

The stage was set for the soaring '60s.

THE SOARING SIXTIES

The '60s saw the United States land men on the moon, lose its President John F. Kennedy to an assassin's bullet, bog down in a fruitless war in Vietnam, and birth a major anti-establishment movement. While those events were happening, CP&L was reaching new milestones in the size of its generating plants, the energy required by its customers, the use of nuclear technology, the diversity of industry it served, and the quality of life it brought.

Look magazine in a national survey entitled "How America Feels as We Enter the Sixties" asked the question: "Of the things you buy and the services you pay for, which one do you feel is the best bargain?" Thirty percent answered "electricity". It was the most popular response. For CP&L customers, electricity would become an even bigger bargain until the downward cost trend reversed itself at the close of the decade.

Attitudes within the Company were optimistic. Sutton set the tone at the 1960 meeting of shareholders when he declared the Company would quadruple in size over the next 20 years. He said growth would require an investment of \$180 million over the next five years for new facilities. He later said of 1960 that "our Company has never before, during one year, dedicated a new steam electric plant, started construction of another such unit at another plant, completed the installation of an additional unit at a hydroelectric generating plant, and shared in the ground breaking ceremony of a nuclear fuel generating plant."

Robinson Plant Dedicated

More than 2,000 people attended the dedication on June 11, 1960 of the Company's first generating facility in South Carolina. The coal-burning plant in Darlington county was named for H. B. Robinson, a native South Carolinian, "in recognition of his engineering skills and executive ability, and in commemoration of the efficient services he has rendered in the expansion and operation of the Company's properties and business during 30 most important years."

The Robinson plant with its 185,000 kilowatts of capacity was a milestone, marking the step to significantly larger units and the first use of computer technology. For operators accustomed to calculators, slide rules and logging readings manually, it was a giant leap.

When the 24,000 kilowatt hydroelectric generator at the Tillery plant came on line in August 1960, it was the first hydro generation added by the Company in 30 years. And it would be the last. Only a few weeks before, the small Eury hydro plant near Tillery had been retired as a part-time peaking facility. It was unique in that it had only one operator during its 48-year life. He was Renzy Richardson who, as a crane operator,

helped build the plant. Richardson's retirement coincided with that of the plant.

The 252,000 kilowatt third unit of the Goldsboro plant was designed to be the world's first coal-fired generating facility operated entirely by an electronic computer. Robinson knew that another utility already was installing a computer to operate a gas-fired plant. He wanted CP&L to be the first to use the technology for coal.

The annual report described the Steam Power Automation and Results Computer (SPARC). "It will monitor and record operating data, and when `educated' will operate the unit from memory data stored in its electronic brain. SPARC will be able to take the power unit out of operation in response to danger signals and return it to service after such dangers are eliminated. With its ability for almost instantaneous computation of problems, which previously would require many human hours to calculate, the SPARC is expected to improve operational efficiency and reduce costs."

Although the computer hardware was unreliable and the system never produced the automation that was anticipated, the installation of the computer was a very clear signal of the Company's intention to be a leader in using new technology.

As ground was broken in October for the Parr nuclear plant, Robert H. Solomons III, executive secretary of the Regional Advisory Council on Nuclear Energy, declared "this plant is tangible evidence of the progressive attitudes shown by the people of the southern states in meeting the challenge of the Atomic Age."

Additional Officers Elected

When the directors met in December 1960, Sutton proposed a resolution which would authorize the Company to include nine vice presidents among its officers. After the resolution was approved, five new vice presidents were elected: Shearon Harris, Hugh G. Isley, Arthur J. Skaale, Dan E. Stewart and E. N. Pope. The action was seen as evidence of the "growing up" of the Company. Harris continued as associate general counsel, Isley was responsible for sales, Skaale for engineering, Stewart for area development and Pope for advertising and sales promotion.

Employees enjoyed esteem and respect in their communities. For example, E. E. Utley was superintendent of the Weatherspoon plant. Steeple Times, newsletter of the local Methodist church, described him as "a young man with enthusiasm, courage and ambition." Then it reported on a softball game in which he was pitching:

"As he wound up to let one go, the fellows were calling for him to `put it in orbit'. He kept winding harder, faster, faster. Finally, he thought he'd let go. He did, but when he loosened the atomic grip on the ball, the shock from the jet-like propulsion was too much for his arm. It was broken."

For Utley it was an early manifestation of the commitment which would carry him to a senior executive vice presidency.

The same measure of intensity was shown by CP&L crews which restored service following an ice storm that left customers without service in areas stretching from Raleigh to

Southern Pines and Selma. Their work prompted Col. George M. Nevius of Southern Pines to write Sutton:

"I have had occasion to witness similar storms in other parts of the U. S., but I have never seen public utility repair crews react more quickly, nor work more diligently and efficiently than your maintenance men."

Such tributes were heard routinely. The public considered the Company a good place to work and regarded its employees as fortunate.

BUILDING THE MANAGEMENT TEAM

The forming of a new management team was an orderly, deliberate process. In 1962 Weatherspoon, then 78, turned the duties of general counsel over to Harris. Mr. Herbert, as Weatherspoon was affectionately known to his associates, was a pillar of the community -- former president of the Raleigh Chamber of Commerce and of the North Carolina Citizens Association, a prominent Baptist layman for whom a building on the Meredith College campus was named, a giant among legal minds in the electric industry.

Skaale's responsibilities as head of the operating and engineering department were passed to Paul S. Colby at the end of 1962. Colby had come to CP&L in 1951 following 10 years as an engineering consultant with Ebasco Services. He was superintendent of substations prior to becoming department manager. Skaale was retained as a consultant to complete the development of plans for the Carolinas-Virginia power pooling agreement on which he had been working since 1961.

In the spring of 1963 Harris was named president. His rapid rise came as a surprise to many employees who were accustomed to seeing senior management positions go to persons with long years of service. At the same time, Robinson was elected executive vice president and Thompson was elected vice president and general counsel. Robinson's disappointment at not getting the presidency was no secret. He thought it had been promised to him. The ensuing years until Robinson's retirement in 1967 were marked by tension between him and Harris that was felt by others.

Harris brought to the presidency a keen intellect, quiet confidence, disciplined work habits, a sincere concern for people and what his classmates at Wake Forest University called a fierce determination to rise to the top. The son of a Baptist minister, he had entered the University on his fifteenth birthday and earned a law degree by the time he was 20. He paid his way by managing "Miss Lula's" boarding house, recruiting workers and boarders, and sometimes waiting tables.

He had demonstrated his political instincts early. Even though few students could vote, he persuaded the campaign manager for Clyde Hoey, a conservative democratic candidate for governor, to schedule Hoey for an appearance at the University. Harris borrowed a pickup truck, parked it near the administration building to serve as a platform, and proceeded to make a stirring introduction, assuring the candidate that the students would influence voters. Hoey was elected.

Harris added to his political insight by serving as assistant principal clerk in the Senate during the 1937 and 1939 legislative sessions and as principal clerk in the House during the 1941 and 1943 sessions. After military service, he had practiced law in Albemarle. One of his clients was a bus company which he represented before the State Utilities Commission. He had served one term in the state legislature, representing Stanley County.

John S. Monroe, administrative assistant to Harris during the mid-70s, was impressed that Harris had such deep insights and could get at root causes so quickly. "He dealt with the vital few things," Monroe recalled. "He never went to a meeting merely to be in attendance. He went to influence action. He expected to have substantial input. He was a very sensitive, caring, emotional person who caused you to feel he would do anything for you. He was frugal. He was an inspirational manager."

To those who would greet Harris with a polite inquiry about how he was getting along, he had a consistent answer: "the best in the world". It was a phrase carried from an unforgettable experience. While he was home from Wake Forest University for a holiday, his father asked him to visit a family friend who was critically ill. Usually when he had seen the friend and asked how he felt, the response had been "first rate." This time the friend was so ill he could not speak. But he held up one finger to signal he still was first rate. From that moment, Harris determined he could never be less, so he adopted the phrase "the best in the world."

As he assumed the duties of president, Harris did so from a background rich with political and legal experience, and with over five years of service in the utility. One associate said he talked often about being a professional manager, not a lawyer or specialist. He knew many of the challenges he would face. There would be others.

Electric Industry Entering Its `Third Phase'

Reid Thompson recalled a meeting with Sutton before coming to CP&L. He said Sutton told him the electric utility industry was in its third major phase. The first phase was getting started, a time of utilizing a new technology which demanded engineering leadership. The second phase was a time of financial stress when many consolidations and reorganizations occurred and financial guidance was crucial. In its third phase, the industry found itself besieged on every hand by regulation and in need of "good lawyers".

Sutton saw himself as an engineer who had managed through the first two phases and recognized the challenge of the third, Thompson reflected.

What Thompson brought to CP&L was a depth of judicial and political experience that was unusual for one of only 36. He had served with Harris in the General Assembly and the two were close friends. He was a quick learner, one who could quickly probe for the salient points and analyze situations. His manner was very direct. From the beginning, he had the ambition and the drive that marked him for success. He and Harris appeared to form a team to build for the future.

Reflecting on the early '60s, Thompson said the Company's problems were "relatively minor," especially when viewed in the context of what was to come during the 1970s. "We were building a new plant every two years, each one a little larger than its predecessor; rates were stable or going down, all the new capital we needed was available for about 4 percent, and the major concern was competition for territory with REA co-ops."

Shortly after becoming president, Harris merged the advertising and sales promotion function with publicity to form a public relations department headed by E. N. Pope. He wanted more corporate emphasis on public affairs and he wanted a formal management development program. Because the only other department reporting to him at the time was the legal function, he chose to make management development a part of public relations. To direct management development, he promoted W. J. Ridout from his position as head of agricultural development.

What Harris wanted to do, Ridout explained, was to identify 48 persons without their awareness and train them for management responsibilities. Further, he wanted an additional program to provide training for supervisors.

In 1964, Harris gave added emphasis to governmental relations at the federal level by removing the function from public relations and elevating Jack Riley to vice president - public affairs. Riley's only responsibility was for Washington issues. He reported to Thompson.

The premise on which Harris acted was simple. He believed decisions made in the political arena would have a major impact on the Company's future. "Employees should be players, not spectators," he declared. He authorized information meetings for all employees to have opportunity to participate in a program to help them understand how individuals become involved in the political process.

With the assistance of an outside consulting firm, Harris and Thompson began an organizational study. The process was long and the new form of organization was implemented over years. But the plan provided a road map for Harris, and every major personnel move carried him closer to his goal of four groups, each headed by a senior executive.

The retirements of Robinson, Pope, Richert and Carpenter in 1967 opened an opportunity for less painful transition to the new organization. When Isley retired in 1966, Harris named Ridout general marketing manager. Ridout was assigned to report to and understudy Richert who headed district operations, anticipating the formation of a customer services group. James S. Currie succeeded Carpenter as treasurer. Currie had been commissioner of revenue for the state of North Carolina before coming to the Company in 1961.

Group Organization Established

The first group to be formed was legal and finance in 1967. It was headed by Thompson who became executive vice president when Robinson retired. Departments in the group were legal, treasury and accounting, rates and service practices, corporate secretary, and public affairs. Charles F. Rouse succeeded Thompson as head of the legal department and was elected a vice president in 1968. While it attracted little attention at the time, the assignment in 1966 of Samuel Behrends, Jr. to head the rates and service practices department spoke loudly about what Harris and Thompson saw ahead. Behrends had come to CP&L after stints as assistant attorney general and in private law practice where his experience was heavily oriented to utility regulation. He would be elected vice president in 1969.

In May 1968 the other three groups were formed. Ridout headed customer services which included three departments: district operations, managed by J. V. Henderson; sales, directed by W. P. McPherson; and area development, managed by C. J. Turner. The operating and engineering group was headed by Colby who had been manager of the operating and engineering department since 1963. It included three newly-created departments.

Raymond S. Talton, a veteran of 31 years with the Company who had been responsible for system planning, became manager of the engineering department; Edgar M. Geddie who came to CP&L in 1935 and had been superintendent of lines became manager of the transmission and distribution department; and J. A. "Ott" Jones, a CP&L employee since 1951, headed power supply. Talton was elected a vice president while Jones and Geddie were elected assistant vice presidents. Both were elevated to vice president during the next year.

The administrative services group was headed by James R. Hinkle. Harris had persuaded him to return to the Company in 1965 after three years as director of the North Carolina Division of Industry and Commerce. He returned as manager of area development. Departments in the new group were personnel, public relations, and purchasing which were headed respectively by James S. Newbold, A. L. Morris and Harry Caldwell.

Harris envisioned his group executives and himself as being removed from the day-to-day operations to permit them to focus on planning and policy decisions. Their offices were relocated on a separate floor of the building. But they never could isolate themselves from daily happenings within the Company.

Sutton Retires

At the end of 1968, Sutton passed the duties of chief executive to Harris, retaining his title as chairman. He had led the Company for 36 years during which it had grown from 62,500 to 530,000 customers, from \$8.5 million to \$169 million in annual revenues, from 630 to 2,500 employees, from 321,000 to three million kilowatts of generating capacity.

His last major speech was to the Southern Furniture Manufacturers Association. It was vintage Sutton, a ringing endorsement of the free enterprise system filled with warnings about threats to it from within.

"The principle difference between our economic system and all others is that ours was intended to be a privately owned economy. The profit incentive is a spur to all men. That is the only real basis of success in America -- the hope of reward -- the incentive to produce, together with the necessity of competing with others. Incentive might be called the spark plug of our system. Incentive is what makes our system tick.

"Our trouble ... is that we have not held fast to that system. We need to remember that economic freedom and political liberty are inseparable. You cannot throttle one without weakening and destroying the other.

"We saw assaults upon enterprises and industries that began in the thirties, gained speed in the forties, continued in the fifties, and now these past eight years of the sixties appear to have taken the greatest toll," he cautioned. And then Sutton exhorted his listeners: America needs us, every one, to help keep the fires of freedom burning. What is at stake is survival itself.

On January 5, 1970 Sutton died. At the March meeting of directors, Harris was elected chairman. From his earliest days with the Company, he had heard reports that the investment community was concerned about the age of CP&L officers and directors. He established a policy that Company officers retire at 65. If officers also were directors, they were required to leave the board at the time of their retirement. The policy did not apply to incumbent directors. Two years later, after extended consideration, the board adopted a policy that outside directors retire at age 70.

The new management structure was in place. And none too early. Major problems were on the horizon.

EXPANDING THE SYSTEM

The buzzword on the production side of the Company was "economy of scale." The Robinson plant was 185,000 kilowatts. Advances in power technology allowed manufacturers to offer systems five times as large. The bigger plants required little more land and operating staff, and per unit of capacity, they were more economical to build. Regardless of size, the new plants made better use of fuel, producing a kilowatt-hour from less than one pound of coal. Older plants operated by CP&L required more than two pounds.

Clearly, the Company and its customers benefited from building new plants as rapidly as the capacity could be utilized. The problem was that the CP&L system was needing only about 200,000 kilowatts of additional generation every two years. What could the Company do to let it realize more fully the economies of scale?

Carolinas-Virginia Power Pool

CP&L joined with Duke Power, South Carolina Electric and Gas, and Virginia Electric and Power to form the Carolinas-Virginia Power Pool (CARVA). The pooling agreement was announced in 1961. It called for joint planning of transmission lines as well as generation. Under the plan, a company would build a large unit and contract for sale of the excess capacity to the other companies until its system grew to require full output of the unit. Another economic benefit of pooling was that individual companies would no longer require spinning reserve equal to or larger than their biggest unit. For reliability, the combined spinning reserve only needed to exceed the size of the largest unit in the pool.

A. J. Skaale, director of the operating and engineering department, represented CP&L in the early planning of CARVA. He likened the spinning reserve aspect of the pooling arrangement to four automobiles traveling together. As long as they stayed together they would require only one spare tire. If traveling alone, each needed a spare.

The CARVA agreement was fully implemented in 1967.

New Coal-fired Plants

Circumstances dictated a build and sell philosophy. State governments in the Carolinas were promoting industrial growth and economic development to create new and better jobs. Rates for everyone were going down as new and larger plants were added to the system. The Company responded energetically. In 1961 ground was broken at Asheville for a 198,000 kilowatt coal-fired plant. It would be the primary source of power generation for the western division. To protect air quality, it would have the first electrostatic precipitator on the Company's system. Other plants used mechanical dust collectors.

Speaking at the groundbreaking, Senator Sam Ervin noted that the United States was producing more electric power than the next five countries combined. "The plant that will rise here ... is tangible evidence of the way the American free enterprise system is outproducing - and will continue to out produce -- the best that the rest of the world can muster."

In 1962 the 252,000 kilowatt addition at Goldsboro was completed, and the plant was named for Harry Fitzhugh Lee, a retired Goldsboro district manager who spent 45 years with the Company. Associates said his name was synonymous with electric service in Wayne County. Lee was a great grandson of "Light Horse" Harry Lee of Revolutionary War fame, and a grand nephew of Robert E. Lee, the Confederate general.

Also in 1962 came the announcement of plans for the Roxboro plant in Person county. The 385,000 kilowatt first unit was scheduled for service in 1966. The 7,000 acre site was judged to have the potential for development of 2,850,000 kilowatts. It would include a dam across the Hyco River to create a 3,750 acre cooling reservoir. A major factor in selection of the site was its accessibility to the coal mines of West Virginia and Kentucky. Transportation represented about half the cost of coal. Shortening the haul was an opportunity to control costs.

Soon after land clearing began, Sutton traveled through the area on his way to a meeting in Virginia. Observing the extent of activity, he commented to his driver, Oley Baugh, that it looked like something big was about to happen and he wondered what it could be. Baugh responded, "This is us."

The Asheville plant began operating in 1964. The cooling lake and adjacent land was made available to the City of Asheville for the development of a recreational park. The reservoir later was named Lake Julian to honor Julian B. Stepp, the Company's district manager in Asheville from 1943 until 1966. The only stipulation was that the recreational use of the land and waters must not interfere with operation of the plant. Not far away, the small Elk Mountain steam plant which had operated since 1916 was retired. A year earlier, the 3,300 horsepower Weaver hydro plant on the French Broad River had been retired.

Of all the people who worked at Weaver and Elk Mountain, Loomis Marshall probably knew them best. He worked at the plants from 1921 until their retirements, rising from maintenance man to superintendent. He could recall when 60 men were required for the operations. The number was down to 10 for Elk Mountain which Marshall described as "far from being worn out" but so inefficient in burning coal as to make it obsolete.

Consistent with its schedule of adding a major new generating facility at two-year intervals, the Company planned a second Roxboro unit for operation in 1968. It was the first unit the Company constructed under the CARVA agreement and its 670,000 kilowatt capacity brought more economy of scale to the system.

While building and planning coal-fired plants, the folks in engineering and operations kept an anxious eye on nuclear developments.

Parr Plant Begins Operation

Governors Ernest Hollings of South Carolina, Terry Sanford of North Carolina and Albertis Harrison of Virginia were present for the dedication of the Parr plant in October 1962. Speaking at the dedication, Dr. Robert E. Wilson, a member of the Atomic Energy Commission, said it was the short-range goal of the AEC to make large nuclear power plants competitive by 1968. He declared that "supplemental energy sources must be fully developed for the future if our country is to enjoy continued and expanded economic and technological growth." And he added: "The Commission believes there is no substitute for knowledge gained from actually designing, building and operating selected prototypical plants."

The Parr plant achieved criticality on March 30, 1963, and delivered its first electricity the following December 16. The power was channeled into the transmission system of South Carolina Electric and Gas, and through interconnections into North Carolina and Virginia. It was the first electricity generated from nuclear energy to flow into the homes of consumers in the southeast.

Sutton, then president of CVNPA, hailed the event as "fulfillment of a program begun in 1956 to develop a facility which would use nuclear fuel to generate electricity and serve as a source of research and development data for the sponsoring companies and the Atomic Energy Commission."

One CP&L person who was on the scene at Parr was Walter E. Selkinghaus, administrative engineer for the Parr plant. He had been a professor of mechanical engineering at North Carolina State University and subsequently superintendent of CP&L's Weatherspoon plant.

Writing in the May 1964 Spotlight, he said "those who have worked so diligently in the past few years to see these efforts bear fruit feel that although this prototype unit is small, it has answered many questions leading to larger units that will be built in the future."

The Parr facility operated until the summer of 1967, providing valuable training in instrumentation, control, operation and maintenance. One observer wrote "it may be that Parr did its job too well. It fulfilled its objectives efficiently and thoroughly ... and perhaps more quickly than anyone could have imagined ... and in so doing accelerated its own rush toward obsolescence."

Study of Nuclear Power's Potential for CP&L

The successful start-up of Parr combined with other developments in nuclear technology led to an in-depth study of nuclear power's potential for CP&L. Raymond Talton was in charge of the study. He concluded that nuclear fuel would cost only half as much as coal. Even with the larger investment required to build a nuclear plant, the saving on fuel could save millions of dollars. He carried the preliminary report to H. B. Robinson, executive vice president, who asked him to have it reviewed by Ebasco Services.

In New York, Talton had an all-day session with Ebasco officials. They brought in many different people to ask questions. When the day was finished, he said he felt like a plucked chicken. He had the distinct impression that Ebasco had seen its first nuclear study. A few weeks later, Ebasco reported it agreed with the conclusions reached by CP&L.

Robinson then scheduled a meeting with Sutton who had seen the study and knew the Company faced a decision about its next generating unit. Robinson opened the session by saying, "We've been dabbling in nuclear now to the point where the next plant should be nuclear." Sutton agreed. It was a short, upbeat meeting that cleared the way for Talton to move ahead with plans for the first commercial nuclear power plant in the southeast.

Specifications for a 650,000 kilowatt unit were prepared and bids invited from four manufacturers. The bids were due October 15, 1965.

Meanwhile, Talton also was seeking a location for the plant. In July 1965 he made a visit to Hartsville, South Carolina. His mission was two-fold. He met with local

officials and on the next day he spoke to a Hartsville civic club. He told them that the Company was considering the location for its next increment of generating capacity. He said the unit could very well be nuclear and that it could become the second phase of the Robinson plant. He explained that a nuclear unit would have a capacity of about 650,000 kilowatts and represent an investment of more than \$70 million. It was a deliberate effort to test community reaction. The response was entirely positive.

State Senator J. P. Mozingo III rose to comment following the civic club presentation. He pointed out the effort put forth to attract small manufacturing plants which required local governments to provide water, sewer and other services. Then he noted that an addition to the Robinson plant would dramatically increase the tax base without imposing significant demand for additional services. He referred to this new plant as "gravy" for Darlington County.

Within a few days, Mozingo forwarded a resolution from the Darlington county legislative delegation which noted that "the Darlington county development board, the Darlington county commission, and the chambers of commerce of the various municipalities located within Darlington county as well as numerous other people have written the officials of Carolina Power and Light Company requesting that this facility be located at the Lake Robinson site".

"Therefore ... the Darlington county legislative delegation hereby extends to the Carolina Power and Light Company a most cordial invitation to locate the contemplated facility at the Lake Robinson site ... and pledges its full and complete cooperation ..."

G. Graham Segars, chairman of the Darlington county commission, also forwarded a resolution from the commissioners "urging CP&L to give fullest consideration to the expansion of its present facility at the Robinson Plant location..."

Joe Wiggins of the Hartsville Messenger gave his support in an editorial entitled, "Glad Tidings". A few days later, Talton reported there had been no unfavorable resolutions, letters or editorials. CP&L could not have asked for more from the community.

In August, Talton accompanied Harris, Robinson and Paul S. Colby, vice president of the operating and engineering department, on a trip to Washington to meet with the Atomic Energy Commission. Their purpose was to make the AEC aware of the Company's plans to build a nuclear unit. They shared the resolutions they had received from Darlington county officials and groups.

Harris said the resolutions and letters "...implied not only an enlightened acceptance of progress, but also an energetic desire to be in the forefront in this exciting age of scientific advancement. They made a favorable impression on the commission."

Talton recalled that the AEC was encouraging industry to examine nuclear and consider it. "They said ours was the best presentation they had seen. Ten years later you

couldn't have gotten in the door with the report we gave." As to the type of reactor, the report said it would be boiling water or pressurized water with the selection based on proposals from manufacturers. The Company made clear that it did not intend to experiment with an unproven system.

Directors Approve Robinson Nuclear Facility

When CP&L directors met on January 19, 1966, they approved the recommendation for construction of the nuclear unit at the Robinson plant. The decision was announced that evening at a meeting with Darlington county officials. A week later the announcement came that Westinghouse had been awarded a turnkey contract to supply components and construct the 700,000 kilowatt unit. Ebasco Services was chosen to be architect-engineer and subsequently was named constructor, too.

Most of the contract negotiations with Westinghouse had taken place in a downtown Raleigh motel where CP&L was represented by Samuel Behrends of the legal department and J. A. Jones and W. B. Kincaid of the operating and engineering department. "We were a power plant engineer (Jones), an 'engineer of sorts' as Kincaid called himself and a country lawyer," Behrends recalled. "But it worked out fine. There's never been a nuclear unit of comparable size built at less cost."

Construction on Robinson 2 began in May 1967 shortly after the construction permit was received from the AEC. As the first commercial nuclear power plant east of California and south of Philadelphia, Robinson 2 attracted much attention during construction. The Company erected a visitors center on a knoll overlooking the plant and installed exhibits to help the public understand the operation of a nuclear power facility. Walter E. Selkinghaus who had been administrative engineer at the Parr plant was director of the visitors center and responsible for answering questions from the public.

The heaviest component of the plant was the 321-ton reactor vessel which was fabricated in Chattanooga, Tennessee. It was barged down the Tennessee, Ohio and Mississippi rivers to the Gulf of Mexico, across Florida through the Okeechobee Waterway, and up to Georgetown, S. C., via the Intracoastal Waterway. At Georgetown it was loaded onto a custom-built rail car with 12 axles. In preparation for moving the reactor vessel, the Seaboard Coast Line Railroad had to strengthen its trestles, construct sections of new track to bypass low bridges, and remove eaves from some of its stations to permit clearance. The special train traveled only during daylight and at speeds less than 10 miles per hour.

Movement of the reactor vessel reflected the kind of detailed planning that had to go into construction of such a massive facility. Ebasco named M. A. McDuffie construction manager for Robinson 2. He had been working on CP&L projects for Ebasco since 1948, including assignments as construction engineer for Robinson 1 and project superintendent for Roxboro.

Site Sought for Nuclear Plant in North Carolina

As construction on Robinson 2 moved ahead, Talton began the search for another

nuclear plant location. He focused on land along the Cape Fear River just upstream from Southport. There was an abundance of water available for cooling, and preliminary studies indicated the geology was suitable. The time for a public announcement came in 1968. Without identifying CP&L, the Brunswick Resources Development Commission invited about 60 of the county's leaders to dinner to meet a "prospect".

That evening Harris, Colby and Talton revealed that CP&L was investigating the Southport site as the potential location for a two-unit nuclear generating plant. If built, they said it would cost in excess of \$200 million and it would triple the county's tax base.

James Harper, publisher of the Southport State Port Pilot, prefaced a question. Brunswick county has been led to the altar with industrial prospects several times, he said, but a marriage has never been consummated. Then came his question. What can we do to assure that this time the marriage does take place?

Harris responded. We will not try to locate a plant where the local people don't want us. We will not pay exorbitant prices for land. We will expect assurance from local officials that they will be prudent in setting tax rates and spending revenues. Further studies must confirm that the site is capable of development from a technical standpoint.

Harper had another question: How will you determine whether the local people want the plant? Harris answered by citing the volumes of letters and resolutions from officials and community groups in Darlington county when Robinson 2 was being considered.

The chairman of Brunswick county commissioners, George Rourk, was quick to call the announcement a big day for the county. Later, he informed Harris that the "commissioners are wholeheartedly behind this project and are looking forward to it becoming a reality."

Harper editorialized in the State Port Pilot: "There is every indication that company officials can count upon complete cooperation... Everyone there was realistic enough to realize that some insurmountable problem may come up to block this project, but there was a general feeling of optimism, born of the thought that the citizens of Southport and Brunswick county will do everything in their power to see that this does not happen."

The Wilmington Morning Star also editorialized: "It is our belief that the Brunswick people, and the people of this entire section as well, will be in solid support...."

Within three weeks, Brunswick officials traveled to Raleigh to present Harris with four bound volumes of letters, resolutions and newspaper clippings which supported the project. Included in the group were E. B. Tomlinson, Jr., mayor of Southport; W. A. Powell, chairman of the Resources Development Commission for Brunswick county; and John Barbee, county commissioner.

Thus began the road to construction of the first nuclear generating plant in North

Carolina, a development which would lead other industry to Brunswick and change forever the sleepy pace of this rural coastal community.

Only a few days later, the Company announced that it had ordered three nuclear steam supply systems and turbine generators from General Electric. Two of them were expected to go to the Southport site.

The Northeast Blackout

When Thomas Edison died in 1931, the suggestion was made that as a tribute to him the nation turn off all electricity for one minute. The idea was rejected as unthinkable. On November 8, 1965, residents of the northeast experienced what it would have been like. Except that for some of them, the experience lasted 13 hours. Suddenly, the public became very interested in an industry it had taken for granted.

The Northeast Blackout, as it became known, left 30 million people in eight states, including New York city, and part of Canada without electric service. It came at the evening rush hour, stalling hundreds of packed commuter trains, stranding thousands in elevators, and snarling traffic. Economic losses exceeded \$100 million. It tarnished the image of the electric industry and prompted lawmakers in the nation's capitol to begin looking for legislative fixes.

The problem was the malfunction of a tiny relay on a 230 kilovolt line carrying power from a plant at Niagara Falls into the Ontario system. Its failure caused four other lines to trip, reversing the plant's output into the New York grid and causing instability that shut down systems in domino fashion. CP&L and other companies across the country responded quickly by increasing their generation and through interconnections dispatching power to the distressed area. Most customers had service restored after two hours. But in Manhattan the outage stretched to 13 hours, largely because Consolidated Edison suffered damage to some of its bigger generating units during the abrupt shutdown.

Six weeks later Jesse Helms, then the editorial voice for Raleigh's WRAL-TV, reported that some politicians saw the blackout as absolute proof that the electric industry ought to be placed squarely and entirely under the federal thumb. He said there were demands all around that private companies be investigated and that legislation be sent to the Congress to prevent such chaos ever occurring again. Ironically, the failure that triggered the blackout was in the government-operated Canadian system. Helms reported this fact was little known because the U. S. State Department asked the Edison Electric Institute to withhold the information from the public lest it "injure international relations with Canada."

The blackout left an indelible imprint on the power industry. Colby said it triggered further federal involvement in the companies' decision making. The Federal Power Commission established the National Electric Reliability Council made up of regional councils. CP&L joined with 22 other power systems to form the Southeastern Electric Reliability Council

(SERC). Purpose of the Council was to assist member systems in assuring maximum reliability in supplying power within the region. It provided a vehicle for coordination between systems -- public and private, large and small.

But the interconnected power grid which enabled distant systems to come to the aid of the Northeast had been in place for years, a result of planning by investor-owned companies. As it entered into planning of the CARVA pool in 1961, CP&L had reported to shareholders that "similar pooling is practiced or contemplated by the majority of ... companies across the nation.... The power industry expects within the decade to invest \$8 billion in new transmission facilities, so interconnected as to constitute one continuous power network reaching into almost every region of the nation. Nearly all electric power systems east of the Rocky Mountains -- 100 companies in 32 states -- now are interconnected."

Larger Transmission Network Started

As new generating plants were added, it also was necessary to build more and larger transmission lines. Through 1964, the major transmission voltage on the CP&L system was 110,000 volts with a relatively small amount of 132,000 volts. In 1965 construction began on a 315 mile network of 230,000 volt lines to span the system and link it to the Roxboro and Robinson plants. The 230,000 volt transmission grew to 900 miles by 1970. In concert with Duke Power and Virginia Electric and Power, CP&L in 1968 began construction of 207 miles of 500,000 volt transmission to provide a loop of "superhighway" for movement of large blocks of power. The CP&L section linked with Duke at the Union county line and with Virginia Electric near Littleton. To be completed in four years, it was another safeguard for reliability.

By the end of 1991, the Company's transmission system had grown to 5,858 miles, including 2,901 miles of 230,000 volt and 292 miles of 500,000 volt. The system had 34 interconnections, including ties to Virginia Electric and Power, Appalachian Power, TVA, Duke Power, South Carolina Electric and Gas, and the South Carolina Public Service Authority.

Scorching Summer Triggers Record Growth

1968 was a stressful year for system operations. The Company had never seen anything like it. Air conditioning had become the norm for shopping centers, commercial buildings, factories and homes. The resulting energy demand during a long, hot summer repeatedly set new peaks, finally reaching 2.8 million kilowatts on August 19. That was almost 25 percent above the peak for the previous summer. For a two year period, growth in peak was near 35 percent.

One official observed later that any planner who would have suggested such growth in only two years would have been thought to have lost his sanity. Since World War II the Company had added new units as fast as it expected the capacity could be sold, staying comfortably ahead of customer usage. Now its reserves were wiped out.

The problem for CP&L was two-fold: meeting the demand of 1968, and adding generation fast enough to keep up with customer needs in 1969 and beyond. There were short intervals during the summer of 1968 when the Company lacked capacity to carry its load independently, could not make firm purchases from other companies because they had nothing to sell, and thus had to depend on in-flow of power from the interconnected grid to get it through peak periods. Dispatchers described it as "riding the tie lines." Where it was feasible, voltage was reduced, stretching the Company's energy supply by about two percent.

Fortunately, construction of the Roxboro plant had been on schedule. When unit 2 came into operation in May, 1968 it brought the plant's total capacity to 1,091,000 kilowatts. Roxboro represented one-third of CP&L's capability. In anticipation of starting Roxboro 2, the Company in 1966 contracted for the entire output of one mine and half of another to assure an uninterrupted supply of quality low-sulfur coal. The plant was burning 2.25 million tons annually. To supply it required five unit trains a week, each pulling 90 coal cars.

Stephen Meehan, a member of the Company's news staff, rode one of the trains from the mine to Roxboro. He reported in Spotlight that the 37-hour journey through the West Virginia mountains to Roanoke and up the steep incline of Nace Hill was high adventure. To climb Nace Hill, the train was divided into two sections. When the four engines pulled the first 45 cars to the top, they went back to get the second section. He noted that at the mine each coal car was filled in 1.5 minutes. When the train arrived at the plant, a large machine that resembled ice tongs seized the cars, five at a time, and emptied them in only two minutes.

Five internal combustion turbine-generators also had been added to give 90,000 more kilowatts. Sutton called them monuments to poor planning. They could be delivered and installed within 12 months. In the CP&L system, they were intended for operation only at times of peak demand. They were quick-starting, oil- or gas-burning units which had low capital cost but relatively high fuel expense. They were placed strategically at the Sutton, Lee, Robinson and Roxboro plants so that in the unlikely event of a system failure they could provide an alternate power source for emergency start-up of large coal-fired units. The fifth was at Morehead City, on the periphery of the system where its location added to reliability.

Accelerating the Schedule for New Generation

The future was cloudy. Next unit scheduled on the CP&L system was the nuclear addition at Robinson. At the earliest, it would not be available until the summer of 1970. The CARVA pool faced shortages, certainly inadequate reserves. Colby blamed this on overly conservative planning, a preoccupation in the CARVA executive committee with achieving the economies which had been anticipated from reducing reserves.

Colby moved quickly to add coal-burning capacity. Equipment manufacturers had backlogs of orders. But he found space in General Electric's schedule for a 200,000 kilowatt turbine generator which he bought. Then he asked Ebasco Services to help locate a boiler. With these components assured, he obtained an existing plant design and entered into an incentive contract with Brown and Root to build Asheville 2 by May 1971. It was an ambitious schedule,

but it was met.

Looking to other existing sites where capacity could be added quickly, Colby and Jones contracted for Sutton 3, a 420,000 kilowatt unit which was designed to burn either coal or oil, depending on which was more economical. It was scheduled for 1972. At this time, Brunswick I was expected to be operational in 1973.

Something had to be done for the short term and the only choice was the addition of more combustion turbines. Six IC turbines totaling 139,500 kilowatts were ordered for installation in 1969.

Colby watched construction schedules carefully. When Brown and Root reported concern that the steam generator and turbine for Asheville 2 would not arrive as expected, Colby and Jones flew to the General Electric plant in Schenectady. They found the turbine covered with snow, but ready for shipment. Unable to locate the generator, they learned it had been manufactured in Canada and was nearly ready for delivery.

As Colby bought the turbine generator for Asheville 2, he found GE had room on its production line for a second unit of the same size. He said he tried to convince CARVA to buy it, but his effort was rejected because others believed a plant could not be completed for the summer of 1971. They also considered it too small.

Labor Protests Choice of Contractor for Brunswick

The Company's decision to use an open shop contractor for the Brunswick plant riled Wilbur Hobby, president of the North Carolina AFL-CIO. He organized and orchestrated a protest rally and march for union members and sympathizers in Raleigh on September 12, 1969. There were about 5,000 marchers, some from as far away as Chattanooga, many of them tobacco plant workers. Hobby was joined by labor leaders from Atlanta and Washington.

He prepped the marchers by telling them that CP&L's out of state contractor, Brown and Root, would bring in non-union workers and pay substandard wages.

As the chanting marchers moved up Fayetteville street behind a flat-bed trailer that served as a platform for the leaders, they halted in front of the Durham Life building in which the Company's general offices were housed. Hobby announced, "Now our first team is going in to meet with their second team."

In CP&L's fifth floor boardroom, Hobby and his team met with Ott Jones, assistant vice president for power supply; Ed Utey, power production manager; Robin Hinson of the legal department; and Albert Morris, director of public relations. It was an orderly meeting which Morris moderated. In rhetoric which contrasted sharply with their street language, the labor leaders expressed concern about jobs and the quality of a plant built by non-union workers. Jones reminded them of the state's right-to-work law with which he said CP&L

was complying. He said construction workers would be hired on the basis of ability. "We will not ask whether they carry a union card," he added. What Hobby wanted was a closed shop.

While the discussion was underway, the marchers circled the Capitol Building and returned along Fayetteville street, with such chants as "we want jobs, to hell with Brown and Root, send them back to Texas, we want TVA." Several times Hobby suggested a period of silence to hear the voices of the people in the street. He left the building telling newsmen that CP&L had rejected union demands and "considered working men in North Carolina second class citizens."

Behind the choice of Brown and Root was a little known circumstance. United Engineers of Philadelphia, a firm with experience in designing and constructing nuclear plants, tentatively had been chosen to design and build Brunswick. But when it was learned they would operate a closed shop for construction, the switch was made to Brown and Root, a large Texas firm with no experience in nuclear but a wealth of experience in designing and building complex facilities for the oil and chemical industries. United Engineers was retained as architect-engineer.

Two other developments signaled the increasing complexity of licensing, building and operating nuclear plants. A new six-person technical services section was formed by the Company to include environmental, chemical, radiation control, radiological chemical and reactor engineers under the leadership of Norman Bessac, a colorful navy veteran who had commanded a nuclear submarine. With the continuing need for specialists in these fields, the Company moved to lessen its dependence on consultants. Delays in getting regulatory approval for the Brunswick plant forced rescheduling of the two units from 1973 and 1974 to 1974 and 1976. Roxboro 3 was added as a replacement unit to supply additional generation needed in 1973.

Talton later said the Company was building plants as fast as it could, much faster than it had envisioned would be necessary.

MARKETING IS KEY TO SUCCESS

Marketing was a major contributor to CP&L's success during the 1960s. The more energy it could sell, the more new plants it could build. Each succeeding coal-burning plant was larger and more efficient than its predecessor. So all customers benefited from growth as the Company's prices trended downward.

The man who led the sales effort was Hugh G. Isley who had come to CP&L in 1919 as a "new business solicitor" and who would log 47 years of service before retiring in 1966. He was followed as general sales manager by W. J. Ridout who in turn was succeeded by W. P. McPherson. It was Isley who in the 1930s made the bold decision to get CP&L out of the appliance sales and service business, and begin establishing a network of strong dealer allies in every town where the Company operated. He had recognized that with CP&L selling 88 percent

of the electric appliances its customers bought, local merchants couldn't be expected to stock electric appliances and compete with the power company. Rather, they offered ice boxes instead of refrigerators, coal and wood ranges instead of electric ones. The decision would serve Isley well.

Through 1969, CP&L developed annual marketing plans with emphases on major electric appliances such as washers, dryers, dishwashers, water heaters, frost free freezers and refrigerators. It held meetings around the system for appliance dealers and distributors to share with them about its marketing goals and promotional plans. The man in the forefront until his retirement was Isley who with the zeal and style of an evangelist would exhort his guests to join him in another year of helping people live better electrically.

Similar efforts would evolve to encourage homebuilders to construct all-electric or "Medallion" homes, a concept which incorporated electric space heating and cooling. The Company promoted open houses for cooperating builders. By the mid-60s, more than half of the new homes being constructed on the CP&L system were all-electric.

Field support for the appliance marketing programs was provided by the Company's home economists, later titled electric living specialists. They conducted sales training programs for dealer personnel, demonstrated the use of appliances and encouraged dealers to coordinate their advertising with the Company's promotions. In addition, each district office staff included an appliance service representative who worked with dealers to train their service personnel.

Customer surveys were conducted periodically to track the saturation of different appliances, identify marketing opportunities and measure results. Later these surveys became a tool for forecasting demand. The 1960 survey showed the following appliance saturation percentages: electric ranges, 76.5; refrigerators, 97.3; freezers, 35; electric water heaters, 66; dishwashers, 5.4; automatic washing machines, 47.5; clothes dryers, 5; air conditioning, 18.4; and television, 79.

'Clothes Line Emancipator'

Flameless, clean and modern became key words in promoting the advantages of electric appliances and total electric living. With only five percent of customers owning electric dryers, one of the annual appliance promotions focused on "clothes line emancipation". A newspaper advertisement listed seven reasons for buying a dryer:

- i. "A dryer saves you work. The lifting and carrying of over two tons of wet clothes a year is eliminated.
- ii. "A dryer is kind to clothes. The tumbling action doesn't weaken fabrics or seams as whipping winds and ice do.
- iii. "A dryer lets you forget about the weather. All of the hanging problems

connected with rain, sleet and snow are over for you.

- iv. "Dryer-dried clothes are cleaner. There is no street dirt or dust inside your dryer to soil your wash.
- v. "A dryer cuts down on ironing. Garments with crease-resistant finishes have fewer wrinkles than when drip-dried.
- vi. "A dryer doesn't fade clothes. The harsh, strong rays of sunlight quickly fade bright colors, as a dryer never would.
- vii. "A dryer finishes fabric better, softer, fluffier. Tumbling removes stiffness and harshness that goes with line drying."

Other sales messages focused on value. For example, "the average price of today's feature-packed electric dishwashers is 14 percent less than 10 years ago. And it takes less than a penny's worth of electricity to wash a load."

166 Electric Appliances Made Living Better

In 1963 a national television show, "The Price Is Right," gave away 166 electric home appliances, underscoring the great variety of ways that electricity helped make living better. Only 17 of the appliances had been available in 1930, and 110 of them had been developed during the 10 years prior to 1963. Among the more unusual appliances "were a cradle rocker, electric scissors, carving knife, and a face puffer for removing wrinkles".

Howard Hicks, manager of residential sales, insisted that the annual promotions have a catchy slogan. Typical of the slogans were "Sell More in '64", "Total Electric: A Clean Break with the Past" which was graphically illustrated with a broken match, and "AcSELLerate in '68". The Coordinator, a monthly magazine which was published by CP&L for appliance dealers, introduced 1969 by declaring "your electric living specialist is now armed to help you with promotions that will let you `Sell It Like It Is in 1969'."

In 1960 the Company offered a new service -- area lighting. For a modest monthly fee, CP&L would provide a pole, install a light fixture controlled by a photoelectric cell, and furnish the energy to operate it. The mercury vapor lamps would illuminate a large area, improving safety and protecting property. Within four months, 6,000 of the lamps were sold. In December 1968, the 50,000th area light on the system was installed. One pilot described the rural landscape as a "sea of lights".

By early 1961 the Company had its first all-electric subdivision, Windsor Park in Cheraw, South Carolina. Dick Lisk was the CP&L sales representative and Joe Helms was the developer. The project was planned for 80 homes. A similar development was underway at Boiling Springs, North Carolina. At the end of 1961, more than 3,600 homes and near 2,700 businesses and industries were being heated electrically, an increase of 53 percent in just one

year. Three years later, the Company counted 13,000 electrically-heated homes and had added as many as 500 in one month.

The promotion of electric heating and Medallion homes received a major boost in 1962 when an all-electric residential rate was introduced. The monthly rate included a block of 450 kilowatt-hours priced at one cent per kwh. Chief obstacles which the Company had to overcome were consumer unfamiliarity with electric heating and concern about cost. Residential sales personnel found testimonials from satisfied users to be their most convincing sales tool.

Heat Pumps Slow to Gain Acceptance

Heat pump sales lagged in the early '60s. Manufacturers were overcoming difficulties with the early models. The people who were selling heat pumps discovered that air ducts had to be sized properly, else the results were not satisfactory. There was a shortage of well-trained servicemen.

But in 1967 W. B. McGowen, Wilmington district sales manager, reported that "from July 1960 to July 1967 we have progressed from less than 400 to a total of 4,713 residential heat pump users on the CP&L system.

"The experimental period of the heat pump is behind us. Customer acceptance has gained momentum to the point that about one-third of all electric heating jobs, new and conversion, in the Wilmington service area are heat pumps.

"Users are our best salesmen. They tell of the comfort, convenience, cleanliness, safety, low cost of maintenance, quietness and operating costs that are less than or right in line with competitive fuels."

Similar growth was occurring in the commercial sector. The commercial heating campaigns produced 2,000 kilowatts in 1959, 26,000 in 1965 and 36,000 in 1967. EEI recognized the 1967 "Space Age Heating" effort as the outstanding commercial heating campaign among all its members. It was a campaign which "blasted off", fueled by "economical heating rates, good sales presentations based on proven sales records, and hundreds of satisfied users."

All-Electric Schools and Buildings

Palmetto Plaza in Sumter, announced in February 1962, was CP&L's first all-electric shopping center. It included Colonial Stores and S. H. Kress as major tenants with a dozen other shops. The first unit of the new Hartsville High opened in 1962, making it CP&L's first all-electric school in South Carolina. Education officials from all parts of the state came to see it. Opening of the Pinkston Street elementary school in Henderson, N. C., in 1963 also attracted educators from a wide area. The architect who designed the 16-room Pinkston Street school said he specified all-electric for lower first cost, cleaner surroundings, greater safety and

lower maintenance.

To reach the people who influenced decisions about heating and cooling systems for commercial buildings, the Company joined with Duke Power, South Carolina Electric and Gas, and Virginia Electric and Power to sponsor an "Architects and Professional Engineers Electric Space Conditioning Seminar". The first one was held in Asheville in 1964. Archie Futrell, CP&L heating and cooling engineer, said it assembled 200 top-flight architects and engineers, more than he had ever seen at one place in the Carolinas. The emphasis which the Company gave the two-day event was indicated by the presence of President Harris and Mrs. Harris to act as hosts.

More than 10,000 persons toured the new 11-story Wachovia Bank and Trust Company building when it opened in Raleigh in January 1965. The \$4 million structure was one of the first to qualify for the All-Electric Building Award, and at the time was the largest commercial building in the CP&L area with electric heating and cooling.

In July 1966 Sutton made a trip to Wilmington for the dedication of the Cornelia Nixon Davis nursing home. With a capacity of 87, it was the largest facility of its kind on the CP&L system. Champion McDowell Davis, former chief executive of the Atlantic Coast Line Railroad and a close friend of Sutton, was described as the moving spirit behind construction of the facility. In presenting the All-Electric Building Award to Davis, Sutton noted that "in addition to featuring electric heating and cooling, the nursing home also has an all-electric kitchen and laundry...electric ice melting equipment at the front entrance ... and infra-red lights line the canopies" at the entrance.

Haywood county held open houses in the fall of 1966 at three new all-electric schools. The county's two high schools each had 51 classrooms, making them the largest all-electric schools served by CP&L. On the other side of the state, Northern Nash high school near Rocky Mount opened with 38 classrooms, becoming the 49th all-electric school on the company's system.

Bob Lively, an industrial power engineer in Raleigh, wrote a 1967 article for Spotlight which he captioned, "Industries Are Air Conditioning for Efficiency and Comfort". He reported on a study of a textile operation which showed "that when the mill is in full operation, heating is not required until outside temperature is minus 13 degrees F. The heat given off by lighting, motors and other sources is more than enough to fulfill the heating requirements of this plant on the coldest day of the year. The plant must be cooled year-round to maintain a comfort level of 80 degrees F." He added that humidity control is "important to many production processes."

When the end of the decade came, CP&L residential customers had raised their average annual usage from 4,792 kilowatt-hours in 1959 to 9,027. They were using 38 percent more electricity than the average family nationally. There were 48,443 total electric homes and apartments. Half of the new home starts were all-electric. There were 10,056 all-electric commercial customers. For the 10 years, energy sales to residential customers were up 145

percent; to commercial customers up 191 percent, and to industrial customers up 249 percent. The Company's total energy sales had grown from 5.3 billion kilowatt-hours in 1959 to 16.7 billion annually.

ECONOMIC DEVELOPMENT OF THE AREA

The economy of the CP&L service area was highly dependent on agriculture. As farms became more automated, two things were happening: 1) more labor became available for off-farm purposes, and 2) the opportunity for sale of electricity to drive labor-saving equipment expanded.

The Company responded with a two-pronged effort. It stepped up activities to attract new, more diversified industries to bring new and better jobs to its communities. It launched an agricultural development program that placed at least one agricultural engineer in each of its 14 districts.

One key to attracting industry was to help towns understand how to make themselves attractive. Having a nice piece of land was not enough. Access to air and highway transportation was essential. Communities had to be willing to provide water and sewer services. As Dan Stewart led the area development effort in the early 1960s, he found it difficult to convince local governments to commit financial resources to provide water and sewer to industrial sites.

The Company's first industrial development agent for South Carolina was employed in 1960. He was C. J. Turner who later would become the vice president of the southern division. He had been on the staff of Clemson University. His mission was to coordinate with state and local officials the Company's efforts to locate new industry.

To head the expanded agricultural development program, Stewart turned to W. J. Ridout Jr., publisher of Electricity on the Farm magazine who previously had worked with the Agricultural Extension Services in both Carolinas and with the Edison Electric Institute. By the end of 1961, 14 agricultural engineers were on the job. Their mission was to help increase farm income and encourage greater use of electricity for farm mechanization. They called it "electromation". They worked with farmers individually and in groups. An important by-product was improved relationships in the agricultural community.

Poultry, cattle feeding, dairying, and grain handling operations became highly automated. "Parlors" for pig production became common. Barns for curing tobacco in bulk eliminated much of the hand labor required for the area's biggest cash crop.

Interest in farm mechanization mounted to the point that CP&L and other power suppliers joined with North Carolina State University to sponsor annual farm equipment shows. The first one in 1965 attracted 12,000 visitors. The focus was on materials handling.

In 1966 Justus "Jud" Ammons, then director of agricultural development, organized a one-day tour of five of the more highly automated farming operations. On the tour were CP&L executives Sutton, Harris and Robinson, North Carolina Commissioner of Agriculture James A. Graham; North Carolina State University officials Dr. H. Brookes James, dean of agriculture and life sciences, and Dr. F. J. Hassler, head of the agricultural engineering department.

The impact of mechanization was underscored as the group visited two cattle feeding operations which produced enough beef to feed 250,000 persons per year. They were told that only three workers were required for the farms. They also saw a poultry farm which produced enough eggs daily to supply 75,000 people.

If there had been any doubt that farm mechanization was displacing labor, it was quickly erased. The necessity of creating other jobs for persons no longer needed on the farm was only too clear. As Sutton had said of the company on many occasions, "our future is the future of the area we serve."

Industry Attracted to CP&L Area

Fortunately, industry was beginning to look to the CP&L area with increasing favor. It was attracted by productive, non-union labor, a better than average tax picture, and by relatively cheap land. State governments were very aggressive in seeking to attract new industry. Community colleges and technical schools provided retraining for displaced workers who looked for other jobs.

Announcements for new or expanded industry in the CP&L area climbed steadily through the 1960s. By 1964 the Company reported that 54 of Fortune Magazine's "Big 500" companies had 108 plants on the CP&L system. By 1966 Wilmington was "fast becoming the chemical capital of the southeast." The city's industries included Dupont, Hercules, Corning Glass and General Electric's nuclear fuel fabrication plant.

In early 1965, Dan Stewart left CP&L to become director of the North Carolina Department of Conservation and Development. He had spent a career with the Company, and as he neared retirement he viewed the post in state government as challenging and helpful. Willie York, a major developer in the Raleigh area, was chairman of the C&D board. It was he who approached Stewart. They had worked together in the early 1950s to bring Raleigh its first industry -- the Westinghouse meter plant.

James R. Hinkle, a former local manager for CP&L and more recently an industry hunter for the state, followed Stewart as manager of area development.

The Research Triangle Park, conceived by Governor Luther Hodges, began to have significant impact on the Raleigh area. Proximity to three major universities -- North Carolina State, UNC - Chapel Hill and Duke -- enabled the Park to compete successfully for high tech research and development facilities. When IBM came to the Triangle in 1965, it moved hundreds of families and provided jobs for thousands of others. It was a major breakthrough for the state.

At the end of 1969, 82 of Fortune's top 500 companies had 172 manufacturing plants on the CP&L system. During the decade new investments announced by industry had totaled \$2.13 billion, and an estimated 154,000 new jobs had been created. The percentage of CP&L's industrial revenue which came from textiles had dropped from 48 percent in 1959 to less than 42 percent .

The Company's success in agricultural development was recognized when it received Edison Electric Institute's 1967 award for outstanding work with its farm customers.

OPPOSING PUBLIC POWER

The dispute with REA cooperatives over territory and customers picked up steam. In 1960 a superior court decision allowed CP&L to serve Knob Hill, an area annexed by Rockingham that previously was served by the Pee Dee co-op. Legislation to give the co-ops "territorial integrity" was introduced and failed in North Carolina in 1961 and in South Carolina in 1962. The co-ops wanted to compel new customers within 500 feet of their lines to accept their service and they wanted to establish their right to continue serving areas annexed by municipalities.

In early 1961 CP&L began advertising in South Carolina. The Company's position, as stated in a later advertisement, was clear.

"In helping extend electricity to rural people, REA co-ops have served a worthy purpose. If these co-ops are going to keep on getting Federal loans at 2 percent and continue to be exempt from virtually all taxes, they ought to be confined to the job for which they were created ... that is, providing electric service to rural people who cannot be served by tax-paying companies.

"If the REA co-ops desire to serve urban, industrial and commercial customers who do not require subsidized electric service, the co-ops should be required to accept all of the obligations of a public utility company. These obligations are that they obtain their capital in the market at no burden to the government, pay taxes as other utilities do, and be subject to regulation by the Public Service Commission."

At the meeting of the National Rural Electric Cooperatives Association in March 1962, members were urged to "exercise missionary zeal" in their quest for state legislation to give them territorial integrity. The REA administrator, a government official, declared that to help you "in the battle for territorial protection, we have developed ... a Model Territorial Integrity Act which we hope will provide a focal point for the efforts of cooperatives in all states..."

Sutton responded in a speech to the 1962 meeting of the Edison Electric Institute. "Of the problems facing this industry in the foreseeable future none is more important, nor requires more careful attention and wisdom than the problem of expansion of government-owned and tax-subsidized power facilities...."

"Many leaders in our industry believed in 1933 that the incidental power of TVA (Tennessee Valley Authority) posed no threat -- that those of us in adjacent areas were unduly alarmed. Nobody thought that within a single generation the total investment in TVA would approximate \$2 billion and that 82 percent of the total would be in power facilities. Few outside the southeast believed that the TVA would absorb practically every electric utility in Tennessee."

He pointed out that between 1940 and 1960, the percentage of the nation's generating capacity owned by agencies of the federal government grew from eight to 17 percent.

Sutton warned that REA loans "illustrate the implementation of the avowed purpose of REA to make the co-ops self-sufficient, aggressive competitors with private enterprise." He cautioned that each year co-ops, with taxpayer dollars, are growing astonishingly, openly competing for urban and industrial distribution while retaining their two percent government loans and their tax-exempt status.

"We must recognize these movements frankly for what they are, and develop a positive program to expose and extinguish each fire lighted around the nation by the social planners before a general conflagration ensues."

Sutton in his letter to shareholders in the 1962 annual report wrote, "I urge you to exert your influence on your elected representatives to have them resist the waste of taxpayers' money on government power and correct the discriminatory tax legislation which exempts government-subsidized electric systems from taxation."

There was a further reference to REA and Clyde T. Ellis, general manager of the National Rural Electric Cooperative Association, in the Company's 1962 annual report. "Mr. Ellis also alleges that power companies 'operate cost-plus and are guaranteed a profit'. This is comparable to saying that a man who buys a fishing license is guaranteed he will catch the limit. For a regulatory commission to say that a power company is entitled to a fair return on the fair value of its property in no way guarantees a profit."

"The continuing deviation of REA should be a matter of concern not only for stockholders, but all citizens who believe in American enterprise. In addition to having a direct financial interest in a company which is being encroached upon by subsidized, tax-exempt, unregulated competitors, you are one of the taxpayers who must help pay for the subsidies that REA co-ops no longer require."

Claims and Counter-claims

There were even more headlines in 1963. It started with a skirmish over whether CP&L had supplied adequate service to a rural customer in North Carolina. An REA co-op claimed it was serving the customer because CP&L had refused. There was a series of radio and newspaper advertisements and counter ads. In its ad, the company pictured the house and said:

"According to the electric co-ops, CP&L proposed to charge the owner of this house a price of \$3,400 to bring its facilities four-tenths of a mile to serve him.

"The fact is that for CP&L to serve the house would have required 1.2 miles of new line. The only 'price' quotation of which our Company has any record and which the owner has documented was made in 1953. That was an estimate of \$1,080....

"REA co-ops also have said: 'Let the record show that this citizen is now getting the service he requested and so desperately needed from the EMC to which he later applied.'

"CP&L believes the record should show the TRUTH. The house is not occupied. The owner does not have and never has had the service which the co-ops said he is getting from EMC."

In another newspaper advertisement, CP&L defined the issue: REA co-ops want exclusive rural territories and the statutory right to serve in cities and towns ... a complete departure from the purpose for which they were created. "If CP&L could borrow capital for 2 percent as the REA co-ops do and enjoy the same tax exemptions they do, CP&L could reduce the price charged all its customers by 40 percent."

In South Carolina the 1963 General Assembly passed a bill providing for the sale of co-op properties inside municipalities with the consent of the local governing body.

South Carolina Project 'Unnecessary and Unwarranted'

The next battle was touched off by a July announcement from Washington that REA had approved a \$32.9 million loan to Central Electric Cooperative in South Carolina for construction of a power plant and transmission lines. Presidents Harris of CP&L, William B. McGuire of Duke Power and S. C. McMeekin of South Carolina Electric and Gas issued a joint statement, saying their companies had offered wholesale power for the same price as the proposed project would supply it. They labeled the project "unnecessary and unwarranted."

In September CP&L fired another volley in South Carolina. It offered to buy seven co-ops in its service area. Duke Power and South Carolina Electric and Gas made similar offers to other co-ops in the state. Ellis responded from his Washington office by asking the Senate Anti-Trust committee to investigate CP&L. A South Carolina REA official called for an investigation to determine whether the utility companies were paying enough taxes. Harris said the retaliatory outbursts indicated the Company had hit a sensitive spot.

CP&L followed with a newspaper advertisement in South Carolina which outlined the benefits of its offer to buy the co-ops and merge their operations into a tax-paying, regulated company. Were it allowed to buy the co-ops, CP&L said it would result in \$840,000 of annual tax revenue, co-op members immediately would be paid their accumulated capital credits averaging \$110 each, and 80 percent of the co-op customers would get lower rates.

Governor Moore Calls for Resolution of Conflict

Legislators in both of the Carolinas were caught in the conflict. Onto the scene came Dan K. Moore, who in 1964 was elected governor of North Carolina. As he prepared for his administration, he summoned representatives of the co-ops and the electric companies to meet with him. He had spoken during his campaign about the need to resolve the dispute. Now he asked them to sit around the conference table.

"It was a chaotic situation," Moore said. "There were law suits pending about who was to serve whom. I became an umpire. I wasn't trying to tell them what to do. I was only trying to keep them from fighting with each other. A settlement was in the best interest of the parties, but more significantly, it was in the best interest of this state and its future."

Key participants in the negotiations which took place during the last two weeks of 1964 were W. Reid Thompson, vice president and general counsel for CP&L; William Crisp, attorney for the co-ops, and Joseph Branch. Branch had managed the Moore gubernatorial campaign. He would later become chief justice of the North Carolina Supreme Court.

Moore subsequently observed that "both sides sincerely wanted to reach an agreement. There was a feeling on both sides that something had to be done."

Out of the negotiations came a "Statement of Principle Agreed upon between Rural Electric Cooperatives and Power Companies". It was signed January 6, 1965 and enacted by the General Assembly on April 20.

Rep. David Britt, a member of the public utilities committee who later became speaker of the House and a justice of the State Supreme Court, recalled that announcement of the agreement came shortly after the General Assembly convened. He said it was welcome news for legislators who had been dreading the fight between co-ops and companies. Municipalities which operated electric distribution systems were quick to complain that they had not been party to the negotiations and they wanted changes. In spite of their objection, the bill was adopted in

essentially the form which had been agreed upon.

The new law had four major points. First, it provided that an electric supplier had the right to serve new customers within 300 feet of its existing lines. If two suppliers were within 300 feet of a new customer, the customer could choose the supplier. Second, it provided that all territory lying more than 300 feet from existing lines would be subject to allocation by the State Utilities Commission. Third, it prohibited co-ops from competing for municipal franchises in cities and towns served predominantly by a power company. Fourth, it required that co-ops pay all state and local taxes applicable to power companies except the state income tax. Further, the law specified that all future generating plants would be subject to certification of convenience and necessity by the Commission, and it prohibited the co-ops from discriminating as to rates and service.

Territorial Assignment

Implementation of the territorial assignment was a major undertaking. Tom Byrum, a veteran engineer, was picked to head the project for CP&L. He worked closely with Paul Lyman, industrial sales manager, and Sherwood H. Smith Jr. of the legal department. The task required six years. Lyman was personally acquainted with the co-op managers because he handled the contracts for energy sales to them.

Byrum said the starting point was to put on county maps the location of all Company lines at January 1, 1965. Division engineers had that responsibility. Then came lengthy sessions with local managers to identify areas the Company would like to serve and those which could be given up. Area development personnel, large property owners and CP&L directors also were consulted.

Maps were exchanged with the co-ops to assure agreement as to the location of lines before maps were submitted to the State Utilities Commission. The Commission was responsible for approving territorial assignments. After the mapping was completed, territorial negotiations with individual co-ops began.

Byrum remembered the negotiating sessions as largely enjoyable and pleasant. "We tried to agree on natural boundaries such as roads, streams, railroad tracks and transmission lines. Where customers had strong preferences, we tried to accommodate their wishes, too."

There were lighter moments as well. Byrum recalled discussions with the Randolph co-op about a location near Pittsboro where CP&L and the co-op claimed to serve a customer. "Turned out," Byrum laughed, "that both of us had lines to the point. But neither of us had a customer. They were serving an oak tree and the nearest thing to our delivery point was a pine." The prospective customer had never built. In another case, a co-op wanted to keep an area because it was owned by the chairman of its board. "We agreed," Byrum noted, "but we told them that one of our directors had large land holdings in the county and we would expect to serve that."

A short time later, South Carolina adopted similar legislation. Phil Ross, a veteran CP&L engineer who was based in Florence, led the implementation project for the Company. Thus a conflict over customers and territory which had flared intermittently since the early days of REA was finally resolved.

Electric Power in Carolina (EPIC)

The government power issue surfaced again in 1969 when North Carolina Electricities and REA cooperatives announced plans to build generating plants to supply their power needs. CP&L's annual sales in 1968 to these customers were \$18.6 million or 11 percent of total revenues. The plan was named Electric Power in Carolina (EPIC). It called for investment of \$1.75 billion in four generating complexes and related transmission by 1980. The money was to be raised by sale of tax-free revenue bonds by the cities and from REA or market loans by the cooperatives.

Harris promptly held a news conference where he labeled EPIC a "fantasy" and declared "the only way EPIC would deliver power at a savings to the municipalities and cooperatives would be by evading the real cost of capital and the taxes that investor-owned companies must pay." He denounced the unnecessary creation of further tax inequities when electric companies in the state are providing an adequate source of power for these customers and are expanding their systems to meet future needs.

The plan required the approval of regulatory agencies and endorsement by a sufficient number of the electricities and co-ops to make it feasible. The goal was to begin construction in 1972 and have the initial plant operating by 1975. Reaction to EPIC was skeptical.

The Clinton Sampsonian cautioned: "To build a second large electric distribution system across North Carolina would seem to be wasteful and not in the best interest of the people served by the electricities and those served by private firms."

The High Point Enterprise advised: "The electric generating business is no place for ill-financed amateurs spending public funds, for modern living is too dependent upon a strong and dependable source of power to allow any short circuiting of that supply."

And the Newton Observer-Enterprise suggested residents of cities and communities which become part of EPIC "lay in a good supply of candles, and switch to gas for heating and cooking. Times ahead could be very lean indeed."

CP&L: PEOPLE SERVING PEOPLE

Mention CP&L and the image more likely to come to a customer's mind was of a

lineman. Measure public attitudes and they always were most favorable just after a major storm or other disaster. Say you worked for CP&L, said one newcomer, and the doors of the community opened to you. Employees had a high degree of loyalty, turnover was low, and other people considered them fortunate to work for a good company. Decisions were made by a few managers at the top. That did not seem to bother other employees, many of whom had fought in one of the two world wars.

This was a company made up of people serving people, a company known as frugal. Its offices were inauspicious. It used an outdoor design for its steam electric generating plants to hold costs down. It operated its system with a minimum of manpower. It had a reputation for being dependable and well-managed.

On all stationery, communications and signs the identification was "Carolina Power and Light Company". Either of two taglines usually appeared with the corporate logo: "Helping to build a finer Carolina" or "An investor-owned, taxpaying public utility company". Later, the tagline "people serving people" appeared. Company vehicles were two-tone, a brown and dull red which was referred to as "blood and mud".

First Bucket Truck Purchased

The life of linemen changed dramatically in 1961 when the Company bought its first bucket truck. It was a 1961 Baker B-10. W. F. West was a member of a Raleigh line crew which used one of the first Pittman Polecats. Later he became a line foreman and subsequently the Company's safety director. He said the new vehicles had augers to drill holes, eliminating need for the old spades and spoons and the hand labor which went with them. Poles could be lifted into position mechanically. The buckets took away a lot of pole climbing. Working from the buckets made it possible to handle higher voltages without service interruptions. Line crews for the big trucks shrank from five men to three. But, West recalled, the system was growing so rapidly that enough new line crews were created to absorb all the men.

Ed Geddie remembered that the Company's philosophy was to maintain only enough line crews that they would be fully occupied when work was slowest. Contractors were used for excess work, notably for constructing rural lines.

Bobby Morrison, then a lineman, was said to have taken to the new hydraulic equipment like a duck to water. Geddie who was superintendent of transmission and distribution gave Morrison the assignment of training others to use the mechanized trucks.

Joe F. Gainey and his line crew at Clinton took a major step in 1961 when they changed a pole supporting a 12 kv line and air break switch without interrupting service. Until that time, such a repair caused interruptions lasting several hours. The practice spread across the system.

On July 1 an employee stock purchase-savings plan became effective. Employees could invest up to 4.5 percent of base pay and the Company would contribute \$1 for each \$3

invested by the employee. About 80 percent of eligible employees took advantage of this opportunity to become one of the owners of their Company.

Annual Revenues Reach \$100 Million

In 1963 chests were puffed with pride as annual revenues rose above \$100 million. It was a milestone which in the eyes of many put CP&L into the bigtime of corporate America. A decision also was made to use computers for customer accounting and billing. That caused uneasiness among employees who feared their jobs might be eliminated.

Three years later, the electronic data processing system (EDP) reached full operation with two printers producing four bills simultaneously at the rate of 600 lines per minute. The bills were automatically inserted into envelopes. James Cooke, director of the EDP system, emphasized to his workers that "the care and feeding of a computer can be done only by humans. The continued success of this application will be completely dependent on the degree of accuracy maintained by all employees responsible for the transactions being fed through the system."

In 1964 Sanford, one of the three communities served by CP&L when it was formed in 1908, renewed the Company's franchise to serve the city. F. C. Lennon was the local manager who negotiated the renewal. Among his peers, he became known as the designated franchise-renewal manager because of the number of locations in which he faced that assignment. His next move was to Wilmington. 1964 also saw the Company's common stock split two-for-one.

A decrease in the federal income tax aided CP&L in making a 1965 rate reduction of \$1.25 million, giving it a record of reducing rates in 26 of the last 32 years.

Electricity finally reached the Doe Branch community of Madison county in 1966. Lines were strung across the rough mountain terrain to reach people who talked excitedly about getting television sets and electric irons as they made the switch from kerosene lamps. Governor Dan Moore spoke at the dedication of Roxboro I. It was the last plant dedication for which the Company issued a public invitation for all residents of the surrounding community to be its guests for the ceremony and lunch.

In late January a blanket of ice 60 miles wide spread from Florence to Kinston, crippling the system and involving 1,200 men in the repair. The Laurinburg Daily News editorialized: "The entire community owes a big vote of thanks to the workmen who handled the emergency so splendidly. Laboring under the worst handicaps imaginable, these men did everything humanly possible to repair utility lines and clean up debris and our hat is off to every one of them."

The next three winters also brought ice storms that did heavy damage to parts of the system. After each one there was the predictable praise of workers from customers, grateful to have their electricity flowing again.

In 1967 the citizens of Elm City voted to lease their municipal system to CP&L.

Edison Electric Institute sponsored interviews with hundreds of persons to look at the role of electricity in 2000. Edwin Vennard, EEI executive, reported one of the results. "Portable computer terminals -- small devices through which information can be entered and received -- will be commonplace. The doctor will carry one in place of his traditional black bag. The salesman will have one in his sample case and have current knowledge of inventories. The student may have one for homework."

October marked the end of Riley Fisher's 40-year association with the Marshall hydro plant. When Fisher went to Marshall in 1927, there was a staff of seven. Over the years men were replaced by machinery, until in 1964 it became Fisher's one-man operation.

If ever there was a year that brought shocking change, 1968 was it. There were the assassinations of Robert Kennedy and Martin Luther King. Demonstrations against the Vietnam war frequently turned into violence. Emotionalism surrounding the environmental movement mounted. At every turn, the establishment faced questions about traditional beliefs and values. Activism on college campuses was at a peak. Mini-skirts were the fashion. Electric utilities along the east coast which had always had power to spare suddenly found themselves in a long, hot summer which literally drained their generating reserves.

Losing the Battle with Inflation

Inflation was taking its toll. In the annual report to shareholders, President Harris said, "Through the years we have adopted new technology, installed larger generating plants and effected every other reasonable economy in a continuing battle to offset inflationary pressures. We are dedicated to continuing this effort. However, the accumulated and continuing pressures of inflation are having substantial impact on the cost of materials, supplies and almost everything else essential to provide electric service, including the cost of investment capital. Our construction program will require large amounts of new capital in the years immediately ahead. We are making a continuing study to determine our revenue needs and will take whatever action is necessary to prevent erosion (of earnings) from inflationary pressures."

The price of coal hit bottom during the 1960s. The delivered price per ton was about \$8, roughly half for coal and half for transportation. Beginning in 1964, the part of the customer dollar needed to pay for fuel began to creep steadily upward -- from 19.2 cents to 26 cents in 1969. During the same five years, the Company's fuel requirements rose from three million tons of coal annually to six million.

The cost of vehicles, poles, transformers and other materials was going up. Of the company's major generating facilities, Roxboro 1 and 2 represented the lowest investment per kilowatt of capacity. Interest rates on long-term bonds were approaching 7 percent.

Ironically, the average price paid by residential customers for a kilowatt-hour of electricity reached its lowest point in 1969 and 1970 -- 1.64 cents. While the Company prepared to file its first general rate increase, it also sought through its communications to make customers aware of the bargain which electric service was.

The hour of reckoning was at hand. Harris expressed it succinctly: The ravages of inflation are outrunning the efficiencies produced by our ingenuity.

And in 1969, with the retirement of Sutton, Oley Baugh who had been chauffeur for the Company's chief executives since 1928 retired to his farm at Apex to grow hogs. He estimated he had driven a million miles. His passengers included persons prominent in business and government. Perhaps the best known was General Dwight Eisenhower whom he described as a close friend of Sutton. Baugh fondly remembered that the General always called him by his first name.