

25 **POWERFUL** Years



*NOVEC thanks
the following
people for their
contributions to
this booklet.*

- *J. Manley Garber
chairman, board of directors*
- *Walter Grove
treasurer, board of directors*
- *Leonard Lonas
former Co-op attorney*
- *Harry K. Bowman
former PWEC and NOVEC manager*
- *Don Middleton
former director*
- *R. H. Ellison
construction supervisor*
- *Bradley Kidwell
lead substation electrician*
- *Monte Greene
construction division supervisor*
- *NOVEC public relations staff*
- *Cortani Morrison
Advertising and Public Relations*



A **POWERFUL** Story

The Tri-County Electric Cooperative and Prince William Electric Cooperative consolidated and created the Northern Virginia Electric Cooperative on

January 1, 1983. To celebrate NOVEC's *25 powerful years*, this booklet shines a silver anniversary light on its history, from mankind's attempts to tame electricity and harness it in light bulbs to sending it across thousands of miles of NOVEC lines to power the most advanced technology. From the pioneers who "rode the roads" to sign up members for infant rural electric cooperatives to customer-owners who live and work in the most powerful nation on earth...this is NOVEC's *powerful story*.

"Someday,
man will harness the
rise and fall of the tides,
imprison the power of
the sun, and release
atomic power."

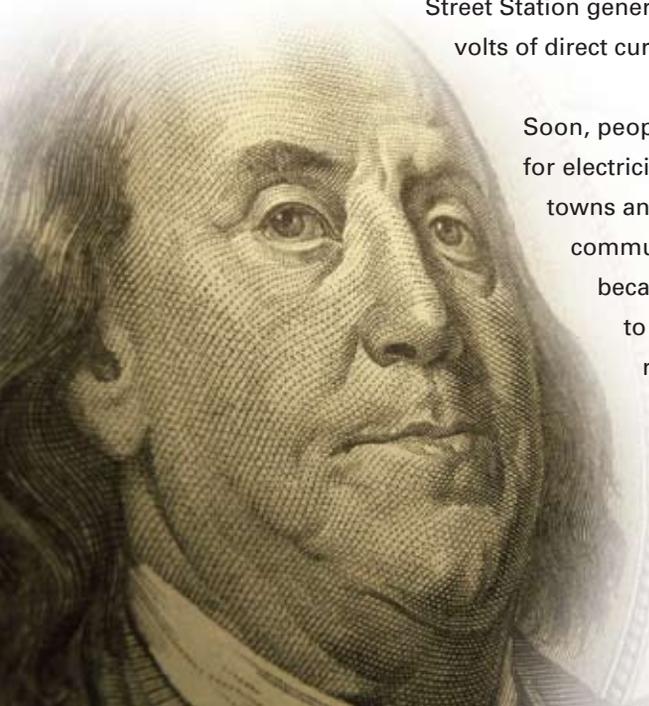
– Thomas
Alva
Edison

IN THE BEGINNING THERE WERE ELECTRONS

From the beginning, nature sparked with electricity as electrons charged through matter and air. For centuries, scientists and observers tried to unlock electricity's secrets. Benjamin Franklin, one of the foremost scientists of his age, tested lightning with a kite, string and metal key in 1752. He discovered that the deadly force was a form of electricity that could be tamed by lightning rods. Franklin's discoveries made him an international sensation and hero.

Thomas Edison built on Franklin's discoveries and those of Isaac Newton, Alessandro Volta, James Watt, Andre Marie Ampere, George Simon Ohm, Joseph Priestley, Michael Faraday, and other scientists when he invented the first commercially practical incandescent electric light bulb in 1879. The light bulb changed the world, but so did Edison's 1880 patented electric distribution system that capitalized on the new electric lamp. In 1882, Edison opened the nation's first electric utility in New York City. His Pearl Street Station generated and distributed 110 volts of direct current to 59 customers.

Soon, people everywhere clamored for electricity. Providers sprang up in towns and cities. Unfortunately, rural communities were powerless, because delivering electricity to remote farming regions reduced investor-owned utilities' profit margins. Consequently, rural America lagged behind thriving Industrial Revolution cities.



ICEBOXES, WASHBOARDS AND HAND PUMPS

Life before Electricity

The economic dichotomy grew even greater during the Great Depression for people living in rural America.

“Life was difficult during the Great Depression without electricity,” said J. Manley Garber, who began serving on Prince William Electric Cooperative’s board of directors in 1950 and was elected board president in 1974.

“When I was growing up in Woodbridge on our farm we didn’t have running water, so we either had to bathe outdoors in the pond or lug buckets of water from the well into the house, heat it on the wood-burning stove, and pour it into the kitchen tub,” Garber recalls. Innovative people—like his neighbor—poured water into an outdoor tub and waited until the sun warmed it enough to take a bath. According to Garber, people without electricity usually bathed once a week on Saturday nights to be clean for church the next day.

The Garber family farm bordered on the Potomac River in Prince William County. Garber remembers how he and his three siblings had many chores: “We had to keep plenty of firewood on the porch for the kitchen stove and the living room fireplace. We had to clean the chimney. Before we were ten, we were milking three or



four cows by hand, gathering eggs, and feeding stock cattle before and after school. We raised almost everything we ate.”

Garber says, “When I was a small child, my parents stored food in crocks they placed in the cold spring that ran under our house. We kept vegetables cold in the underground root cellar.” In time, Garber’s family bought a wooden icebox. The local iceman regularly placed a 25- to 50-pound block of ice in the metal-lined ice container in the box. Garber fondly remembers how he and his siblings cut ice from the nearby pond: “We packed it in sawdust and straw in our ice house until summer. Then, we crushed it to use in our ice cream maker.”

In the late 1930s, Garber’s family bought a kerosene refrigerator. “My siblings and I had to refill the kerosene every night,” says Garber. “We also had to fill our kerosene lamps for light.”

Washday was arduous before electric washing machines took over the job. Garber remembers how

his mother heated water on a wood-burning stove in the washhouse. “My mother made all her own soap in a big kettle. She washed everything—including the four of us kids—with it.”

Garber said his mother lathered laundry on a washboard, rinsed it in another tub, wrung it through two hand-cranked rollers, and hung it on a clothesline to dry.



“Talk about recycling!” says Garber. “By the time we were 14 years old we were getting up at 3 a.m. and driving trucks to Washington and Baltimore to collect garbage. We washed and recycled glass and resold it for 1 cent a pound. Farm wages were \$1 a day. Gas cost 18 cents a gallon.”

According to Garber, people in town knew how to keep cool at night before air conditioning. “I remember seeing every park filled on summer nights in Washington and Baltimore with families sleeping on blankets under the stars, because it was just too hot to sleep in apartments,” recalled Garber. “All of Haines Point (in Washington) would be covered with sleeping people.”

Walter Grove, who was elected to the Cooperative’s board in 1973, remembers how difficult life was on his family farm in Somerville, Va., before electricity. “The hardest thing I remember was trying to do my homework at night with only a kerosene lamp for light,” says Grove. “What a difference electric light made!” Grove and his three brothers worked on their farm and helped their parents run Grove’s Store and gas station. They pumped gas by hand from an underground container until Prince William Electric Cooperative reached the farm in 1941 and Grove’s father purchased electric pumps.

“Be
courageous!

Whatever setbacks
America has encountered,
it has always emerged as a
stronger and more prosper-
ous nation. ...Be brave as
your fathers before
you. Have faith
and go forward.”

– Thomas
Alva
Edison

REA UNITES THE NATION WITH “THE NEXT GREATEST THING”

Life in rural America started to change in 1935 when President Franklin D. Roosevelt asked Congress to pass legislation to help electrify more than five million farms. The U.S. was far behind France, Germany and Switzerland where 90 percent to 100 percent of their farms had electricity. Senator George W. Norris of Nebraska cosponsored the Rural Electrification

Act. He said, “I have seen first-hand the grim drudgery and grind which had been the common lot of eight generations of American farm women ... growing old prematurely; dying before their time; conscious of the great gap between their lives and the lives of those whom the accident of birth or choice placed in the town and cities.”

Congress passed the legislation and FDR’s Executive Order created the Rural Electrification Administration. With loans from REA, farmers could form co-ops to obtain “the electric.”

In 1939 and 1940, Tri-County and Prince William Electric cooperatives used REA loans to establish power systems in

the area we now know as NOVEC territory. The cooperatives promised “the best possible service for the lowest possible cost consistent with sound business practices.” These not-for-profit corporations owned by the members they served would meet annually to elect directors, hear the presidents’ and managers’ reports, and conduct other business.



The board of directors would make policy decisions and hire a manager to oversee operations and report to the board at monthly meetings.

History tells of jubilant celebrations and joyful tears when co-ops across the country flipped the switch to power the fruited plain. Electricity that once divided the powerful from the powerless and the “enlightened” from the “backward” now united the nation in a miraculous wire web. Life went from endless back-bending drudgery to comfort.

Farm families like Garber’s and Grove’s no longer had to pump water from outdoor wells and haul it to wash tubs or brace freezing temperatures to reach the outhouse. No longer did they have to milk cows by hand under dim kerosene lanterns or cut ice blocks from winter ponds to preserve food, nor did they have to cut and carry firewood indoors for heating and cooking. One farmer felt so blessed to have electricity that he told his neighbors, “Brothers and sisters, I want to tell you this. The greatest thing on earth is to have the love of God in your heart, and the next greatest thing is to have electricity in your house.”¹

TRI-COUNTY ELECTRIC COOPERATIVE: 1939-1982

A Loudoun County agent put notices in newspapers in Loudoun, Fairfax and Clarke counties inviting anyone interested in



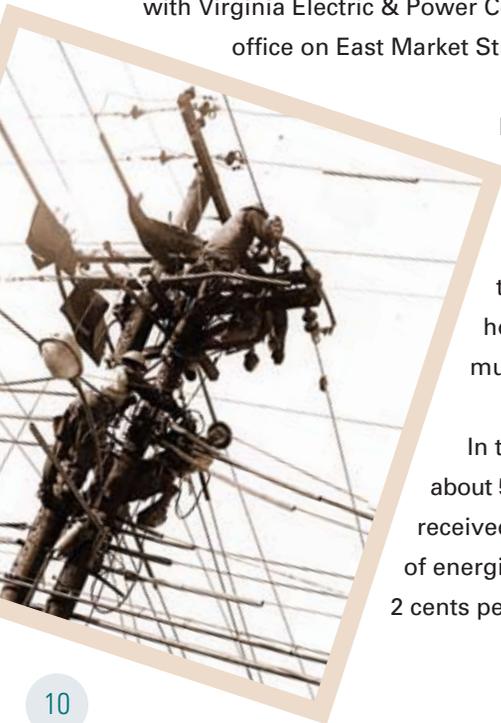
¹ *The Next Greatest Thing: 50 Years of Rural Electrification in America*, National Rural Electric Cooperative Association, 1984

forming an electric cooperative to meet at Arcola School on October 31, 1939. Each person at the meeting who agreed to be a director travelled throughout a given route to solicit members to reach the quota necessary to form a cooperative.

Members in the new cooperative voted to borrow money from REA to construct a distribution system and they signed a contract to purchase wholesale power from Bull Run Power Company. They set up an office in Leesburg.

Tri-County energized its first lines on June 2, 1940, in Centreville. By July, 108 homes received a special kind of independence fireworks: electricity.

Tri-County continued to grow and soon needed larger offices to accommodate equipment and office staff and more power than Bull Run Power Company (which became Prince William Electric Cooperative in 1941) could furnish. To obtain more power, Tri-County signed a contract in 1947 with Virginia Electric & Power Company. Tri-County moved into its new office on East Market Street in Leesburg in May 1953.



Members used electricity for milking machines, water and gas pumps, small and large kitchen appliances, lighting, radios, and a new device called a television. But most of their farms and houses were small and they did not use much electricity.

In the 1950s and 1960s, membership grew about 5 percent per year. By 1970, 2,524 customers received power from Tri-County along 596 miles of energized line. Consumers paid approximately 2 cents per kilowatt-hour.



The newsletter explained what an electric cooperative is:

The Prince William Electric Cooperative is a rural community enterprise organized democratically for the purpose of supplying electricity to its members at the lowest cost made possible through mutual self help and Rural Electrification Administration financing and guidance.

We have democratic control in our democratic form of government, where each citizen has only one vote regardless of how rich or how poor he is. In the ordinary business corporation the stockholder who owns the largest number of shares of voting stock has the largest number of votes. ...In a real cooperative, each member has one vote and only one. In this way, the control of the enterprise is in the hands of the majority of the members. Men and women, not money, control a cooperative enterprise.

If you are a member of the Prince William Electric Cooperative you are one of its owners, you are a member of its controlling body. By your vote, you can approve or disapprove policies and you have the right and duty to elect a capable and public spirited board of directors. As a member, you should make every effort to come to all members' meetings and to vote on all matters which the members have a right to decide. The success of your cooperative depends upon your active support in it and help to control it.

The board, with the assistance of a REA field engineer, built a modern central power generating plant off Route 28, close to the Southern Railway for ease in handling machinery and fuels. The new "power house" could generate up to 440 kilowatts. The new Co-op extended energized lines into the country in every direction. They updated existing lines for increased voltage. The board spared nothing to ensure that the

power plant was a model of efficiency. PWEC became the sole source of power for Manassas, rural areas of Prince William, Fairfax, Fauquier, Stafford, and parts of Loudoun counties. It was also the sole power supplier for Tri-County Electric Cooperative until 1947.

The United States stopped in its tracks on December 7, 1941, and changed course when the attack on Pearl Harbor in Hawaii brought the country into World War II. With the U.S. engaged in war, the Cooperative helped the war cause by extending its service area to a defense housing project in Stafford County. Fewer than 1,000 new members joined the Co-op between 1941 and 1946.

After the war, membership in the Cooperative and power demand took off as people flocked to the Washington suburbs to live. The Town of Warrenton and Vint Hill requested additional power. PWEC purchased and installed additional generators each year from 1946 to 1949 to handle increasing demand. The Co-op prospered so much that VEPCO offered to purchase it in 1947, but the board declined the offer.

When Manley Garber was 20 in 1945, he sold an 80-acre parcel and bought 149 acres fronting Smoke-town and Minnieville roads. He cut down some trees, had them sawed into lumber and built his first house. He asked VEPCO to run a line to his farm one mile away where he kept almost 3,000 hogs. The utility refused. Therefore, he



asked PWEC to run a line and they agreed. They ran the line to Garber's farm and another neighboring farm. That line would some day power enormous growth in the Dale City area, including what is now Potomac Mills Shopping Center.



PWEC'S NEW HEADQUARTERS

By 1950, the Co-op had outgrown its rented headquarters and built a new building on Route 28 in northeast Manassas. It had built a generation and transmission system that spanned four counties to serve more than 2,600 members, and had a new manager, Reuben B. Hicks, whom the board hired in 1949.

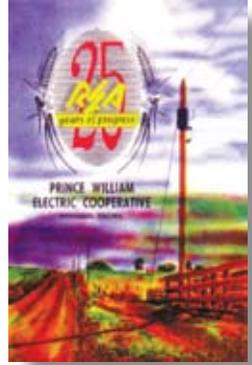
BECOMING A DISTRIBUTION CO-OP

Diesel generation became increasingly expensive as the Cooperative grew. Old Dominion Electric Cooperative, hoping to become the major power supplier for all Virginia cooperatives, invited Prince William to join them. However, VEPCO, trying to forestall competition in electricity generation, offered to sell power wholesale for much less. Consequently, the PWEC board contracted to purchase electricity from VEPCO and

stopped generating electricity. Thus PWEC went from being a generation and transmission co-op to being a distribution co-op.

A TAKEOVER FIGHT

The Town of Manassas requested a bid from the Cooperative to provide electricity, but VEPCO won the contract. By mid 1955, there were rumors that the town was planning to annex 103 of the Cooperative's customers, the headquarters building and generating plant. The PWEC board resolved to fight the annexation. Relations stretched further when the town built their power lines parallel to the Cooperative's and in some cases crossed the lines. The town and PWEC agreed in December 1959 to share the cost of relocating the lines.



PATSY CLINE AND THE SHERIFF

Annual meetings brought Co-op members together for food, fun and business. Leonard Lonas, who started serving as the Co-op's attorney in 1955 and served for 51 years as the attorney for the board, said in an interview in the January 2007 *Cooperative Living* magazine, "We used to hold the annual meetings outdoors behind the Manassas building. If it rained, we went into the garage. Some of the



neighbors didn't like all the noise we made and called the sheriff's office. They would come and tell me to wrap up things. I would say, 'Let me just get through a few more votes.' We got along well with the sheriff and his deputies."

Members enjoyed ice cream bars, door prizes, and entertainment. Lonas said, "One of the best meetings was in 1960 when Patsy Cline sang. She was just getting started and was a huge hit with the members."

By 1962 membership had grown by 300 percent to approximately 8,000. The Cooperative had outgrown its headquarters again and began constructing a new one on Lomond Drive off Route 234.

PWEC'S SILVER ANNIVERSARY

In the 1966 Annual Report, Board President Clarence A. Middleton said,



A quarter-century ago, experts in rural electrification said our area would not support an area coverage power system. A few of the people who lived here did not know that, so they went ahead anyway. We will never know whether their optimism was justified, because Northern Virginia changed so drastically. In any event, our area does support an area coverage power system. We built it, we own it, we run it. We have rock solid finances, and the best service that money, skill and devotion can provide."

TWO FIRST LADIES DESCEND ON PWEC

In 1970, First Lady Pat Nixon and the First Lady of the Philippines, Imelda Marcos, landed in the U.S. presidential helicopter on the front lawn of Prince William's office. Mrs. Marcos was interested in promoting rural electrification in the Philippines. The National Rural Electric Cooperative Association selected PWEC because it was a "good example of what could be accomplished in the way of development and growth."



Security was tight. *The Journal Messenger* reported, "County, state and town police were evident at the cooperative. The women's visit was preceded by FBI, Secret Service and State Department security officers." According to a 2008 interview with Harry K. Bowman, who was the Co-op's assistant manager at the time, government officials ran all employees' Social Security numbers through computers before the visit. Officials cleared everyone and gave each employee a special pin to wear. "One employee forgot to wear his pin," Bowman chuckled. "The Secret Service spotted him and locked him in a closet until after the First Ladies left."

Mrs. Nixon wrote a letter to General Manager Hicks after her visit and said, "The major role you played in the advance preparations and the excellent briefing you gave during the tours contributed immeasurably to fulfilling Mrs. Marcos's expressed desire to learn of our nation's successful growth and progress in rural electrification."



PWEC GROWS TO 16,000 MEMBERS

By 1971 the Cooperative had grown to 16,000 members and 110 employees. Ten percent of the system's electric lines were underground, because urbanites moving to the area did not want the beautiful countryside panorama marred by overhead poles and lines.

HURRICANE AGNES INUNDATES NORTHERN VIRGINIA

Those underground lines did well when Hurricane Agnes inundated Northern Virginia the next summer, but the storm blew hundreds of trees down on overhead lines, knocking out power to hundreds of NOVEC customers. According to Assistant Manager Harry K. Bowman, linemen had to row boats down Lomond Drive to reach the Hicks Substation, which was under six feet of water. "Russell Hancock, a lineman, swam underwater to unlock the gate so we could restore power. He was very brave and dedicated."



HARRY BOWMAN BECOMES THE NEW MANAGER

In 1974, Reuben Hicks retired as manager and the board of directors appointed Assistant Manager Harry K. Bowman to replace him.

PWEC'S LOAD MANAGEMENT PROGRAM

PWEC led other electric utilities in Virginia and throughout the country with a unique energy conservation initiative that helped control power demand on the hottest and coldest days of the year. In 1978, the State Corporation Commission approved the Load Management Program in which participants allowed PWEC to install switches on their air conditioners and water heaters. PWEC operators turned off the appliances remotely from the Manassas office for short periods when demand peaked. During the first year of the program, the Co-op installed more than 1,000 switches. Consequently, PWEC and its members saved money on wholesale power costs.

1973 OIL EMBARGO MAKES ELECTRICITY COSTS SOAR

The 1973 oil crisis began when the Organization of Arab Petroleum Exporting Countries stopped shipping oil to the United States, its Western European allies, and Japan for supporting Israel

during the ongoing Yom Kippur War and other conflicts with Syria and Egypt. At the same time, the 12 members of the Organization of Petroleum



Exporting Countries decided to raise their crude oil prices. The industrialized world's dependence on OPEC and OPEC oil sent global oil prices, and consequently economic inflation, sky-high. By 1980, the prime interest rate in the U.S. soared to 20 percent.



The REA, the Cooperative Finance Corporation, and NRECA asked all electric cooperatives to take steps to conserve energy. Prince William closed their offices on Saturdays to save energy. Tri-County cut expenses everywhere it could.

“Wholesale prices doubled suddenly after the oil embargo,” said Bowman. “Members were angry. They couldn’t understand why coal prices were increasing just because oil prices were. But all energy prices increased because of the embargo.”

The State Corporation Commission allowed electric co-ops to pass add-on fuel charges and higher wholesale power costs to their customers.

Many members of both Tri-County and Prince William came to annual meetings during the 1970s with pointed questions and objections to the higher rates the Cooperatives charged. Tri-County’s largest gathering of members occurred at their 1972 annual meeting. They passed a resolution to increase the debt limit from \$1.5 million to \$50 million. But that money would not be enough when the oil embargo tightened fuel supplies.

Many small companies had to consolidate to keep afloat because of inflation. For not-for-profit electric cooperatives, it was the only route for survival. The cost of wholesale power made it impossible for them to compete with investor-owned utilities. Tri-County was especially hard hit. It had to string too many miles of line for too few customers.

As oil prices and the inflation rate were climbing, Tri-County Electric Cooperative's financial bottom line was sinking. By the late 1970s, rates for Tri-County's 3,502 members had tripled.

Tri-County's service area, which comprised western Fairfax County and much of Loudoun and Clarke counties, remained largely rural in the 1970s. Farms and farm houses did not require as much power as large homes that



would be built in those counties at the turn of the 21st century. Tri-County only had 27 employees, including only two crews to maintain the lines. According to former Tri-County Director Don Middleton, "the crews couldn't keep up."

Middleton was elected to the Tri-County board in 1977. He said in a 2008 interview that Tri-County had to borrow money from REA and CFC every month to pay VEPCO for wholesale power the Cooperative distributed to its customers. "We didn't have enough members and our rates were much higher than other utilities," said Middleton. "We couldn't raise them any higher. Each month we were operating hand-to-mouth." Tri-County's rates were \$10 higher per 1,000 kilowatt-hours than other area electric utilities.

Middleton said the manager left the Co-op. Two employees acted as managers to replace him.

In 1979, Tri-County's finances fell further and the Co-op had a negative margin, which violated mortgage requirements of REA and CFC. The REA demanded action to remedy the situation. According to Middleton, there was only one thing to do: consolidate with another cooperative.

PRINCE WILLIAM AND TRI-COUNTY CONSOLIDATE

At Prince William's May 1979 board meeting, Bowman reported that he received a request from Tri-County to consolidate.

"I'll never forget the first meeting between the two boards," said Bowman. It was October 9, 1979, and Baltimore was playing Pittsburg in the World Series. I didn't want to miss the game for the meeting, but I went anyway. To everyone's surprise, it started to snow!" he continued.





“It snowed so much that the game was postponed and trees with snow-covered leaves fell on lines and caused outages everywhere.

At the meeting, the two boards established the Joint Merger Committee, headed by John E. Bonfadini, a Prince William director. The committee began feasibility studies to determine whether consolidating would benefit both cooperatives. Their studies supported the move.

At their June 1982 Annual Meeting, Tri-County’s membership voted to consolidate. It was now Prince William’s turn. They needed more than 16,000 proxy votes to approve the action. “Getting that many votes was a real challenge,” said Bowman. “But Billy Leigh (Member Services) was very popular with members. He reassured everyone and urged them to vote.” Anticipation grew at the September Annual Meeting as election officials counted the votes. With 16,398 for and 69 against, the motion passed. The cooperatives received approval from the SCC, REA and CFC.

At 12:01 a.m. on January 1, 1983, Tri-County and Prince William electric cooperatives became Northern Virginia Electric Cooperative. Leonard Lonas said the board had to meet immediately to make the new Cooperative legal. With a bottle of champagne and good wishes, six directors from Prince William and three from Tri-County toasted the new year and the new Northern Virginia Electric Cooperative.

NORTHERN VIRGINIA ELECTRIC COOPERATIVE

A NEW BEGINNING: 1983-1990

Tri-County's and PVEC's meters combined to give NOVEC more than 38,000 customer-owners.

All of PVEC's directors and three Tri-County directors formed the first NOVEC board. Harry K. Bowman continued as general manager for the consolidated Co-op.



The first NOVEC directors: (from left) Don M. Middleton; James S. McKimney; Mark A. Thomas; Walter R. Grove, treasurer; J. Manley Garber, president; John E. Bonfadini, secretary; Thomas E. Reed; Vernon C. Moore; and C. Preston Poland, vice president

Although the two cooperatives blended smoothly together like two mountain streams feeding into a river, NOVEC soon confronted its first big challenge: the Blizzard of 1983 on February 10 and 11. Almost everyone and every endeavor came to a halt, except for most of NOVEC's electric service. NOVEC line technicians plowed through two feet of snow and hoisted themselves up power poles with ice and wind tearing at their faces to restore power to customers who had outages.



NUCLEAR NOVEC

The Old Dominion Electric Cooperative organized in 1948 to supply wholesale power to electric cooperatives in Virginia, Maryland and Delaware. It did not become viable until the rising costs of energy in the 1970s drove electric cooperatives—including NOVEC—from investor-owned utility suppliers to ODEC in search of lower-priced wholesale power.

VEPCO started constructing two pressurized water nuclear reactor units along the North Anna River in Louisa County, Virginia, in the 1970s. The company constructed Lake Anna to supply water to cool the reactors. The units went online in 1978 and 1980 respectively. ODEC started to negotiate with VEPCO to purchase a portion of the station.

Nuclear power became strikingly controversial when the worst civilian nuclear reactor accident in United States history occurred at Three Mile Island Nuclear Generating Station in Pennsylvania in 1979. One of the reactors had a partial meltdown. Ironically, Hollywood released a fictional movie about a nuclear accident, called *The China Syndrome*, just 12 days earlier. Wrothful reactions stopped some U.S. nuclear power stations already under construction and halted new construction for almost thirty years.



Despite the controversy, ODEC purchased 11.6 percent of the North Anna station on December 21, 1982. Once several federal and state agencies approved the deal, and REA signed the loan guarantee on September 30, 1983, ODEC began supplying electricity from the station to NOVEC and other member cooperatives to meet 20 percent of their power needs.

Bowman said in NOVEC's first annual report in 1983, "This is only our first step toward our goal of energy independence."

CONSOLIDATION BENEFITS

R. H. Ellison, a NOVEC construction supervisor who worked as a line technician at Tri-County, said in 2008 that the consolidated Cooperative had many benefits. He said additional resources, equipment and employees improved efficiency and reliability. "Tri-County's two small crews had to construct, maintain and repair all utility substations, power structures and lines, equipment, and machinery," Ellison recounted. "We frequently had to work for days with little time to rest to restore service during severe outages."

Bradley Kidwell, a NOVEC lead substation electrician, began his career at Tri-County in 1968 as a mapping assistant. He agrees with Ellison:

The crews at Tri-County did a little bit of everything. When we got a job to connect a new customer we did whatever was required to get them connected, from clearing the right of way to setting the poles and stringing the wire.

When there was substation work to be done, we had to do that as well. We worked hard, but had a lot of fun too.

Loudoun County was much smaller then—a real tight-knit community. We pretty much knew everybody and they knew us. I remember when we saw a storm coming; we all just headed for the shop. We knew our friends and neighbors would be counting on us.

Of course, Loudoun County has changed considerably with tremendous growth the past 25 years. Subdivisions and paved roads are in many areas where four-wheel drive vehicles were needed to get to our lines 40 years ago.

We were like family at Tri-County and we lost some of that when we became a larger company, but I quickly made new friends and had new opportunities in my career. Overall, it has been a good experience and was beneficial to both companies.

Monty Greene, a supervisor in NOVEC's Construction division, also began at Tri-County in 1968, working on right-of-way maintenance and service. He said, "You did everything—whatever needed to be done. There was no formal training program, it was all on-the-job training. Our distribution system was old and very fragile. Reliability was not good. There was no regular right-of-way maintenance program in place. Substations and equipment needed upgrading."





“The consolidation resulted in an upgraded and more reliable distribution system,” Greene said. “We got new equipment along with a new perspective. It was really good for us to have more resources available to respond to outages. Once we became NOVEC, there were many more line workers available to respond and we rotated on a stand-by list. While

we still got called out, it wasn’t as frequent and we had more and better equipment available to help us get service restored faster.”

“Our existing safety program was strengthened and more structured. Health and dental benefits improved, as did our wages. The transition was smooth and I never saw a down side to it,” Greene continued.

NOVEC upgraded Tri-County’s aging distribution system, replacing old copper-weld wire with more substantial overhead conductor to improve capacity and service reliability.

REA’S GOLDEN ANNIVERSARY IN 1985

In 1985, NOVEC joined the nation’s electric cooperatives in celebrating the Rural Electrification Administration’s 50th anniversary. Because of the REA, America’s rural homes and businesses with electricity went from 11 percent in 1935 to almost 100 percent 50 years later.

THE COMPUTER AGE

NOVEC started replacing typewriters with personal computers on employees' desks and using more computer technology in all operations in the 1980s. Along with the new-fangled machines came the need for computer wizards—or IT people—to keep them humming and connected to NOVEC's server.



BUILDING BOOM: 1983-1990

Despite double-digit home mortgage interest rates in the 1980s, many area baby boomers moved outside the beltway in search of large, affordable homes for their growing families. Developers soon reached the edge of Fairfax and turned some parts of rural Clifton, Centreville and Chantilly into expansive, planned communities such as Little Rocky Run and Virginia Run. As one NOVEC customer said, "It was like developers tossed up a handful of house seeds and they sprouted everywhere." Prince William County's Dale City region also experienced a building boom. Technicians added 13 meters to NOVEC lines every working day, which made NOVEC the fastest growing cooperative in the Commonwealth.

Between NOVEC's inception on January 1, 1983, and the end of the housing boom in 1990, the number of NOVEC's customer-owners almost doubled from 38,000 to 70,000, making it one of the top five fastest-growing electric utilities in the nation.



In fact, in his 1986 annual report letter to members, President Manley Garber wrote, “NOVEC continues to prosper and grow at an astonishing rate.” The number of customer-owners doubled again from 1990 to NOVEC’s 25th anniversary on January 1, 2008, when the number reached almost 140,000.

As demand for housing grew, so did demand for retail stores, schools and hospitals. Developers announced plans for building the Potomac Mills shopping center in Prince William County. America Online established its multi-office complex in Loudoun County. These commercial facilities counted on NOVEC for power.

Some business development remained agricultural. Grape-growing and wine-making efforts in Loudoun County started to bear fruit. The county quickly became the second largest wine and grape producer in the state.

As new housing boomed in 1988, home building crews frequently damaged NOVEC’s underground lines with backhoes and trenching operations. In some developments, home building crews cut lines almost every week, causing outages.



To handle rapid growth in the western part of Prince William County, NOVEC opened a district office in Gainesville in 1988. That year, the Co-op added 173 miles of overhead and underground lines, 150 miles in Gainesville alone.

OF MICE AND MEN... AND MOTHER NATURE

Home builders did not cause all the outages. Squirrels, mice and other small animals jumping on transformers and nibbling through equipment caused 361 outages in 1986 alone. Two of these outages caused extensive damage to several large substations. Wind, ice storms and lightning have always meant trouble for electric utilities; so have drivers who lose control of their vehicles and crash into utility equipment. In the 1987 annual report, Board President Garber and General Manager Bowman said service continued to improve, but "we still have no preventives for animals blowing fuses, direct lightning strikes or vehicles destroying distribution equipment."



Mother Nature reminded Americans who is in charge when she hurled Hurricane Hugo onto the east coast in September 1989. Hugo spared Northern Virginia, but the category-5 storm ripped through North and South Carolina. NOVEC and 13 other cooperatives from Maryland, Delaware and Virginia sent 150 crew members and 100 pieces of equipment to help restore power. Crews took donated food to nearly 100,000 residents whose homes Hugo destroyed.



COMMITMENT TO EXCELLENCE: 1990-1999

BEST REGIONAL RELIABILITY

By 1990, NOVEC's reliability record was growing as fast as the number of new connections. The year-end reports showed NOVEC's outage time averaged just 2 hours and 18 minutes per member. That meant NOVEC kept power flowing 99.97 percent of the time—the best in the region and well ahead of the national average.

SERVING THE COMMUNITY

Electric cooperatives give their communities more than electric service. They give time and talents to help make their communities better. NOVEC is no exception. NOVEC continues to help scores of charitable, health, educational, art, and children's sports groups in Northern Virginia. One health organization NOVEC began helping in 1990 was the March of

Dimes. NOVEC, members, and employees walked in the organization's WalkAmerica and raised more than \$5,400 for research to help prevent birth defects and infant deaths.



MINNIEVILLE OFFICE OPENS

Growth in eastern Prince William County

caused a need for another NOVEC office. In 1990, the Co-op opened an office on Minnieville Road in Woodbridge. The Minnieville office gave NOVEC five: the corporate office in Manassas, Gainesville Technical Center, Stafford office, Leesburg office, and the Minnieville office.

ENERGY AND ENVIRONMENTAL CONSERVATION

NOVEC's Load Management Program continued to expand. By the end of 1992, Co-op technicians had installed more than 13,000 switches on customers' air conditioners and electric water heaters. LMP had reduced capacity charges paid by NOVEC for wholesale power by more than \$2 million in 1993 and \$30.6 million since the program's inception in 1979. LMP helped NOVEC's system stabilize faster than other regional utilities during winter ice storms and summer heat waves.

To conserve the environment and financial resources, the Co-op started recycling everything it could, from scrap wire and paper to transformer oil. The program, which continues today, helps the environment and saves NOVEC, and thereby its customer-owners, thousands of dollars each year.



A NEW PRESIDENT AND CEO

Stan C. Feuerberg became NOVEC's President and Chief Executive Officer in January 1992. He brought high-level financial and management skills to the job. The president of the board became known as "chairman."



NOVEC'S 10TH ANNIVERSARY

In 1993, NOVEC celebrated its 10th anniversary. In only a decade, the Cooperative had become a major resource and partner for Northern Virginia's economic development. After more than 50 years of electric service in Northern Virginia, few people could remember life without electricity.

STANDARD AND POOR'S GIVES NOVEC A+

During the region's rapid growth, NOVEC needed to use a significant portion of its \$43.5 million line of credit while waiting for loan approval from the REA. NOVEC began to examine other financing options to move construction projects forward. The board voted not to return Capital Credits to members until the Cooperative improved its financial position.



Capital Credits (changed to "CashBack" in 2005) is money NOVEC returns to members on a pro rata basis after year-end operating expenses are paid.

Hard work paid off and NOVEC reinforced its financial foundation.

Long-term debt significantly decreased and cash reserves increased. NOVEC's financial position improved so much that the Standard and Poor's Corporation gave NOVEC an A+ rating in 1994, which put the Co-op in the top 27 percent of all utilities nationwide. Because of this rating, NOVEC directors voted to return Capital Credits to members for the first time in five years. They returned \$1.6 million in 1994 and \$4.2 million in 1995. In 1996, the Board voted to return a record \$6.2 million in Capital Credits.

A NEW CUSTOMER SERVICE CENTER

By the end of 1995, a new Customer Service Center began operations as a one-stop information resource hub for customer inquiries. Several months later, NOVEC answered the call for an automated and enhanced phone system in all of its offices. The new system improved customer service and allowed customers to call the Co-op toll-free.

WE'RE GOING TO HAVE SOME WEATHER

Mother Nature and electric utilities have a love-hate relationship. Crews love her on calm, beautiful days, but hate when her storms knock out power. NOVEC technicians constantly monitor weather forecasts in the Operations Center to be prepared. Because of Mom's fury in 1996, NOVEC's history that year can be summed-up with one word: weather!

1996 started with snow, and lots of it. Early in January, a blizzard blasted the Washington region. NOVEC crews had just taken off their snow boots when a second blizzard coated the region a week later, trapping people in their homes for days.

Crews worked around-the-clock to keep power transmitting through substations that looked like white lace, along snow-covered distribution lines to homes and businesses.



Spring brought relief. NOVEC converted the manual mapping system to an automated computer-based system in March. This high-tech move reduced response time significantly during power outages. The board added a quality assurance department to improve system performance, reliability and cost effectiveness.

Summer roared into parts of NOVEC territory like a jet on a June 1996 afternoon. The western sky turned a strange shade of green. One NOVEC customer looked outside her window and told her children to quickly put their bikes in the garage and come inside. Echoing the children's book, *Time of Wonder*, she said, "We're going to have some weather. It's a-comin'. She's gonna blow!" Suddenly, the four of them had to push the house door shut as a category F-2, 150-mile-per-hour tornado tore through their property and cut a path through Centreville and Chantilly. The screaming force plowed down trees, ripped apart roofs, siding and houses, and turned window shards into missiles. NOVEC sprang into action and became the first regional utility to restore power to its affected customers.

Mother Nature revved up her engines a few months later in the autumn and bombarded the region with Tropical Storm Fran. Fran ranked as the worst storm in the Cooperative's history with



damage at 220 sites throughout the service area. Again, NOVEC responded quickly and was the first area electric utility to restore power to all of its customers.

CHAIRMAN GARBER RECEIVES AWARD

Not all news in 1996 was weather-related. The Virginia, Maryland and Delaware Association of Electric Cooperatives presented the *Electric Cooperative Leadership Award* to Chairman J. Manley Garber for guiding PWEC and then NOVEC from a humble beginning to one of the largest, most progressive electric cooperatives in the nation.



OPERATION ROUND UP

In September 1996 NOVEC introduced a new community service program called Operation Round Up. Participating customers could voluntarily have their electric bills rounded up to the next highest dollar, with the additional money going to a community service fund to help needy customers pay their heating bills.



Y2K AND THE POWERFUL CHOICE: 2000–2003

PREPARING FOR Y2K

NOVEC and the nation held its collective breath as the clock approached midnight on December 31, 1999. No one was sure older computers would compute and run vital systems at the turn of the century, because the computers were not programmed for any year above 1999.

To be ready for Year 2000, NOVEC began preparing in the late 1990s. It partnered with Rappahannock and Southern Maryland Electric cooperatives to reduce expenses and share resources to make sure the first minute of 2000 was as electrically bright as the last minute of 1999.

Employees at NOVEC, other electric utilities, phone companies, government installations, and many other businesses worked New Year's Eve to make sure systems vital to the nation's welfare worked. As the clock struck midnight, all systems crossed the bridge into 2000 without a hitch. A collective "Happy New Century" cheer and sigh of relief could be heard around the country.



97,000 CUSTOMER-OWNERS IN 2000

NOVEC connected its 97,000th customer in April 2000 and returned a record \$9 million to its members in June as Capital Credits. In Fauquier County, the Federal Aviation Administration began constructing a 95,000-square-foot air traffic control center at Vint Hill. NOVEC prepared for the FAA's power requirements as well as those of other companies already in the area and others in the planning stages.

UTILITY DEREGULATION IN VIRGINIA

The Commonwealth of Virginia, like many other states, believed the national trend toward energy deregulation would encourage competition and thereby hold down

energy costs for

consumers. As

consumer groups,

the Virginia General

Assembly, and utilities

throughout the Commonwealth debated the issue,

NOVEC prepared for this

eventuality by educating its customers and by learning how to be competitive. Deregulation allowed NOVEC to launch two profit-making subsidiaries: NOVEC Energy Solutions and NOVEC Solutions. They became profitable in a few years, and today add to NOVEC's bottom line.



In 2001, larger utility systems began consolidating to prepare for deregulation. The Virginia General Assembly scheduled the phase-in of Customer Choice to be complete for cooperatives by 2004.



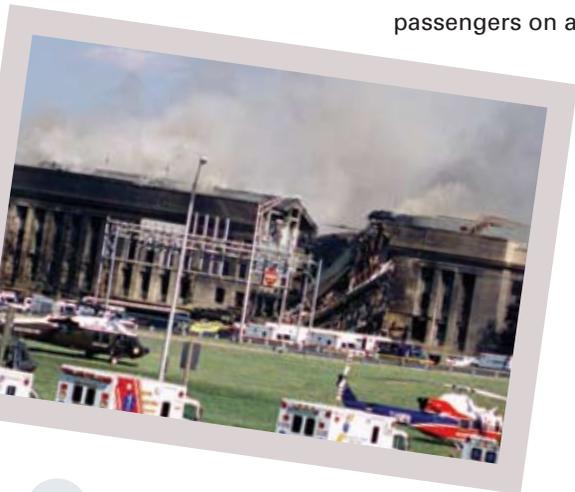
DIGITAL METERS REPLACE ANALOG MODELS

NOVEC's project to install electronic receiver/transmitter meters throughout the entire system between 1998 and 2002 was ahead of schedule—and ahead of the industry. Digital technology allowed NOVEC to bill residential customers precisely for the energy they consumed—no more and no less. And, NOVEC meter readers could read them remotely, which saved time and money.

TERROR ON SEPTEMBER 11, 2001

Terrorist attacks on September 11, 2001, stunned the nation. Two commercial jet airliners commandeered by al-Qaeda terrorists flew into the Twin Towers of the World Trade Center in New York City. The buildings collapsed within two hours and thousands of office workers, firefighters and police died along with the passengers. Terrorists overpowered the crew on a third jetliner and crashed it into the Pentagon. Apparently, passengers on another flight stopped terrorists

from attacking a government building in Washington, D.C. Sadly, that plane crashed in a Pennsylvania field. In all, more than 3,000 people died horrifically, including 22 who lived in Prince William County in NOVEC territory.

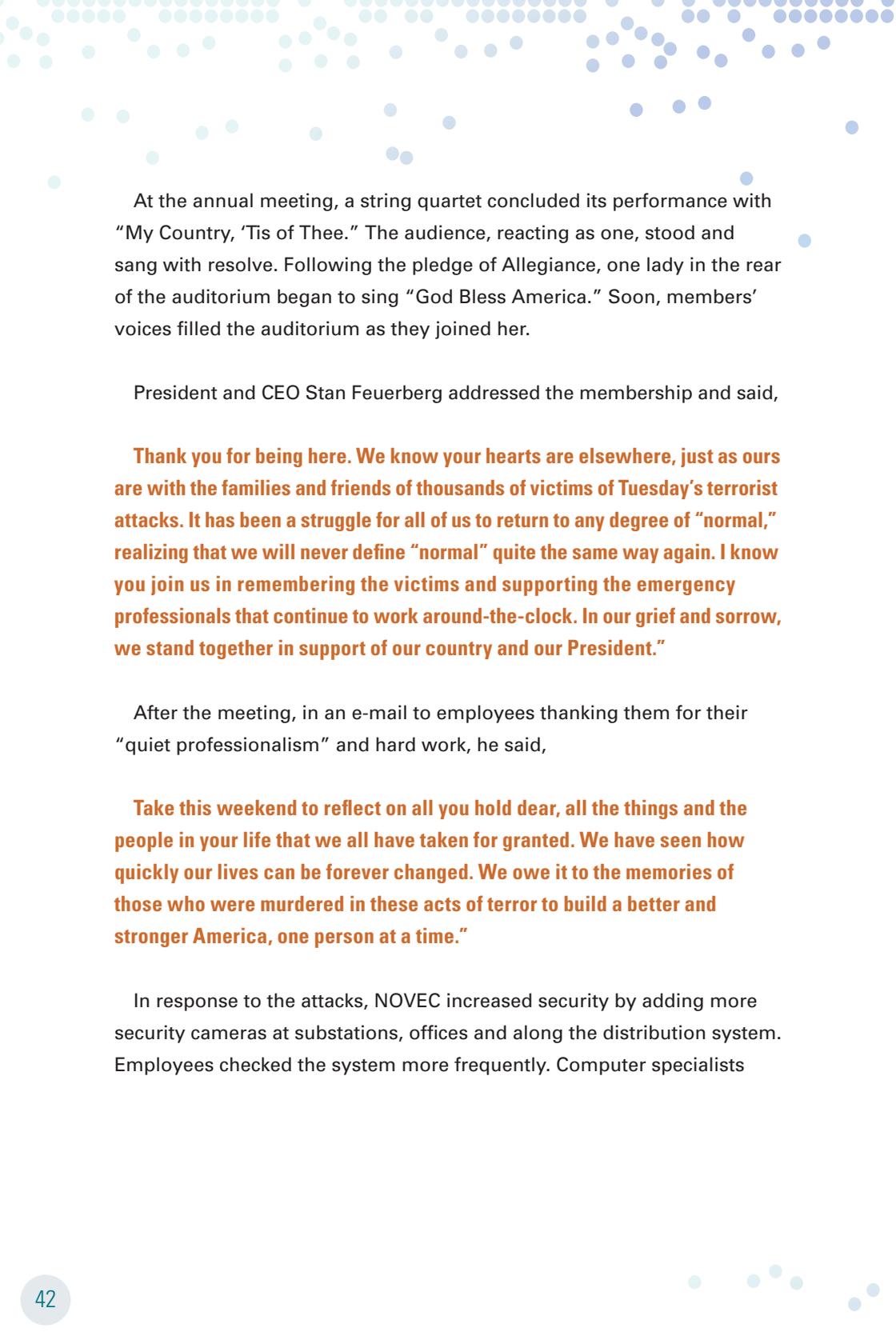


Immediately, NOVEC started working with area businesses to assist the community during the crisis. Employees offered to donate blood to the American Red Cross.

After thoughtful consideration, the board decided to go forward with the annual meeting scheduled for September 13. In an e-mail to employees, Public Relations Vice President Mike Curtis said, "It is important that we respect and be sensitive to the magnitude of this tragedy. Some aspects of the meeting will be scaled back and others will be totally eliminated. To carry on our business meeting in an appropriate manner is to deny them (terrorists) victory over the American spirit and American way." He quoted U.S. President George W. Bush:

Terrorist attacks can shake the foundations of our biggest buildings, but they cannot touch the foundation of America. These acts shatter steel, but they cannot dent the steel of American resolve.





At the annual meeting, a string quartet concluded its performance with “My Country, ‘Tis of Thee.” The audience, reacting as one, stood and sang with resolve. Following the pledge of Allegiance, one lady in the rear of the auditorium began to sing “God Bless America.” Soon, members’ voices filled the auditorium as they joined her.

President and CEO Stan Feuerberg addressed the membership and said,

Thank you for being here. We know your hearts are elsewhere, just as ours are with the families and friends of thousands of victims of Tuesday’s terrorist attacks. It has been a struggle for all of us to return to any degree of “normal,” realizing that we will never define “normal” quite the same way again. I know you join us in remembering the victims and supporting the emergency professionals that continue to work around-the-clock. In our grief and sorrow, we stand together in support of our country and our President.”

After the meeting, in an e-mail to employees thanking them for their “quiet professionalism” and hard work, he said,

Take this weekend to reflect on all you hold dear, all the things and the people in your life that we all have taken for granted. We have seen how quickly our lives can be forever changed. We owe it to the memories of those who were murdered in these acts of terror to build a better and stronger America, one person at a time.”

In response to the attacks, NOVEC increased security by adding more security cameras at substations, offices and along the distribution system. Employees checked the system more frequently. Computer specialists

added tighter security measures to the communications system. In later years, NOVEC co-sponsored the 911 memorial in Prince William County.



THE POWERFUL CHOICE LOGO AND JACK

In 2002, Jack, a smiling electric receptacle, became the “face of NOVEC” and joined the existing logo. The new brand reinforces strategic emphasis to be “The Powerful Choice” for Cooperative customers.



THE BEST REGIONAL RELIABILITY

Thanks in part to deploying technology and developing redundant systems, NOVEC’s electric reliability remained the highest in the region and topped 99.98 percent in 2002 despite two severe storms. As a result of controlling expenses and improving efficiency, NOVEC was in the best financial condition it had ever attained.

SUBSTATIONS STEP UP THE HIGH-TECH LADDER

NOVEC leads the region and the industry in technological innovations which improve service and hold the down the costs of delivering electricity



and maintaining infrastructure. In 2002 the Co-op upgraded its 46 substations to meet increasing demand. The new Hoadly Substation came on line and included “smart boxes,” which gave NOVEC technicians the

ability to communicate between computers and substation devices to identify malfunctions. Technicians could then make adjustments remotely. A 35-kilovolt tie line between the Compton and Cub Run substations in Fairfax County allowed NOVEC to transfer loads between the two substations. This technical ability provided a back-up system to supply power to the Trinity Center, Marriott at Westfields, and nearby business parks in Centreville and Chantilly.

NOVEC continued to connect substations with fiber optic cable—an endeavor begun in 1995. Fiber optic technology allows NOVEC to switch customers to alternate power feeds when necessary in about seven minutes instead of the 1½ hours needed previously.



HURRICANE ISABEL WREAKS HAVOC

Hurricane Isabel, the costliest and deadliest hurricane in the Atlantic Ocean in 2003, caused havoc along the eastern seaboard in September. The storm’s 105-mile-per-hour winds and rain rolled over North Carolina’s Outer Banks on September 18 and headed for Virginia the next day, where she caused most of her damage and deaths.



By the time Isabel reached NOVEC territory, she had become a tropical storm. Despite being downgraded, she toppled trees onto NOVEC power lines and snapped power

poles in two. Roughly six million people lost power along the eastern seaboard. Not since Hurricane Agnes inundated the region in 1972 had NOVEC crews worked as hard to get customers' power restored.

YOU'VE GOT THE POWER. USE IT WISELY

By 2004, NOVEC was serving more than 120,000 customers. It returned more than \$30.4 million in CashBack to customers and held the line on retail delivery rates for the 14th year in a row.



HOME BUILDING BOOMS AGAIN

After the terrorist attacks on September 11, 2001, the housing market stopped in its tracks. But by 2004 it was booming again, especially in Northern Virginia. NOVEC's membership increased 30 percent between 2001 and 2008. During this time, NOVEC invested approximately \$30 million each year to connect new customers to the distribution system and complete its 52nd substation.

DEVICES' DECLARATION OF DEPENDENCE

Sophisticated new electric devices, appliances, and gadgets made customers more energy-dependent than ever before. Home computers, high-definition televisions, DVD players, electronic game boxes, and other devices fed on electricity. In addition, home builders in NOVEC territory built huge houses that required multiple heating and cooling systems, water heaters, and appliances. Energy demand soared.

NOVEC HELPS THE COMMUNITY

Community service continued to be a top priority for NOVEC. By 2005, NOVEC was contributing annually to more than 100 civic, charitable, educational, arts, and community organizations. The Co-op continued to

encourage NOVEC employees to donate their time and energy to fundraising events such as the March of Dimes' walks.





In 2007, directors, employees, and members raised more than \$25,000 for the organization. NOVEC Board Chairman Garber raised much of that money and became one of the March of Dimes' top fundraisers in the Washington, D.C., area.

NOVEC's "community" grew on August 29, 2005, when Hurricane Katrina—a category-5 hurricane at sea—destroyed almost everything in her path when she charged onto the Gulf coast. Katrina caused the most damage of any hurricane on record in U.S. history. In response, NOVEC released eight contract line crews to Louisiana and Mississippi to help restore power to areas devastated by Katrina and hurricanes Rita and Wilma that followed quickly.

In 2008 the Cooperative's leadership team and employees established NOVEC HELPS—Hands Engaged in Local Public Service. The company-funded team started organizing and promoting community volunteer activities for their fellow employees.

99.99 PERCENT RELIABILITY

Reliability reached an all time high of 99.99 percent in 2007. This record made NOVEC the most reliable system in the Washington, D.C., and Baltimore, Maryland, metropolitan areas for the last 10 years.

To make the system even more reliable, NOVEC continued to connect its substations with fiber optic cable. By the end of 2007, technicians had connected



distribution system and the highest interest rate discounts in 2007. The Co-op returned \$41.2 million in CashBack to customer-owners. Since NOVEC's nascent year, it has returned \$260 million in CashBack to current and former members.

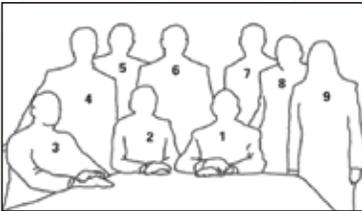
NOVEC'S SILVER ANNIVERSARY

January 1, 2008, marked NOVEC's silver anniversary. The Co-op highlighted the occasion with celebrations, recognitions, and mementos throughout the year, a special 25th anniversary logo, history and retrospective articles in its publications, and this booklet.



From modest beginnings in 1940 and 1941, NOVEC has advanced to become the 10th largest distribution cooperative in the country and a model of electric cooperative success. Its silver anniversary gift to its members is a commitment to continue the tradition of supplying the best service possible for years to come.

2008 BOARD OF DIRECTORS



- | | |
|---|---|
| <p>1 J. Manley Garber
Chairman
District 7 - Woodbridge/
Dale City/Montclair</p> <p>2 Cynthia Gilbride
District 9 - Fairfax County,
north of Route 66/Loudoun
County, South Riding</p> <p>3 Michael Ragan
Secretary
District 6 - Lake Jackson/
Buckhall/ Bristow/Manassas
Park, east of Route 28</p> | <p>4 James Chesley
District 3 - Fairfax County,
south of Route 66</p> <p>5 Wade House
Vice Chairman
District 5 - Haymarket/
Nokesville/Bull Run Mountain</p> <p>6 Walter Grove
Treasurer
District 8 -
Fauquier/Stafford counties</p> <p>7 William Zilliott
At-Large Director</p> <p>8 Harry Harris
District 2 - Loudoun County,
except South Riding</p> <p>9 Ann Wheeler
District 4 - Manassas/
Gainesville/Manassas Park,
west of Route 28</p> |
|---|---|

OFFICE LOCATIONS

Corporate Office

10323 Lomond Drive
P.O. Box 2710
Manassas, VA 20108-0875

Stafford Office

2430 Poplar Road
Fredericksburg, VA
22406-4045

Minnieville Office

14500 Minnieville Road
Woodbridge, VA 22193-0459

Leesburg Office

349 East Market Street
Leesburg, VA
20176-4102

Gainesville

Technical Center
5399 Wellington Branch Drive
Gainesville, VA 20155-1616



NOVEC is a not-for-profit corporation that distributes electricity and energy services to customers in Fairfax, Fauquier, Loudoun, Prince William, Stafford and Clarke counties, and the City of Manassas Park. It is one of the largest electric distribution cooperatives in the nation.



703-335-0500
1-888-335-0500 *toll-free*
www.novec.com