



Carolina Power & Light Company
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September 11, 1998

The Honorable Gary E. Walsh
Acting Executive Director
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company's 1998 Integrated Resource Plan
Docket No. 98-434-E

Dear Mr. Walsh:

Pursuant to the Public Service Commission's Order No. 98-502 issued in Docket No. 87-223-E, Carolina Power & Light Company hereby submits for filing an original and ten copies of its 1998 Integrated Resource Plan. We are also enclosing one extra copy to be stamped and returned.

Sincerely,

B. Mitchell Williams
Manager, Regulatory Affairs

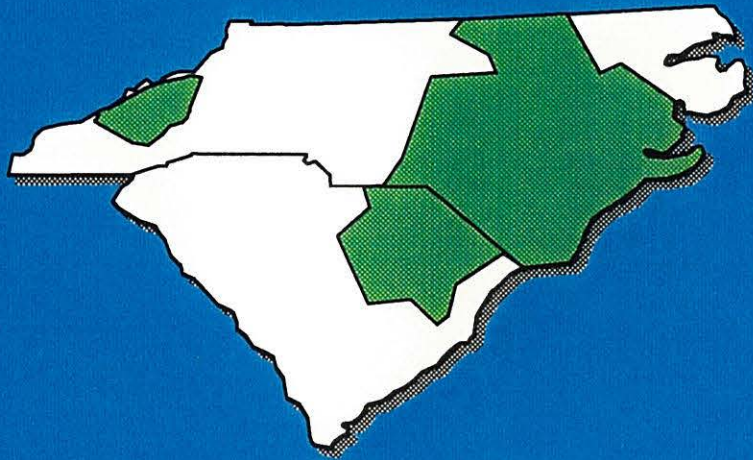
BMW

Enclosures

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Integrated Resource Plan



South Carolina Public Service Commission
Docket No. 98-434-E
September 1, 1998

Introduction

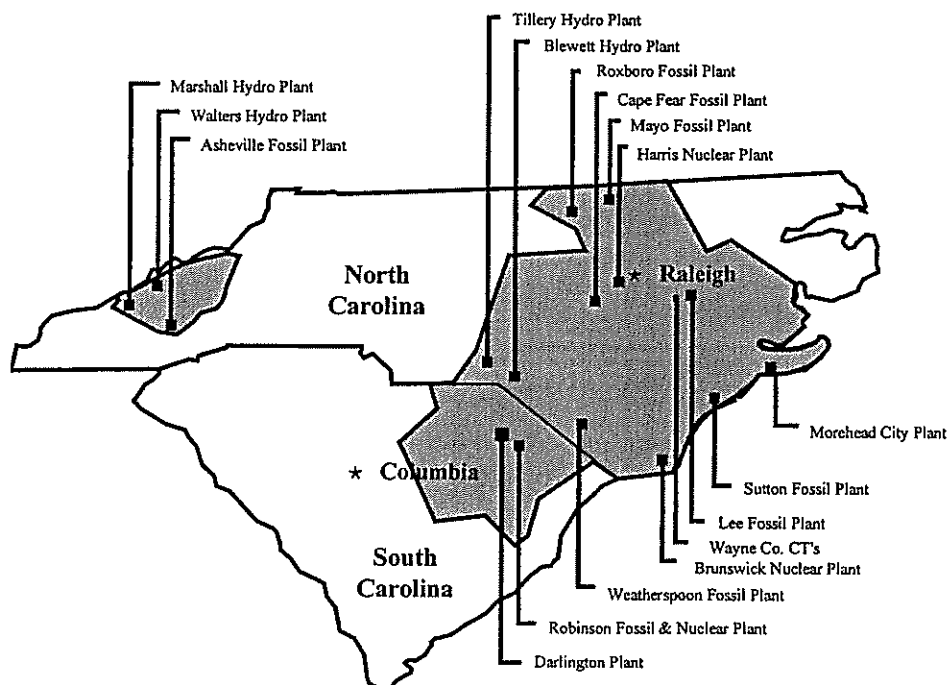
Carolina Power & Light Company provides electric power to approximately 1.15 million customers in a 30,000 square mile area having a total population of about 3.8 million people. The service area covers much of eastern and central North Carolina, the Asheville area in western North Carolina, and the northeast quadrant of South Carolina.

To provide a reliable, safe and economic supply of electricity for those customers, CP&L annually develops long-term forecasts of system energy sales and peak loads, and reviews and revises capacity additions plans. This report presents the current energy and peak load forecasts and capacity addition plans.

Existing Generation

CP&L's generating units provide a valuable low-cost resource for the future. Existing capacity includes 5,285 MW of coal, 3,064 MW of nuclear, 1,286 MW of oil/gas, and 218 MW of hydro. This total of 9,853 MW is an increase of 240 MW from last year. These increases reflect the addition of new combustion turbines installed at the Darlington County Electric Plant near Hartsville, South Carolina. The map below shows the location of all of the Company's generation facilities. A listing of the individual units is provided in Appendix D.

Generating units are continually maintained to ensure that they will provide economic and reliable service. This process, in conjunction with new test data and changing regulatory requirements, occasionally results in some uprating or derating of facilities. Units are periodically reviewed to determine if their capability ratings need to be revised; however, the overall impact on the resource plan of these changes is expected to be minimal.



Purchases and Other Resources

In addition to owned generation, CP&L has several long-term purchase agreements with various utilities and non-utility generators (NUGs). Purchases from NUGs currently include 131 MW purchased from renewable resources such as hydro and waste-to-energy plants and 330 MW from cogeneration plants. A detailed listing of the NUGs is provided in Appendix E.

CP&L has agreements with two utilities for the purchase of power. An agreement with American Electric Power (AEP) provides for the purchase of 250 MW of unit power from AEP's coal-fired Rockport 2 generating unit beginning in 1990 and continuing for a period of 20 years. The second agreement is with Duke Power Company and provides for 400 MW of system power beginning July 1, 1993 and ending June 30, 1999.

The North Carolina Eastern Municipal Power Agency (NCEMPA) has arranged to purchase 50 MW from the South Carolina Public Service Authority (SCPSA). This purchase is available to supply the combined CP&L/NCEMPA load and is, therefore, included in the Resource Plan. It will expire December 31, 1998.

In addition to the above power purchases, CP&L has two contracts with the Department of Energy acting through the Southeastern Power Administration (SEPA). Under these contracts, CP&L delivers power from federal hydroelectric projects to municipalities, electric membership cooperatives, and other public entities located in CP&L's control area. CP&L receives 14 MW from the Cumberland hydro projects at its western interconnections and 95 MW of power at its eastern interconnections from the Kerr hydro project.

Energy and Peak Load Forecast

CP&L's forecasting processes have utilized econometric and statistical methods since the mid-70s. During this time enhancements have been made to the methodology as data and software have become more available and accessible. Enhancements have also been undertaken over time to meet the changing data needs of internal and external customers. In response to these changing planning needs, CP&L's forecast processes have most recently been expanded to include energy forecasts at the end-use level. Econometric and end-use energy forecast results for the residential, commercial, and industrial classes are now combined to produce the system energy forecast.

The System Peak Load Forecast is developed from the System Energy Forecast using a load factor approach. This load forecast method couples the two forecasts directly, assuring consistency of assumptions and data. Class peak loads are developed from the class energy using individual class load factors. Peak load for the residential, commercial, and industrial classes are then adjusted for projected load management impacts. The individual loads for the retail classes, wholesale customers, and NCEMPA, and Company Use are then totalized and adjusted for losses between generation and the customer meter to determine System Peak Load. Fayetteville Public Works Commission Replacement Interchange Contract is then added to the System Peak Load to determine Net Internal Load.

Forecast sales and peak loads are reduced for demand-side management programs, voltage reduction programs, and displacement cogeneration in the industrial and military classes. Wholesale sales and demands include a portion which will be provided by the Southeastern Power Administration (SEPA). NCEMPA sales and demands include power which will be provided under the joint ownership agreement with them. Also included in the forecast is a replacement interchange contract of approximately 230 MW with the Fayetteville Public Works Commission (FPWC) instituted in July 1994. On January 1, 1996, NCEMC began receiving service for 200 MW of load from another supplier. This portion of NCEMC load is not included in the forecast.

Summaries of the 1997 Energy and Peak Load Forecast are provided in the following table. Peak load and energy data presented in the table is at generation level. The table provides both CP&L's System Forecast and Net Internal Forecast. CP&L's System Forecast *does not include* power provided under the Company's replacement interchange contract with the Fayetteville Public Works Commission (FPWC). CP&L's Net Internal Forecast *does include* the FPWC replacement interchange contract. CP&L System and CP&L Net Internal peak load forecasts assume the use of all load management capability at the time of system peak.

DECEMBER 1997 ENERGY AND PEAK LOAD FORECAST

Annual Peak Load and Energy
At Expected Peaking Temperatures

Year	CP&L System ⁽¹⁾	FPWC	CP&L Net ⁽¹⁾	CP&L System	FPWC	CP&L Net
	Peak Load (MW) at generation level	Replacement Interchange Load (MW) at generation level		Internal Load (MW) at generation level	Energy Input (MWh) at generation level	
1998	10,351	230	10,581	55,882,158	602,607	56,484,765
1999	10,632	230	10,862	57,470,799	589,992	58,060,791
2000	10,964	230	11,194	59,130,747	597,886	59,728,663
2001	11,230	230	11,460	60,522,715	609,753	61,132,468
2002	11,524	230	11,754	62,063,646	625,259	62,688,905
2003	11,803	230	12,033	63,650,059	638,350	64,288,409
2004	12,103	230	12,333	65,314,501	654,653	65,969,154
2005	12,421	230	12,651	67,074,441	663,509	67,737,950
2006	12,712	230	12,942	68,764,810	669,721	69,434,531
2007	13,029	230	13,259	70,578,748	673,472	71,252,220
2008	13,335	230	13,565	72,305,744	679,090	72,984,834
2009	13,633	230	13,863	73,998,626	686,971	74,685,597
2010	13,933	230	14,163	75,699,636	689,503	76,389,139
2011	14,245	230	14,475	77,513,563	693,358	78,206,921
2012	14,557	230	14,787	79,322,165	697,040	80,019,205

⁽¹⁾Reduced for Load management program impacts.

Forecast Assumptions

Generally, growth in the standard of living as reflected in personal income and Gross Domestic Product (GDP) per capita is expected to slow modestly relative to that enjoyed today. The labor force can be predicted with some reliability because the working population for the early 21st century has already been born. Real dollar prices are used to enhance model reliability during periods of varying inflation. The forecast assumes that our customers will tend toward continuing energy efficiency in the future. More efficient electrical equipment, continued cost-effective conservation measures, and specific load management programs are expected to result in slower energy growth when compared with the 1970s and 1980s.

The forecast of system energy usage and peak load does not explicitly incorporate periodic expansions and contractions of business cycles, which are likely to occur from time to time during any long-range forecast period. While long-run economic trends exhibit considerable stability, short-run economic activity is subject to substantial variation. The exact nature, timing and magnitude of such short-term variations are unknown years in advance of their occurrence. The forecast, while it is a trended projection, nonetheless reflects the general long-run outcome of business cycles because actual historical data, which contain expansions and contractions, are used to develop the general relationships between economic activity and energy use. Normalized temperatures are assumed for the year as a whole and at the time of the system peak.

CP&L currently has specific retail customers on self-generation deferral rates and wholesale customers on long-term contracts. These rates and contracts have been structured to avoid uneconomic bypass. Retaining customers at rates which recover a portion of the utility's fixed costs keeps rates lower for all customers than would be the case if the utility lost the customer entirely. It is the Company's policy to avoid uneconomic bypass now and in the future. Consequently the forecast assumes that flexible rate guidelines will continue and current customers on these rates will be retained.

Demand-Side Management

For more than two decades CP&L has been promoting successful energy management options for its customers. The effects of these programs are included in the energy and peak load forecast.

The forms of conservation available to customers are diverse. These forms range from the insulation of homes and installation of energy efficient appliances to the adjustment of thermostats and other lifestyle changes. Conservation activities generally result in a reduction in energy consumption. Conservation is implicitly reflected in the load forecast as a result of using historical data to develop the System Energy forecast. Because conservation is reflected in the data used in the forecast process, it is not subtracted from the gross load forecast. This approach prevents a double counting of conservation effects.

Load management affects the growth rates of both system energy sales and system peak load; however, the energy sales reduction is a much smaller percentage than the peak load reduction.

This tends to make the growth rate for demand lower than the growth rate for energy and, therefore, correspondingly increases load factor. The energy and peak load forecast treats explicitly the effects associated with load management. The EZ-\$64 program will be terminated at the end of 1998. The net effect was a reduction of 143 MWs in the residential summer load reduction in year 2012 as compared to last year's plan.

DEMAND-SIDE MANAGEMENT CURRENT PROGRAMS

Residential

- Common Sense Home (Thermal Efficiency-New Homes)
- Common Sense Manufactured Home
- Thermal Efficiency-Existing Homes
 - ◆ - Homeowner's Energy Load Program
 - ◆ - Energy Conservation Discount
- Residential High Efficiency Heat Pumps
- Time-Of-Use Rates

Commercial

- Time-Of-Use Rates

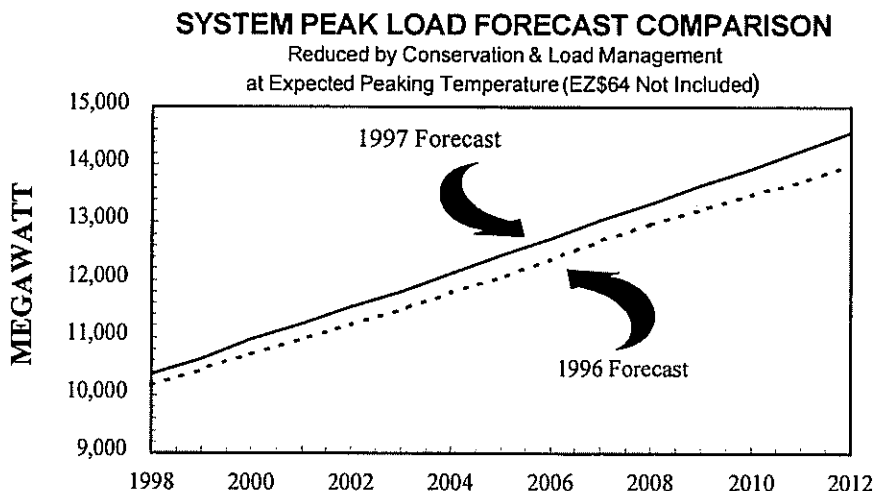
Industrial

- Time-Of-Use Rates
- Large Load Curtailment
- Small Load Curtailment

CP&L's DSM efforts are focused on cost-effective peak load management, strategic conservation, and strategic sales programs. These programs are designed to reduce peak load, improve the utilization of existing facilities, defer the need for future rate increases, and increase customer satisfaction. A forecast of DSM summer peak load reduction by program can be found in Appendix C.

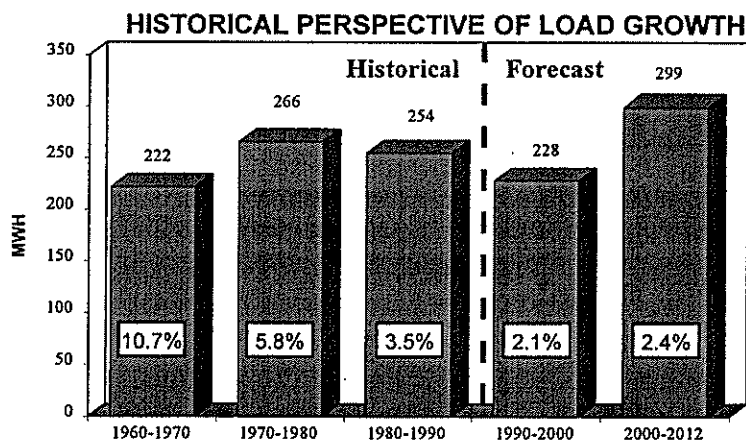
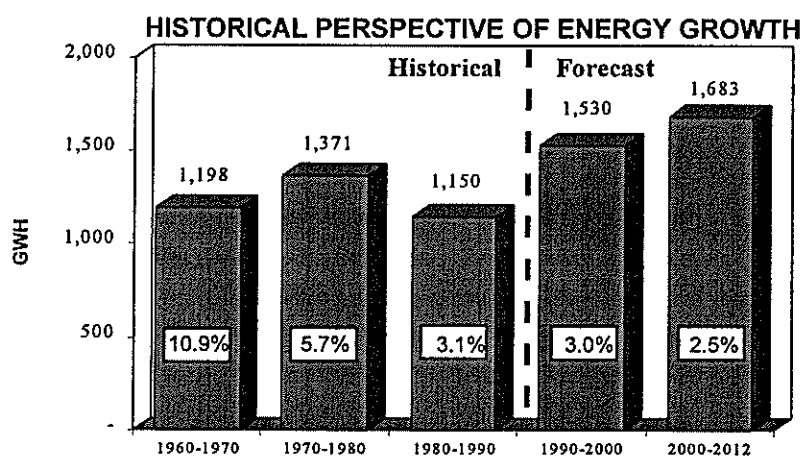
Forecast Comparisons

The following figure compares the 1997 Peak Load Forecast with the 1996 forecast. Both forecasts include the 230 MW Fayetteville Replacement Interchange Contract and the 200 MW reduction in the North Carolina Electric Membership Corporation (NCEMC) load which began in January 1996. Net internal energy input is expected to increase at an average growth rate of 2.5%, or around 1,700 GWh, a year between 1998 and 2012. Net internal peak loads are forecast to increase at an average growth rate of about 2.4%, or around 300 MW a year.



Forecast Perspective

The following two figures provide a comparison of historic and forecast growth for the period from 1960 through 2012. Examining the energy growth for the 1960-70 and 2000-2012 periods illustrates the phenomena of falling percentage growth while annual change in GWh remains nearly constant. During the decade from 1960 to 1970 energy grew at an average of 1,200 GWh per year, a 10.9% growth rate. By comparison, average energy growth for 2000-2012 is projected to be about 1,700 GWh per year, somewhat greater than the 1960-70 period. On a percentage basis this is only a 2.5% growth rate. The lower percentage growth rate results from similar amounts of GWh growth being divided by a much higher base. In other words, similar amounts of growth appear as lower percentage growth rates as the base increases.



Projected Capacity Requirements

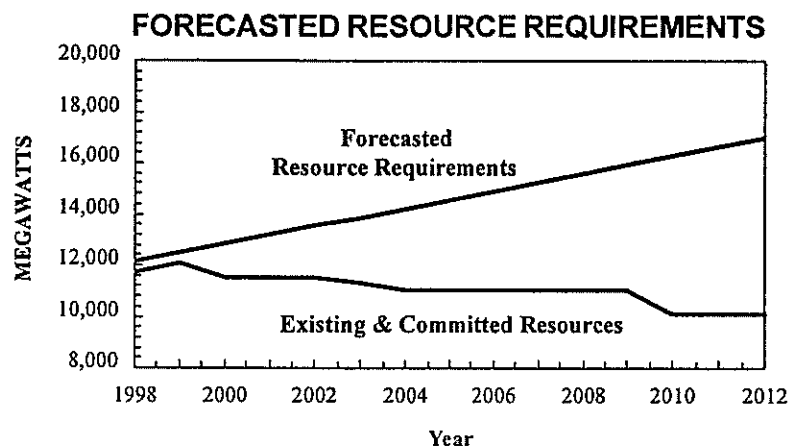
A reliable supply of electricity requires that a margin of generating capacity be maintained above the capacity used to serve the expected load. At any time during the year, some plants will be out of service for periodic maintenance or due to unanticipated equipment failures. Adequate reserve capacity must be available to provide for this unavailable capacity and also for higher than expected peak demand due to weather extremes. In addition, some reserve capacity must also be available to maintain the balance between supply and demand on a moment-to-moment basis.

The amount of generating reserve needed to maintain a reliable supply of electricity is a function of the unique characteristics of a utility system including load shape, unit sizes, capacity mix, fuel supply, maintenance scheduling, unit availabilities, and the strength of the transmission interconnections with other utilities. Because system characteristics are particular to each individual utility, there is no one standard measure of reliability that is appropriate for all systems.

CP&L conducts comprehensive, multi-area, probabilistic system reliability analysis to determine the reserve generating capacity needed to ensure an adequate supply of electricity for its customers. The analysis considers the assistance available from other utilities and the ability of the transmission system to deliver the power to the CP&L system.

It is important to recognize that reserves do not remain at a constant level due to load growth and the discreet size of generation additions. As a result, the capacity margin in any year may be higher or lower than the target capacity margin

The peak demand forecast combined with the capacity margin required for reliability determines the resource requirements. The figure below shows the forecast resource requirements assuming a 13% capacity margin and the existing and committed resources. The difference between these two lines is the additional capacity that will be needed to serve customer electricity requirements and to maintain reliability.



Planned Capacity Additions

The Integrated Resource Plan (IRP) provides an adequate and reliable supply of electric power for CP&L's customers at the lowest reasonable cost. In the increasingly competitive electric utility industry, where price is becoming more important and load growth is becoming more uncertain, an integrated resource plan that is flexible is critical to the future success of the Company. By selecting a balance of resources that provides maximum flexibility to adapt to uncertain and ever-changing futures, CP&L's Integrated Resource Plan can respond to the challenge. Projected summer and winter resources, loads, and reserves are shown in Appendices A and B, respectively.

Contract Purchases

Future capacity requirements are becoming more uncertain, largely due to the restructuring of the electric utility industry. The possibility of load leaving the system makes resources with long lives a more risky investment. Purchases with short contract terms minimize the risks associated with the possibility of losing load in the near term but entails price and deliverability risks. The Integrated Resource Plan contains a number of purchases designed to act as a hedge against the possibility of load loss, mitigating the risk and uncertainty in load growth.

Several of the contract purchases in the resource plan expire within the next couple of years. The 50 MW NCEMPA/SCPSA purchase ends in 1998 and the 400 MW purchase from Duke Power ends in June 1999. This capacity is being replaced by short term purchases of 500 MW for the summer of 1999.

In 1996, a 200 MW purchase from PECO was negotiated for the summer season of 1998. As a result of the 1997 Request for Proposals for peaking capacity, a 300 MW option purchase was made from PECO for the years 1999 through 2003. Recognizing the uncertainty in industry regulation, increasing competition and possibility of decreasing prices, special flexibility was built into the purchase allowing the Company to discontinue the purchase at any time prior to 2003.

CP&L has signed long-term purchase agreements with Cogentrix and American Electric Power (AEP). The purchases from Cogentrix, totaling 262 MW, are to end in 2001, 2002, and 2003. The AEP purchase, for a 250 MW portion of output from Rockport 2, ends in 2010.

CONTRACT PURCHASES IN RESOURCE PLAN SUMMER MW

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Duke Purchase		-400													
NCEMPA/SCPSA	-50	-50													
PECO Purchase	200	-200													
PECO Purchase		300					-300								
Term Purchase		500	-500												
RFP Purchase			175	336											
Non-Utility Generators				-67	-32	-163									
AEP/Rockport Purchase													-250		
Net Purchase Additions	150	150	-325	269	-32	-163	-300	0	0	0	0	0	-250	0	0

Planned Capacity Additions and Retirements

While there is uncertainty in load growth over the next few years, the overall projection is for continued vigorous growth in the Carolinas. To meet load growth, and to replace capacity lost to contract purchase expirations and unit retirements, the Integrated Resource Plan includes planned capacity additions in the near term and long term, providing both flexibility and the lowest reasonable cost. The additions are shown in the table below.

The planned capacity additions include changes in the output of some of CP&L's existing units. In 1997, work was completed on Brunswick Units 1 and 2 allowing a 110 MW uprate effective January 1, 1998. The Harris nuclear plant has a steam generator replacement outage scheduled in 2001. Thermal power modifications, also to be made during the outage, are expected to increase unit capacity by 40 MW beginning in 2002. This uprate is included in the plan.

New capacity is also planned to be built over the next couple of years. A certificate was granted on August 1, 1997, to construct a combustion turbine in Buncombe County, North Carolina at the existing Asheville plant site. It is scheduled to begin operation prior to the summer peak in 1999. The planned Wayne County, North Carolina combustion turbine plant is now scheduled to begin service in June 2000.

In June 1997, CP&L issued an RFP for bids from third parties for supply capacity requirements for the year 2000 and beyond. The bids received in the RFP were compared to CP&L self-build alternatives. CP&L has signed letters of intent for 175 MW of capacity starting in 2000 and 336 MW to begin operation in 2001. CP&L has also filed an application for a Certificate of Public Convenience and Necessity to build a second combustion turbine unit at the Buncombe County site and a fourth CT at the Wayne County site. Both of these CTs are planned to be ready for operation by the summer of 2000. The total capacity to be installed at the Buncombe County site is 320 MW and 686 MW at the Wayne County site.

After these additions, the plan contains 1,700 MW of undesignated CTs and 3,600 MW of combined cycle capacity. These additions are characterized as "undesignated" because the Company has not committed to a particular design, unit size, or location of the capacity. Also, the Company has not committed to building any of this capacity itself; therefore, some or all of

it may be purchased from other utilities, marketers, or independent power producers. CP&L is committed to acquiring resources at the lowest reasonable cost.

Given the uncertainty in the requirements for relicensing a nuclear unit, CP&L's long range planning assumption for nuclear units is to retire the units at the end of their current operating licenses. This planning assumption does not imply that CP&L has made a decision on license extension. The Company continues to study its options, such as license renewal for periods shorter than a full-term license.

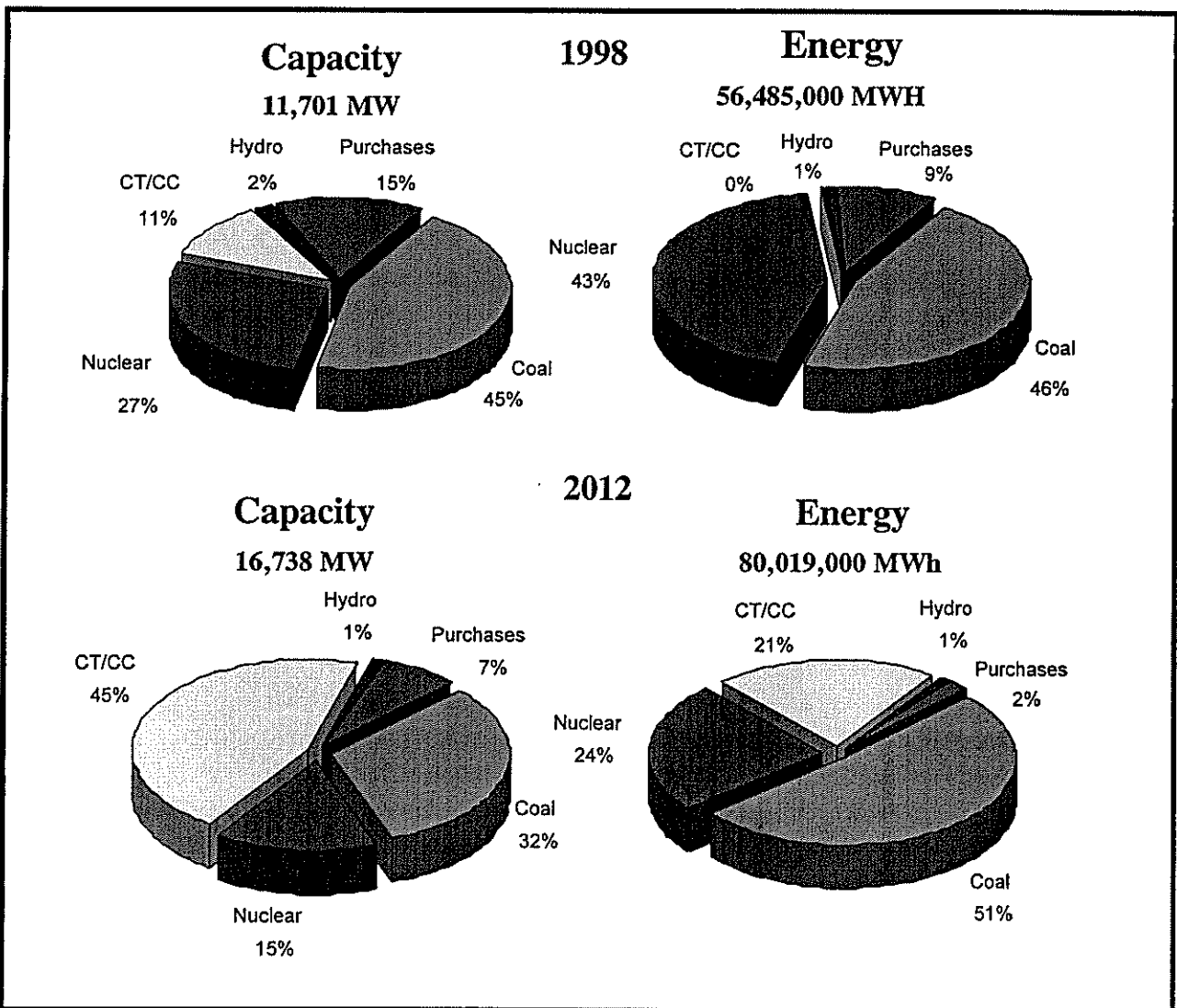
PLANNED CAPACITY ADDITIONS AND RETIREMENTS SUMMER MW

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Brunswick Upgrades	110														
Harris Upgrade					40										
Asheville CT Additions		160	160												
Wayne County CTs			686												
Undesignated CTs					600	500	200			200				200	
Undesignated CCs							300	300	300	300	300	300	1200	300	300
PA Peaking Project							200								
Robinson 2 Retirement													-683		
Net Capacity Additions	110	160	846	0	640	500	700	300	300	500	300	300	517	500	300

Capacity and Energy Mix

As shown in the figures below, oil/gas-fueled capacity is projected to increase as a percentage of total supply resources. In the near term, the amount of energy projected to be provided by this capacity is only a small fraction of CP&L's total energy requirements. This small amount of generation from oil/gas-fueled combustion turbines is a result of the significant daily and seasonal variation in customer electricity usage. Customer demand for electricity increases greatly on cold winter mornings and hot summer afternoons. These peak period demands require large amounts of generating capacity. This peaking capacity is used for only short periods of time. Consequently it generates a relatively small amount of energy. In the future, as purchase agreements expire and nuclear capacity is retired, CT/CC generation will become an increasing part of the energy mix.

RESOURCE MIX BY FUEL TYPE



Appendices

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Table 1

CAROLINA POWER & LIGHT CO.
PROJECTED SUMMER RESOURCES, LOAD, AND RESERVES

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
GENERATION ADDITIONS															
Asheville CT Addition		160	160												
Wayne County CT Addition			686												
Undesignated CT (1)					600	500	200			200				200	
Undesignated CC (1)							300	300	300	300	300	300	1,200	300	300
INSTALLED GENERATION															
Combustion Turbine	1,202	1,202	1,362	2,208	2,208	2,808	3,308	3,508	3,508	3,508	3,708	3,708	3,708	3,708	3,908
Combined Cycle	84	84	84	84	84	84	84	384	684	984	1,284	1,584	1,884	3,084	3,384
Hydro	218	218	218	218	218	218	218	218	218	218	218	218	218	218	218
Coal	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285	5,285
Nuclear	3,174	3,174	3,174	3,174	3,214	3,214	3,214	3,214	3,214	3,214	3,214	3,214	2,531	2,531	2,531
PURCHASES & OTHER RESOURCES															
SEPA	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
NUG Renewable Resources	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
NUG Cogeneration	330	330	330	263	231	68	68	68	68	68	68	68	68	68	68
Fayetteville Combined Cycle	283	283	283	283	283	283	283	283	283	283	283	283	283	283	283
AEP Purchase /Rockport 2	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
NCEMPA/SCPSA Purchase	50														
Duke Purchase (Schedule J)	400														
PECO Purchase (2)	200	300	300	300	300	300									
Term Purchases (2)		500													
RFP Purchase			175	511	511	511	511	511	511	511	511	511	336	336	336
NCEMPA Peaking Project							200	200	200	200	200	200	200	200	200
TOTAL SUPPLY RESOURCES	11,701	12,011	12,532	12,801	13,409	13,746	14,146	14,446	14,746	15,246	15,546	15,846	15,938	16,438	16,738
OPERATING AREA LOAD															
NCEMC/AEP Load	11,290	11,563	11,886	12,141	12,424	12,708	13,013	13,336	13,633	13,957	14,266	14,567	14,870	15,185	15,499
	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205
TOTAL INTERNAL DEMAND	11,085	11,358	11,681	11,936	12,219	12,503	12,808	13,131	13,428	13,752	14,061	14,362	14,665	14,980	15,294
Large Load Curtailment	357	345	333	318	303	304	305	307	308	309	309	309	308	308	307
Voltage Reduction	147	151	155	158	162	166	170	174	178	184	187	190	194	197	201
NET INTERNAL DEMAND	10,581	10,862	11,194	11,460	11,754	12,033	12,333	12,651	12,942	13,259	13,565	13,863	14,163	14,475	14,787
Fayetteville Replacement	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
CP&L SYSTEM PEAK DEMAND	10,351	10,632	10,964	11,230	11,524	11,803	12,103	12,421	12,712	13,029	13,335	13,633	13,933	14,245	14,557
RESERVES (3)	1,120	1,149	1,338	1,341	1,655	1,713	1,813	1,795	1,804	1,987	1,981	1,983	1,775	1,963	1,951
CAPACITY MARGIN (4)	9.6%	9.6%	10.7%	10.5%	12.3%	12.5%	12.8%	12.4%	12.2%	13.0%	12.7%	12.5%	11.1%	11.9%	11.7%
RESERVE MARGIN (5)	10.6%	10.6%	12.0%	11.7%	14.1%	14.2%	14.7%	14.2%	13.9%	15.0%	14.6%	14.3%	12.5%	13.6%	13.2%
ANNUAL ENERGY (GWh)	56,485	58,061	59,729	61,132	62,689	64,288	65,969	67,738	69,435	71,252	72,985	74,686	76,389	78,207	80,019

- NOTES: 1) For planning purposes only; does not indicate a commitment to type, amount or ownership.
2) For the months of June through September.
3) Total Supply Resources - Net Internal Demand.
4) Reserves / Total Supply Resources * 100.
5) Reserves / Net Internal Demand * 100.

Table 2

CAROLINA POWER & LIGHT CO.
PROJECTED WINTER RESOURCES, LOAD, AND RESERVES

	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12
GENERATION ADDITIONS															
Darlington CT Addition	266														
Asheville CT			185	185											
Wayne County CT Addition				770											
Undesignated CT (1)						690	575	230			230				230
Undesignated CC (1)								345	345	345	345	345	345	1,380	345
INSTALLED GENERATION															
Combustion Turbine	1,192	1,458	1,458	1,643	2,598	2,598	3,288	3,863	4,093	4,093	4,093	4,323	4,323	4,323	4,323
Combined Cycle	106	106	106	106	106	106	106	106	451	796	1,141	1,486	1,831	2,176	3,556
Hydro	216	216	216	216	216	216	216	216	216	216	216	216	216	216	216
Coal	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369	5,369
Nuclear	3,209	3,209	3,209	3,209	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	3,249	2,531	2,531
PURCHASES & OTHER RESOURCES															
SEPA	109	109	109	109	109	109	109	109	109	109	109	109	109	109	109
NUG Renewable Resources	112	112	112	112	112	112	112	112	112	112	112	112	112	112	112
NUG Cogeneration	330	330	330	263	231	68	68	68	68	68	68	68	68	68	68
Fayetteville Combined Cycle	285	285	285	285	285	285	285	285	285	285	285	285	285	285	285
AEP Purchase (Rockport 2)	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
NCEMPA/SCPSA Purchase	50														
DUKE Purchase (Schedule J)	400	400													
RFP Purchase				175	550	550	550	550	550	550	550	550	375	375	375
NCEMPA Peaking Project							200	200	200	200	200	200	200	200	200
TOTAL SUPPLY RESOURCES	11,894	11,844	11,629	12,692	13,075	13,602	14,377	14,952	15,297	15,642	16,217	16,562	16,482	17,144	17,719
OPERATING AREA LOAD															
NCEMC/AEP LOAD	10,533	10,787	11,087	11,324	11,586	11,850	12,134	12,434	12,710	13,011	13,298	13,578	13,860	14,151	14,444
	205	205	205	205	205	205	205	205	205	205	205	205	205	205	205
TOTAL INTERNAL DEMAND	10,328	10,582	10,882	11,119	11,381	11,645	11,929	12,229	12,505	12,806	13,093	13,373	13,655	13,946	14,239
Large Load Curtailment															
Large Load Curtailment	340	329	317	303	289	290	291	292	294	295	295	294	294	293	292
Voltage Reduction	147	151	155	158	162	166	170	174	178	184	187	190	194	197	201
NET INTERNAL DEMAND	9,841	10,102	10,410	10,657	10,930	11,189	11,468	11,763	12,033	12,327	12,612	12,888	13,167	13,456	13,746
Fayetteville Replacement	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
CP&L SYSTEM PEAK DEMAND	9,611	9,872	10,180	10,427	10,700	10,959	11,238	11,533	11,803	12,097	12,382	12,658	12,937	13,226	13,516
RESERVES (2)	2,053	1,742	1,219	2,035	2,145	2,413	2,909	3,189	3,264	3,315	3,605	3,674	3,315	3,688	3,973
CAPACITY MARGIN (3)	17.3%	14.7%	10.5%	16.0%	16.4%	17.7%	20.2%	21.3%	21.3%	21.2%	22.2%	22.2%	20.1%	21.5%	22.4%
RESERVE MARGIN (4)	20.9%	17.2%	11.7%	19.1%	19.6%	21.6%	25.4%	27.1%	27.1%	26.9%	28.6%	28.5%	25.2%	27.4%	28.9%

NOTES:

- 1) For planning purposes only; does not indicate a commitment to type, amount or ownership.
- 2) Total Supply Resources - Net Internal Demand.
- 3) Reserves / Total Supply Resources * 100.
- 4) Reserves / Net Internal Demand * 100.

**PLANNED DEMAND-SIDE MANAGEMENT SUMMER CAPABILITY
(MEGAWATTS)**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
RESIDENTIAL															
Common Sense Home	147	150	154	157	160	163	166	169	173	176	179	182	186	189	192
Home Energy Loan/ Conservation Discount	36	37	38	39	40	41	42	43	44	45	46	47	49	50	51
High Efficiency HP & AC	31	37	44	51	58	64	71	78	85	92	99	106	113	120	127
Time-of-Use Rates	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
Residential Total	236	246	258	269	280	290	301	312	324	335	346	357	370	381	392
COMMERCIAL															
Audit	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32
Energy Efficient Design	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Thermal Energy Storage	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Time-of-Use Rates	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
Commercial Total	155	155	155	155	155	155	155	155	155	155	155	155	155	155	155
INDUSTRIAL															
Audit/Energy Efficient Plant	251	251	251	251	251	251	251	251	251	251	251	251	251	251	251
Large Load Curtailment	357	345	333	318	303	304	305	307	308	309	309	309	308	308	307
Time-of-Use & Thermal Energy Storage	112	114	117	119	120	123	125	127	129	132	134	136	137	139	141
Industrial Total	720	710	701	688	674	678	681	685	688	692	694	696	696	698	699
GRAND TOTAL	1,111	1,111	1,114	1,112	1,109	1,123	1,137	1,152	1,167	1,182	1,195	1,208	1,221	1,234	1,246

GENERATING UNIT SUMMARY

As of 12/31/97

PLANT NAME/UNIT	LOCATION	PRIMARY FUEL	INSTALLATION DATE	SUMMER MAX DEPENDABLE CAPACITY (MW)	WINTER CAPACITY (MW)
COAL					
Cape Fear 5	Moncure, NC	Coal	1956	143	148
Cape Fear 6	Moncure, NC	Coal	1958	173	175
W. H. Weatherspoon 1	Lumberton, NC	Coal	1949	49	49
W. H. Weatherspoon 2	Lumberton, NC	Coal	1950	49	49
W. H. Weatherspoon 3	Lumberton, NC	Coal	1952	78	79
H. F. Lee 1	Goldsboro, NC	Coal	1952	79	84
H. F. Lee 2	Goldsboro, NC	Coal	1951	76	80
H. F. Lee 3	Goldsboro, NC	Coal	1962	252	257
L. V. Sutton 1	Wilmington, NC	Coal	1954	97	105
L. V. Sutton 2	Wilmington, NC	Coal	1955	106	108
L. V. Sutton 3	Wilmington, NC	Coal	1972	410	416
H. B. Robinson 1	Hartsville, SC	Coal	1960	174	185
Asheville 1	Skyland, NC	Coal	1964	198	200
Asheville 2	Skyland, NC	Coal	1971	194	194
Roxboro 1	Roxboro, NC	Coal	1966	385	390
Roxboro 2	Roxboro, NC	Coal	1968	670	675
Roxboro 3	Roxboro, NC	Coal	1973	707	715
Roxboro 4 (*)	Roxboro, NC	Coal	1980	700	710
Mayo 1 (*)	Roxboro, NC	Coal	1983	745	750
Total Coal Capacity				5,285	5,369
NUCLEAR STEAM					
H. B. Robinson 2	Hartsville, SC	Nuclear	1971	683	718
Brunswick 1 (*)	Southport, NC	Nuclear	1977	767	767
Brunswick 2 (*)	Southport, NC	Nuclear	1975	754	754
Harris 1 (*)	New Hill, NC	Nuclear	1987	860	860
Total Nuclear Capacity				3,064	3,099
HYDROELECTRIC					
Blewett 1-6	Lilesville, NC	Water	1911	22	25
Tillery 1-4	Mt. Gilead, NC	Water	1928, 1960	86	86
Walters 1-3	Waterville, NC	Water	1930	105	100
Marshall 1-2	Marshall, NC	Water	1910	5	5
Total Hydro Capacity				218	216
COMBUSTION TURBINE					
Morehead 1	Morehead City, NC	Oil	1968	15	18
Darlington 1-11	Hartsville, SC	Gas/Oil	1974,1975	572	704
Darlington 12-13	Hartsville, SC	Gas/Oil	1997	240	266
Blewett 1-4	Lilesville, NC	Oil	1971	52	68
Cape Fear 1-4	Moncure, NC	Oil	1969	56	72
Cape Fear 1-2	Moncure, NC	Waste Heat	1923, 1924	28	34
H. F. Lee 1-4	Goldsboro, NC	Oil	1968-1971	91	114
H. B. Robinson 1	Hartsville, SC	Oil	1968	15	18
Roxboro 1	Roxboro, NC	Oil	1968	15	18
L. V. Sutton 1-3	Wilmington, NC	Oil	1968,1969	64	84
W. H. Weatherspoon 1-4	Lumberton, NC	Gas/Oil	1970,1971	138	168
Total CT Capacity				1,286	1,564
TOTAL SYSTEM CAPACITY				9,853	10,248

(*) Jointly-owned by NCEMPA: Roxboro 4 - 90.6 MW; Mayo 1 - 120.5; Brunswick 1 - 144.8 MW; Brunswick 2 - 144.8 MW; and Harris 1 - 139.1 MW.

NON-UTILITY GENERATION

As of 12/31/97

PROJECTS	LOCATION	PRIMARY FUEL	IN SERVICE DATE	CONTRACT END DATE	SUMMER CAPACITY (MW)	WINTER CAPACITY (MW)
RENEWABLE						
Various Small - 21	Various	Water, Wood, Methane, Other	Various	Various	12.7	12.7
Craven Co. Wood	New Bern, NC	Wood Waste	10/90	12/31/05	45.0	45.0
Foster Wheeler	Charleston, SC	Solid Waste	11/89	6/1/10	8.7	5.0
New Hanover Co.	Wilmington, NC	Solid Waste	8/84	11/08	7.5	7.5
PCS Phosphate	Aurora, NC	Waste Heat	12/84	12/99	42.0	42.0
SUBTOTAL					115.9	112.2
COGENERATION						
Cogentrix	Lumberton, NC	Coal	12/85	11/00	33.5	33.5
Cogentrix	Elizabethtown, NC	Coal	1/86	11/00	33.3	33.3
Cogentrix	Kenansville, NC	Coal	04/86	9/01	32.4	32.4
Cogentrix	Roxboro, NC	Coal	08/87	12/02	56.0	56.0
Cogentrix	Southport, NC	Coal	09/87	12/02	107.0	107.0
Stone Container	Florence, SC	Coal	03/87	1/1/08	68.0	68.0
SUBTOTAL					330.2	330.2
TOTAL NUGS					446.1	442.4

TRANSMISSION LINE ADDITIONS AND MODIFICATIONS

<u>Year</u>	<u>Location</u>		<u>Capacity (MVA)</u>	<u>Voltage (kV)</u>	<u>Comments</u>
	<u>From</u>	<u>To</u>			
1998	Roxboro	(AEP) East Danville #1 Interconnection	825	230	Conversion, Relocation
	Roxboro	(AEP) East Danville #2 Interconnection	825	230	Conversion, Relocation
1999	Darlington County Plant	Robinson Plant (South)	797	230	New
	Robinson Plant	Laurinburg	637	230	Relocate from Darlington County Plant
	Darlington County Plant	Sumter (East)	541	230	Relocate from Robinson Plant
	Darlington County Plant	Darlington (SCPSA)	535	230	Relocate from Robinson Plant
2000	Whiteville	BEMC Chadbourn- Peacock POD	344	115	New, build for 230 kV, operate at 115 kV
2001	Lee	Wommack (South)	1083	230	Relocate & Uprate
	New Bern	Wommack (South)	594	230	Relocate
2002	Lee 230 kV Substation	Mount Olive	314	115	New, build for 230 kV, operate at 115 kV
2004	Durham Switching Station	Falls	541	230	New

SUBSTATION ADDITIONS AND MODIFICATIONS

<u>Year</u>	<u>Substation Name</u>	<u>County</u>	<u>State</u>	<u>Voltage (kV)</u>	<u>MVA</u>	<u>Comments</u>
1998	Concord	Person	NC	230/115	300	New
	Raeford	Hoke	NC	230/115	300 to 400	Capacity Increase
	Asheville Plant	Buncombe	NC	230/115	500 to 600	Capacity Increase
1999	Camp Geiger	Onslow	NC	115 to 230	18.75	Voltage Conversion