Cover: Fayetteville PWC's Randy Cummings inspects the work Cape Fear Substation, the utility's newest substation.
In honor of ElectriCities’ 50th anniversary, we reflect on public power’s rich tradition in North Carolina. From the state’s largest public power community, to a former manufacturing community reinventing itself, to an emerging technology hub, our members embrace their heritage and move confidently into the future.
Fifty years ago, more than 100 people from across North Carolina gathered for an emergency meeting in Greensboro. They represented 46 cities and towns with an urgent issue to discuss: a legislative proposal to divide up the state’s electric utility territory was moving forward without any consideration of public power communities.

It was the first time that our state’s municipal power providers had come together to discuss their common interests and how to work together more effectively. That February 1965 proved to be a critical point in the history of North Carolina public power, leading to the formation of the NC Municipally Owned Electric Systems Association.

Three years later, the organization was renamed ElectriCities.

While much has changed over the past fifty years, the purpose of ElectriCities has remained the same – to strengthen public power communities. By working together. By sharing ideas. By speaking with one voice.

During ElectriCities’ early years, our priorities revolved around reducing wholesale electric costs and securing a reliable long-term power supply. Sound familiar? Those two issues have long been atop our list of priorities.

The July 2014 agreement to sell NCEMPA’s generation assets to Duke Energy for $1.2 billion is a direct reflection of those priorities. The transaction – approved by FERC in December and expected to be completed in 2015 – will significantly reduce NCEMPA’s wholesale power costs and provide a reliable power supply to member communities for the next 30 years.

We explored a similar opportunity for Agency 1. After carefully evaluating our options, the Board of Directors determined that retaining ownership of Agency 1’s generation assets would provide the greatest long-term financial benefit to our members.

As we celebrate ElectriCities’ 50th anniversary, our focus remains on controlling wholesale power costs and providing safe, reliable power to our members. But the services we provide to public power communities has expanded far beyond those original points of emphasis.

The evolution began in the mid 1980’s when ElectriCities started working more closely with members to develop retail rate strategies, provide safety training for utility employees and coordinate emergency assistance efforts when storms caused major outages.

Since then, we have continued to expand our services to provide leadership to North Carolina’s public power communities. One way we’ve focused on delivering value to
members is through economic development services that create new jobs. It’s a prime example of how we can work together to make a meaningful impact.

Together, we are a powerful force. Our public power communities serve more than 1.2 million people – larger than Charlotte and Raleigh combined. When we share ideas and expertise, our communities thrive. Just take a look at Wilson (page 24), Lexington (page 8) and Fayetteville PWC (page 42).

Downtown revitalization efforts in Wilson are in full swing. A new arts district is in the works and the town’s largest tobacco warehouse is being converted into a new residential and retail space.

In Lexington, locally owned businesses are flourishing. The community’s support of local entrepreneurs has helped the city maintain a 97 percent occupancy rate downtown.

Fayetteville PWC, our largest public power community, has a well-deserved reputation for excellent customer service that has become a model for others to follow.

Since our very first meeting in Greensboro, ElectriCities has focused on bringing together public power communities and finding solutions that improve our cities and towns. As the energy behind public power, that remains our focus as we prepare for the next fifty years.

Richard N. Hicks  
Chair

T. Graham Edwards  
Chief Executive Officer

Sculpture by self-taught artist and Wilson native, Vollis Simpson.
It’s an iconic American concept – starting a business, nurturing it and growing it into a legacy to pass on to your children and grandchildren. For much of the country, that American dream is a nostalgic bygone from a different time in history. Yet in Uptown Lexington, a stroll down Main Street harkens back to the golden years of Saturdays spent visiting with friends and stocking up for the coming week.
Many of Uptown Lexington’s shop-owners are second or third generation caretakers. The Army Navy Store opened right after World War II, in the same location where today they outfit a new generation of Lexington outdoorsmen. The Candy Factory, established in 1978, sweetens any shopping trip with homemade fudge and hundreds of old-fashioned candy favorites.

The businesses are nurtured by the local business community and the Lexington Business Consortium. Developed by Mayor Newell Clark, the Consortium provides comprehensive business planning throughout the business cycle to seasoned business owners and entrepreneurs alike. All efforts are dedicated to making local businesses successful and thriving for the next generation in Lexington.
An Uptown American Dream

Scenes from Uptown Lexington’s Backyard Retreat with owners Jeff Miller and Tom Tussey; The Candy Factory with co-owner Jennie Leonard.
# NCMPA1 Leadership

<table>
<thead>
<tr>
<th>Mr. Strib Boynton</th>
<th>Mr. Wayne Dellinger</th>
<th>Mr. J. Richard Howell Jr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair</td>
<td>Vice Chair</td>
<td>Secretary-Treasurer</td>
</tr>
<tr>
<td>High Point</td>
<td>Newton</td>
<td>Shelby</td>
</tr>
</tbody>
</table>

## Board of Commissioners and Alternate Commissioners as of December 31, 2014

Alternate Commissioners’ names appear in smaller type

<table>
<thead>
<tr>
<th>Location</th>
<th>Commissioners</th>
<th>Alternate Commissioners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albemarle</td>
<td>Mr. Michael J. Ferris</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ms. Martha Sue Hall</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mayor Ronnie Michael</td>
<td></td>
</tr>
<tr>
<td>Bostic</td>
<td>Commissioner Vacant</td>
<td>First Alternate Vacant</td>
</tr>
<tr>
<td>Cherryville</td>
<td>Mayor H. L. Beam III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mr. Brian Dalton</td>
<td></td>
</tr>
<tr>
<td>Cornelius</td>
<td>Mr. Thurman Ross Jr.</td>
<td>Mr. David Gilroy</td>
</tr>
<tr>
<td></td>
<td>Mr. Anthony Roberts</td>
<td></td>
</tr>
<tr>
<td>Drexel</td>
<td>Ms. Sherri Bradshaw</td>
<td>Mr. Carrol Franklin</td>
</tr>
<tr>
<td>Gastonia</td>
<td>Mr. Edward C. Munn</td>
<td>Mr. J. Philip Bombardier</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granite Falls</td>
<td>Mayor Barry C. Hayes</td>
<td>Mr. Jerry T. Church</td>
</tr>
<tr>
<td>High Point</td>
<td>Mr. Strib Boynton</td>
<td>Mayor William S. Bencini Jr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. J. William McGuinn Jr.</td>
</tr>
<tr>
<td>Lincolnton</td>
<td>Mr. Stephen H. Peeler</td>
<td>Mayor John O. Gilleland Jr.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Jeff B. Emory</td>
</tr>
<tr>
<td>Maiden</td>
<td>Mr. Billy R. Price</td>
<td>Mr. Marcus C. Midgett</td>
</tr>
<tr>
<td>Monroe</td>
<td>Mr. Donald D. Mitchell</td>
<td>Mr. Greg Demko</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Freddie B. Gordon</td>
</tr>
<tr>
<td>Morganton</td>
<td>Mr. Dan Brown</td>
<td>Mr. Brooks Kirby</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ms. Sally W. Sandy</td>
</tr>
</tbody>
</table>
### NCMPA1 Participants

<table>
<thead>
<tr>
<th>City</th>
<th>Revenues (000s)</th>
<th>Customers</th>
<th>Ownership %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albemarle</td>
<td>$32,103</td>
<td>11,844</td>
<td>7.6043</td>
</tr>
<tr>
<td>Bostic</td>
<td>402</td>
<td>222</td>
<td>0.0869</td>
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<tr>
<td>Cherryville</td>
<td>5,540</td>
<td>2,442</td>
<td>1.5788</td>
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<tr>
<td>Cornelius</td>
<td>4,963</td>
<td>3,102</td>
<td>0.3621</td>
</tr>
<tr>
<td>Drexel</td>
<td>2,123</td>
<td>1,207</td>
<td>0.5070</td>
</tr>
<tr>
<td>Gastonia</td>
<td>69,208</td>
<td>26,497</td>
<td>17.1205</td>
</tr>
<tr>
<td>Granite Falls</td>
<td>5,703</td>
<td>2,394</td>
<td>0.9125</td>
</tr>
<tr>
<td>High Point</td>
<td>116,825</td>
<td>39,731</td>
<td>18.9600</td>
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<tr>
<td>Huntersville</td>
<td>13,194</td>
<td>4,664</td>
<td>0.6228</td>
</tr>
<tr>
<td>Landis</td>
<td>5,945</td>
<td>2,877</td>
<td>1.1298</td>
</tr>
<tr>
<td>Lexington</td>
<td>48,922</td>
<td>18,348</td>
<td>12.9345</td>
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<td>Lincolnton</td>
<td>6,225</td>
<td>2,671</td>
<td>1.6078</td>
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<td>Maiden</td>
<td>6,085</td>
<td>1,165</td>
<td>1.2891</td>
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<td>Monroe</td>
<td>53,233</td>
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<tr>
<td>Newton</td>
<td>14,374</td>
<td>4,495</td>
<td>2.1147</td>
</tr>
<tr>
<td>Pineville</td>
<td>11,229</td>
<td>2,907</td>
<td>0.5359</td>
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<tr>
<td>Shelby</td>
<td>19,209</td>
<td>8,013</td>
<td>5.9965</td>
</tr>
<tr>
<td>Statesville</td>
<td>45,587</td>
<td>13,010</td>
<td>9.8639</td>
</tr>
</tbody>
</table>

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: 2013 EIA-861 Data
NCMPA1 Operational Performance

NCMPA1 Energy and Demand*

<table>
<thead>
<tr>
<th>Years ending on December 31</th>
<th>2014</th>
<th>2013</th>
<th>All Time Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (MWh)</td>
<td>5,239,697</td>
<td>5,125,198</td>
<td>5,320,784 (2010)</td>
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<tr>
<td>Non-coincident Peak (MW)</td>
<td>1,029 (July)</td>
<td>1,022 (July)</td>
<td>1,140 (August 2007)</td>
</tr>
<tr>
<td>On-Peak Demand (MW)</td>
<td>1,000 (July)</td>
<td>970 (July)</td>
<td>1,110 (August 2007)</td>
</tr>
</tbody>
</table>

Average On-Peak Capacity Factor 70% 71%

* Billing Point Level including SEPA and Distributed Generation

NCMPA1 Plant Information

<table>
<thead>
<tr>
<th>Unit</th>
<th>Capacity Factor% (1)</th>
<th>Availability Factor% (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catawba Unit 1</td>
<td>86.3</td>
<td>85.6</td>
</tr>
<tr>
<td>Catawba Unit 2</td>
<td>100.2</td>
<td>100.0</td>
</tr>
<tr>
<td>McGuire Unit 1</td>
<td>82.4</td>
<td>82.1</td>
</tr>
<tr>
<td>McGuire Unit 2</td>
<td>93.8</td>
<td>90.8</td>
</tr>
</tbody>
</table>

Note: The above numbers are reported by Duke Energy to the Nuclear Regulatory Commission in the Unit’s December 2014 Operating Data Report.

Nuclear Refueling

- Catawba Unit 1’s last refueling outage began on May 6, 2014, and ended on June 27, 2014.
- Catawba Unit 2 did not have a refueling outage in 2014.
- McGuire Unit 1’s last refueling outage began on September 13, 2014, and ended on November 13, 2014.
- McGuire Unit 2 began a refueling outage on March 22, 2014, and ended on April 22, 2014.

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

Nuclear Plant Operating Licenses Expiration

Duke Energy Carolinas (DEC) requested

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 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, both visible and unseen.

These include armed, well-trained security forces; physical intrusion detection systems and robust barriers consisting of concrete structures and razor wire fences; extensive vehicle barrier systems; and advanced surveillance, detection and assessment equipment that monitors areas surrounding the Station.

Station access is tightly controlled by skilled security officers and multiple, sophisticated electronic devices. 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 from 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 and 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 2014, 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 185 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 contracts to ensure reliable future power supply requirements with the following suppliers:

» NCMPA1 purchased 150 MW of capacity through the year 2030 from Southern Power Company and sourced out of Rowan County, N.C.
» NCMPA1 purchased 185 MW of capacity through the year 2031 from Southern Power Company and sourced out of Cleveland County, N.C.

NCMPA1 has a contract with The Energy Authority (TEA) to manage all intra-day energy transactions. The current three-year agreement with TEA ends on Dec. 31, 2016. 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. Just as our 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 37 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 five hours per month during 2014.

**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. All day-ahead, short-, mid- and long-term transactions and resource optimization are managed internally, while intra-day activities are managed through an agency agreement with TEA.

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 the wholesale power markets at the highest price.

» Buying energy in the wholesale power markets when cheaper than its supplemental resources.

» Managing the 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 3,800 transactions related to surplus sales activities in 2014. These transactions resulted in revenues in excess of $52 million and in benefits exceeding $33 million.

NCMPA1 has a Risk Management Committee consisting of executive staff that provides oversight and direction to the power supply program. The 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 2014 and recommended a 1.8 percent basic wholesale rate increase effective July 1, 2014, that was approved by the Boards.

**Retail Rate Assistance and Billing Services**

In 2014, NCMPA1 staff completed 16 retail rate studies. Rate studies use 12 months of a Participant’s billing data and calculate at customer detail level projected revenue using
updated load forecast and projected retail rates. Innovative rate assistance for new retail customers was also provided in 19 instances. Rate assistance was also provided for existing customers interested in exploring other rate options or expansion in 35 instances. 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/decisions. Fourteen Participants utilize this monthly assistance for approximately 298 accounts.

**Federal Regulations**

**Spent Nuclear Fuel Disposal**

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 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.

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.

The U.S. Court of Appeals in Washington, D.C., ordered the DOE to submit to Congress a proposal to change the fee to zero. Under the bill, 75 percent of all collected funds will be returned to electric utilities and their customers, and the remaining 25 percent would be used to make upgrades to various nuclear waste storage facilities.

**Climate Change Issues**

Capital expenditure risks to electric utilities from Congress enacting legislation to reduce emissions of greenhouse gases has subsided with the elections, but this does not mean electric utilities are not subject to regulation that could require additional capital outlays. In place of Congressional action, electric utilities are increasingly subject to more stringent regulatory environmental compliance requirements emanating from the United States Environmental Protection Agency (EPA). The EPA is expected to finalize rules in
late summer 2015 to govern the regulation of greenhouse gas (GHG) emissions from new, modified and existing electric utility fossil-fueled power plants. The current proposal contemplates mandating carbon capture and sequestration from all new coal plants, setting a stringent standard for modified plants, and regulating existing plants through the states in a manner that could substantially impact energy consumption in the US. Because these regulations are in draft form and EPA has made clear substantial revisions will be made prior to finalizing them, Power Agency staff cannot predict what effects these factors may have on the business operations and financial condition of the Power Agency or the Participants at this time.

**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 the 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) and ReliabilityFirst Corporation (RFC) are NERC regional entities that oversee compliance with the standards in the southeastern and mid-Atlantic regions 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 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 some or all of the following functional categories: Load-Serving Entity, Resource Planner, Purchasing-Selling Entity 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, SERC and RFC 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 in and remains in compliance with cyber security standards developed by NERC. NERC is the electric reliability organization (ERO) certified by FERC to establish and enforce reliability standards for the bulk power system. The FERC monitors and approves all NERC standards and has the authority to direct the NERC to develop new standards should current standards be deficient.

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. The Congress is similarly interested in facilitating increased secure communications regarding threats to the electric grid while not imposing burdensome, redundant regulations on the industry.

North Carolina State Regulations

Renewable Energy Portfolio Standard

Under North Carolina’s Renewable Energy and Energy Efficiency Portfolio Standard, 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:

» Generate bundled renewable energy using renewable facilities
» Buy bundled renewable energy from renewable facilities
» Buy Renewable Energy Certificates (RECs)
» Reduce 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
» Meet the cost cap by incurring incremental costs for some or all of the above.

In 2012 the general REPS requirement began, and is escalated as follows:

» 2012 — 3 percent of prior year retail sales
» 2015 — 6 percent of prior year retail sales
» 2018 and beyond — 10 percent of prior year retail sales

Along with energy derived from unspecified renewable resources (General Requirement), the 2014 requirements included three “carve-out” 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 2014. However, the North Carolina Utilities Commission (NCUC) delayed the 2013 swine requirement until 2015 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
» In-state and out-of-state swine waste biomass RECs
» Out-of-state wind RECs

Through these REC purchases, NCMPA1 has secured its supply of RECs to meet the REPS requirements for the General Requirement and the solar requirement through 2017. NCMPA1, along with the other North Carolina electric utilities, continues to solicit proposals from proposed swine waste and poultry waste biomass electric generating facilities to meet the swine waste and poultry waste requirements.

In addition to the activities listed above, NCMPA1 has been actively developing and implementing energy efficiency programs that may be used for REPS compliance. During 2014, NCMPA1 continued to promote these energy efficiency programs. These energy efficiency programs include:

» Home Energy Audits with the distribution of Energy Efficiency Kits that include compact fluorescent lightbulbs
» Commercial Lighting Rebate Program
» High Efficiency Heat Pump Rebate Program

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

## Investment Portfolio Statistics

<table>
<thead>
<tr>
<th>Earnings</th>
<th>Income</th>
<th>Rate of Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$16,077,000</td>
<td>2.07%</td>
</tr>
<tr>
<td>2013</td>
<td>16,544,000</td>
<td>2.06%</td>
</tr>
</tbody>
</table>

## Market Value as of 12/31

<table>
<thead>
<tr>
<th>Value</th>
<th>Average Maturity (yrs.)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$918,913,250</td>
<td>2.9</td>
</tr>
<tr>
<td>2013</td>
<td>911,838,000</td>
<td>2.6</td>
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</tbody>
</table>

## Debt Outstanding as of 12/31

### Fixed Rate Bonds

<table>
<thead>
<tr>
<th>Weighted Avg. Interest Cost</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$1,317,580,000</td>
</tr>
<tr>
<td>2013</td>
<td>1,433,090,000</td>
</tr>
</tbody>
</table>

## Bond Reconciliation

- **Bonds Outstanding 12/31/13**: $1,433,090,000
- **Matured 1/2/14**: 115,510,000
- **Repurchased/Retired 5/12/14**: 3,125,000
- **Bonds Outstanding 12/31/14**: $1,314,455,000

## Bonds Outstanding as of 12/31/14

<table>
<thead>
<tr>
<th>Series</th>
<th>Par Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series 1998 A</td>
<td>$19,390,000</td>
</tr>
<tr>
<td>Series 2008 A</td>
<td>289,205,000</td>
</tr>
<tr>
<td>Series 2008 C</td>
<td>42,750,000</td>
</tr>
<tr>
<td>Series 2009 A</td>
<td>198,995,000</td>
</tr>
<tr>
<td>Series 2009 B</td>
<td>9,200,000</td>
</tr>
<tr>
<td>Series 2009 C</td>
<td>8,000,000</td>
</tr>
<tr>
<td>Series 2009 D</td>
<td>65,525,000</td>
</tr>
<tr>
<td>Series 2010 A</td>
<td>69,420,000</td>
</tr>
<tr>
<td>Series 2010 B</td>
<td>68,885,000</td>
</tr>
<tr>
<td>Series 2012 A</td>
<td>400,605,000</td>
</tr>
<tr>
<td>Series 2012 B</td>
<td>101,295,000</td>
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<tr>
<td>Series 2012 C</td>
<td>41,185,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,314,455,000</strong></td>
</tr>
</tbody>
</table>
Graphs: Billing point including SEPA; forecast year 2014 is from the December 2013 Winter Load Forecast
One hundred years ago, Wilson housed the world’s largest brightleaf tobacco market. Buyers and sellers flocked to downtown Wilson to trade the golden leaf and spend their windfall in local shops.
Wilson is emerging as a haven for entrepreneurs and artists. Greenlight, the city’s broadband service, transformed Wilson into North Carolina’s only gigabit city, offering the fastest internet speeds around. And local artist Vollis Simpson’s iconic whirligigs provide a fitting framework for the burgeoning arts culture. In time, the whirligigs will be relocated to the new Vollis Simpson Whirligig Park to serve as the heart of the new arts culture.

The story of Wilson is really a great story of community self-reliance. Dating back to the early 1900s, the city fathers built a power system when the investor-owned utilities deemed the area not urban enough for investment. Today, Wilson Energy serves customers in five counties across eastern North Carolina.

- Grant Goings, City Manager, Wilson, North Carolina
Artisans at the Vollis Simpson Conservation Headquarters meticulously restore the massive pieces to their original state, using custom-manufactured paint and hours of planning. The project is led by Jenny Moore, who’s life-long love of art shows through in her dedication to preserve each piece exactly as Simpson intended.
NCEMPA Leadership

Mr. John P. Craft  
Chair  
La Grange

Mr. Matthew R. Zapp  
Vice Chair  
Benson

Mr. Donald I. Evans  
Secretary-Treasurer  
Wilson

Board of Commissioners and Alternate Commissioners as of December 31, 2014

Alternate Commissioners’ names appear in smaller type

Apex  
Mr. Bruce A. Radford  
Mr. Andrew L. Havens

Ayden  
Mayor Stephen W. Tripp  
Mr. Christopher Tucker  
Mr. Brandon Holland

Belhaven  
Mayor Adam W. O’Neal  
Dr. Guinn Leverett

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  
Mr. Anthony C. Cannon  
Mr. John Franklin Minges 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. Mark R. Warren

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  
Commissioner Vacant  
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  
Mayor Leonard Bunting  
Ms. Nancy Jackson

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

Smithfield  
Mr. Paul Sabiston  
Mr. Kenneth C. Griffin

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. Mark S. Williams

Washington  
Mr. Doug Mercer  
Mr. Keith Hardt  
Mr. Brian Alligood

Wilson  
Mr. Donald I. Evans  
Mr. Dathan C. Shows  
Mr. Grant W. Goings
## NCEMPA Participants

<table>
<thead>
<tr>
<th>City</th>
<th>Revenues (000s)</th>
<th>Customers</th>
<th>Ownership %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apex</td>
<td>$27,400</td>
<td>15,477</td>
<td>0.7056</td>
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<tr>
<td>Ayden</td>
<td>12,411</td>
<td>3,934</td>
<td>1.1340</td>
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<tr>
<td>Belhaven</td>
<td>2,906</td>
<td>1,115</td>
<td>0.4090</td>
</tr>
<tr>
<td>Benson</td>
<td>4,512</td>
<td>1,777</td>
<td>0.5773</td>
</tr>
<tr>
<td>Clayton</td>
<td>11,738</td>
<td>5,623</td>
<td>0.7448</td>
</tr>
<tr>
<td>Edenton</td>
<td>12,448</td>
<td>4,164</td>
<td>1.5961</td>
</tr>
<tr>
<td>Elizabeth City</td>
<td>36,663</td>
<td>11,956</td>
<td>4.2510</td>
</tr>
<tr>
<td>Farmville</td>
<td>6,603</td>
<td>2,904</td>
<td>1.2901</td>
</tr>
<tr>
<td>Fremont</td>
<td>2,631</td>
<td>803</td>
<td>0.3062</td>
</tr>
<tr>
<td>Greenville</td>
<td>188,133</td>
<td>65,073</td>
<td>16.1343</td>
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<tr>
<td>Hamilton</td>
<td>424</td>
<td>252</td>
<td>0.0783</td>
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<td>Hertford</td>
<td>2,897</td>
<td>1,166</td>
<td>0.4124</td>
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<tr>
<td>Hobgood</td>
<td>538</td>
<td>284</td>
<td>0.0913</td>
</tr>
<tr>
<td>Hookerton</td>
<td>763</td>
<td>415</td>
<td>0.1550</td>
</tr>
<tr>
<td>Kinston</td>
<td>52,774</td>
<td>11,730</td>
<td>8.6678</td>
</tr>
<tr>
<td>La Grange</td>
<td>3,519</td>
<td>1,486</td>
<td>0.5014</td>
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<tr>
<td>Laurinburg</td>
<td>16,040</td>
<td>5,749</td>
<td>2.2675</td>
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<tr>
<td>Louisburg</td>
<td>8,167</td>
<td>1,925</td>
<td>0.8577</td>
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<tr>
<td>Lumberton</td>
<td>31,106</td>
<td>12,036</td>
<td>5.1568</td>
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<tr>
<td>New Bern</td>
<td>57,726</td>
<td>21,822</td>
<td>6.3676</td>
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<tr>
<td>Pikeville</td>
<td>1,337</td>
<td>518</td>
<td>0.2046</td>
</tr>
</tbody>
</table>

North Carolina Eastern Municipal Power Agency was formed in 1976 and includes 32 Participants in eastern North Carolina.
<table>
<thead>
<tr>
<th>City</th>
<th>Revenues (000s)</th>
<th>Customers</th>
<th>Ownership %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Springs</td>
<td>$ 4,265</td>
<td>1,700</td>
<td>0.5798</td>
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<tr>
<td>Robersonville</td>
<td>2,724</td>
<td>1,034</td>
<td>0.5066</td>
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<tr>
<td>Rocky Mount</td>
<td>88,931</td>
<td>27,277</td>
<td>16.0260</td>
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<tr>
<td>Scotland Neck</td>
<td>3,475</td>
<td>1,483</td>
<td>0.5762</td>
</tr>
<tr>
<td>Selma</td>
<td>7,858</td>
<td>2,661</td>
<td>0.8102</td>
</tr>
<tr>
<td>Smithfield</td>
<td>18,799</td>
<td>4,477</td>
<td>2.0056</td>
</tr>
<tr>
<td>Southport</td>
<td>6,706</td>
<td>2,663</td>
<td>0.7139</td>
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<tr>
<td>Tarboro</td>
<td>27,236</td>
<td>6,050</td>
<td>4.7427</td>
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<tr>
<td>Wake Forest</td>
<td>16,768</td>
<td>6,307</td>
<td>0.7262</td>
</tr>
<tr>
<td>Washington</td>
<td>35,301</td>
<td>13,565</td>
<td>5.8920</td>
</tr>
<tr>
<td>Wilson</td>
<td>137,271</td>
<td>33,691</td>
<td>15.5120</td>
</tr>
</tbody>
</table>

Source: 2013 EIA-861 Data

2014 Operational Performance

NCEMPA Energy and Demand*

<table>
<thead>
<tr>
<th>Years ending on December 31</th>
<th>2014</th>
<th>2013</th>
<th>All Time Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (MWh)</td>
<td>7,480,730</td>
<td>7,291,696</td>
<td>7,735,512 (2010)</td>
</tr>
<tr>
<td>Non-coincident Peak (MW)</td>
<td>1,458 (July)</td>
<td>1,412 (July)</td>
<td>1,632 (August 2007)</td>
</tr>
<tr>
<td>On-Peak Demand (MW)</td>
<td>1,333 (Sept.)</td>
<td>1,304 (July)</td>
<td>1,445 (August 2007)</td>
</tr>
</tbody>
</table>

Average On-Peak Capacity Factor 78% 78%

* Billing Point Level including SEPA and Distributed Generation
Plant Information

The Roxboro Power Plant, consisting of four units, began operation in 1966 and ranks as one of the largest power plants in the United States. Mayo, a single unit power plant, is located near Roxboro and began commercial operation in 1983. As part of the fleet modernization plan, Duke Energy Progress and NCEMPA have invested more than a billion dollars in technology to reduce emissions dramatically at both plants in Person County and will continue to operate these coal-fired facilities for the foreseeable future.

Roxboro Unit 4 and Mayo Unit 1, our jointly owned coal-fired power plants, concluded 2014 with commendable performance statistics. Both facilities continue to benefit from the implementation of emissions technologies from 2007 through 2014. Roxboro Unit 4 achieved a Capacity Factor of 70.16 percent and Net Generation of over 4.3 million MWh during 2014. As a result of NCEMPA and DEP concluding an Operating and Fuel Agreement Amendment combining coal piles, total annual savings for Roxboro Unit 4 and the Mayo plant is estimated to be in excess of $1.5 million by using opportunity coal purchases and new fuel-blending capability. The Mayo Plant ended 2014 with a Net Generation of 2.6 million MWh and a Capacity Factor of 40.15 percent. DEP is addressing recent industry events associated with the release of coal ash by converting from wet to dry ash systems, thereby eliminating the flow to the ash ponds at the Roxboro and Mayo facilities.
The Brunswick Nuclear Plant, located just north of Southport, N.C., houses two boiling water reactors. It was the first nuclear power plant built in North Carolina, beginning operation in 1975, with an additional unit beginning operation in 1977. In 2014, the Brunswick Units had combined generation of over 15.3 million MWh. Brunswick Unit 1 concluded the year 2014 with a Capacity Factor of 89.39 percent. Brunswick Unit 1 performance during 2011 was recognized as one of the top boiling water reactors in the world by GE Energy for superior performance in operating efficiency and long continuous runs during a fuel cycle. Brunswick Unit 2 completed a power up-rate from 920 to 932 MW during January of 2012; concluding a refueling outage during 2013 with a Capacity Factor of 78.16 percent. During 2014 Brunswick Unit 2 achieved a Capacity Factor of 97.85 percent.

The Shearon Harris Nuclear Plant began commercial operation in 1987 and completed a 28 MW power up-rate during 2013. The process of implementing this multi-phased power up-rate project consisted of a thermal power up-rate and various efficiency improvements to be fully completed by 2015. NCEMPA benefited from this power up-rate and received an additional 4.6 MW retroactive to January 2012. During 2014, the Shearon Harris Plant attained a Capacity Factor of 99.01 percent and achieved a net generation output of 8.0 million MWh.

**Nuclear Plant Operating Licenses Expiration**

- Brunswick Unit 1 • 2036
- Brunswick Unit 2 • 2034
- Shearon Harris Unit 1 • 2046

**Security**

The Nuclear Regulatory Commission has established a number of regulations regarding security and safeguard measures at nuclear facilities in the United States, including the Brunswick and Shearon Harris Nuclear Plants. 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. On March 27, 2009, the NRC issued the “final rule” concerning Power Reactor Security Requirements. The “final rule” addresses safety and security interface requirements, MOX fuel requirements (Mixed-Oxide Fuel made from plutonium mixed with uranium), cyber security requirements, mitigative strategies and response procedures for potential or actual aircraft enhancements and physical security enhancements. The effective date of the final rule was May 26, 2009, while the compliance date for existing licensees was March 31, 2010. To date, the NRC reports it has monitored DEP’s actions through a series of audits and will continue to evaluate the compliance of all nuclear power plants.

Under federal law, specific measures being taken to protect our power generation facilities can’t be discussed. NCEMPA staff continues to review the additional capital requirements, as well as operation and maintenance expenditures needed at the Joint Units, including those measures required by the NRC. Under contractual arrangements with NCEMPA, all security issues are handled by DEP. DEP has the responsibility to ensure the plant is operated safely and DEP’s nuclear plants have safety records among the best in the nation.
Power Supply Overview

NCEMPA supplies the All-Requirements Power Supply for its Participants through Initial Project and Supplemental Resources and secures transmission service for the Participants on the DEP and Dominion transmission systems.

Initial Project
The initial project includes undivided ownership interests acquired from DEP of:

» 18.33 percent in each of the nuclear-fueled Brunswick Units 1 and 2
» 12.94 percent in the coal-fired Roxboro Unit 4
» 16.17 percent in the coal-fired Mayo Unit 1
» 16.17 percent in the nuclear-fueled Shearon Harris Unit 1

Total ownership in both coal and nuclear resources accounted for 700.7 MW of capacity at the end of 2014. This ownership met approximately 73.8 percent of the energy requirements and 50 percent of the capacity requirements for NCEMPA in 2014.

Supplemental Agreements
NCEMPA purchases supplemental capacity and energy from DEP, with the current agreements extending through 2017. In October 2011, NCEMPA signed a new supplemental load agreement with DEP, extending supplemental purchases through December 31, 2031.

Under the new agreement, NCEMPA purchases additional power necessary to meet the energy needs of the 32 member cities beyond that supplied by the generation facilities currently owned by NCEMPA.

These Supplemental Load Agreements provide for load following and unlimited capacity at native load priority for approximately 30 percent of the energy needs and 50 percent of the capacity needs. The Supplemental Load Agreements include: coincident peak pricing and formula-based rates for capacity, energy, administration and general costs and fixed accounting and billing costs. Coincident Peak pricing allows NCEMPA Participants and their customers to benefit from over 350 MW of demand-side control.

The combination of plant ownership, supplemental load agreements and transmission service provides NCEMPA a long-term power supply with the highest available reliability and delivery assurance and a stable cost structure to support and enhance the Participants’ rate, energy-efficiency and demand-side management programs.

Load Management
NCEMPA staff and Participants again successfully controlled loads during each month’s peak billing period in 2014. This success translated into estimated power cost savings of nearly $47 million throughout 2014.

NCEMPA recommended load management an average of eight hours per month, during approximately three days each month. NCEMPA Participants and their customers shed a monthly average of over 275 MW, with 330 MW shed during the maximum peak hour. Load Side Generation is an integral part of this load shedding process with over 184 MW of load side generation noticed as of December 31, 2014.
NCEMPA and Participant staff continued to develop improved systems and communication alternatives for load management operations. NCEMPA owns and maintains equipment at two radio stations in North Carolina to control load management equipment across eastern North Carolina. In addition, the load management email/pager system is used to advise Participants of load management recommendations, peaks and other information. The 32 NCEMPA cities use almost 500 pagers, emails, cell phones and two-way paging devices. NCEMPA is also reviewing the feasibility of using two-way communication switches and smart grid technology for residential load management operations. New substation construction, expansions and delivery facility planning were in process or completed for Clayton and Rocky Mount.

Transmission Agreements
NCEMPA obtains transmission service for the Initial Project output and supplemental capacity and energy under transmission and delivery contracts with DEP and Dominion. The Participants are assured of facilities and delivery under these network service agreements.

Wholesale Rates
NCEMPA did not have a wholesale rate increase in 2014.

NCEMPA completed installation of a total of 20 MW of distributed generation during 2014. During 2014 NCEMPA was allowed to run 14 MW of the new generation to provide savings in supplemental capacity, supplemental energy and transmission costs. The NCEMPA Board of Commissioners and the ElectriCities Board of Directors approved the All-Requirements Rider Number 12 which allocates the savings produced by the NCEMPA DG Project to the Participants on their Monthly Power Billing Statements.

Retail Rate Assistance and Billing Services
The NCEMPA Retail Billing Program serves 25 Participants in gathering interval meter data for 327 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 Participants. Custom reports and graphs are provided electronically within days of month-end. Retail customers are provided an array of detailed data, helping to 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.

This year Participants were offered the North Carolina Sales Use Tax Essentials workshop to assist with addressing tax changes relevant to H.B. 998 and sales use tax application in general. Forty city staff members attended the workshop.
Federal Regulations

Spent Nuclear Fuel Disposal
With regard to spent nuclear fuel, NCEMPA has responsibility for back-end costs or liabilities associated with its ownership interest in nuclear fuel burned at the Brunswick Plant after April 7, 1983, and at the Harris Plant. NCEMPA has provided an allowance for the estimated costs of the final disposal of such spent nuclear fuel.

The Department of Energy 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.

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.

The U.S. Court of Appeals in Washington, D.C., ordered the DOE to submit to Congress a proposal to change the fee to zero. Under the bill, 75 percent of all collected funds will be returned to electric utilities and their customers, and the remaining 25 percent would be used to make upgrades to various nuclear waste storage facilities.

Climate Change Issues
Capital expenditure risks to electric utilities from Congress enacting legislation to reduce emissions of greenhouse gases has subsided with the elections, but this does not mean electric utilities are not subject to regulation that could require additional capital outlays. In place of Congressional action, electric utilities are increasingly subject to more stringent regulatory environmental compliance requirements emanating from the United States Environmental Protection Agency (EPA). The EPA is expected to finalize rules in late summer 2015 to govern the regulation of greenhouse gas (GHG) emissions from new, modified and existing electric utility fossil-fueled power plants. The current proposal contemplates mandating carbon capture and sequestration from all new coal plants, setting a stringent standard for modified plants, and regulating existing plants through the states in a manner that could substantially impact energy consumption in the US. Because these regulations are in draft form and EPA has made clear substantial revisions will be made prior to finalizing them, Power Agency staff cannot predict what effects these factors may have on the business operations and financial condition of the Power Agency or the Participants at this time.

Clean Air
The EPA has issued a variety of rules over the years, including the Clean Air Interstate Rule
Coal Ash

Coal combustion results in two forms of ash: fly ash (finer material) and bottom ash (courser 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, among other things, the Coal Ash Management Act directed the North Carolina Department of Environment and Natural Resources to classify ash basins in North Carolina, including those at the Mayo and Roxboro Plants, according to risk level by the end of 2015. The resulting risk classification level will dictate 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. Ash basins in the two highest risk classifications will have to be excavated and the ash relocated to lined landfills or recycled.

DEP is also addressing industry events related to the release of coal ash, with a fly ash landfill transition project, converting from wet to dry ash systems and eliminating the flow to the ash ponds at the Roxboro and Mayo Plants. Additionally, the FGD (flue gas desulfurization) wastewater treatment process will be modified to add a ZLD (zero liquid discharge) system to the settling ponds. The ZLD equipment will distill the wastewater into water for re-use in the plant. The ZLD at the Mayo Plant is scheduled to be completed during 2015.

The EPA finalized a rule on coal combustion residuals (CCRs or coal ash) generated by electric utilities. The rule, among other things, establishes minimum federal standards for the disposal of CCRs or coal ash in both existing and new landfills and surface impoundments. The EPA indicates that it will work closely with
states on implementation issues, but that states are not required to adopt these regulations, and 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.

**Reciprocating Internal Combustion Engines**
The 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 NCEMPA-owned distributed generation, as well as Participant-owned distributed generation. NCEMPA 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 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) and ReliabilityFirst Corporation (RFC) are NERC regional entities that oversee compliance with the standards in the southeastern and mid-Atlantic regions 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 NCEMPA.

NCEMPA, its Participants, and other entities that are subject to the reliability standards delegated their compliance responsibilities to ElectriCities. ElectriCities is registered with NERC as a Joint Registration Organization (JRO) on behalf of NCEMPA’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 some or all of the following functional categories: Load-Serving Entity, Resource Planner, Purchasing-Selling Entity 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, SERC and RFC reliability standards and any additional requirements. As members of the JRO, the applicable NCEMPA 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. NERC is the electric reliability organization (ERO) certified by FERC to establish and enforce reliability standards for the bulk power system. The
FERC monitors and approves all NERC standards and has the authority to direct the NERC to develop new standards should current standards be deficient.

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. The Congress is similarly interested in facilitating increased secure communications regarding threats to the electric grid while not imposing burdensome, redundant regulations on the industry.

North Carolina State Regulations

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

» Generate bundled renewable energy using renewable facilities
» Buy bundled renewable energy from renewable facilities
» Buy Renewable Energy Certificates (RECs)
» Reduce 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
» Meet the cost cap by incurring incremental costs for some or all of the above

In 2012 the general REPS requirement began, and is escalated as follows:

» 2012 — 3 percent of prior year retail sales
» 2015 — 6 percent of prior year retail sales
» 2018 and beyond — 10 percent of prior year retail sales

Along with energy derived from unspecified renewable resources (General Requirement), the 2014 requirements included three “carve-out” requirements: energy derived from solar facilities, biomass energy derived from swine waste and biomass energy derived from poultry waste. NCEMPA met its solar requirement, poultry requirement, and the General Requirement in 2014. However, the North Carolina Utilities Commission (NCUC) delayed the 2013 swine requirement until 2015 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.

NCEMPA and the Participants have filed compliance plans and have implemented those plans by providing qualifying REPS programs.
and purchasing renewable energy certificates to ensure current and future year compliance by the Participants with REPS Legislation. For 2013, NCEMPA and the Participants acquired sufficient renewable energy certificates to satisfy their REPS requirement, as required by the North Carolina Utilities Commission. In 2014, NCEMPA executed renewable energy certificate purchase agreements for solar, biomass, and poultry waste RECs from both in-state and out-of-state REC suppliers. All of the purchased RECs will be eligible to be used for compliance with the REPS.

Through these REC purchases, NCEMPA has secured its supply of RECs to meet the REPS requirements for the General Requirement and the solar requirement through 2017. NCEMPA, along with the other North Carolina electric utilities, continues to solicit proposals from proposed swine waste and poultry waste biomass electric generating facilities to meet the swine waste and poultry waste requirements.

NCEMPA has been active at the NCUC, helping to shape the REPS program through filings and participation in working groups.
### Investment Portfolio Statistics

<table>
<thead>
<tr>
<th>Earnings</th>
<th>Income</th>
<th>Rate of Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$12,717,000</td>
<td>1.95%</td>
</tr>
<tr>
<td>2013</td>
<td>13,246,000</td>
<td>1.88%</td>
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</table>

### Market value as of 12/31

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>Maturity (yrs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$829,469,000</td>
<td>2.5</td>
</tr>
<tr>
<td>2013</td>
<td>831,360,000</td>
<td>2.5</td>
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</table>

### Debt outstanding as of 12/31

<table>
<thead>
<tr>
<th>Fixed rate bonds</th>
<th>Balance</th>
<th>Weighted Avg. Interest Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>$1,869,455,000</td>
<td>5.2%</td>
</tr>
<tr>
<td>2013</td>
<td>2,025,720,000</td>
<td>5.2%</td>
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### Bond reconciliation

<table>
<thead>
<tr>
<th>Bonds outstanding 12/31/13</th>
<th>$2,025,720,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matured 1/2/14</td>
<td>156,265,000</td>
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<tr>
<td>Bonds outstanding 12/31/14</td>
<td>1,869,455,000</td>
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</table>

### Bonds Outstanding

<table>
<thead>
<tr>
<th>Series</th>
<th>Par Amount</th>
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<tbody>
<tr>
<td>Series 1991 A</td>
<td>$28,755,000</td>
</tr>
<tr>
<td>Series 1993 B</td>
<td>333,545,000</td>
</tr>
<tr>
<td>Series 2003 E</td>
<td>4,195,000</td>
</tr>
<tr>
<td>Series 2005 A</td>
<td>124,400,000</td>
</tr>
<tr>
<td>Series 2008 A</td>
<td>317,595,000</td>
</tr>
<tr>
<td>Series 2008 B</td>
<td>41,845,000</td>
</tr>
<tr>
<td>Series 2008 C</td>
<td>30,480,000</td>
</tr>
<tr>
<td>Series 2009 A</td>
<td>52,435,000</td>
</tr>
<tr>
<td>Series 2009 B</td>
<td>364,160,000</td>
</tr>
<tr>
<td>Series 2009 C</td>
<td>6,650,000</td>
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<tr>
<td>Series 2009 D</td>
<td>13,195,000</td>
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<tr>
<td>Series 2010 A</td>
<td>146,145,000</td>
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<tr>
<td>Series 2012 A</td>
<td>79,100,000</td>
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<td>Series 2012 B</td>
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<td>Series 2012 C</td>
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<td>Series 2012 D</td>
<td>126,865,000</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$1,869,455,000</strong></td>
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Graphs: Billing point including SEPA; forecast year 2014 is from the December 2013 Winter Load forecast
a dedication to serve

At the City of Fayetteville’s Public Works Commission, service is the foundation of everything they do. As North Carolina’s largest public power provider, 79,000 electric customers are served by PWC’s nearly 600 employees.
And each one of those employees is dedicated to delivering safe, reliable electricity to power Fayetteville’s growing customer base. Their dedication leads to a record of superior reliability. PWC’s outage time is a fraction of the national average among electric providers. Investment in new substations and infrastructure, coupled with state-of-the-art technology to monitor the electric system, assure PWC will meet the growing area’s increasing demand for electricity. As a three-time Diamond Level Reliable Public Power Provider (RP3), PWC is one of only six municipal utilities in the country to be recognized for a superior commitment to reliable operations.
Our long term commitment to safety and reliability has been evident recently. Our employees surpassed four million safe hours worked for the first time in our history. But statistics and records rarely mean much to customers, keeping their services on do! During recent winter storms, PWC outages were minimal while surrounding utilities experienced extensive outages that lasted for days. I’m proud to represent employees that can show our customers what safety and reliability really means. - Steve Blanchard, retired General Manager, PWC
## Non-Power Agency Leadership

### Board of Commissioners and Alternate Commissioners as of December 31, 2014
Alternate Commissioners’ names appear in smaller type

<table>
<thead>
<tr>
<th>Location</th>
<th>Commissioner</th>
<th>Alternate Commissioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>Mr. Robert Pate</td>
<td>Mr. Scott Chunn</td>
</tr>
<tr>
<td>Dallas</td>
<td>Mr. James Douglas Huffman</td>
<td>Mr. James M. Palenick</td>
</tr>
<tr>
<td>Enfield</td>
<td>Mr. Earl Harvey</td>
<td>First Alternate Vacant</td>
</tr>
<tr>
<td>Fayetteville PWC</td>
<td>Mr. Michael G. Lallier</td>
<td>Ms. Lynne B. Greene</td>
</tr>
<tr>
<td>Forest City</td>
<td>Mr. John Condrey</td>
<td>First Alternate Vacant</td>
</tr>
<tr>
<td>Kings Mountain</td>
<td>Ms. Marilyn H. Sellers</td>
<td>Mr. Nick Hendricks</td>
</tr>
<tr>
<td>New River Light &amp; Power</td>
<td>Mr. Edmond C. Miller</td>
<td>Mr. Michael O’Connor</td>
</tr>
<tr>
<td>Stantonsburg</td>
<td>Mr. Gary W. Davis</td>
<td>First Alternate Vacant</td>
</tr>
<tr>
<td>Windsor</td>
<td>Mayor J.F. Hoggard III</td>
<td>Mr. Allen Castelloe</td>
</tr>
<tr>
<td>Winterville</td>
<td>Mr. Tony P. Moore</td>
<td>Mr. Mervin Taylor</td>
</tr>
</tbody>
</table>
Economic Development

Once again this year, NC Public Power communities continue to see success with industrial recruitment and expansions of existing industries. ElectriCities Economic Development team markets communities domestically and internationally to attract new business investment and new job creation for our members – whether for retail/commercial or industrial recruitment. We continue to work with national and chain accounts to strengthen their presence in our member communities. Our team also works closely with the Economic Development Partnership of NC (EDPNC), the NC Department of Commerce/Rural Division, the Regional Partnerships and county developers to further the strategic load growth efforts.

NCMPA1 members added 2,850 new jobs in 2014 with investments totaling more than
$222 million. New load added to NCMPA1 was approximately 31 MW.

NCEMPA members added 2,060 new jobs in 2014 with investments totaling more than $396 million. New load added to NCEMPA was just over 24 MW.

Major industrial announcements in 2014 for NC Public Power communities include:

» Standard Medical Acceptance Corp. (Edenton) 32 jobs; $552,000 investment – health care services
» Keihn (Tarboro) 40 jobs; $12 M investment – automotive
» Nutkao USA (Rocky Mount) 56 jobs; $7.3 M investment – food processing
» Neuse Sports Shop (Kinston) 15 jobs; $1.5 M investment – sports / retail
» IDX Impressions (Washington) 159 jobs; $3 M investment – store fixtures
» Harvey Holding Inc (Statesville) 15 jobs – automotive
» BuzziSpace Inc. (High Point) 133 jobs; $1.75 M investment – furniture
» Albemarle / Trition Glass (Albemarle) 23 jobs; $2.2 M investment – tempered glass
» Owens Corning (Gastonia) 110 jobs; $120 M investment – advanced manufacturing
» Medline Industries Inc. (Lincolnton) 40 jobs; $18 M investment – medical supplies

Safety and Training

The ElectriCities Safety and Training team 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 team also informs members of new safety legislation 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 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 2014 to plan new activities, review schools expenses and revenues and monitor existing activities.

In 2014, Safety staff performed 37 on-site audits and 560 safety consultations. In addition, the Safety and Training team conducted and attended 68 safety meeting presentations throughout the year.

ElectriCities recognizes members for safe work habits in annual safety awards presented during the North Carolina Association of Municipal Electric Systems (NCAMES) Annual Meeting. During the 2014 meeting, 51 cities and towns were recognized for achieving no lost workday accidents during 2013.

The Safety and Training team facilitates many training opportunities throughout the year. ElectriCities continues its partnership with Nash Community College to offer a two-year associate degree in Electric Power Lineman Technology for member line worker employees who wish to participate. Nash Community College, located in Rocky Mount, N.C., provides classrooms with state-of-the-art audio and visual training aids and outside training grounds as a permanent training facility.

Other professional development opportunities are available through
apprenticeship career development programs that provide tracks for member employees to follow, earning a certificate after completing the curriculum. ElectriCities Safety and Training has four separate apprenticeship programs for members to utilize for their employees: lineman, meter technician, substation and underground.

ElectriCities Safety and Training has two full-time trainers that assist in the instruction of the Lineman Career Development Apprenticeship Program for our members. The Lineman Career Development 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 212 students enrolled in the lineman program in 2014, six new students enrolled in the Substation Career Development Program, four new students enrolled in the Meter Technician Career Development Program and four new students enrolled in the Underground Career Development Program.

ElectriCities Safety and Training provides electric power line employees with training opportunities to enable them to perform their jobs in a safe and proficient manner. In 2014, ElectriCities provided 20 schools and workshops to accomplish these goals. Schools are held on topics such as:

» Basic and Advanced Meter Schools
» Climbing School
» Basic, Intermediate and Advanced Lineman Schools
» Basic and Advanced Underground Schools
» Distribution Regulator School
» Substation School
» Distribution Transformer School
» Troubleshooting School
» Leadership Skills Workshop
» Line Clearing/Tree Trimming School
» NESC Overview and Overhead Distribution Systems Training School
» Train the Trainer Workshop
» Trenching Competent Person/Confined Space Workshop
» Protective Grounding Workshop
» On-Site Training – Power Monitors Information
» OSHA Workshop

Government Relations
The ElectriCities Government Relations team is dedicated to ensuring 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 the Public Power Grassroots Network 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 2014 legislative short session, the Government Relations team monitored the implementation of the special “hold harmless” provision that was included in the tax reform legislation passed during the 2013 long session.
The provision protects Power Agency members from losing existing state revenue caused by the repeal of the gross receipts franchise tax on sales of electricity. Other issues the team monitored include proposed changes to the Renewable Energy Portfolio Standards (REPS) Compliance statute and legislation managing the removal and disposal of coal ash.

The federal legislative agenda includes support for preserving tax-exempt financing, sensible and workable environmental legislation and regulation and other legislation that affects 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 be effective.

The Government Relations team is also active in grassroots efforts to build interest in public power. Some of the community relations activities the team participates in include Public Power in Public Schools, a public school education event planned in partnership with city staff, elected officials and the local school systems.

**Industrial/Commercial Services and Programs**

ElectriCities staff and city representatives continue to focus on retaining large industrial accounts, commercial accounts and other key accounts. Power Agency Participants recognize the important roles these key accounts play in their cities and towns. The customer retention program includes innovative rate structures, customer education and energy solutions provided through ElectriCities Energy Solutions Partner (ESP) program. For example, new on-peak rates and customer generation rate riders allow customers to reduce demand for energy during periods of high power costs. Commercial and industrial customers have access to day-long seminars and shorter webinars on subjects ranging from energy management and sub-metering to power restoration. The ESP program connects workshop attendees and energy audit recipients with their local energy provider and an alliance partner.

Programs offered and implemented with key account customers include back-up generation, energy-efficient lighting, power quality surveys, HVAC solutions and overall energy management systems.

A major focus of our Key Account Management program is providing facility solutions to commercial and industrial customers to help them improve their energy efficiency and lower overall energy costs. During 2014, the ElectriCities Key Account team performed more than 70 energy assessments for commercial and industrial customers. These energy assessments provide customers with a tailored report that summarizes overall electric costs, a monthly detail of energy usage, and a list of specific recommendations. The Key Account Management team also assists customers with detailed project design and analysis during implementation, as well as follow-up measurement and monitoring of the results.

In addition, the Key Account Management team performed a number of power quality assessments which provided commercial and industrial customers with information designed to improve reliability at their facilities.

During 2014, nearly 50 NCMPA commercial and industrial customers received rebates for implementing energy efficient lighting retrofit projects that will result in energy savings of more than 5,200 MWh per year for these customers.
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 2014 included Energy Depot for Homes; a set of online, interactive marketing and customer service applications; residential in-home energy survey service; distribution of energy efficiency kits; and something new for 2014, E-Tracker, an energy education program for member high schools.

Energy Depot applications include the following: Personal Energy Profile, an online, do-it-yourself home energy audit; Energy Calculator, allowing customers to quickly calculate the electric energy use and costs for the full range of home energy systems and appliances; and Energy Library, which offers a wide selection of fact sheets that address home energy systems, appliances and products. Customers of NC Public Power communities made over 10,000 visits to the Energy Depot website in 2014.

The Residential Energy Survey Service team provides free in-home energy surveys to residential customers and training and support for ElectriCities members’ staff. Over 500 energy surveys were conducted in 2014 for residential customers. The program also promotes energy education and awareness through local workshops, seminars and community-based meetings. Eighteen energy education and assistance workshops were provided to retail customers during 2014.

The Energy Efficiency Kit is designed to help residential customers understand energy usage and its effect on energy bills. The kits contain: four compact fluorescent lamps, a low-flow 2.5 gallons/minute showerhead, spray foam sealant, stick on and refrigerator magnet thermostats and a HVAC filter whistle. In 2014, more than 5,000 Energy Efficiency Kits were distributed by ElectriCities members.

Residential Energy Survey Service team continued to market North Carolina’s Weatherization Assistance Program (WAP) throughout NC Public Power communities during 2014. 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 166 customer referrals to the WAP during 2014.

E-Tracker, a new service for 2014, was delivered to four member high schools in Rocky Mount, Clayton, Lexington and Shelby. Funded in part by a $21,000 American Public Power Association (APPA) grant, 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 regressions 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 720,000 bill inserts distributed in 2014. Projects were completed for all NCMPA1 members and most 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 2014, the Public Power Week theme was Always Steady and Ever Ready, focusing on NC Public Power’s excellent reliability and storm response.

The Strategic Communications team serves as the marketing arm for the Economic Development team. The 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 2014, including awards from the Triangle Advertising Club (ADDY), International Economic Development Council (IEDC) 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 2014, staff conducted a pilot program with the help of three members to test an online material safety data sheet (MSDS) management program. This program will be offered to all members for a fee in 2015.

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. The
guidelines are updated each year, and in 2014 the Operations Standards Team continued working on linking the guidelines and the material database. In addition, the team piloted and evaluated the new MSDS management program.

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, oil testing and PCB audit assistance.

In addition to Statewide Service Contracts, Member Services manages the joint purchasing of utility equipment. In 2014, utility poles were the only item that was purchased jointly for ElectriCities members, however, Member Services staff began planning for the joint purchase of LED street lights.

The Emergency Assistance Program provides support to members during emergency restorations. All the members participate in this program and willingly provide support to each other during restoration efforts. Member Services staff keeps updated mutual aid agreements and contract information to allow quick response and dispatch after storms. The Emergency Assistance Program was activated for several regional storms in 2014, with the most assistance being required during an ice storm that heavily affected NCMPA1 members High Point and Lexington on March 7, 2014.

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, to ensure the Emergency Assistance Program uses the latest practices in planning and recovering from outages.

The Reliable Public Power Provider (RP3) program, APPA’s initiative to promote and recognize excellent public power utilities, is supported by the Member Services department. The Member Services team assists 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 the most RP3 designees of any state in the country.

Proving that “public power is more reliable” became a mission led by the Member Services team. Members participated in the program by providing reliability data from their distribution systems. The data is collected each year, and in 2013 it represented 90 percent of the total load for the public power communities in North Carolina. Using IEEE reporting standards, the data collected was compared directly to information submitted to the North Carolina Utilities Commission by investor-owned utilities, proving that NC Public Power is more reliable. For 2013, NC Public Power had a CAIDI of 56.77 minutes and a SAIFI of 0.61 outages. This means that the average restoration time for NC Public Power was 56.77 minutes, and each NC Public Power customer had, on average, 0.61 outages throughout the year of 2013. For comparison purposes, Duke Energy Progress had a CAIDI of 94.52 minutes and a SAIFI of 0.61 outages. This means that the average restoration time for Duke Energy Progress was 94.52 minutes, and each Duke Energy customer had, on average, 0.61 outages throughout the year of 2013. For comparison purposes, Duke Energy Carolinas had a CAIDI of 144.57 minutes and a SAIFI of 0.92 outages in 2013. The 2014 reliability data will be collected mid-year 2015.

The Member Services team also offers free subscriptions to APPA’s eReliability Tracker to help members track outages and obtain their
reliability indices. In 2014, 16 ElectriCities members were using the eReliability Tracker. Having a reliable power supply translates into a direct economic benefit to the communities.

In 2013, the Member Services team and the Operations Standards Team began reviewing various online MSDS management programs. A pilot project was conducted during 2014, and through feedback from the pilot team and the Operations Standards Team, ElectriCities will begin offering this to all members for a fee in 2015.

The Member Services team also provides an array of services that promote customer service and business operation excellence. Examples include 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 the Regional Meetings, a CEO-sponsored initiative to meet with local elected officials and provide key updates on Power Agency operations and public power emerging issues.

**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 on a solution and the selected vendor signed a Master Services Agreement (MSA) with the selected vendor. Through this MSA, ElectriCities was able to achieve discounted pricing and leverage joint purchases for even greater volume discounts.

By the end of 2014, ElectriCities had a total of 18 members working on a smart grid pilot project or full deployment. Of these 18 total projects, nine were pilot projects and nine were full deployments. In addition, multiple vendors were represented in these projects, with eight of the projects using the selected vendor and the other 10 with various other vendors.

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

**ElectriCities Annual Conference**

The ElectriCities Annual Conference was held August 7-9, 2014, at the Pinehurst Resort in Pinehurst, N.C. Members from across the state came together to learn about news and issues affecting public power communities. The conference provides the only forum of its kind for public power leaders to gather to network and discuss North Carolina-specific issues. In 2014, over 360 public power officials attended the conference.

The featured speaker was Lynn Good, President and CEO, Duke Energy. Mark Williams from Strategic Development Group spoke about “The World Through A Site Developer’s Eyes”; Roger Tutterow, Ph.D, Mercer University, led a lively discussion on the economy; and the keynote speaker, Steve Gilliland closed the conference to a standing ovation.
The conference program featured several breakout sessions focused on the business of operating an electric system. These topics included: Cyber Security; Rate Making for Councils and Boards; Financial Best Practices; Top Five Things Elected Officials Should Know; Federal Legislative Issues; Emerging Technologies; and Economic Development.

The 2015 Annual Conference will be held in Myrtle Beach, S.C., and will focus on utility operations, economic development, customer service and best practice sharing.

**Customer Information System Program**

ElectriCities provides software hosting for a Customer Information System for its members and provides a variety of value added services. The utility/billing software was selected by a team of members for its robust functionality and ability to support innovative rate structures and integrate well with other utility systems such as financials, GIS, work order management and AMI. The software is used for meter inventory, service orders, billing, credit, collections, call management, executive reporting and web bill presentment and payment. The utility/billing system is able to bill electric, water, sewer, refuse/garbage, gas and other miscellaneous city services.

The software is hosted at ElectriCities’ Raleigh data center, providing a high availability, secure infrastructure and technical support allowing members to focus on managing their customer service operations. ElectriCities maintains the production, test, backup and disaster recovery environments. Application-level support is offered to the members providing faster response than typical with vendor help desks. The close working relationship with the members also enables ElectriCities to recommend business process improvements and opportunities to better utilize the software. In addition to the CIS Help Desk function, the staff provides project management for software upgrades, patches and enhancements. In 2014 this included assisting Cherryville with an IVR implementation including both inbound and outbound notifications to customers as well as an online payment option. Morganton was aided in changing their payment provider as well as deploying electronic billing. The staff provided training to the members on new functionality in an upgrade, and aided the cities in training new staff on the software.

Current members using the hosted CIS are Albemarle, Cherryville, Cornelius, Huntersville and Morganton. In 2014 these members managed accounts for 31,500 electric customers, billing approximately $457 million in municipal revenues. The Town of Benson will be converting to the hosted solution in 2015. ElectriCities has been managing the overall project implementation and data conversion and will be providing post implementation support after they go into production.

Shelby, Laurinburg and Concord are also part of the ElectriCities and Regional User Groups. The Regional User Group met in April 2014 in Morganton for training to learn about system upgrades, enhancements and partner products, and to share best practices.

Any city interested in the hosted CIS service offering can learn more through onsite demonstrations facilitated by ElectriCities staff. In addition to the comprehensive functionality available, there are financial
benefits through shared costs with other members, reliability and redundancy available through the shared infrastructure, and staff assistance for project management, training and ongoing support, making the hosted approach a comprehensive value-added service for members.

**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 and usage information on the department’s website. There has also been an increase in social media updates along with the creation of new local Twitter accounts to keep customers informed.

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.