

SUPERIOR SERVICE

Electricities of NC 2016 Annual Report



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*Susan Nunn, Human Resources Director,
with Lexington city employee
Lexington, North Carolina*





Message from the Chair and CEO



The audit reports and financial information regarding North Carolina Eastern Municipal Power Agency, North Carolina Municipal Power Agency Number 1 and ElectriCities of North Carolina, Inc. are included in this report. Each agency is a separate and distinct legal entity, and the inclusion of such information regarding the entities should not be construed to indicate any relationship between them.

When we gathered in Concord for the annual conference in August, the 2016 Olympic Games in Rio were just getting underway. We remember watching the opening ceremonies and marveling at all the planning and preparation that goes into pulling off an event of that magnitude.

While ElectriCities isn't facing Olympic-size challenges, it's equally important that we carefully plan for our future. That's why we unveiled five strategic priorities at the conference last year to help us stay focused on what's important to public power communities in North Carolina: delivering safe, reliable power at competitive prices. Here's a brief update on each of those priorities:

Wholesale Power Supply: Both power agencies are expected to enjoy stable wholesale electric rates through 2020. NCEMPA members saved more than \$132 million in the first year following the sale of its generation assets and our members are continuing to see the benefits. NCMAPA1 members saved more than \$49 million by restructuring its debt, lowering wholesale rates by six percent. We are continuing to take steps to control our costs and have the potential for additional rate reductions.

Grid Modernization: We must continue to invest in our infrastructure by building new delivery points and upgrading our distribution

systems to improve reliability and reduce losses. At the same time, we must embrace new technologies such as advanced metering and online billing that allow us to better connect with and serve our customers. You can read about the work being done in Greenville and other public power communities on page 14.

Workforce Development: With more than 50 percent of our nation's energy workers expected to retire in the next 10 years, it is more important than ever to recruit and train a new generation of public power employees. The ElectriCities team is working closely with members to identify their most pressing training needs and develop programs to meet those needs. In addition, we are working on ways to help members address compensation challenges in this highly competitive environment.

Communicating the Value of Public Power: The value of public power was on full display in October 2016 when Hurricane Matthew struck a devastating blow to Eastern North Carolina. Our public power communities in the west rushed to the aid of Kinston, Lumberton and other towns experiencing extreme flooding. Together, they worked to quickly restore power and take care of their customers. It was a tremendous display of the superior service that public power communities deliver every day

to each other and to the 1.2 million people who rely on us for their power. You can read about how our communities came together to survive Hurricane Matthew on page 8.

Continuous Improvement: We must constantly search for new ways to bring value to public power communities, by upgrading our electric systems, strengthening our teams, and enhancing life for our citizens. One way we accomplish that is through economic development efforts that bring new jobs and investment. Last year, our communities created 5,410 new jobs and attracted more than \$900 million in investments by attracting projects like the CSX Carolina Connector in Rocky Mount and encouraging companies like Thomas Built Buses to add new jobs in High Point. You can read about those and other economic development successes on page 18.

As we look to the future, we have a strong plan in place and a clear roadmap for where we are heading. We're looking forward to sharing the journey with you.



Mr. Grant W. Goings
Chair



Roy L. Jones
Chief Executive Officer



Board of Directors



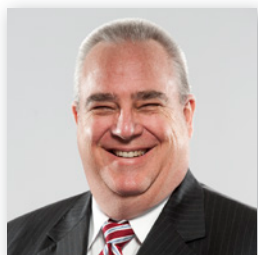
Mr. Grant W. Goings
Chair, Wilson



Mayor J. Newell Clark
Vice Chair, Lexington



Mayor Vivian A. Jones
Secretary, Wake Forest



Mr. Latimer B. Alexander IV
Secretary, High Point



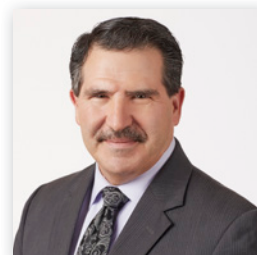
Mr. Steven K. Blanchard
Fayetteville PWC



Mr. Dan R. Brown
Morganton



Mr. John P. Craft
La Grange



Mr. James A. Gallagher
Gastonia



Dr. Virginia D. Hardy PhD
Greenville



Mayor Barry C. Hayes
Granite Falls



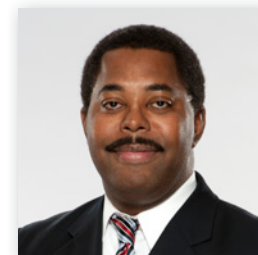
Mr. Nick L. Hendricks
Kings Mountain



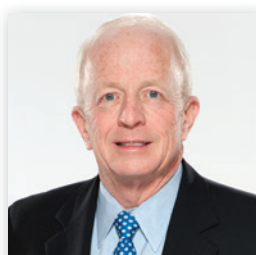
Mr. Stephen H. Peeler
Kinston



Mr. Matthew R. Zapp
Benson



Mr. Robert A. Swinson IV
Kinston



Mr. Strib Boynton
NCMPA1 Chair, High Point



Mr. Richard N. Hicks
NCEMPA Chair, Farmville

Leadership Team

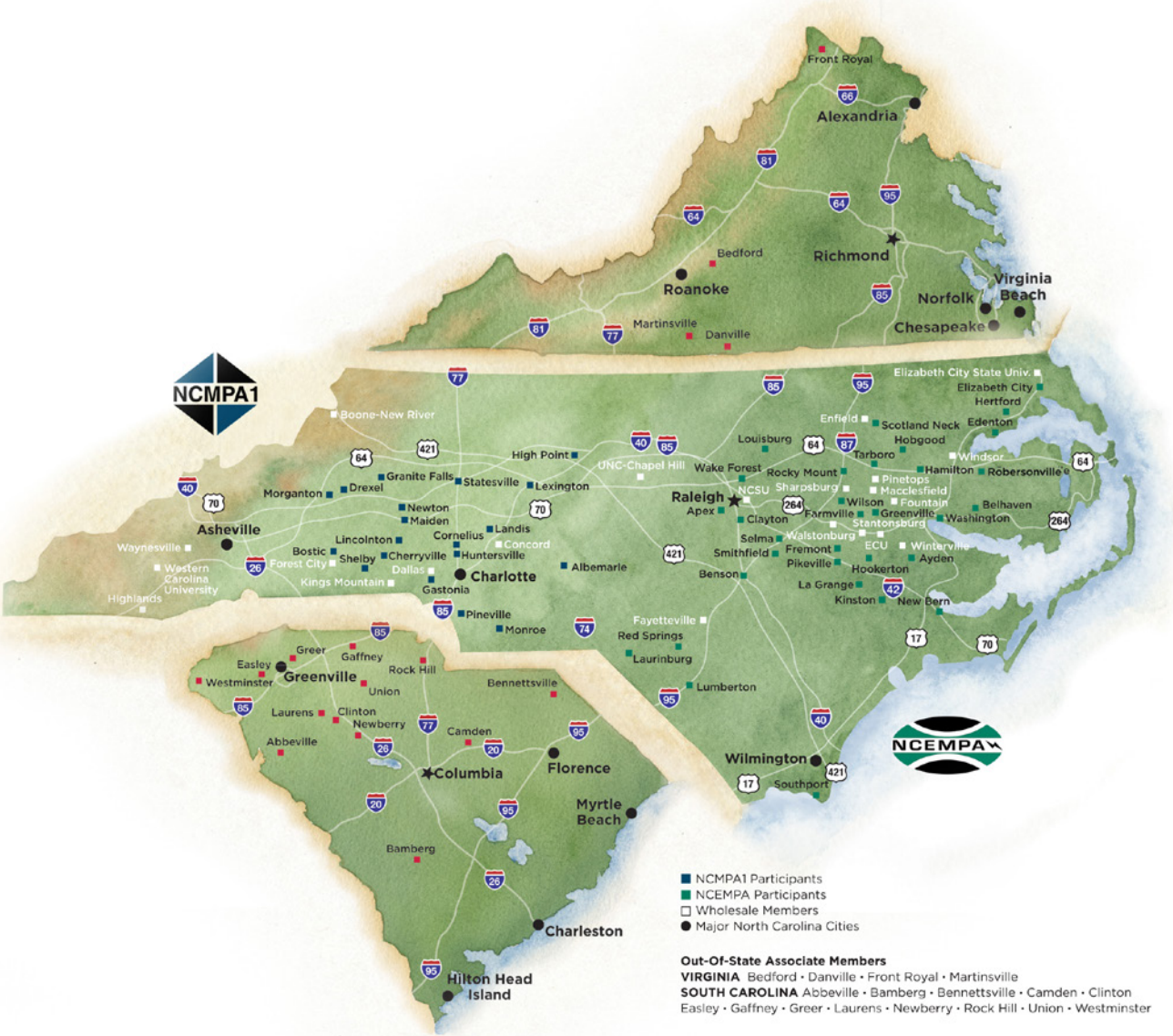
Roy L. Jones
Chief Executive Officer

F. Timothy Tunis
Chief Financial Officer

Matt Schull
Chief Operating Officer

David M. Barnes
Chief Legal & Ethics Officer

Member Community Map



Hurricane Matthew brings out the best in public power

Leon Maynor was sitting inside his Lumberton home as Hurricane Matthew made landfall

in North Carolina on Saturday, October 8. He watched the rain pelt his windows, and then he watched it rain some more.

When the water started creeping toward his home, Maynor knew this storm was going to be worse than anyone imagined. The longtime city council member received a steady stream of updates that confirmed his worst fears: the city was flooding.

Heavy rains had hit the community in the weeks leading up to the hurricane and the Lumbee River was already at flood stage before Matthew dumped another 10 inches of rain on Lumberton. When the water kept rising, hundreds of residents had to be rescued by boat.

“It was a dark time,” Maynor said. Literally and figuratively.

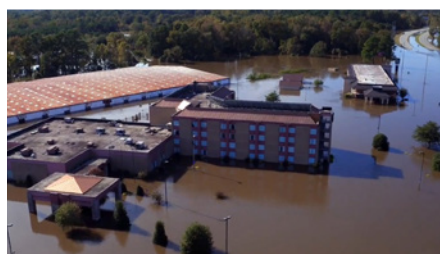
Most of the city’s 12,169 electric customers were without power, and the floodwaters made it difficult to move around the city.

Within several days, electric crews from several cities including Concord, Gastonia and Kings Mountain started rolling into Lumberton to help get the power back on.

“They were like guardian angels,” Maynor said. “The first sign of recovery was our electricity. It was like a miracle taking place.”

Back in Kings Mountain, energy services director Nick Hendricks was busy coordinating more than a dozen crews from public power communities who offered to help those in need.

“I’ve been through a lot of storms in the past thirty years,” Hendricks said.



THE VALUE OF PUBLIC POWER

HURRICANE
MATTHEW
2016
UNITED TO RESTORE

*Rhonda Barwick, Director of Public Services,
with utility employees in Kinston, North Carolina*


ELECTRICITIES
of NORTH CAROLINA, INC.

“This was one of the worst I’ve ever seen.”

When it was over, Hurricane Matthew was indeed a historic storm, causing more than \$4.8 billion in damages and leaving 26 people dead. The storm impacted dozens of public power communities and left more than 100,000 customers without power.

ElectriCities had begun preparing for the storm days in advance. “We started assessing the availability of crews so as soon as the storm moved out we were ready to move in to start the restoration process,” said ElectriCities CEO Roy Jones.

Nightly status calls enabled Hendricks to assess the challenges facing each community and determine what manpower and equipment were needed to get the power back on.

Several crews were quickly directed to Kinston, where more than 9,000 of the city’s 12,000 customers were without power.

“It went really bad, really fast,” said Rhonda Barwick, the city’s public services director.

When she emerged from the city’s emergency operations center at 3:00 a.m. on Sunday morning, she encountered a scene that was hard to imagine. The lights were out, the sky was dark, and dozens of cars were abandoned in the middle of Vernon Avenue, one of the town’s main thoroughfares.

“It looked like life had just stopped,” added Kinston City Manager Tony Sears. “The flash floods had risen so rapidly that people had just abandoned their cars, abandoned whatever they had to seek higher ground.”

Crews from Ayden, Rocky Mount, Wake Forest, and Winterville soon arrived. They went straight to work removing trees and working on the power lines and they didn’t stop.

“When I came to work, they were outside working. When I went left to go home, they were still outside working,” said Joe Hargitt, the owner of Kings Restaurant. “If it wasn’t for them, we would have never gotten opened up as soon as we did.”

Many of the crews logged 16-hour days. “We had to pull them out,” Barwick said. “They didn’t want to leave.”

Within a day, about 85 percent of Kinston’s customers had their power restored.

In Lumberton, the crews were also working fast and furiously. “They were organized and professional,” Maynor said. “It was clear they had done this before. They knew what to do and weren’t wasting any time.”

The crews hauled off trees, reattached power lines, and brought the power back - and with it, hope for the future.

“Once the lights were back on, we knew then that there was a road to recovery.”

Today, the city of Lumberton is in the early stages of recovery. But Maynor still points to the day the power came back on as a turning point that gave the city a sense of hope. “It was the first sign that we were going to be okay.”

The experience has also given Maynor a new appreciation for ElectriCities’ emergency assistance program. “Unless you’ve experienced a disaster like this, you don’t have an appreciation for what it means. All I can say is, ‘Thank you so much. God bless you.’”

These extraordinary efforts to help those in need exemplify the type of superior service that you find so often in public power communities.

“When you have a storm, that’s when you really see the best come out in people. Everyone comes together,” Jones said.





Kinston, North Carolina

Our Strategic Priorities for public power communities.

ElectriCities CEO Roy Jones introduced five strategic priorities for public power communities

at the 2016 Annual Conference. These priorities serve as a roadmap that will guide our organization in the years to come as we continue working to strengthen our cities and towns.

A feature on Hurricane Matthew (page 8) demonstrates the value of public power, one of our strategic priorities. Here is a look at how our members are addressing our other four priorities.

Workforce Planning and Development

As our workforce grows older, communities are preparing to face unprecedented turnover.

ElectriCities is helping members find creative ways to attract and retain employees.

One of the greatest benefits of public power—the thousands and thousands of employees across North Carolina who work for locally-owned utilities—also represents one of our most significant challenges.

People like Susan Nunn understand that all too well.

As the human resources director for Lexington, Nunn is responsible for attracting and retaining the city's utility employees - and it's becoming more and more difficult.

Nationally, more than half of the nation's energy workforce is expected to retire in the next 10 years. That means a lot of experience is about to walk out the door, and a new wave of public power leaders must be developed.

Another pressing challenge: retention of experienced linemen. Lexington, like so many other public power communities, is losing linemen to large utilities that can pay more and to private contractors tasked with helping Google and AT&T install



ELECTRICITIES FIVE STRATEGIC PRIORITIES



thousands of miles of high-speed fiber across the state.

"It's become a very competitive field," Nunn says. "It's hard for us to keep linemen once they get a few years of experience."

Nunn is looking for ways to "stem the tide," and so are her counterparts across the state. Melissa Miranda, vice president of human resources at ElectriCities, has been hosting workshops with people like Nunn to discuss workforce challenges such as compensation, recruiting, and career development. More than a dozen public power communities—from Albemarle and Shelby to Pikeville and Rocky Mount—have participated. Input from these workshops will help ElectriCities address newly-identified workforce challenges and further refine its compensation and training programs.

In addition, ElectriCities is collecting data that will provide a comprehensive look at compensation and benefits for North Carolina electric service providers. This data will provide members with an additional tool to evaluate their own competitiveness in attracting and retaining talent. ElectriCities has also been surveying members to better understand their training needs. With input from more than 40 public power communities, ElectriCities will help members improve their technical and people skills through new training programs focused on subjects ranging from communications and customer service to budget development and conflict resolution.

Grid Modernization

With our nation's aging infrastructure, it's imperative that communities keep focus on modernizing the foundation of our public power electric systems to better serve customers.

Customers today expect more than ever. When it comes to electricity, the two things they want most are greater reliability and faster restoration times. A series of upgrades to the Greenville Utilities electric

system has allowed General Manager/CEO Tony Cannon to deliver exactly that to 66,000 customers in Pitt County.

Cannon manages the state's second largest municipal electric system - a complex operation that includes two point-of-delivery substations, 19 distribution substations and more than 2,800 miles of power lines. For the past several years, Cannon and his team have been making significant investments in upgrading the system's infrastructure. A substation modernization program, completed in 2015, involved installing programmable relays, upgraded breakers, and a host of other improvements at nearly two dozen substations. Another effort has focused on inspecting the city's 40,000 poles. Several hundred poles have already been replaced and just as many replacements are on the way.

"A massive undertaking," Cannon says of the efforts to improve the system's reliability. That was only part of the upgrades that have taken place.

A new outage management system, integrated with the utility's billing system and outage hotline, allows Greenville Utilities to quickly gather and assemble data from customers who call in or report outages online. In turn, the system can help pinpoint problems and allow crews to restore power more quickly.

"Now, we have a good sense of what we need to focus on right away. That allows us to better direct our crews and speed up restoration times," Cannon says.

Next up: a pilot project that will bring Advanced Metering Infrastructure (AMI) to Greenville. Full deployment of the new meters and load control devices is part of the utility's plan for the next five years.

Greenville isn't the only power public community upgrading the power grid. Concord and Hertford are among those investing in modernization



Tony Cannon, Greenville Utilities General Manager/CEO, manages the grid of the state's second largest municipal electric system, a complex operation that includes 19 distribution substations and more than 2,800 miles of power lines.



That's real money. People felt their utility bills go down. It makes a big difference, and we still haven't seen all the benefits yet.

Kevin Roberts, President, New Bern Chamber of Commerce



ville Utilities CEO,
modernization efforts
largest municipal
complex operation that
tion substations and
es of power lines.

projects, both large and small. Hertford has completed the full deployment of load management switches, and Concord is currently installing more than 25,000 smart meters to electric customers across the entire city.

Wholesale Power Supply

Delivering safe and reliable power at competitive rates has been an integral part of our mission.

ElectriCities is continually searching for new ways to lower wholesale electric costs.

As Kevin Roberts watches the buzz of activity in New Bern, a big smile spreads across his face. As the director of the New Bern Chamber of Commerce, Roberts says he's never seen so much construction taking place. "New Bern is on radar screens we've never been on before."

One thing that is helping Roberts draw new companies to New Bern: lower electric rates. The New Bern native remembers a time, not so long ago, when the city's high electric rates had just the opposite effect.

The \$1.25 billion sale of NCEMPA's generation assets in July 2015 changed that. The sale reduced the agency's debt by 75 percent and made a lasting impact on wholesale electric rates for the agency's 32 member cities in Eastern North Carolina. In New Bern, customers have seen electric rates drop more than 16 percent since 2015.

"That's real money," Roberts says. "People felt their utility bills go down. It makes a big difference and we still haven't seen all the benefits yet."

Public power communities in the west are also enjoying more competitive rates, thanks in part to a debt restructuring that lowered NCMPA1's wholesale rates by six percent. Another benefit: the continued success of the Catawba Nuclear Plant, widely regarded as one of the nation's most efficient and well-run plants of its kind. The agency's ownership in the plant continues to provide members

with a reliable, low-cost power supply.

The future looks bright for members of both power agencies: wholesale rates are projected to remain stable or decline over the next four years.

Continuous Improvement

The quest to continually improve is a cornerstone of how ElectriCities operates. Public power communities must always look for new ways to become more efficient and effective.

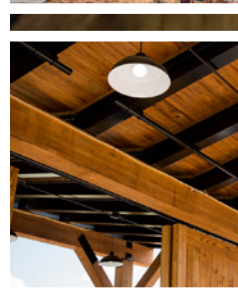
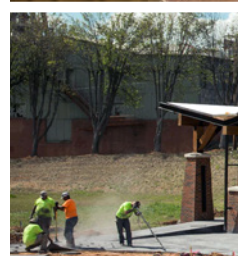
Lexington Mayor Newell Clark admits that when he was first elected to office, he knew very little about ElectriCities. "I wanted to know who are these guys and what do they do for us?" he says. The more he learned, the more impressed he became.

Under Clark's leadership, Lexington began to work more closely with ElectriCities. It led to a rebranding campaign for the city ("You'll see our new logo on everything from our police uniforms to the top of our letterhead") and a strong partnership with ElectriCities' economic development office.

It's already paying dividends. Lexington's focus on increasing retail has resulted in the successful recruitment of two new grocery stores and brought a host of new restaurants to the city.

"ElectriCities is not just an organization that supplies your power," Clarks stresses. "It does a lot of work to help individual communities grow, and that strengthens us all. It's one of the unique advantages of public power. Other communities don't have access to these same resources."

Clark is the 2017 Chairman of the ElectriCities board of directors, and he's firmly committed to discovering new ways to deliver value to members. "We always need to improve and part of that is letting our members know what's available to them through ElectriCities," he says. "It's exciting to be part of an organization that is truly putting their members' best interests at heart."





We always need to improve and part of that is letting our members know what's available to them through ElectriCities. It's exciting to be part of an organization that is truly putting their members' best interests at heart.

Mayor Newell Clark at the Lexington Breeden Insurance Amphitheater



NC Public Power

North Carolina's public power communities enjoyed tremendous success in attracting new jobs and investments in 2016. From the workforce expansion at Thomas Built Buses in High Point to the new \$270 million CSX Carolina Connector railroad project in Rocky Mount, there was no shortage of economic development victories across the state. Together, our communities announced 5,410 new jobs this year and received commitments to invest more than \$900 million.

Thomas Built Buses

For nearly a century, Thomas Built Buses has been a fixture in the High Point community and in school parking lots across the United States. The company announced in March 2016 that it was adding 200 new jobs, including assembly technicians and skilled tradespeople, to build the iconic school buses in High Point. The company has added a total of 600 new jobs over the past three years and now employs more than 1,800 people in the High Point area.

Christopher Redhouse, vice president and chief financial officer, says the City of High Point has always worked hard to support Thomas Built Buses. "We have a very strong and cooperative relationship," he said. "The city is right down the street and has been very proactive in helping us. They see the value in our growth and are very supportive."

Thomas Built Buses has worked closely with local economic development agencies to recruit new employees through job fairs and partnerships with nearby community colleges.

CSX Connector

One of the biggest developments of the year was CSX's decision to locate its Carolina Connector cargo terminal in Rocky Mount. The project is expected to create 1,500 jobs across North Carolina, including 300 jobs in Rocky Mount.

"This is the largest project that rural North Carolina has landed in the past 20 years. It's a game changer," said Norris Tolson, CEO & President of Carolinas Gateway Partnership, a public-private economic development organization serving Nash and Edgecombe counties.

While the CSX project will provide an immediate boost to the region, Tolson expects the future growth surrounding the project to have an even greater impact. He has already begun working with other economic development agencies (including ElectriCities) to plan ahead so it can take full advantage of the logistics infrastructure that CSX will bring to eastern North Carolina. "This is a growth opportunity like we've never seen before. We're getting calls from all over the country."

Tolson worked with ElectriCities while recruiting the CSX project and praised the organization's approach to economic development. "Having ElectriCities at the table in any economic development discussion is always a major plus," he said. "They take a pragmatic 'let's get it done' approach that clients and developers like us find extremely valuable. This no-nonsense approach creates jobs and adds tremendous value to local communities like ours."



We have a very strong relationship with the value in our growth very supportive.

- C

ECONOMIC DEVELOPMENT SUCCESSSES

*CSX Cargo Connector
Rocky Mount, North Carolina*



ing and cooperative
city. They see the
a and are

Christopher Redhouse
Vice President/CFO
High Point, NC



BECK'S BARBECUE

NCMPA1 Leadership

Mr. Strib Boynton
Chair
High Point

Mr. Todd Clark
Vice Chair
Newton

Mr. J. Richard Howell Jr.
Secretary-Treasurer
Shelby

Board of Commissioners and Alternate Commissioners as of December 31, 2016

Alternate Commissioners' names appear in smaller type

Albemarle

Mr. Michael J. Ferris
Ms. Martha Sue Hall
Mayor G. Ronnie Michael

Bostic

Commissioner Vacant
First Alternate Vacant
Second Alternate Vacant

Cherryville

Mayor H. L. Beam III
Mr. Brian Dalton
Second Alternate Vacant

Cornelius

Mr. Thurman Ross Jr.
Mr. David Gilroy
Mr. Anthony Roberts

Drexel

Ms. Sherri Bradshaw
Mr. Carrol Franklin
Second Alternate Vacant

Gastonia

Mr. Edward C. Munn
Mr. J. Philip Bombardier
Mr. Michael Peoples

Granite Falls

Mayor Barry C. Hayes
Mr. Jerry T. Church
Second Alternate Vacant

High Point

Mr. Strib Boynton
Mayor William S. Bencini Jr.
Mr. J. William McGuinn Jr.

Huntersville

Mr. Gregory H. Ferguson
Mayor John Aneralla
Second Alternate Vacant

Landis

Commissioner Vacant
Mr. D. Reed Linn
Second Alternate Vacant

Lexington

Mayor J. Newell Clark
Mr. L. Wayne Alley
Mr. Jim Myers

Lincolnton

Mr. Stephen H. Peeler
Mayor John O. Gilleland Jr.
Mr. Jeff B. Emory

Maiden

Mr. Billy R. Price
Mr. Marcus C. Midgett
Mr. William Todd Herms

Monroe

Mr. Donald D. Mitchell
Mr. Edward L. Faison
Mr. Freddie B. Gordon

Morganton

Mr. Dan Brown
Mr. Brooks Kirby
Ms. Sally W. Sandy

Newton

Mr. Todd Clark
Mr. Wayne Dellinger
Mr. Douglas S. Wesson

Pineville

Mayor Jack Edwards
Mr. Haynes Brigman
Second Alternate Vacant

Shelby

Mayor O. Stanhope Anthony III
Mr. J. Richard Howell Jr.
Ms. Julie R. McMurry

Statesville

Mayor Constantine H. Kutteh
Mr. F. Kent Houpe
Mr. Larry Pressley



NCMPA1 Participants

City	Revenues (000s)	Customers	Ownership %
Albemarle	\$ 34,370	11,999	7.6043
Bostic	422	202	0.0869
Cherryville	6,088	2,437	1.5788
Cornelius	5,939	3,427	0.3621
Drexel	2,523	1,213	0.5070
Gastonia	74,619	26,882	17.1205
Granite Falls	6,245	2,439	0.9125
High Point	129,647	41,790	18.9600
Huntersville	15,503	4,973	0.6228
Landis	6,559	2,888	1.1298
Lexington	53,094	18,576	12.9345
Lincolnton	7,011	2,769	1.6078
Maiden	7,036	1,174	1.2891
Monroe	61,150	10,685	10.0377
Morganton	34,176	8,204	6.7352
Newton	14,677	4,528	2.1147
Pineville	11,946	3,202	0.5359
Shelby	19,984	8,136	5.9965
Statesville	47,260	13,206	9.8639

North Carolina
Municipal Power Agency
Number 1 was formed
in 1976 and includes
19 Participants in the
Piedmont and western
part of North Carolina.

Source: 2015 EIA-861 Data

2016 NCMPA1 Operational Performance

NCMPA1 Energy and Demand*

Years ending on December 31	2016	2015	All Time Peak
Energy (MWh)	5,371,107	5,265,555	5,371,107 (2010)
Non-coincident Peak (MW)	1,114 (July)	1,075 (June)	1,140 (August 2007)
On-Peak Demand (MW)	1,084 (July)	1,053 (June)	1,110 (August 2007)
Average On-Peak Capacity Factor	70%	69%	

* Billing Point Level including SEPA and Distributed Generation

NCMPA1 Plant Information

Unit	Capacity Factor% ⁽¹⁾	Availability Factor% ⁽²⁾
Catawba Unit 1	93.0	92.6
Catawba Unit 2	90.3	90.1
McGuire Unit 1	102.1	98.2
McGuire Unit 2	92.1	92.2

Note: The above numbers are reported by Duke Energy to the Nuclear Regulatory Commission in the Unit's December 2016 Operating Data Report.

(1) The ratio of the average operating output of a power generating unit to the capacity rating during a specified period of time. Capacity factors include both planned and unplanned outages.

(2) The time a power generating unit is capable of producing energy, regardless of its capacity level. Availability factors include both planned and unplanned outages.

Nuclear Refueling

- » The most recent Catawba Unit 1 (1EOC21) refueling outage began on November 21, 2015 and ended on December 18, 2015
- » Catawba Unit 2's most recent refueling outage began on September 10, 2016 and ended on October 9, 2016.
- » McGuire Unit 1 began a refueling outage on March 19, 2016 and returned to service on April 17, 2016.
- » McGuire Unit 2 began a refueling outage on September 12, 2015 and ended on October 9, 2015.

Nuclear Plant Operating Licenses Expiration

- Duke Energy Carolinas (DEC) requested License Extensions from the Nuclear Regulatory Commission (NRC) for both the McGuire and Catawba Stations in June 2001. The NRC issued new operating licenses for the McGuire and Catawba Units on December 5, 2003. The operating licenses will expire as follows:
- » McGuire Unit 1 • June 2041
 - » McGuire Unit 2 • March 2043
 - » Catawba Unit 1 • December 2043
 - » Catawba Unit 2 • December 2043

Security

The NRC has established a number of regulations regarding security and safeguard measures at nuclear facilities in the United States, including the Catawba Nuclear Plant (Plant or Station.) These security orders have required the nuclear power plant licensees to implement additional measures addressing a wide range of security issues, such as: site access authorization, site security plans, nuclear facility security force personnel and the transport and control of radioactive material.

Since the September 11, 2001 terrorist attacks on the World Trade Center and the Pentagon, there has been concern among the public, government agencies and media that nuclear stations could be the target of terrorist activity. Within a few hours of the September 11 events, the seven nuclear stations operated by DEC went to a heightened security status and have remained there. The nuclear stations continuously review and evaluate security procedures and have implemented further enhancements based on these evaluations, input from the NRC and recommendations of security experts.

Nuclear power plants are among the most hardened and secure facilities in the world today. They were designed and constructed to withstand tremendous physical forces such as earthquakes and tornados. They have redundant safety systems and multiple barriers designed to protect the public in even highly unlikely emergency scenarios. Nuclear reactor buildings are extremely robust structures, many times stronger than typical office buildings and skyscrapers. Nuclear plants also have numerous, redundant, safety systems and physical barriers to prevent the release of radioactive materials and to

protect the public. Nuclear stations have numerous security features. These include armed, well-trained security forces; physical intrusion detection systems; robust barriers consisting of concrete structures and razor wire fences; extensive vehicle barrier systems; and advanced surveillance, detection and assessment equipment that monitor areas surrounding the station.

Station access is tightly controlled by skilled security officers. Nuclear employees must pass stringent background investigations, psychological evaluations and drug and alcohol screenings. Employees and contractors are also subject to continual monitoring and screening. Beyond all these protections, there are detailed plans for handling emergencies of all causes. These are closely coordinated and practiced with county, state and federal officials. Nuclear station neighbors receive emergency planning information annually.

NCMPA1 staff continues to review the additional capital requirements as well as operation and maintenance expenditures needed at Catawba, including those measures required by the NRC. Under contractual arrangements with NCMPA1, all security issues are handled by DEC. As the operator of a nuclear plant, DEC has the responsibility to ensure the plant is operated safely. DEC's nuclear plants have safety records among the best in the nation.

Power Supply Overview

Supplemental Agreements

NCMPA1 continues to purchase power through bilateral agreements with other

utilities and merchant generators for its energy and capacity requirements above its Catawba Project Entitlements.

In 2016, these additional needs came from the following suppliers:

- » NCMPA1 purchased 150 MW of capacity from Southern Power Company and sourced out of Rowan County, N.C.
- » NCMPA1 purchased 183 MW of capacity from Southern Power Company and sourced out of Cleveland County, N.C.
- » NCMPA1 has a 50 MW Instantaneous Energy Services agreement with Duke Energy that is reviewed yearly.
- » NCMPA1 has the right to schedule and receive 60 MW of power from the Southeastern Power Administration.

NCMPA1 has a contract with The Energy Authority (TEA) to manage all intra-day energy transactions. NCMPA1 performs all its day-ahead, short-, mid-, and long-term marketing through internal resources.

Distributed Generation

NCMPA1 owns 34 diesel generators located on city electric systems. These units, totaling 65 MW, are operated remotely on short notice during periods of high demand and high market prices. Also under remote control operation are city-owned and customer-owned generators totaling 91 MW. This combination of 156 MW of remotely operated, fast-start units provides great operational flexibility for NCMPA1's power supply program.

NCMPA1 has been successful in placing under contract an additional 18

MW of generation owned by cities and retail customers for local operation under NCMPA1's power supply program. These operations are coordinated through NCMPA1's operations center, maintaining availability during times of peak demand and high market prices.

NCMPA1 will continue to evaluate additional distributed generation opportunities to improve power supply flexibility and reliability.

Monroe Generating Station

NCMPA1 owns two gas turbine generators in Monroe that provide 24 MW of peaking and reserve capacity. These two generators that were installed in 2009 can operate on either natural gas or fuel oil. Natural gas is obtained from the City of Monroe's gas system and the station is connected to the City's electric system. As with the diesel distributed generation, these gas turbine generators can be started on short notice during periods of high demand and high market prices.

Load Management

NCMPA1's load management operations provide signals to customers that allow them to reduce load during peak billing times. The operation of various demand side management programs results in a total peak reduction of approximately 38 MW each month. The load management strategy this year continued to focus on forecasting accuracy in an effort to reduce the number of load management operation hours. NCMPA1 operated load management an average of seven hours per month during 2016.



Power Supply Management (Surplus Sales)

NCMPA1 performs its own power supply resource scheduling and power marketing in order to provide the cities with reliable power at the lowest cost.

NCMPA1 optimizes its supply portfolio by:

- » Economically scheduling and dispatching power supply resources to meet the needs of the Participants, including the nuclear plants, supplemental resources, distributed generation and transmission agreements;
- » Balancing resources and obligations every four seconds with its Instantaneous Energy Services agreement;
- » Selling surplus energy in wholesale power markets at the highest price;
- » Buying energy in the wholesale power markets when cheaper than its supplemental resources and
- » Managing associated risks, including market price volatility, unit and transmission outages, and counterparty credit.

In addition to scheduling and dispatching resources to meet the energy requirements of the Participants, NCMPA1 executed over 3,600 transactions related to surplus sales activities in 2016. These transactions resulted in revenues in excess of \$57 million and in benefits of \$30 million.

NCMPA1 has a Risk Management Committee consisting of executive staff that provides oversight and direction to

the power supply program. ElectriCities Board of Directors adopted the NCMPA1 Risk Management Policy, and the Risk Management Committee developed internal Risk Management Guidelines to control all transactions related to power supply activities.

Transmission Agreements

NCMPA1 purchases transmission for its native load requirements from Duke Energy Transmission in accordance with Duke's Open Access Transmission Tariff. In addition, NCMPA1 purchases transmission from Duke and other regional transmission providers for the delivery of surplus energy to the wholesale market. All the required agreements have been filed and approved by the Federal Energy Regulatory Commission (FERC).

Wholesale Rates

The NCMPA1 Wholesale Rate Plan is reviewed at least annually by the NCMPA1 Rate Committee and approved by the Boards. The Rate Committee met in March 2016, and recommended no rate change to the All Requirements rate and minimal changes to Riders.

Retail Rate Assistance and Billing Services

In 2016, NCMPA1 staff completed 13 retail rate studies for members. Rate studies use 12 months of a Participant's billing data to calculate projected revenue using updated load forecast and projected retail rates. A new program offering Cost of Service Studies continued and three NCMPA1 Municipalities received results.

Innovative rate design assistance for new retail customers of members was

provided in 12 instances. This support was also provided for 12 existing customers interested in exploring other rate options or expansion. As needed, rate assistance was also provided regarding tracking revenue and expenses throughout the year.

NCMPA1 continues to provide retail billing services to the cities through its Customer Database and Billing System. This system allows the cities to offer innovative retail rates that could not be accommodated by their internal billing systems. City staff members and customers utilize customer usage data, stored in the database and accessible through a secure extranet site, in making cost-saving operational recommendations and decisions. Fifteen Participants utilize this monthly assistance for approximately 304 accounts.

Federal Regulations

Spent Nuclear Fuel

With regard to spent nuclear fuel, NCMPA1 has responsibility for back-end costs or liabilities associated with its ownership interest in nuclear fuel burned at the Catawba Nuclear Station. NCMPA1 has provided an allowance for the estimated costs of the final disposal of such spent nuclear fuel.

The Department of Energy (DOE) has been collecting a 0.1-cent charge from utilities and customers for each nuclear-generated kilowatt hour of electricity. This money, which has been contributed by utility companies and their customers around the country each month to help develop Yucca Mountain, has fed the Nuclear Waste Fund for the last three decades.

Collectively, nuclear operators have paid more than \$27 billion over the years to help

cover the costs of long-term storage and disposal of nuclear waste from the nation's 100 commercial nuclear reactors. With interest, the fund is approaching an estimated \$30 billion.

The DOE failed to begin accepting spent nuclear fuel on January 31, 1998, as specified by the Nuclear Waste Policy Act. In 1998, Duke filed a claim with the U.S. Court of Claims against the DOE related to the DOE's failure to accept commercial spent nuclear fuel by the required date. On March 5, 2007, Duke and the U.S. Department of Justice (DOJ) reached a settlement resolving Duke's spent nuclear fuel litigation against DOE. The agreement provided for an initial payment to Duke of approximately \$56 million for certain storage costs incurred through July 31, 2005, with additional amounts reimbursed annually for subsequently incurred storage costs. NCMPA1 and the other joint owners of Catawba have received and will continue to receive an allocated share of these reimbursements.

Recently, a coalition of utility companies challenged that the annual fees they are charged to fund the Nuclear Waste Fund are excessive, in light of the zero amount of effort being put into the Yucca Mountain depository. On Nov. 19, 2013, a federal appeals court ruled that operators of the nation's nuclear power plants cannot be forced to pay the Department of Energy an annual fee for disposal of their radioactive waste, because no disposal site has been selected. On May 16, 2014, the DOE suspended the collection of the 0.1-cent charge from utilities and customers for each nuclear generated kilowatt-hour of electricity.

Reciprocating Internal Combustion Engines

The Environmental Protection Agency

(EPA) rules establishing national emissions standards for hazardous air pollutants for existing compression ignition reciprocating internal combustion engines (RICE) went into effect May 3, 2014. These rules did affect some of NCMPA1-owned distributed generation, as well as Participant-owned distributed generation. NCMPA1 did retrofit their affected units with emissions control equipment to meet the new standards.

North American Electric Reliability Corporation Compliance

The Energy Policy Act of 2005 directed FERC to develop mandatory electric reliability standards and a process for enforcing those standards. Subsequently, FERC Order 672 certified the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization (ERO) responsible for the development and enforcement of the standards. SERC Reliability Corporation (SERC) is the NERC regional entity that oversees compliance with the standards in the southeastern region of the United States. Order 672 also directed all owners, operators and users of the bulk power system to register with the ERO and be subject to the reliability standards. As a result, on June 18, 2007, NERC Reliability Standards became mandatory for the municipal electric systems of some cities that are Participants of NCMPA1.

NCMPA1, its Participants, and other entities that are subject to the reliability standards delegated their compliance responsibilities to ElectriCities. ElectriCities is registered with the NERC as a Joint Registration Organization (JRO) on behalf of NCMPA1's Participants and other members of the JRO that would otherwise be required to register with NERC individually (based on NERC's criteria for registration, in

the functional categories of Resource Planner and Distribution Provider). ElectriCities staff manages an Internal Reliability Compliance Program (IRCP) to ensure that the members of the JRO remain in compliance with all applicable NERC and SERC reliability standards and any additional requirements. As members of the JRO, the applicable NCMPA1 Participants have agreed to cooperate fully with ElectriCities in the implementation of the IRCP and to perform any associated tasks to ensure continued compliance with the reliability standards.

Cyber Security

Cyber security threats to the electric sector are garnering increased attention as foreign operatives and others seek ways to disrupt the economy and the nation. NCMPA1 (both directly and through its contracted plant operators), participates and remains in compliance with cyber security standards developed by the NERC.

On January 13, 2015, President Obama signed an Executive Order designed to increase the US Government's communication among and between the government and owners of critical infrastructure assets. This Executive Order builds on Order 13636, signed in 2013, which was intended to increase the level of preparation for cyber threats and to facilitate industry coordination among the critical infrastructure sectors. The electric sector is the only sector that currently has mandatory and enforceable federal cyber security standards already in place. Nonetheless, the administrative actions to direct additional information sharing between the US Government and the electric sector are considered beneficial and should

serve to enhance current actions. Congress is similarly interested in facilitating increased secure communications regarding threats to the electric grid while not imposing burdensome regulations on the industry.

North Carolina State Regulations

Renewable Energy Portfolio Standard

Under North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS), NCMPA1 member cities must obtain up to 10 percent of their energy through renewable energy or energy efficiency resources by 2018. NCMPA1 is committed to meeting the REPS requirements in a least-cost manner, while maximizing the benefits to its member cities. Compliance with REPS can be accomplished through any combination of the following:

- » Generating renewable energy using renewable facilities;
- » Buying renewable energy from renewable facilities;
- » Buying Renewable Energy Certificates (RECs);
- » Reducing energy consumption via demand-side management or energy efficiency;
- » Buying all or part of energy requirements through a wholesale contract with a supplier that complies with REPS; or
- » Meeting the cost cap by incurring incremental costs for some or all of above.

Along with energy derived from unspecified renewable resources (General Requirement), the 2016 requirements included three "carveout" requirements: energy derived from solar facilities, biomass energy derived from

swine waste, and biomass energy derived from poultry waste. NCMPA1 met its solar requirement, poultry requirement and the General Requirement in 2016. However, the North Carolina Utilities Commission (NCUC) delayed the 2016 swine requirement until 2017 for all North Carolina utilities, including NCMPA1. The swine requirement was delayed because there were not enough swine biomass generators online in North Carolina to meet these statewide requirements. To meet its future REPS requirements, NCMPA1 has entered into several REC purchase agreements, including the purchase of:

- » The output of a 1 MW solar photovoltaic generation plant in Shelby, N.C;
- » In-state and out-of-state solar photovoltaic RECs;
- » In-state and out-of-state wood waste biomass RECs;
- » In-state and out-of-state poultry waste biomass RECs; and
- » In-state and out-of-state swine waste biomass RECs.

Through these REC purchases, NCMPA1 has secured its supply of RECs to meet the REPS requirements for the General Requirement, solar requirement and poultry requirement through 2019 . NCMPA1 (along with the other North Carolina electric utilities), continues to solicit proposals from proposed swine waste biomass electric generating facilities to meet the swine waste requirement.

NCMPA1 has been active at the NCUC, helping to shape the REPS program through filings and participation in working groups.



Emissions

NCMPA1 is proud to have a very small emissions profile. The NCMPA1 energy supply portfolio consists of 95% nuclear power, with the remainder a combination of purchased power, natural gas combustion turbines, distributed diesel generators and renewable energy. This portfolio results in a carbon footprint of 0.05 lbs/kWh, much lower than the national average of about 1 lb/kWh. Most NCMPA1 members also receive Federal hydroelectric power from the Southeastern Power Administration (SEPA), which is an emissions-free resource. Given this attractive emissions profile, NCMPA1 and its members have very little exposure to any potential limitations on emissions of greenhouse gases (GHGs).

NCMPA1 Investment and Outstanding Debt Overview

Investment Portfolio Statistics

Earnings	Income	Rate of Return
2016	\$ 16,576,000	1.95%
2015	16,960,000	2.21%

Market Value as of 12/31/16

	Value	Average Maturity (yrs.)
2016	\$ 966,804,000	4.0
2015	881,411,000	2.5

Debt Outstanding as of 12/31/16

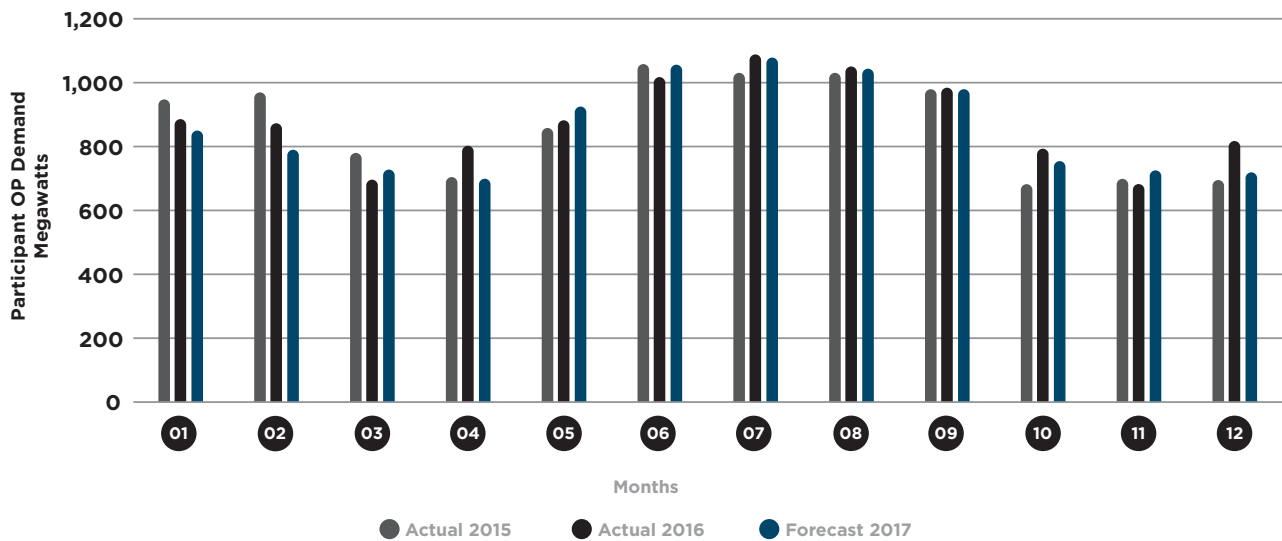
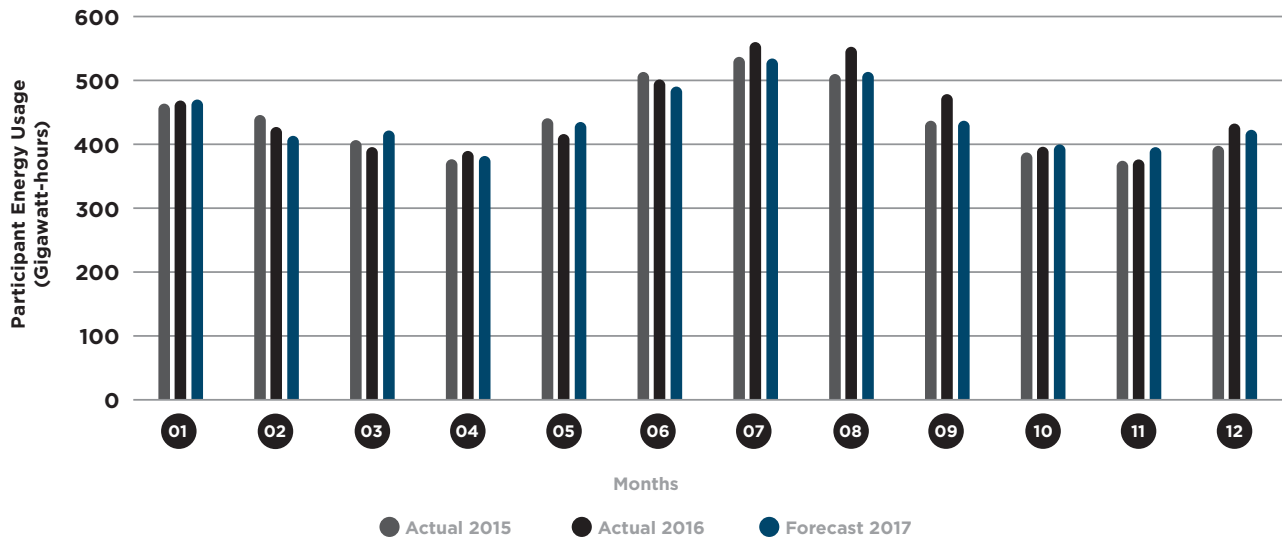
Fixed Rate Bonds	Balance	Weighted Avg. Interest Cost
2016	\$ 1,135,360,000	4.9%
2015	1,173,205,000	4.9%

Bond Reconciliation

Bonds Outstanding 12/31/15	\$1,173,205,000
Matured 1/1/16	30,270,000
Refunded 3/10/16	76,955,000
Issued 3/10/16	69,380,000
Bonds Outstanding 12/31/16	\$1,135,360,000

Bonds Outstanding as of 12/31/16

Series	Par Amount
Series 2008 A	\$ 72,900,000
Series 2008 C	445,000
Series 2009 A	57,375,000
Series 2009 B	9,200,000
Series 2009 C	6,665,000
Series 2009 D	65,525,000
Series 2010 A	45,930,000
Series 2010 B	36,905,000
Series 2012 A	154,915,000
Series 2012 B	94,870,000
Series 2012 C	41,185,000
Series 2015 A	304,710,000
Series 2015 B	41,265,000
Series 2015 C	92,550,000
Series 2015 D	23,930,000
Series 2015 E	17,610,000
Series 2016 A	69,380,000
Total	\$ 1,135,360,000



Graphs: Billing point including SEPA.



New Bern, North Carolina

NCEMPA Leadership

Mr. Richard N. Hicks
Chair
Farmville

Mayor Stephen W. Tripp
Vice Chair
Ayden

Mr. Donald I. Evans
Secretary-Treasurer
Wilson

Board of Commissioners and Alternate Commissioners as of December 31, 2016

Alternate Commissioners' names appear in smaller type

Apex

Commissioner Vacant
Mr. Andrew L. Havens
Mr. Vance Holloman

Ayden

Mayor Stephen W. Tripp
Ms. Alicia Simpson

Belhaven

Mayor Adam W. O'Neal
Mr. Woody Jarvis

Benson

Mr. Matthew R. Zapp
Mr. Braston A. Newton

Clayton

Mr. Robert J. Ahlert
Mayor Jody L. McLeod

Edenton

Ms. Anne-Marie Knighton
Mr. Glenn Andersen

Elizabeth City

Mr. Richard Olson
Mayor Joseph W. Peel

Farmville

Mr. Richard N. Hicks
Mr. David P. Hodgkins
Mr. Brian Shackelford

Fremont

Mr. Leon V. Mooring
Ms. Barbara Aycock
Mr. Harold Cuddington

Greenville Utilities Commission

Mr. Anthony C. Cannon
Mr. John Franklin Mingos III

Hamilton

Mr. Herbert L. Everett
Mayor Donald G. Matthews III

Hertford

Mr. Brandon Shoaf
Mayor Horace C. Reid Jr.

Hobgood

Mr. Danny Ellis
Ms. Sharon Hackney

Hookerton

Mayor Robert E. Taylor
Ms. April H. Baker

Kinston

Commissioner Vacant
Mr. Tony Sears
Ms. Rhonda F. Barwick

La Grange

Mr. John P. Craft
Mr. Larry Gladney
Mr. Bobby Wooten

Laurinburg

Mr. Charles D. Nichols III
Mr. Curtis B. Leak

Louisburg

Mr. Ray Patterson
Mr. Tony L. King
Mr. Jonathan Franklin

Lumberton

Mr. Harry L. Ivey
Mr. Leon Maynor
Mr. T. Wayne Horne

New Bern

Mr. Jonathan Rynne
Mr. Bernard W. White
Ms. Patricia Schaible

Pikeville

Mr. Michael D. Hunt
Mr. Robert Hooks

Red Springs

Mayor John M. McNeill
Mr. David Shook
Mr. Edward Henderson

Robersonville

Ms. Elizabeth W. Jenkins
Mr. Stacy Scott
Mr. John David Jenkins

Rocky Mount

Mr. Andre D. Knight
Mr. Charles W. Penny
Mr. Richard H. Worsinger

Scotland Neck

Mr. Leonard Bunting
Ms. Nancy Jackson

Selma

Mr. Jonathan R. Barlow
Mayor Cheryl L. Oliver
Mr. Donald Baker

Smithfield

Commissioner Vacant
Mr. Pete Connet (Alt.)

Southport

Mr. Paul D. Fisher
Mr. James F. Powell III
Mr. Kerry McDuffie

Tarboro

Mayor Rick C. Page
Mr. M. Alan Thornton
Mr. Robert L. Harrison

Wake Forest

Mayor Vivian A. Jones
Mr. Roe O'Donnell

Washington

Mr. Doug Mercer
First Alternate Vacant
Mr. Bobby E. Roberson

Wilson

Mr. Donald I. Evans
Mr. Dathan C. Shows
Mr. Grant W. Goings



NCEMPA Members

City	Revenues (000s)	Customers	Debt Share %
Apex	\$ 28,735	16,682	1.1218
Ayden	11,976	4,521	1.4347
Belhaven	2,514	1,238	0.3473
Benson	4,262	1,796	0.6507
Clayton	13,494	5,885	1.0539
Edenton	12,396	4,159	1.5570
Elizabeth City	35,408	12,029	4.0525
Farmville	6,648	2,909	0.9836
Fremont	1,359	763	0.2359
Greenville	190,535	66,051	20.3709
Hamilton	402	261	0.0675
Hertford	2,976	1,153	0.3867
Hobgood	511	277	0.0730
Hookerton	815	425	0.1057
Kinston	50,558	11,605	7.6434
La Grange	3,362	1,468	0.4261
Laurinburg	17,951	5,592	2.1984
Louisburg	7,845	1,950	0.8445
Lumberton	30,772	12,169	4.7153
New Bern	55,279	22,095	6.6370
Pikeville	1,256	508	0.1611

North Carolina Eastern
Municipal Power Agency
was formed in 1976 and
includes 32 Members in
eastern North Carolina.

City	Revenues (000s)	Customers	Ownership %
Red Springs	\$ 4,942	1,689	0.5500
Robersonville	2,636	1,023	0.4237
Rocky Mount	89,945	27,419	12.9031
Scotland Neck	3,837	1,445	0.5140
Selma	6,828	2,944	0.9171
Smithfield	18,426	4,538	2.2631
Southport	6,598	2,787	0.7366
Tarboro	26,562	5,871	3.6701
Wake Forest	19,089	6,882	1.1297
Washington	37,902	13,601	4.0871
Wilson	138,656	33,981	17.7385

Source: 2015 EIA-861 Data

2015 NCEMPA Operational Performance

NCEMPA Energy and Demand*

Years ending on December 31	2016	2015	All Time Peak
Energy (MWh)	7,535,218	7,510,446	7,735,512 (2010)
Non-coincident Peak (MW)	1,580 (June)	1,553 (July)	1,632 (August 2007)
On-Peak Demand (MW)	1,361 (July)	1,368 (July)	1,445 (August 2007)
Average On-Peak Capacity Factor	81%	78%	

* Billing Point Level including SEPA and Distributed Generation



Power Supply Overview

To provide the power and energy that NCEMPA has agreed to provide to the members under the Full Requirements Power Sales Agreements, NCEMPA has entered into the Full Requirements Power Purchase Agreement (FRPPA) with Duke Energy Program (DEP), effective August 1, 2015, corresponding with the sale of the generation assets. Under the FRPPA, DEP agrees to provide firm capacity and energy to the NCEMPA members to reliably serve their electric loads. The capacity and energy rates charged to NCEMPA are based on DEP's system-wide average cost of producing power and energy. Coincident Peak pricing is maintained under this agreement, which allows members to benefit from demand-side control. The term of the FRPPA continues through 2043 with options for early termination.

The combination of the FRPPA and transmission service provides NCEMPA a long-term power supply with the highest available reliability, delivery assurance, and a stable cost structure to support and enhance the members' rate, energy efficiency, and demand-side management programs.

Load Management

NCEMPA staff and members again successfully controlled loads during each month's peak billing period in 2016. This success translated into power cost savings of over \$71 million throughout 2016.

NCEMPA recommended load management an average of eight hours per month, during approximately three days each month. NCEMPA members and their

customers shed a monthly average of 303 MW, with 320 MW shed during the maximum peak hour. Load Side Generation is an integral part of this load shedding process, with over 360 MW of load side generation noticed as of December 31, 2016.

NCEMPA and member staff continued to develop improved systems and communication alternatives for load management operations. NCEMPA owns and maintains equipment at two radio stations to control load management equipment across eastern North Carolina. In addition, load management communications utilize e-mail/pager systems to advise members of load management recommendations, peaks and other information. The 32 NCEMPA members utilize a variety of communication devices to communicate load management information to over 500 members, retail customers and staff. NCEMPA is also reviewing options to improve load management operations by investigating the use of cellular communications, two-way communication switches, and smart grid technology for residential load management operations.

Transmission Agreements

NCEMPA obtains transmission service for capacity and energy under transmission and delivery contracts with DEP and Dominion. The Power Agency Members are assured of facilities and delivery under these network service agreements.

In 2016, NCEMPA Members started the process for future delivery points to be constructed in Kinston and Laurinburg. Also, construction of delivery points in Clayton and Greenville continued in 2016. Additionally, modifications to delivery points took place in

Wholesale Rates

NCEMPA's Full Requirements Rate Schedule (FR-1) did not change in 2016.

During 2016, NCEMPA ran 18 MW of generation to provide savings in supplemental capacity, supplemental energy and transmission costs.

Retail Rate Assistance and Billing Services

The NCEMPA Retail Billing Program serves 24 members in gathering interval meter data for 320 commercial and industrial customers. NCEMPA continues to utilize and maintain Itron MV-90xi software, ensuring the ongoing quality and level of support provided through the Retail Billing Program.

NCEMPA staff remotely reads each meter, processes meter data and provides power billing information to the members. Custom reports and graphs are provided electronically within days of month-end. Retail customers are provided an array of detailed data, helping them develop and maximize their energy savings and load management programs.

Comprehensive retail rate support is provided to Participants throughout the year, including competitive rate model analyses; innovative rate recommendations; assistance with complex billing error analysis and resolution; proposals for generation and demand side management recommendations; and review of power supply costs. Technical education is also delivered for improving customer service among municipal support staff, and assistance is provided with preparation of public power cost proposals for load growth opportunities.

Federal Regulations

Coal Ash

Coal combustion results in two forms of ash: fly ash (finer material) and bottom ash (coarser material). This ash may be stored either "dry" in designated landfills or "wet" in ponds (ash basins). In August 2014, the North Carolina State Legislature approved Senate Bill 729 - The Coal Ash Management Act of 2014. The Coal Ash Management Act, which became law in September 2014, requires that all electric generating facilities in North Carolina shall convert to the "dry" disposal method for fly ash by December 31, 2018, and bottom ash by December 31, 2019; or (in either case), if not, the facility shall be retired. In addition, the Coal Ash Management Act directed the North Carolina Department of Environment and Natural Resources to classify ash basins in North Carolina according to risk level by the end of 2015. The resulting risk classification level dictates the time by which the ash basins must be closed (between 2019 and 2029), as well as the manner in which they may be closed: either capping in place or excavation. It was reported that as of the end of 2016, Duke Energy has spent over \$725 million in coal ash cleanup expenses in North Carolina. Duke Energy has reported that total coal ash cleanup costs in North Carolina could total \$2.5 billion by 2021. The ultimate financial impact this may have on NCEMPA cannot be determined at this time.

In addition, the EPA finalized a rule, in December 2014, on coal combustion residuals (CCRs) or coal ash generated by electric utilities. The rule establishes minimum federal standards for the disposal of CCRs or coal ash in both existing and new landfills and surface impoundments. The EPA indicated that it will

work closely with states on implementation issues but that states are not required to adopt these regulations; in fact, the EPA cannot enforce the requirements of this rule. This rule is not expected to have any incremental effect on the NCEMPA operations over and above what may arise from the Coal Ash Management Act.

Spent Nuclear Fuel

With regard to spent nuclear fuel, the sale of the nuclear assets to DEP effective August 1, 2015, transferred ownership of spent nuclear fuel to DEP. Litigation is still pending against the Department of Energy for reimbursement of costs associated with the storage of nuclear fuel at the nuclear plants as a result of the DOE not providing a repository for spent nuclear fuel. Contract provisions allow NCEMPA to recover their allocation of these costs during the time period that NCEMPA was a joint owner in the Brunswick and Harris Nuclear Plants. The current litigation covers the period 2011-2013 and is anticipated to go to trial during 2017. Staff cannot predict when this litigation will be settled with the DOE.

North American Electric Reliability Corporation Compliance

The Energy Policy Act of 2005 directed the Federal Energy Regulatory Commission (FERC) to develop mandatory electric reliability standards and a process for enforcing those standards. Subsequently, FERC Order 672 certified the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization (ERO) responsible for the development and enforcement of the standards. SERC Reliability Corporation (SERC) is the NERC

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with REPS can be accomplished through any combination of the following:

- » Generating renewable energy using renewable facilities;
- » Buying renewable energy from renewable facilities;
- » Buying Renewable Energy Certificates (RECs);
- » Reducing energy consumption via demand-side management or energy efficiency;
- » Buy all or part of energy requirements through a wholesale contract with a supplier that complies with REPS; or
- » Meeting the cost cap by incurring incremental costs for some or all of the above.

Along with energy derived from unspecified renewable resources (General Requirement), the 2016 requirements included three "carveout" requirements: energy derived from solar facilities, abiomass energy derived from swine waste, and biomass energy derived from poultry waste. NCEMPA met its solar requirement, poultry requirement and the General Requirement in 2016. However, the North Carolina Utilities Commission (NCUC) delayed the 2016 swine requirement until 2017 for all North Carolina utilities, including NCEMPA. The swine requirement was delayed because there were not enough swine biomass generators online in North Carolina to meet these statewide requirements. To meet its future REPS requirements, NCEMPA has entered into several REC purchase agreements, including the purchase of:

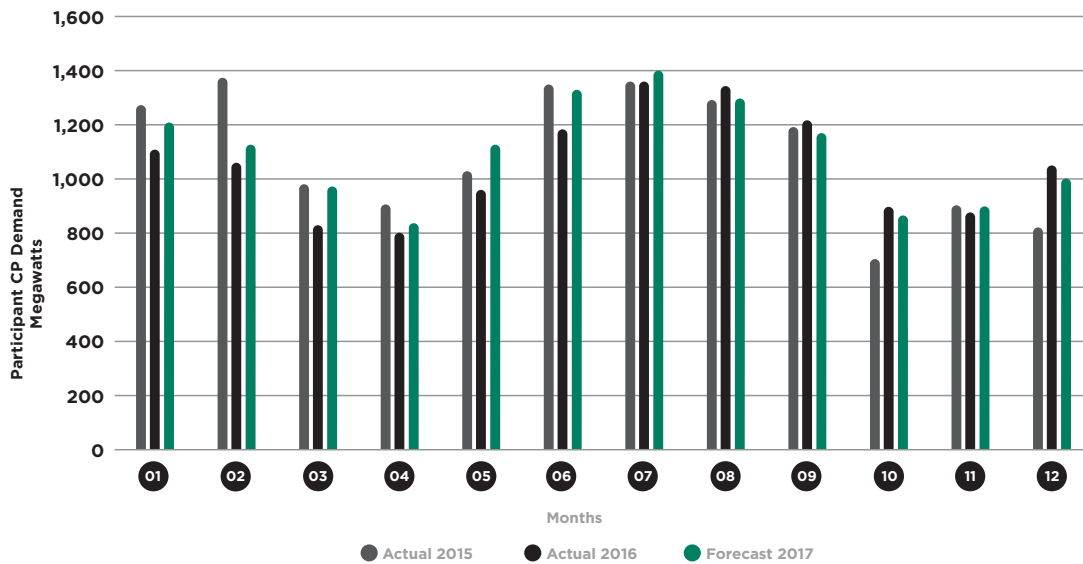
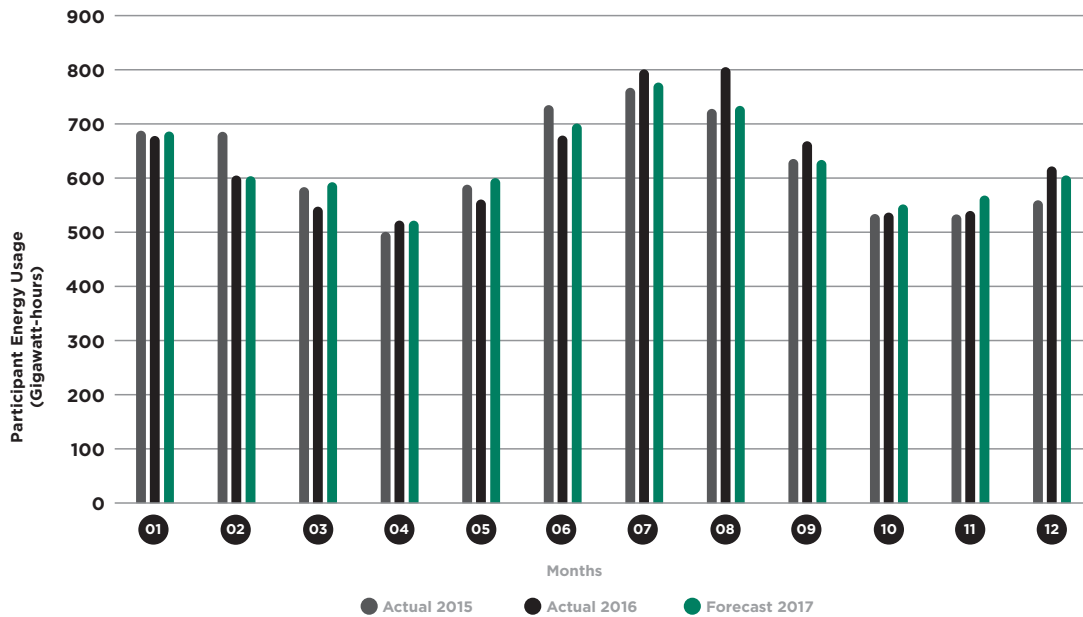


- » In-state and out-of-state solar photovoltaic RECs;
- » In-state and out-of-state wood waste biomass RECs;
- » In-state and out-of-state poultry waste biomass RECs; and
- » In-state and out-of-state swine waste biomass RECs.

Through these REC purchases, NCEMPA has secured its supply of RECs to meet the REPS requirements for the General Requirement, solar requirement, and poultry requirement through 2019. NCEMPA, along with the other North Carolina electric utilities, continues to solicit proposals from proposed swine waste biomass electric generating facilities to meet the swine waste requirement. NCEMPA has been active at the NCUC, helping to shape the REPS program through filings and participation in working groups.

NCEMPA Investment and Outstanding Debt Overview

Investment Portfolio Statistics				Bonds Outstanding	
Earnings		Income	Rate of Return	Series	Par Amount
2016	\$	1,254,000	0.81%	Series 2015 A	\$ 386,215,000
2015		9,532,000	2.20%	Total	\$386,215,000
Market value as of 12/31/16					
		Value	Average Maturity (yrs.)		
2016	\$	193,935,000	0.9		
2015		149,239,000	1.2		
Debt outstanding as of 12/31/16					
Fixed rate bonds		Balance	Weighted Avg. Interest Cost		
2016	\$	386,215,000	3.4%		
2015		421,430,000	3.4%		
Bond reconciliation					
Bonds outstanding 12/31/15		\$421,430,000			
Matured 7/1/16		35,215,000			
Bonds outstanding 12/31/15		386,215,000			



Graphs: Billing point including SEPA.



Non-Power Agency Leadership

Board of Commissioners and Alternate Commissioners as of December 31, 2016

Alternate Commissioners' names appear in smaller type

Concord

Mr. Robert Pate
Mr. Scott Chunn

Dallas

Mr. James Douglas Huffman
Mr. James M. Palenick

Enfield

Mr. Earl Harvey
First Alternate Vacant

Fayetteville PWC

Mr. Michael G. Lallier
Ms. Lynne B. Greene

Forest City

Mr. John Condrey
First Alternate Vacant

Fountain

Commissioner Vacant
First Alternate Vacant

Kings Mountain

Ms. Marilyn H. Sellers
Mr. Nick Hendricks

New River Light & Power

Mr. Edmond C. Miller
Mr. Michael O'Connor

Stantonsburg

Mr. Gary W. Davis
First Alternate Vacant

Waynesville

Mr. Robert W. Hites Jr.
Mr. David Foster

Windsor

Mayor J.F. Hoggard III
Mr. Allen Castelloe

Winterville

Mr. Tony P. Moore
First Alternate Vacant



Non-Power Agency Members

City	Revenues (000s)	Customers
Concord	\$ 80,936	29,186
Dallas	6,700	3,546
Enfield	4,126	1,256
Fayetteville PWC	203,661	90,050
Forest City	11,784	4,062
Fountain	569	297
Kings Mountain	13,264	4,503
Macclesfield	476	269
New River Light & Power	18,260	7,926
Pinetops	3,237	745
Stantonsburg	2,598	1,140
Walstonburg	228	132
Waynesville	8,285	3,013
Windsor	5,353	1,791
Winterville	6,135	2,889

Source: 2015 EIA-861 Data

ElectriCities Services

Economic Development

ElectriCities' economic development team markets communities domestically and internationally to attract new business investment and new job creation for our members. Our team has continued its work with national and chain accounts to strengthen their presence in our member communities,

and our international program has proven to be very successful in finding foreign direct investment opportunities for our members. By closely following changes to state and federal regulations, the team ensures that our members have the most up-to-date information possible. Our team also works closely with the Economic Development Partnership of North Carolina (EDPNC), the Rural Development Division of the North Carolina Department

of Commerce, the Regional Partnerships and county developers to further the strategic load growth efforts. In 2016, NC Public Power communities continued to see success with industrial, commercial, and retail recruitment and with expansions of existing industries. NCMPA1 members added 1,524 new jobs in fiscal year 2016 with investments totaling approximately \$233,289,535. New load added to NCMPA1 was approximately 46.39 MW. NCEMPA members added 3,886 new jobs in fiscal year 2016 with investments totaling approximately \$677,627,864. New load added to NCEMPA was 13.29 MW.

Our Smart Sites (S2) program is growing, with 11 qualified sites in member communities throughout the state. The program is a stringent process of recruiting greenfield sites and designating them shovel-ready for development. Potential sites must meet specific requirements and undergo an extensive review process by site selection experts, including phase 1 audits and geotechnical, wetlands, and endangered species reviews. Each site must have municipal electric service, have water and sewer access within 500 feet, and be within five miles of an interstate or interstate-quality highway. The property must be controlled by the member or the county economic development office. Smart Sites are located in Farmville, Greenville, Kinston, Laurinburg, New Bern, Rocky Mount, Shelby, Statesville, Tarboro, Washington and Wilson.

Major industrial, commercial and retail announcements in 2016 for NC Public Power communities include:

- » Grifols (Clayton) expansion with \$210 million investment
- » Yokohama Tire (Concord) with 56 jobs and

\$2.7 million investment

- » Krystal Engineering LLC (Granite Falls) with 82 jobs and \$20.9 million investment
- » Expert Global Solutions (High Point) expansion with 800 jobs
- » Kings Plush Inc. (Kings Mountain) expansion with 59 jobs and \$11.5 million investment
- » West Pharmaceuticals (Kinston) expansion with \$19 million investment
- » GKN Driveline (Maiden) expansion with 143 jobs and \$110 million investment
- » CSX Carolina Connector (Rocky Mount) with 1,500 jobs statewide—350 in Rocky Mount—and \$260 million investment
- » Mafic USA (Shelby) with 113 jobs and \$13 million investment
- » Kooks Custom Headers (Statesville) expansion with 10 jobs and \$1 million investment
- » The Hillshire Brands Company (Tarboro) expansion with 98 jobs and \$28.4 million investment
- » Bridgestone Firestone (Wilson) expansion with \$164 million investment
- » Wal-Mart Neighborhood Markets for Fayetteville, Newton and Wilson
- » Publix Super Markets for Boone, Concord, Gastonia, Greenville, High Point, Kinston, New Bern and Statesville
- » Hampton Inn for Benson and Lumberton
- » Hilton Garden Inn for Gastonia and Statesville

Safety and Training

The ElectriCities Safety and Training staff is responsible for providing safety training and professional support to members' electric system personnel. We provide an array of services such as training schools and



workshops, on-site safety audits and training, accident investigations and administration of professional development tracks. ElectriCities' Safety staff also informs members of new safety regulations and best practices to reduce workplace accidents and lost employee time. The team stays up-to-date with the latest state and federal rules and regulations to ensure public power line crews have the best possible information and techniques to keep line crews safe.

The ElectriCities Safety and Training Team, a member-based group, ensures that ElectriCities' Safety and Training schools align with the needs and concerns of ElectriCities members. The team met six times in 2016 to plan new activities, review schools' expenses and revenues, and monitor existing activities.

In 2016, Safety staff performed 29 on-site audits and 478 safety consultations. In addition, the Safety and Training team conducted and attended 51 safety meeting presentations throughout the year.

ElectriCities recognizes members for safe work habits with annual safety awards presented during the North Carolina Association of Municipal Electric Systems (NCAMES) Annual Meeting. During the 2015 meeting, 54 cities and towns were recognized for achieving "no lost workday" accidents during 2015.

ElectriCities' Safety and Training also maintains four Apprenticeship career development programs for municipal employees beginning their career in the electrical industry.

- » Lineman Career Development Program
- » Meter Technician Career Development Program

- » Substation Career Development Program
- » Underground Career Development Program

Safety and Training has two full-time trainers that assist in the instruction of the Lineman Career Development Apprenticeship Program. This program provides specialized training for employees who work on high voltage overhead power lines. With a renewed effort to involve more line workers in the Career Development Programs, we now have 230 students enrolled for 2017.

The Safety and Training staff also facilitates many training opportunities throughout the year. ElectriCities partners with Nash Community College to offer a two-year associate degree in Electric Power Lineman Technology for line worker employees who wish to participate and attend the ElectriCities Safety Schools. ElectriCities' Staff works with Nash Community College located in Rocky Mount, N.C., to provide classrooms with state-of-the-art audio and visual training aids as well as outside training grounds for hands-on training.

In 2016, ElectriCities provided 18 schools and workshops (as listed below) to accomplish these goals. These schools range from 3 days to a week-long each and are held on topics such as:

- » Basic Meter School
- » Advanced Meter School
- » Climbing School
- » Basic Lineman School
- » Intermediate Lineman School
- » Advanced Lineman School
- » Basic Underground School
- » Distribution Regulator School
- » Substation School

- » Distribution Regulator School
- » Troubleshooting School
- » Leadership Skills Workshop
- » Line Clearing/Tree Trimming School
- » NESC Overview and Overhead Distribution Systems Training School
- » Trenching Competent Person and Confined Space Workshop
- » Protective Grounding Workshop
- » Transformer School

Government Relations

The ElectriCities Government Relations team is dedicated to protecting the interests of public power communities in North Carolina. The Government Relations team actively participates in the legislative process and strives to provide member cities with pertinent information and an outlet to voice their concerns. The team's lobbying efforts work closely with our member cities to ensure the successful future of NC Public Power communities.

The Legislative Steering Committee, a committee of the ElectriCities Board of Directors, is actively involved in shaping the organization's legislative agenda. The primary focus of the Legislative Steering Committee is to promote public power and protect public power communities from any detrimental legislation on many issues, including electric territorial rights, pole attachment rates, terms and conditions, low-income customer assistance and inter-governmental relations.

During the 2016 legislative session, the Government Relations team protected the right of municipalities to charge pole attachment fees from efforts by some telecommunications companies to prevent municipalities from charging fees related to

the use of municipally-owned or controlled rights of way. In addition, the team was actively involved in legislative discussions on proposed changes to the Renewable Energy and Energy Efficiency Portfolio Standards (REPS) statute and proposals that would allow unregulated entities to sell electricity to retail customers.

The federal legislative agenda includes support for preserving tax-exempt financing; sensible, workable environmental and reliability legislation; and other issues that affect public power collectively. The Government Relations team works with national groups such as the American Public Power Association and the Large Public Power Council to advance the interests of North Carolina Public Power communities.

Residential Energy Education and Weatherization Assistance Services

ElectriCities offers programs and services to help members address the needs of residential customers. Active residential programs for 2016 included residential in-home energy survey service; distribution of energy efficiency kits; E-Tracker, an energy education program for member high schools; and Weather Insights: a set of online, interactive customer service applications.

Weather Insights uses local energy rates and the local weather forecast to predict a default customer's energy costs for the coming week. Customers can tailor the analysis for their home profile by specifying the size of their home, the number of people that live there, and energy characteristics, like the level of insulation. Once the profile is generated, Weather Insights will use the profile and weather forecast to predict energy



use and provide recommendations on how to lower energy costs.

The Residential Energy Survey Service team provides free in-home energy surveys to residential customers. They also provide training and support for ElectriCities members' staff. For example, an energy auditing 101 class was held at ElectriCities offices which included a field component to see a house under construction. Initiated in 2015, energy surveys are completed on an iPad, enabling pictures to be included in reports that can be either emailed to the customer or printed and mailed. 403 energy surveys were conducted in 2016 for residential customers.

The program also promotes energy education and awareness through local workshops, seminars and community-based meetings. Nineteen energy education and assistance workshops were provided to retail customers during 2016.

The Energy Efficiency Kit is designed to help residential customers understand energy usage and its effect on energy bills. Responding to member interest, the light bulbs were upgraded from compact fluorescent lamps to LED lamps. Also included is a digital temperature sensor for measuring air and hot water temperature and an HVAC filter whistle, which provides an audible whistle when the filter is dirty and needs to be changed. 3,400 Energy Efficiency Kits were distributed to ElectriCities members in 2016.

The Residential Energy Survey Service team continued to market North Carolina's Weatherization Assistance Program (WAP) throughout NC Public Power communities during 2016. The WAP is administered through the NC Energy Office, utilizing a

network of local weatherization agencies serving all counties in the state. Residential Energy Survey Service team efforts included referring energy survey customers that might be candidates to their local weatherization agency. The Residential Energy Survey Service team also participates on the State's Weatherization Team. These marketing efforts resulted in 213 customer referrals to the WAP during 2016.

E-Tracker, funded initially by a grant from the American Public Power Association (APPA), was continued as a service in 2016 and was delivered to New Bern High School. E-Tracker teaches high school students about the relationship between daily energy use and degree days (a daily weather index). Students were instructed to apply the scientific method to solve this question: how does the weather affect my utility bill? In the process, students were instructed on how to apply statistics, including linear regression and correlation coefficients, to learn about this relationship that affects every utility customer.

Strategic Communications

ElectriCities' Strategic Communications functions as an in-house marketing, public relations and advertising group focused on promoting the value of ElectriCities, NCEMPA, NCMPA1 and the communications goals of our members. Strategic Communications staff is available to all members to provide consulting and design service for local projects. The consulting, design and communications planning services are all provided free of charge to ElectriCities members.

The Strategic Communications team maintains a supply of customer communications pieces, including bill inserts

and videos on topics such as energy efficiency and storm preparation. The bill insert service is one of the most popular offerings of the department, with nearly 700,000 bill inserts distributed in 2016. Projects were completed for NCMPA¹ and NCEMPA members.

The department also produces several newsletters: *Hometown Connection*, a newsletter that communicates the good news of public power; *Developments*, an economic development-focused quarterly communication promoting sites in North Carolina; and *Currents*, an e-newsletter that provides updates specifically on customer communication topics.

The Strategic Communications team plans an awareness/celebration campaign each year for Public Power Week. The campaign focus is always based on current electric utility topics and interest points. Public Power Week provides a designated time for public power communities to celebrate the advantages that locally-owned and operated electric utilities provide. In 2016, the Public Power Week theme was *Power United: Together We Shine*, focusing on NC Public Power's excellent reliability and knowledgeable staff who provides excellent service to customers.

The Strategic Communications team serves as the marketing arm for the Economic Development team. The communications department produces marketing materials, advertisements, trade show materials and displays to enhance ElectriCities' overall economic development activities. We were pleased to be presented with several communications awards in 2016, including awards from the Triangle Advertising Federation and the Southern Economic

Development Council (SEDC.)

Utility Operations Services

A variety of utility operations services are provided by ElectriCities' Member Services department. These programs are designed to provide support for members' electric distribution systems and customer service programs.

Distribution systems support programs include: the Operations Standards Team, statewide service contracts, joint purchasing, the Emergency Assistance Program, assistance with APPA's Reliable Public Power Provider (RP3) program, assistance with APPA's eReliability Tracker program, reliability tracking and hosting an online forum for utility directors to share best practices.

In 2016 the online material safety data sheet (MSDS) management program continued to offer members a more efficient way to handle material safety requirements. ElectriCities' contract on this system provides the system at a discount to members. There are currently seven members using this system.

The Operations Standards Team is a member-based team that is comprised of utility directors with the mission of developing safe, efficient work practices. The team produces the "Guidelines for Municipal Electric System Construction," which includes overhead construction drawings, underground construction drawings and procedures and metering guidelines and procedures. These guidelines will be updated and a new version released in 2017.

The Member Services team administers the Statewide Service Contracts programs to help public power communities collectively take advantage of volume pricing discounts.



Current contracts are in place for: tree trimming, aerial device testing, meter testing, infrared scanning, in-ground pole testing, substation maintenance, power line construction and PCB audit assistance.

In addition to Statewide Service Contracts, Member Services manages the joint purchasing of utility equipment. In 2016, utility poles were the only item that was jointly purchased amongst members, however, additional items are being investigated that could be added to the joint purchasing program.

The Emergency Assistance Program (EAP) provides support to members during emergency restorations. All members participate in this program and willingly provide support to each other during restoration efforts. Member Services staff keep updated mutual aid agreements and contract information to allow quick response and dispatch after storms. ElectriCities' staff coordinate in-state with SERT and on a regional and national basis with APPA for storm response. In 2016, several storms threatened the state but the only major event was Hurricane Matthew (see page 8). Members prepared well and responded quickly to restore power to affected areas. Over 100,000 people were without power at the peak of the storm. Through the mutual aid efforts, Public Power communities restored power very quickly to 98% of the customers. Flooding hampered restoration efforts in some communities, but power crews were still able to reconnect everyone capable of receiving power by the end of the week.

The Member Services team participates in state and regional planning teams, such as the Southeast Public Power Disaster Response Group and APPA's Mutual Aid Working Group.

ElectriCities participated in the development of APPA's Mutual Aid Playbook, which provides a regional and national response plan to major events affecting the electric systems. Staff also began implementing Everbridge, an emergency communication system, to be better prepared for future events.

The RP3 program, APPA's initiative to promote and recognize excellent public power utilities, is supported by the Member Services department. The Member Services team assist members by promoting the program, providing information necessary to complete applications, answering questions and reviewing applications. The program has been very effective and has resulted in North Carolina having 24 current RP3 designees, the most of any state in the country.

Proving that "public power is more reliable" became a mission led by the Member Services team. Using IEEE reporting standards, reliability data is collected each year and compared to co-ops and investor-owned utilities, proving that NC Public Power is more reliable. For 2015, NC Public Power had a System Average Interruption Duration Index (SAIDI) of 42.07 minutes and a System Average Interruption Frequency Index (SAIFI) of 0.674 outages. This means that the average NC Public Power customer experienced 42.07 minutes without power and had 0.82 outages throughout the year of 2015. For comparison purposes, Duke Energy Progress had a SAIDI of 141 minutes and a SAIFI of 1.41 outages in 2015, while Duke Energy Carolinas had a SAIDI of 143 minutes and a SAIFI of 0.99 outages in 2015. Over 20 members use APPA's eReliability Tracker to help members track outages and obtain their reliability indices. Subscriptions to this service are provided to

ElectriCities members free of charge.

The Member Services team provide an array of services that promote customer service and business operation excellence. Examples include classes and webinars on customer service practices and emerging issues, hosting forums for Customer Service Managers, facilitating online forums for discussions among peers, offering customer service training workshops, and providing business operations and regulatory assistance.

Guidelines for customer service policies are also kept by Member Services staff and are available to all members as a reference manual. Customized customer service training is available to members as needed.

The Member Services team also coordinates regional meetings and the Annual Conference to help keep members informed of the issues regarding public power in North Carolina.

Smart Grid

In 2012, ElectriCities released a smart grid Request for Proposals (RFP) on behalf of the members to evaluate various smart grid technologies. The evaluation team consisted of many ElectriCities staff and members' staff. In 2014, the team decided that Nexgrid, LLC was the best solution for ElectriCities to partner with for Advanced Metering Infrastructure technology, or AMI. ElectriCities signed a Master Services Agreement (MSA) with Nexgrid, negotiated a discount on all Nexgrid products for members, and can also leverage joint purchases for even greater volume discounts.

By the end of 2016, ElectriCities had over 30 members working on a smart grid pilot project or full deployment. Multiple vendors

were represented in these projects, with 17 of the projects using Nexgrid. Of the 17 projects using Nexgrid, four members were in the full deployment process. In addition, five NCEMPA members were working on a full deployment of Nexgrid two-way load management switches.

ElectriCities staff continues to offer services for smart grid such as project management, education, business case assistance, council presentations, hosting, and support.

ElectriCities' Annual Conference

ElectriCities 2016 Annual Conference was held August 11-13, at the Embassy Suites in Concord, NC. The conference brought members together to learn about news and issues affecting public power communities and the benefits of working together for their communities. The conference provided one of the best forums of its kind for public power leaders to gather, network and discuss specific issues related to public power. In 2016, the conference had over 340 attendees.

The conference featured: Roy Jones, ElectriCities' CEO, who presented ElectriCities' Strategic Plan; Rob Talley and David Barnes discussed Legislative Issues; Roger Tutterow Ph.D., discussed Economic Trends; Chris Chung, CEO of the Economic Development Partnership of North Carolina; Garry Golden, a Futurist, discussed technology trends and Steve Logan, a former football coach, spoke about Leadership during Friday's lunch.

The conference program featured several breakout sessions. These topics included: Smart Grid Consumer Collaborative; Customer Service – Building a Strong Infrastructure; Current Trends in Rate Making; Compensation Challenges within



Energy Services; Business and Technology Roadmap Planning; Continuous Improvement through an Organizational Check-up; Communicating the Value of Public Power; and Workforce Challenges of the Future. The 2017 Annual Conference will be held at the Marriott Grande Dunes in Myrtle Beach, SC, and will focus on the Value of Public Power, Continuous Improvement, Grid Modernization and Workforce Challenges.

Customer Information, Billing and Financial Systems

ElectriCities' IT Department currently hosts the NorthStar Customer Information System (CIS) for six members and provides a variety of value-added professional services. The software is provided by NorthStar Utilities Solution and was selected by a team of members for its robust functionality and ease of integration with other utility systems including financials, GIS, work order management and AMI. NorthStar provides meter inventory, service orders, billing, credit, collections, call management, executive reporting and web bill presentment and payment. The NorthStar system is able to bill electric, water, sewer, refuse/garbage, gas and other miscellaneous city services. It is used by utilities throughout North America in AMI and deregulated environments. The members currently using the hosted NorthStar CIS are Albemarle, Benson, Cherryville, Cornelius, Huntersville and Morganton. In 2016, these members managed accounts for 34,900 electric customers, billing over \$134 million in municipal revenues. Shelby and Concord also use NorthStar CIS, and are part of the ElectriCities and Regional User Groups. In 2016 staff assisted the Town of Benson in

integrating NorthStar CIS with the Nexgrid AMI system using electronic readings and MultiSpeak two-way integration functions to synchronize data real time between the CIS and AMI systems.

In 2016, ElectriCities began offering a second hosted customer information and financial system offered by Tyler Technologies geared towards small-to medium-sized municipalities. Several members have signed contracts with Tyler Technologies for its product Incode, and ElectriCities will be hosting Ayden, Cherryville, Farmville, Smithfield and Statesville. Washington, North Carolina, also has contracted with Tyler for local deployment of the Utility Billing product. All of these implementations are targeted to go into production in 2017.

The CIS and financial system software hosted by ElectriCities is co-located in a secure hardened data center. The IT Department maintains production, test, backup and disaster recovery environments. The vendor partnerships enable ElectriCities to negotiate member discounts on behalf of the members and advocate for them. The NorthStar members also receive level 1 and 2 help desk support. Project assistance is also available and in 2016 included assisting Albemarle in implementing ebilling and Cherryville in upgrading their IVR and online customer portal.

Any city interested in the hosted NorthStar CIS and/or Tyler Utility Billing and financial system offerings can learn more by contacting ElectriCities' Member Services.

Huntersville/Cornelius

The Towns of Huntersville and Cornelius contract with ElectriCities to manage the operation of their electric systems. The

combining of the electric operations in 1997 continues to minimize operating costs and provide value for customers of the towns. The ElectriCities team at the Huntersville/Cornelius office is involved in the local community and participates in economic development activities and recruitment.

As the total customer base continues to grow, ElectriCities continues to provide customers with bill pay options that include: access to online bill pay and view billing; usage information on the department's website; social media updates on the local Twitter accounts; and an Interactive Voice Response (IVR) that allows customers to pay through the phone system 24 hours a day.

The Huntersville/Cornelius combined electric operation continues to provide economies of scale to minimize operating costs, enabling both towns to maintain competitive electric rates in the region.

Pineville

In April 2016, the Town of Pineville contracted with ElectriCities to manage the operation of their electric system by combining their Line & Service Department with the Towns of Huntersville and Cornelius. The combined electric operation provides for career development and succession planning along with economies of scale to minimize operating costs enabling the town to maintain a high reliability and competitive rates in the region.

