	Coal	
	5	1957	102	102	Coal	
<u>Additions and (Renewals), 1978-1987</u>						
Potomac River	3	1978	(1.3)	(1.3)	Coal	
	4	1978	(1.3)	(1.3)	Coal	
	5	1978	(1.4)	(1.4)	Coal	
	1-2	1979	(3.0)	(3.0)	Coal	
Dickerson	1-2	1979	(10)	(10)	Coal	
Chalk Point	1-2	1982	(8)	(8)	Coal	
	4	1982	600	600	Oil	
Benning	10-14	1982	(129)	(129)	Oil	
Buzzard	1-6	1982	(222)	(222)	Oil	
Dickerson (a)	4	1985	400	400	Coal	
<u>Long Range Additions, 1988-1997</u>			600		Unknown Hydro/PS	
			500			
<u>Total Existing System</u>			5,007	5,142		
<u>Total Net Additions to 1987</u>			624	616		
<u>Total Planned System to 1987</u>			5,631	5,758		
<u>Total Long Range Additions 1988-1997</u>			1,100			

- (a) Stations with joint ownership
- (b) Benning No. 11 turbo-generator can only function as a replacement for No. 10 and No. 12 turbo-generators but cannot operate concurrently with them
- (c) Buzzard No. 1 is "mothballed" and may be reactivated at a later date. The effective capability is currently considered to be 0.

Table I-20. Proposed new power plants and expansions of existing plants in Maryland

SITE	COUNTY	NEAREST TOWN	SITE SIZE	PLANT TYPE	PLANT SIZE	COMPLETION DATE	NOTES
<u>ALLEGHANY POWER SYSTEM (POTOMAC EDISON)</u>							
1. Point of Rocks	Frederick	Point of Rocks	829 acres	No plans. (Originally planned for nuclear)	No plans. (Originally planned for nuclear)	No plans	
<u>BALTIMORE GAS & ELEC. CO.</u>							
1. Brandon Shores	Anne Arundel	Riviera Beach	350 acres	Oil, with coal as alternate fuel	Two 600 MW units	1981, 1983	
2. Dickerson (existing station)	Montgomery	Dickerson	1000 acres	Coal	800 MW of new capacity	1985	Jointly owned with PEPCO. PEPCO is managing partner. BG&E share is 400 MW.
3. Soller's Point (existing station)	Baltimore	Dundalk	1000 acres	Gas turbine	100 MW total new capacity	1986	
4. Undetermined --north-eastern Maryland region	Undetermined	Undetermined	800-1000 acres	Coal	800 MW	1987	
<u>CONOWINGO POWER CO.</u>							
1. Canal	Cecil	Chesapeake City	680 acres	No plans. (Listed as alternative nuclear site)	No plans	No plans	
2. Seneca Point	Cecil	Charlestown	500 acres	No plans. (Listed as an alternative nuclear site).	No plans	No plans	

Table I-20. Proposed new power plants and expansions of existing plants in Maryland (Continued)

SITE	COUNTY	NEAREST TOWN	SITE SIZE	PLANT TYPE	PLANT SIZE	COMPLETION DATE	NOTES
<u>DELMARVA POWER & LIGHT CO.</u>							
1. Vienna (existing station)	Dorchester	Vienna	955 acres	Coal	400 MW	1987	
<u>EASTON UTILITIES CONM.</u>							
1. Easton Plant 2 (existing station)	Talbot	Easton	7 acres	No. 2 Oil	37.5 MW	1982, 1986	
<u>POTOMAC ELECTRIC POWER CO.</u>							
1. Chalk Point (existing station)	Charles	Benedict	1160 acres	Oil	600 MW	1982	Jointly owned with BGE. PEPCO is managing partner. PEPCO share is 400 MW.
2. Dickerson 4 (existing station)	Montgomery	Dickerson	1004 acres	Coal	800 MW	1985	
3. Undetermined	Undetermined	Undetermined	1000 acres	Pumped Storage	1000 MW	Undetermined	
4. Douglas Point	Charles	Nanjemoj	1400 acres	Nuclear	2200 MW	Undetermined	

Table I-20. Proposed new power plants and expansions of existing plants in Maryland (Continued)

SITE	COUNTY	NEAREST TOWN	SITE SIZE	PLANT TYPE	PLANT SIZE	COMPLETION DATE	NOTES
<u>SOUTHERN MARYLAND ELECTRIC COOPERATIVE</u>							
1. Della Brooke Farm	St. Mary's	Oraville	300 acres	No plans	No plans	No plans	
<u>MARYLAND POWER PLANT SITING PROGRAM SITES</u>							
1. Elms	St. Mary's	St. Mary's City	1000 acres	No plans	No plans	No plans	Site is designated for PEPCO. No plans have been announced for its use.
2. Bainbridge	Cecil	Port Deposit	937 acres	No plans	No plans	No plans	Site is in process of acquisition from U.S. General Services Administration. Site has been designated for the BGE system. No plans have been announced for its use. Philadelphia Electric Co. (Conowingo) has indicated interest in sole or joint use of site.

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