

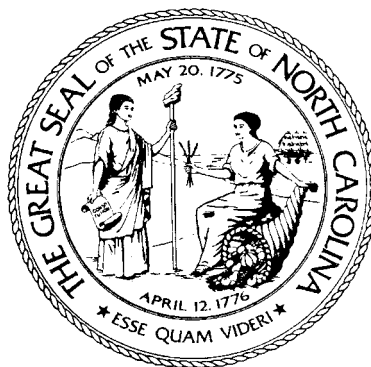
**ANNUAL REPORT REGARDING  
RENEWABLE ENERGY AND ENERGY EFFICIENCY  
PORTFOLIO STANDARD IN NORTH CAROLINA**

**REQUIRED PURSUANT TO G.S. 62-133.8(j)**

**DATE DUE:           OCTOBER 1, 2015**

**SUBMITTED:        OCTOBER 1, 2015**

**RECEIVED BY  
THE GOVERNOR OF NORTH CAROLINA  
THE ENVIRONMENTAL REVIEW COMMISSION  
AND THE JOINT LEGISLATIVE  
COMMISSION ON GOVERNMENTAL OPERATIONS**



**SUBMITTED BY  
THE NORTH CAROLINA UTILITIES COMMISSION**

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### 2. Rulemaking Proceeding to Implement Session Law 2007-397

- Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief, Docket No. E-100, Sub 113 (November 13, 2014)
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- Order Giving Notice of Intent to Revoke Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (August 12, 2015).

# EXECUTIVE SUMMARY

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In August 2007, North Carolina enacted comprehensive energy legislation, Session Law 2007-397 (Senate Bill 3), which, among other things, established a Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the first renewable energy portfolio standard in the Southeast. Under the REPS, all electric power suppliers in North Carolina must meet an increasing amount of their retail customers' energy needs by a combination of renewable energy resources (such as solar, wind, hydropower, geothermal and biomass) and reduced energy consumption. Pursuant to G.S. 62-133.8(j), the Commission is required to report by October 1 of each year to the Governor, the Environmental Review Commission, and the Joint Legislative Commission on Governmental Operations on the activities taken by the Commission to implement, and by electric power suppliers to comply with, the REPS requirement.

## 2015 Legislation

The 2015 General Assembly did not pass any legislation amending the REPS.

## Commission Implementation

### *Rulemaking Proceeding*

Immediately after Senate Bill 3 was signed into law, the Commission initiated a proceeding in Docket No. E-100, Sub 113, to adopt rules to implement the REPS and other provisions of the new law. On February 29, 2008, the Commission issued an Order adopting final rules implementing Senate Bill 3.

Since issuing this Order, the Commission has issued a number of orders interpreting various REPS provisions, including the following Orders issued since the 2014 report to the General Assembly:

- On November 13, 2014, in Docket No. E-100, Sub 113, the Commission issued an Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief. The Order concluded that the electric suppliers made a reasonable effort to comply with the swine waste set-aside REPS requirement in 2014, but will not be able to. The Order resulted in the following updated compliance schedules for the swine waste set-aside REPS requirement:

| <u>Calendar Year</u> | <u>Requirement for Swine Waste Resources</u> |
|----------------------|--|
| 2015-2016            | 0.07%  |
| 2017-2019            | 0.14%  |
| 2020 and thereafter  | 0.20%  |

On August 12, 2015, in Docket No. E-100, Sub 113, electric power suppliers filed a motion to delay both the 2015 swine waste set-aside and poultry waste set-aside requirements. On August 18, 2015, the Commission issued an Order Requesting Comments on the motion. The matter is still pending before the Commission.

- On December 31, 2014, the Commission issued an Order Consolidating Reporting Requirements concluding that it would be appropriate to streamline current reporting requirements to provide a more coherent and complete picture of the status of non-utility generators within North Carolina. The Order required investor owned utilities to file by March 31, of each year, beginning March 31, 2015, three lists: (1) an Interconnection Application List of all applications in the utility’s interconnection queue; (2) an Interconnection List of all generators interconnected with the utility’s system in North Carolina; and (3) a Purchased Power Agreement List of all facilities with which the utility has a purchased power agreement. Concurrently, the Order repealed the reporting requirement contained in Commission Rule R8-64(e).

### *Renewable energy facilities*

Senate Bill 3 defines certain electric generating facilities as “renewable energy facilities” or “new renewable energy facilities.” Renewable energy certificates (RECs) associated with electric or thermal power generated at such facilities may be used by electric power suppliers to comply with the REPS requirement as provided in G.S. 62-133.8(b) and (c).

In its rulemaking proceeding, the Commission adopted rules providing for certification or report of proposed construction and registration of renewable energy facilities and new renewable energy facilities. As of September 1, 2015, the Commission has accepted registration statements filed by 1,328 facilities. A list of these facilities, along with other information, may be found on the Commission’s website at: <http://www.ncuc.net/reps/reps.htm>.

The Commission has issued a number of orders since October 1, 2014, addressing issues related to the registration of a facility, including the following:

- On November 19, 2014, the Commission issued an Order revoking the registrations of 63 facilities registered as renewable energy facilities or as new renewable energy facilities with the Commission. The owners of the 63 facilities listed in Appendices A and B of the Order did not complete their annual certifications on or before October 15, 2014, as required by the Commission's September 9, 2014 Order, nor had an annual certification been completed for these facilities as of the date of the Order. The Order stated that should the owner of a facility whose registration has been revoked wish to have the energy output from its facility become eligible for compliance with the REPS; the owner must again register the facility with the Commission.
- On July 21, 2015, in Docket No. SP-2285, Sub 0, the Commission issued an Order Accepting Registration of Incremental Capacity as a New Renewable Energy Facility, finding that, consistent with previous Commission orders, the incremental capacity of an applicant's renovated combined heat and power (CHP) system, added subsequent to January 1, 2007, was a "new" renewable energy facility pursuant to G.S. 62-133.8(a)(7).
- On August 12, 2015, the Commission issued an Order giving notice of its intent to revoke the registration of 233 renewable energy facilities and new renewable energy facilities because their owners had not completed or filed the annual certifications required each April 1, as detailed in Commission Rule R8-66(b). Facility owners were given until October 1, 2015, to file their annual certifications belatedly. Owners that do not complete the annual certifications face their facility's registrations being revoked pursuant to Commission Rule R8-66(f). The matter is still pending before the Commission.

### *North Carolina Renewable Energy Tracking System (NC-RETS)*

Pursuant to G.S. 62-133.8(k), enacted in 2009, the Commission was required to develop, implement, and maintain an online REC tracking system no later than July 1, 2010, in order to verify the compliance of electric power suppliers with the REPS requirements.

On February 2, 2010, after evaluating the bids received in response to a request for proposals (RFP), the Commission signed a Memorandum of Agreement (MOA) with APX, Inc. (APX), to develop and administer an online REC tracking system for North Carolina, NC-RETS. APX successfully launched

NC-RETS on July 1, 2010, and by letter dated September 3, 2010, the Commission accepted the system and authorized APX to begin billing users pursuant to the MOA. The original MOA with APX expired on December 31, 2013. Based on the feedback received from the stakeholders, the Commission extended the MOA with APX for an additional three years through 2016.

RECs have been successfully created by, and imported into, NC-RETS, and the electric power suppliers have used the system to demonstrate compliance with the 2010-2014 REPS solar set-aside requirements, the 2014 poultry waste set-aside requirement, and the 2012-2014 REPS general requirements. Lastly, the Commission has established an on-going NC-RETS stakeholder group, providing a forum for resolution of issues and discussion of system improvements.

### *Environmental impacts*

Pursuant to G.S. 62-133.8(j), the Commission was directed to consult with the North Carolina Department of Environmental Quality (DEQ)<sup>1</sup> in preparing its report and to include any public comments received regarding direct, secondary, and cumulative environmental impacts of the implementation of the REPS requirements of Senate Bill 3. The Commission has not identified, nor has it received from the public or DEQ, any public comments regarding direct, secondary, and cumulative environmental impacts of the implementation of the REPS provision of Senate Bill 3. DEQ, in response to the Commission's request, noted impacts on North Carolina's air, water and land quality. DEQ's full response is attached to this report as part of Appendix 1.

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<sup>1</sup> On September 18, 2015, Session Law 2015-241 was signed into law. The legislation reorganized and renamed the Department of Environment and Natural Resources to the Department of Environmental Quality.

## **Electric Power Supplier Compliance**

Pursuant to Senate Bill 3, electric power suppliers are required, beginning in 2012, to meet an increasing percentage of their retail customers' energy needs by a combination of renewable energy resources and energy reductions from the implementation of energy efficiency (EE) and demand-side management (DSM) measures. In addition, as of 2010, each electric power supplier must meet a certain percentage of its retail electric sales with solar RECs from certain solar facilities. Finally, starting in 2012, each electric power supplier must meet a certain percentage of its retail electric sales from swine waste resources and a specified amount of electricity provided must be derived from poultry waste resources.

### *Monitoring compliance with REPS requirements*

Monitoring by the Commission of compliance with the REPS requirements of Senate Bill 3 is accomplished through the annual filing by each electric power supplier of a REPS compliance plan and a REPS compliance report. Pursuant to Commission Rule R8-67(b), on or before September 1 of each year, each electric power supplier is required to file with the Commission a REPS compliance plan providing specific information regarding its plan for complying with the REPS requirement of Senate Bill 3. Pursuant to Commission Rule R8-67(c), each electric power supplier is required to annually file with the Commission a REPS compliance report. The REPS compliance plan is a forward-looking forecast of an electric power supplier's REPS requirement and its plan for meeting that requirement. The REPS compliance report is an annual look back at the RECs earned or purchased and energy savings actually realized during the prior calendar year, and the electric power supplier's compliance in meeting its REPS requirement.

### *Cost recovery rider*

G.S. 62-133.8(h) authorizes each electric power supplier to establish an annual rider up to an annual cap to recover the incremental costs incurred to comply with the REPS requirement and to fund certain research. Commission Rule R8-67(e) establishes a procedure under which the Commission will consider approval of a REPS rider for each electric public utility. The REPS rider operates in a manner similar to that employed in connection with the fuel charge adjustment rider authorized in G.S. 62-133.2 and is subject to an annual true-up.

### *Electric public utilities*

#### Duke Energy Progress, LLC (DEP)

On June 17, 2015, in Docket No. E-2, Sub 1071, DEP filed its 2014 REPS compliance report and application for approval of its 2014 REPS cost recovery rider pursuant to G.S. 62-133.8 and Rule R8-67. By its application and testimony,



DEP proposed to implement the following total REPS rates effective for service rendered on and after December 1, 2015: \$1.17 per month for residential customers; \$6.65 per month for general service/lighting customers; and \$60.77 per month for industrial customers - each of which is below the incremental per-account cost cap established in G.S. 62-133.8(h). In its report, DEP indicated that it acquired sufficient RECs to meet the 2014 requirement of 3% of its 2013 retail sales. Additionally, DEP indicated that it acquired sufficient solar RECs to meet the 2014 requirement of 0.07% of its 2013 retail sales. DEP also indicated that it was able to meet the poultry waste set-aside requirement in 2014. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, DEP's 2014 swine waste set-aside requirement was delayed until 2015. A hearing was held on DEP's 2014 REPS compliance report and 2015 REPS cost recovery rider on September 15, 2015. A final decision is pending before the Commission.

On September 1, 2015, in Docket No. E-100, Sub 141, DEP filed its 2015 REPS compliance plan as part of its 2015 Integrated Resource Plan (IRP) update report. In its plan, DEP indicated that its overall compliance strategy to meet the REPS requirements consisted of the following key components: (1) energy efficiency programs that will generate savings that can be counted towards obligation requirements; (2) purchases of RECs; (3) operations of company-owned renewable facilities; and (4) research studies to enhance its ability to comply in future years. Approval of DEP's 2015 Compliance Plan is still pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, DEP, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Duke Energy Carolinas, LLC (DEC)

On March 4, 2015, in Docket No. E-7, Sub 1074, DEC filed its 2014 REPS compliance report and an application for approval of a REPS rider to be effective September 1, 2014. The application requested a total REPS rider of \$0.54 per month for residential customers; \$3.55 per month for general customers (the DEC equivalent of commercial class customers); and \$17.04 per month for industrial customers - each of which is below the incremental per-account cost cap established in G.S. 62-133.8(h). In its 2014 REPS compliance report, DEC indicated that it acquired sufficient RECs to meet the 2014 requirement of 3% of its 2013 retail sales. Additionally, DEC indicated that it acquired sufficient solar RECs to meet the 2014 requirement of 0.07% of its 2013 retail sales and had acquired its pro-rata share of poultry RECs to satisfy the 2014 poultry waste set-aside requirement.. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, DEC's 2014 swine waste set-aside requirement was delayed until 2015. A hearing was held on DEC's 2014 compliance report and 2015 REPS cost recovery rider on June 2, 2015. On July 30, 2015, the Commission issued an order approving DEC's proposed REPS riders. In the

same Order, the Commission approved DEC's 2014 compliance report and retired the RECs in DEC's 2014 compliance sub account.

On September 1, 2015, in Docket No. E-100, Sub 141, DEC filed its 2015 REPS compliance plan as part of its 2015 IRP update report. In its plan, DEC indicated that its overall compliance strategy to meet the REPS requirements consisted of the following key components: (1) energy efficiency programs that will generate savings that can be counted towards obligation requirements; (2) purchases of RECs; (3) operations of company-owned renewable facilities; and (4) research studies to enhance its ability to comply in future years. Approval of DEC's 2015 Compliance Plan is still pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, DEC, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Dominion North Carolina Power (Dominion)

On August 19, 2015, in Docket No. E-22, Sub 525, Dominion filed an application for approval of a 2015 REPS recovery rider and its 2015 compliance report (for the 2014 compliance year). Dominion stated that it met its 2014 general REPS requirement by purchasing unbundled out-of-state solar and wind RECs, in-state solar RECs, and through energy efficiency measures. Dominion stated that it met its 2014 solar set-aside requirement by purchasing solar RECs. Dominion stated that its 2014 swine waste set-aside requirement in G.S. 62-133.8(e) and (f) was relieved pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. Dominion further stated that it met its 2015 poultry waste set-aside requirement in G.S. 62-133.8(f) and anticipates fulfillment of the 2015 requirement. Dominion requested the approval of two riders, an RPE rider to recover historical compliance costs, and an RP Rider to recover future projected 2014 compliance costs. The requested RPE rider is \$0.06 for residential accounts, \$0.26 for commercial accounts, and \$1.68 for industrial accounts. The requested RP rider is \$0.17 for residential accounts, \$0.73 for commercial accounts, and \$5.02 for industrial accounts. The matter is still pending before the Commission.

On July 1, 2015, in Docket No. E-100, Sub 141, Dominion filed its 2015 REPS compliance plan as part of its 2015 IRP update report. In its plan, Dominion stated that it intends to meet its general REPS requirements in 2015 through 2017 through the use of new company-generated renewable energy, EE, and REC purchases. Dominion stated that it has contracted for enough solar RECs to satisfy its solar set-aside requirement in 2015 and 35% of its 2016 and 2017 requirement. Dominion stated that it will continue to make all reasonable efforts to satisfy the solar set-aside moving forward. Dominion stated that the 2015 and 2016 swine waste set-aside requirements remain difficult to fulfill. Dominion stated it has entered into contracts for poultry RECs and will be able to

meet its 2015 and 2016 poultry waste set-aside requirements. On August 12, 2015, in Docket No. E-100, Sub 113, Dominion, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

### *EMCs and municipally-owned electric utilities*

There are thirty-one EMCs serving customers in North Carolina, including twenty-six that are headquartered in the state. Twenty-six of the EMCs are members of North Carolina EMC (NCEMC), a generation and transmission (G&T) services cooperative that provides wholesale power and other services to its members. In addition, there are seventy-four municipal and university-owned electric distribution systems serving customers in North Carolina. Fifty-one of the North Carolina municipalities are participants in either North Carolina Eastern Municipal Power Agency (NCEMPA), or North Carolina Municipal Power Agency Number 1 (NCMPA1), municipal power agencies that provide wholesale power to their members. The remaining municipally-owned electric utilities purchase their electric power from wholesale electric suppliers.

By Orders issued August 27, 2008, the Commission allowed twenty-two EMCs to file their REPS compliance plans on an aggregated basis through GreenCo Solutions, Inc., and the fifty-one municipal members of the power agencies to file through NCEMPA and NCMPA1.

### GreenCo Solutions, Inc. (GreenCo)

On September 1, 2015, in Docket No. E-100, Sub 145, GreenCo filed its 2014 REPS compliance report and its 2015 compliance plan with the Commission. In its plan, GreenCo stated that it intended to use its members' allocations from the Southeastern Power Administration (SEPA), RECs purchased from both in-State and out-of-state renewable energy facilities, and EE savings from eleven approved EE programs to meet its members' REPS requirements. In its 2014 REPS compliance report, GreenCo stated that it secured adequate resources to meet its members' solar and poultry waste set-aside requirements for 2014. GreenCo also stated that it secured adequate resources to meet its members' general REPS requirement for 2014. GreenCo noted that the Commission delayed its swine waste set-aside requirements until 2015. Lastly, for 2014, the REPS incremental costs incurred by GreenCo's members were less (around one-fifth) than the costs allowed under the per-account cost cap in G.S. 62-133.8(h). Approval of GreenCo's 2014 compliance report is still pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, GreenCo, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

### EnergyUnited Electric Membership Corporation (EnergyUnited)

On August 31, 2015, in Docket No. E-100, Sub 145, EnergyUnited filed its 2015 REPS compliance plan and its 2014 REPS compliance report with the Commission. In its report, EnergyUnited stated that it met its 2014 general REPS requirement, its solar set-aside requirement, and its poultry waste set-aside requirement. In its plan, EnergyUnited stated that it intends to comply with its future obligations through its SEPA allocations, EE programs, and the purchase of RECs. On August 12, 2015, in Docket No. E-100, Sub 113, EnergyUnited, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

### Tennessee Valley Authority (TVA)

On August 31, 2015, in Docket No. E-100, Sub 145, TVA filed its 2015 REPS compliance plan and 2014 REPS compliance report with the Commission. In its plan, TVA indicated its intent to fulfill the general REPS requirement in 2015 through 2017 with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-State RECs. With regard to its cooperatives' solar set-aside requirement in years 2015 through 2017, TVA reiterated its plans to meet the requirement by generating the energy at its own facilities. In its report, TVA stated it had satisfied its cooperatives' 2014 general REPS requirement with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-State RECs and had satisfied its cooperatives' 2014 solar set-aside requirement through the generation of solar energy. TVA noted that it was relieved of its 2014 swine waste set-aside requirements and had fulfilled its 2014 poultry waste set-aside requirement. TVA stated that it had no incremental costs of compliance. Approval of TVA's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, TVA, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

### Halifax Electric Membership Corporation (Halifax)

On September 1, 2015, in Docket No. E-100, Sub 145, Halifax filed its 2015 REPS compliance plan and its 2014 REPS compliance report with the Commission. In its compliance plan, Halifax stated that it intends to meet its REPS requirements with a combination of SEPA allocations, EE programs, various RECs, and additional resources to be determined on an ongoing basis. According to its 2014 compliance report, Halifax met its 2014 general REPS requirement utilizing its SEPA allocations, various EE programs, and REC purchases. With regard to its 2014 solar set-aside requirement, Halifax met the requirement by generating solar energy and purchasing solar RECs. With regard to its 2014 poultry waste set-aside requirement, Halifax met the requirement by

purchasing poultry RECs. Halifax's swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. Approval of Halifax's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, Halifax, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### North Carolina Eastern Municipal Power Agency (NCEMPA)

On September 1, 2015, in Docket No. E-100, Sub 145, NCEMPA filed with the Commission, on behalf of its members, a 2015 REPS compliance plan and 2014 REPS compliance report. In its 2015 compliance plan, NCEMPA stated that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. NCEMPA stated that it met its 2014 general REPS requirement through the purchase of bundled renewable energy and the purchase of solar, biomass, hydro, and poultry RECs. Additionally, NCEMPA stated in its report that it met its 2014 solar set-aside requirement by purchasing solar RECs and its 2014 poultry waste set-aside requirement by purchasing poultry RECs. In its compliance plan, NCEMPA stated that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2017. NCEMPA also stated that it has entered into contracts for enough RECs to satisfy the poultry waste set-aside requirement in 2015 but has joined the joint motion to delay the requirement because the aggregate goal will not be met. NCEMPA stated in its report that its 2014 incremental costs were well below the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2015 through 2017. Approval of NCEMPA's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, NCEMPA, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### North Carolina Municipal Power Agency No. 1 (NCMPA1)

On September 1, 2015, in Docket No. E-100, Sub 143, NCMPA1 filed with the Commission, on behalf of its members, a 2015 REPS compliance plan and 2014 REPS compliance report. In its 2015 compliance plan, NCMPA1 stated that it intended to investigate and develop, as applicable, new renewable energy facilities. NCMPA1 stated that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. In its compliance report, NCMPA1 stated that it met its 2014 general REPS requirement by purchasing renewable energy and through the purchase of solar, biomass, hydro and poultry RECs. Additionally, NCMPA1 stated in its report that it met its 2014 solar set-aside requirement by purchasing electricity from solar

generating facilities and through the purchase of solar RECs. In its compliance plan, NCMPA1 stated that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2017. NCMPA1 stated in its report that its 2014 incremental costs were about one-sixth of the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2015 through 2017. Approval of NCMPA1's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, NCMPA1, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Fayetteville Public Works Commission (FPWC)

On September 1, 2015, in Docket No. E-100, Sub 145, FPWC filed its 2014 compliance report and 2015 compliance plan. In its 2015 compliance plan, FPWC stated that it intended to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. In its compliance report, FPWC stated that it met its 2014 general REPS requirement (60,783 RECs) through the purchase of in-State and out-of-state RECs. Additionally, FPWC stated that it met its solar set-aside requirement and its poultry waste set-aside requirement through the purchase of RECs. FPWC stated that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2015 through 2017. Approval of FPWC's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, FPWC, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Town of Fountain (Fountain)

On August 28, 2015, in Docket No. E-100, Sub 145, Fountain filed its 2015 compliance plan and 2014 compliance report. Fountain noted in its compliance plan that compliance for 2015 through 2017 would be satisfied through the purchase of RECs. In its compliance report, Fountain stated that its 2014 general REPS requirement was 108 RECs. Fountain additionally noted that its solar set-aside requirement was 3 solar RECs and its poultry waste set-aside requirement was 5 RECs, all of which were satisfied through the purchase of RECs. Fountain stated that its incremental costs were 60% of the allowed per-account cost cap. Approval of Fountain's 2015 compliance plan and 2014 compliance report is still pending before the Commission.

## Wholesale Providers Meeting REPS Requirements

DEP, as the wholesale provider, has agreed to meet the REPS requirements for the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, Winterville, and the city of Waynesville. Similarly, DEC has agreed to meet the REPS requirements for Rutherford EMC; Blue Ridge EMC; the cities of Concord and Kings Mountain; and the towns of Dallas, Forest City, and Highlands. Dominion has agreed to meet the REPS requirements for the Town of Windsor. The towns of Macclesfield, Pinetops, and Walstonburg have previously filed letters stating that the City of Wilson, as their wholesale provider, has agreed to include their loads with its own for reporting to NCEMPA for REPS compliance. Oak City has indicated that Edgecombe-Martin County EMC, its wholesale provider, has agreed to include its loads with its own for reporting to GreenCo for REPS compliance.

### **Recommendation**

The Commission recommends that G.S. 62-300 be amended to add a \$25.00 filing fee for applications for registration of renewable energy facilities. The Commission has received more than 6,000 reports of proposed construction and registration applications since the implementation of Senate Bill 3. A reasonable fee for registration applications will help defray the cost of processing the applications and issuing orders of registration.

### **Conclusions**

All of the electric power suppliers have met or appear to have met the 2012-2014 and appear on track to meet the 2015, general REPS requirements. All of the electric power suppliers have met the 2012 and 2013 and appear to have met the 2014 solar set-aside requirement. A joint motion to delay implementation of the 2014 swine waste set-aside requirement was granted, delaying implementation of that section of the REPS by one additional year. In addition, for the first time the electric power suppliers appear to have met the first tier of the poultry waste set-aside in 2014. Despite this, most electric power suppliers do not appear on track to meet the swine and poultry waste set-asides for 2015 and have requested further delays to both of these requirements. In addition, numerous issues continue to arise in the implementation of Senate Bill 3 that have required interpretation by the Commission of the statutory language. If the plain language of the statute was ambiguous, the Commission attempted to discern the intent of the General Assembly in reaching its decision on the proper interpretation of the statute.

# BACKGROUND

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In August 2007, North Carolina enacted comprehensive energy legislation, Session Law 2007-397 (Senate Bill 3), which, among other things, established a Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the first renewable energy portfolio standard in the Southeast. Under the REPS, all electric power suppliers in North Carolina must meet an increasing amount of their retail customers' energy needs by a combination of renewable energy resources (such as solar, wind, hydropower, geothermal and biomass) and reduced energy consumption. Beginning at 3% of retail electricity sales in 2012, the REPS requirement ultimately increases to 10% of retail sales beginning in 2018 for the State's EMCs and municipally-owned electric providers and 12.5% of retail sales beginning in 2021 for the State's electric public utilities.

In G.S. 62-133.8(j), the General Assembly required the Commission to make the following annual report:

No later than October 1 of each year, the Commission shall submit a report on the activities taken by the Commission to implement, and by electric power suppliers to comply with, the requirements of this section to the Governor, the Environmental Review Commission, and the Joint Legislative Commission on Governmental Operations. The report shall include any public comments received regarding direct, secondary, and cumulative environmental impacts of the implementation of the requirements of this section. In developing the report, the Commission shall consult with the Department of Environment and Natural Resources.<sup>2</sup>

On October 1, 2008, the Commission made its first annual report pursuant to G.S. 62-133.8(j),<sup>3</sup> and last year, on October 1, 2014, the Commission made its seventh annual report.<sup>4</sup> The remaining sections of this report detail, as required by the General Assembly, developments related to Senate Bill 3, activities undertaken by the Commission during the past year to implement Senate Bill 3, and actions by the electric power suppliers to comply with G.S. 62-133.8, the REPS provisions of Senate Bill 3.

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<sup>2</sup> G.S. 62-133.8(j) was amended by Session Law 2011-291 to require that the annual REPS Report be submitted to the Joint Legislative Commission on Governmental Operations, rather than the Joint Legislative Utility Review Committee.

<sup>3</sup> Annual Report of the North Carolina Utilities Commission to the Governor of North Carolina, the Environmental Review Commission and the Joint Legislative Utility Review Committee Regarding Energy and EE Portfolio Standard, October 1, 2008 (2008 REPS Report).

<sup>4</sup> Annual Report of the North Carolina Utilities Commission to the Governor of North Carolina, the Environmental Review Commission and the Joint Legislative Utility Review Committee Regarding Energy and EE Portfolio Standard, October 1, 2014 (2014 REPS Report).



# 2015 LEGISLATION

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The 2015 General Assembly did not pass any legislation amending the REPS.

## COMMISSION IMPLEMENTATION

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### Rulemaking Proceeding

As detailed in the Commission's 2008 REPS Report, after Senate Bill 3 was signed into law the Commission initiated a proceeding in Docket No. E-100, Sub 113, to adopt rules to implement the REPS and other provisions of the new law. On February 29, 2008, the Commission issued an Order adopting final rules implementing Senate Bill 3. The rules, in part, require each electric power supplier to file an annual REPS compliance plan and an annual REPS compliance report to demonstrate, respectively, reasonable plans for, and actual compliance with, the REPS requirement.

In its 2014 REPS Report, the Commission noted that it had issued a number of orders interpreting various provisions of Senate Bill 3, in which it made the following conclusions:

- Tennessee Valley Authority's (TVA) distributors making retail sales in North Carolina and electric membership corporations (EMCs) headquartered outside of North Carolina that serve retail electric customers within the State must comply with the REPS requirement of Senate Bill 3, but the university-owned electric suppliers, Western Carolina University and New River Light & Power Company, are not subject to the REPS requirement.
- Each electric power supplier's REPS requirement, both the set-aside requirements and the overall REPS requirements, should be based on its prior year's actual North Carolina retail sales.
- An electric public utility cannot use existing utility-owned hydroelectric generation for REPS compliance, but may use power generated from new small (10 MW or less) increments of utility-owned hydroelectric generating capacity.
- The solar, swine waste and poultry waste set-aside requirements should have priority over the general REPS requirement where both cannot be met without exceeding the per-account cost cap established in G.S. 62-133.8(h).

- The set-aside requirements may be met through the generation of power, purchase of power, or purchase of unbundled renewable energy credits (RECs).
- The 25% limitation on the use of out-of-state RECs applies to the general REPS requirement and each of the individual set-aside provisions.
- The electric power suppliers are charged with collectively meeting the aggregate swine waste and poultry waste set-aside requirements and may agree among themselves how to collectively satisfy those requirements.
- RECs associated with the electric power generated at a biomass-fueled combined heat and power (CHP) facility located in South Carolina and purchased by an electric public utility in North Carolina would be considered as in-State pursuant to G.S. 62-133.8(b)(2)(d), but RECs associated with out-of-state renewable generation not delivered to and purchased by an electric public utility in North Carolina and RECs associated with out-of-state thermal energy would not be considered to be in-State RECs pursuant to G.S. 62-133.8(b)(2)(d).
- Only RECs associated with the percentage of electric generation that results from methane gas that was actually produced by poultry waste or swine waste may be credited toward meeting the swine waste and poultry waste set-aside requirements. Thus, not all of the methane gas produced by the anaerobic digestion of swine or poultry waste, as well as “other organic biodegradable material,” would qualify toward the set-aside requirements because the other material described as mixed with the poultry waste or swine waste is responsible for some percentage of the resulting methane gas.
- In response to a Joint Motion filed by several electric power suppliers in Docket No. E-100, Sub 113, the Commission concluded that issuance of a joint request for proposals (RFP) is a reasonable means for the petitioners to work together collectively to meet the swine waste set-aside requirement.
- In response to a motion filed in Docket No. E-100, Sub 113, by numerous interested parties, the Commission approved a Pro Rata Mechanism (PRM) as a reasonable and appropriate means for the State’s electric power suppliers to meet the aggregate swine waste and poultry waste set-aside requirements of G.S. 62-133.8(e) and (f). As it had earlier done with regard to the aggregate swine waste set-aside requirement, the Commission approved the joint procurement of RECs

from energy produced by poultry waste, the sharing of poultry waste generation bids among electric suppliers, and other collaborative efforts as a reasonable means for the State's electric suppliers to work together to meet the poultry waste set-aside requirement.

- The Commission found that the term “allocations made by the Southeastern Power Administration” (SEPA), is used as a term of art in G.S. 62-133.8(c)(2)(c). The Commission, therefore, concluded that a municipal electric power supplier or EMC will be permitted to use the total annual amount of energy supplied by SEPA to that municipality or EMC to comply with its respective REPS requirement, subject to the 30% limitation provided in G.S. 62-133.8(c)(2)(c).
- In response to a petition filed by Peregrine Biomass Development Company, LLC (Peregrine), in Docket No. E-100, Sub 113, requesting that the Commission exercise its discretionary authority pursuant to G.S. 62-133.8(i)(2) (the off-ramp) to allow RECs associated with the thermal energy output of a CHP facility which uses poultry waste as a fuel to meet the poultry waste set-aside requirement under G.S. 62-133.8(f) the Commission issued an Order on October 8, 2010. The Order denied Peregrine's request to allow RECs associated with the thermal heat output of a CHP facility that uses poultry waste as fuel to meet the poultry waste set-aside requirement. The Commission reasoned that the legislature's inclusion of the phrases “or an equivalent amount of energy” and “new metered solar thermal energy facilities” in subsection (d), coupled with the lack of similar express language in subsection (f), demonstrated a clear legislative intent to allow solar thermal RECs to meet the solar set-aside requirement, but not to allow thermal RECs to meet the poultry waste set-aside requirement.
- In response to a motion filed on September 14, 2010, in Docket No. E-100, Sub 113, by several electric power suppliers, the Commission issued an Order on November 23, 2010, holding that an electric public utility can recover through its fuel cost rider the total delivered cost of the purchase of energy generated by a swine or poultry waste-to-energy facility where the RECs associated with the production of the energy are purchased by another North Carolina electric power supplier to comply with the REPS statewide aggregate swine waste and poultry waste set-aside requirements.
- On January 31, 2011, the Commission issued an Order amending Rules R8-64 through R8-69, adopting final NC-RETS Operating Procedures, and approving an application form for use by owners of renewable energy facilities in obtaining registration of a facility under Rule R8-66. The amendments to Rules R8-64 through R8-69 clarify

and streamline the application procedures, registration, record keeping, and other requirements for renewable energy facilities.

- On May 14, 2012, the Commission issued an Order in Docket No. E-100, Sub 113, revising Commission Rules R8-67(b), R8-67(c), and R8-67(h). The amendment added a requirement that REPS compliance plans contain a list of planned and implemented demand-side management (DSM) measures and include a measurement and verification (M&V) plan if one is not already filed with the Commission. Additionally, the amendment added reporting requirements to the REPS Compliance Reports for EMCs regarding EE and implementation of M&V plans. The Order also required all electric power suppliers to review the number of energy efficiency (EE) certificates they have reported to date and submit any changes necessitated by the Order.
- On July 30, 2012, the Commission issued an Order in Docket No. E-100, Sub 134, amending Commission Rules R8-61, R8-63, and R8-64. The amendments added to the previously existing requirement that an application for a certificate of public convenience and necessity (CPCN) contain a map and location of the facility. The amendments require additional information including: 1) the proposed site layout relative to the map; 2) all major equipment, including the generator, fuel handling equipment, plant distribution system, and start up equipment; 3) the site boundary; 4) planned and existing pipelines, planned and existing roads, planned and existing water supplies, and planned and existing electric facilities.
- On November 29, 2012, in Docket No. E-100, Sub 113, the Commission issued an Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Granting Other Relief. The Order found that the petitioners made a reasonable effort to comply with the swine waste and poultry waste set-aside REPS requirements in 2012, but will not be able to comply. The Order concluded that it was in the public interest to eliminate the swine waste set-aside requirement in 2012, and to delay the implementation of the poultry waste set-aside requirement by one year until 2013. In addition to modifying the compliance schedules for the swine waste and poultry waste set-aside REPS requirements, the Order also required that DEC and DEP file tri-annual progress reports on their compliance with, and efforts to comply with, the swine waste and poultry waste set-aside requirements.
- On March 26, 2014, in Docket No. E-100, Sub 113, the Commission issued a Final Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Providing Other Relief. The Order found that the petitioners made a reasonable effort to comply with the swine waste

and poultry waste set-aside REPS requirements in 2013, but will not be able to comply. The Order concluded that it was in the public interest to delay the implementation of the swine and poultry waste set-aside requirements by one year until 2014. Finally, the Order concluded that the triannual progress reporting requirement established in the Commission's 2012 Delay Order should also apply to Dominion, GreenCo, FPWC, EnergyUnited, Halifax, NCEMPA and NCMPA1.

- On May 13, 2014, the Commission issued an Order Regarding Accounting Treatment for REC Sales. The Commission concluded that proceeds from REC sales should be credited to customers if the RECs were purchased with REPS rider proceeds, or if the RECs were produced via a generating facility that was paid for by customers. Further, the Commission determined that, since it cannot anticipate every scenario, it will review REC sales on a case-by-case basis in REPS rider proceedings and general rate cases, as the issues arise. The Commission further determined that the electric public utility will have the burden of proving that each REC sale was in the best interest of its customers and should file complete information regarding the original purchase price, resale price, the cost of replacement RECs and any incremental administrative costs or brokerage fees incurred pursuant to the transaction.

Since the October 1, 2014 report was finalized, the Commission has issued a number of additional Orders interpreting various provisions of Senate Bill 3 and seeking additional information to aid the Commission in future interpretations. The following Orders are of particular interest.

***Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief, Docket No. E-100, Sub 113 (November 13, 2014)***

On August 28, 2014, DEP, DEC, Dominion, GreenCo, FPWC, EnergyUnited, Halifax, TVA, NCEMPA and NCMPA1 filed a motion to modify and delay the swine waste set-aside requirement in G.S. 62-133.8(e) (hereinafter all referenced collectively as Petitioners). The motion stated that, despite the Petitioners best efforts, the aggregate requirements of the swine waste set-asides could not be achieved in 2014. The Petitioners requested that the Commission issue an Order that delayed the Petitioners need to comply with the swine waste set-aside, as modified by the Commission's 2013 Delay Order, by one year. On September 17, 2014, the Commission issued an Order requesting comments on the issue. On October 9, 2014, Environmental Defense Fund submitted comments. On October 10, 2014, the North Carolina Pork Council and the Public Staff submitted comments. No party submitted comments in opposition to the Petitioners' request to delay the swine waste set-aside requirement.

On November 13, 2014, in Docket No. E-100, Sub 113, the Commission issued an Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief. The Commission stated that its determination was based on based on the tri-annual reports submitted by the electric power suppliers in Docket No. E-100, Sub 113A, the Petitioners' motion, and the intervenors' comments. The Order found that the Petitioners made a reasonable effort to comply with the swine waste set-aside REPS requirement in 2014, but will not be able to comply. Among the reasons the Petitioners would not be able to comply, the Commission found that the technology is in early stages of development. The Order concluded that it was in the public interest to delay the implementation of the swine waste set-aside requirement by one year until 2015. Additionally, the Order directed the Public Staff to conduct two stakeholder meetings in 2015 to discuss potential obstacles to achieving the swine and poultry waste requirements and options for addressing them. Finally, the Order concluded that the triannual progress reporting requirement established in the Commission's 2012 Delay Order and expanded in the Commission's 2013 Delay Order should continue until the Commission finds that they are no longer necessary.

The November 13, 2014 Order resulted in the following updated compliance schedules for the swine waste set-aside REPS requirement:

| <u>Calendar Year</u> | <u>Requirement for Swine Waste Resources</u> |
|----------------------|--|
| 2015-2016            | 0.07%  |
| 2017-2019            | 0.14%  |
| 2020 and thereafter  | 0.20%  |

On August 12, 2015, in Docket No. E-100, Sub 113, DEP, DEC, Dominion, GreenCo, FPWC, EnergyUnited, Halifax, TVA, NCMPA1 and NCEMPA filed a motion to delay both the 2015 swine waste set-aside and poultry waste set-aside requirements. On August 18, 2015, the Commission issued an Order Requesting Comments on the motion. The matter is still pending before the Commission.

***Order Consolidating Reporting Requirements, Docket No. E-100, Sub 113 (December 31, 2014)***

On June 3, 2014, the Commission issued an Order Requesting Comments regarding the potential changes to Rules R8-64 and R8-65, as well as the reporting requirements in Docket No. E-100, Subs 101, 83, and 41B (June Order). In the June Order, the Commission took note that, over the past few years, a large number of facilities, particularly solar photovoltaic, have been filing applications for CPCNs. However, it is currently unclear whether certificate holders for solar facilities are complying with this construction progress report requirement. Further, due to the fact that there is no requirement for notice of completion, the Commission cannot easily discern how many facilities are actually being built. The June Order requested that interested parties file comments by June 30, 2014, and that reply comments be filed by July 21, 2014.

On December 31, 2014, the Commission issued an Order Consolidating Reporting Requirements, concluding that it would be appropriate to streamline current reporting requirements to provide a more coherent and complete picture of the status of non-utility generators within North Carolina. The Commission stated that a consolidated report would be beneficial to all parties. The Order required DEC, DEP and Dominion to file by March 31, of each year, beginning March 31, 2015, three lists with the following information:

- a. An Interconnection Application List of all applications in the utility's interconnection queue that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), application date, county and interconnection application status.
- b. An Interconnection List of all generators interconnected with the utility's system in North Carolina that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), power delivery date, county and whether the facility is net metering.
- c. A Purchased Power Agreement List of all facilities with which the utility has a purchased power agreement (or application) that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), energized date, tariff name(s), term (years), county and PPA application status.

Concurrently, the Order repealed the reporting requirement contained in Commission Rule R8-64(e).

## **Renewable Energy Facilities**

Senate Bill 3 defines certain electric generating facilities as renewable energy facilities or new renewable energy facilities. RECs associated with electric or thermal power generated at such facilities may be used by electric power suppliers for compliance with the REPS requirement as provided in G.S. 62-133.8(b) and (c). In its rulemaking proceeding, the Commission adopted rules providing for a report of proposed construction, certification or registration of renewable energy facilities and new renewable energy facilities.

Pursuant to G.S. 62-110.1(a), no person, including any electric power supplier, may begin construction of an electric generating facility in North Carolina without first obtaining from the Commission a certificate of public convenience and necessity (CPCN). Two exemptions from this certification requirement are provided in G.S. 62-110.1(g): (1) self-generation, and (2) nonutility-owned renewable generation under 2 MW. Any person exempt from the certification requirement must, nevertheless, file a report of proposed construction with the Commission pursuant to Rule R8-65.

To ensure that each renewable energy facility from which electric power or RECs are used for REPS compliance meets the particular requirements of Senate Bill 3, the Commission adopted Rule R8-66 to require that the owner, including an electric power supplier, of each renewable energy facility or new renewable energy facility register with the Commission if it intends for RECs it earns to be eligible for use by an electric power supplier for REPS compliance. This registration requirement applies to both in-State and out-of-state facilities. As of September 1, 2015, the Commission has accepted registration statements filed by 1,328 facilities.

As detailed in the 2014 REPS Report, the Commission has issued a number of orders addressing issues related to the registration of a facility, including the definition of “renewable energy resource,” as summarized below.

- Accepted registration as a new renewable energy facility a 1.6-MW electric generating facility to be located near Clinton in Sampson County, North Carolina, and fueled by methane gas produced from anaerobic digestion of organic wastes from a Sampson County pork packaging facility and from a local swine farm.
- Issued a declaratory ruling that: (1) the percentage of refuse-derived fuel (RDF) that is determined by testing to be biomass, and the synthesis gas (Syngas) produced from that RDF is a “renewable energy resource” as defined in G.S. 62-133.8(a)(8); (2) the applicant’s delivery of Syngas from a co-located gasifier to an electric utility boiler would not make the company a “public utility” as defined in G.S. 62-3(23); and (3) the applicant’s construction of a co-located gasifier and the piping connection from the gasifier to an existing electric utility boiler would not require a CPCN under G.S. 62-110(a) or under G.S. 62-110.1(a).
- Issued an Order amending existing CPCNs for two electric generating facilities in Southport and Roxboro, North Carolina, that were being converted to burn a fuel mix of coal, wood waste, and tire-derived fuel (TDF). The Commission concluded that the portion of TDF derived from natural rubber, an organic material, meets the definition of biomass, and is eligible to earn RECs, but required the applicant to submit additional information to demonstrate the percentage of TDF that is derived from natural rubber. In addition, the Commission accepted registration of the two facilities as new renewable energy facilities.
- Accepted registration as a new renewable energy facility a 1.6-MW CHP facility to be located in Darlington County, South Carolina, that will generate electricity using methane gas produced via anaerobic digestion of poultry litter from a chicken farm mixed with other organic, biodegradable materials, and use the waste heat from the electric



generators to provide temperature control for the methane-producing anaerobic digester as well as the chicken houses. The Commission concluded that the thermal energy used as an input back into the anaerobic digestion process effectively increases the efficiency of the electric production from the facility; but is not used to directly produce electricity or useful, measureable thermal or mechanical energy at a retail electric customer's facility pursuant to G.S. 62-133.8(a)(1); and is not eligible for RECs. However, the thermal energy that is used to heat the chicken houses is eligible to earn RECs.

- Issued a declaratory ruling that: (1) biosolids, the organic material remaining after treatment of domestic sewage and combusted at the applicant's wastewater treatment plant, are a "renewable energy resource" as defined by G.S. 62-133.8(a)(8); and (2) the applicant, a county water and sewer authority organized in 1992 pursuant to the North Carolina Water and Sewer Authorities Act, is specifically exempt from regulation as a public utility pursuant to G.S. 62-3(23)(d).
- Accepted for registration as a new renewable energy facility a solar thermal hot water heating facility located in Mecklenburg County, North Carolina, used to heat two commercial swimming pools. The Commission concluded, however, that as an unmetered solar thermal facility, RECs earned based on the capacity of the solar panels are not eligible to meet the solar set-aside requirement of G.S. 62-133.8(d). However, the Commission allowed the applicant to earn general thermal RECs based upon an engineering analysis of the energy from the unmetered solar thermal system that is actually required to heat the pools, which was determined to be substantially less than the capacity of the solar thermal panels.
- Issued an Order concluding that primary harvest wood products, including wood chips from whole trees, are "biomass resources" and "renewable energy resources" under G.S. 62-133.8(a)(8). The Commission reasoned that the General Assembly, by including several specific examples of biomass in the statute, did not intend to limit the scope of the term to those examples. Rather, the term "biomass" encompasses a broad category of resources and should not be limited absent express intent to do so. The Environmental Defense Fund and NCSEA appealed the Commission's Order to the North Carolina Court of Appeals. On August 2, 2011, the Court of Appeals issued a decision affirming the Commission's Order.
- Issued an Order declaring that yard waste and the percentage of RDF used as fuel are renewable energy resources, and that the percentage of Syngas produced from yard waste and RDF used as fuel is a renewable energy resource. The Commission held that yard waste is

an organic material having a constantly replenished supply, and, thus, is a renewable resource under G.S. 62-133.8(a)(8).

- Accepted for registration as a new renewable facility a CHP facility determining that the portion of electricity produced by landfill gas will be eligible to earn RECs and the portion of waste steam produced from the electric turbines that is used as an input for a manufacturing process will be eligible to earn thermal RECs. However, also concluding that steam that bypasses the turbine generators and waste heat being used to pre-heat the feedwater for the boilers will not be used to directly produce electricity or useful, measureable thermal or mechanical energy at a retail electric customer's facility pursuant to G.S. 62-133.8(a)(1), and, therefore, will not be eligible to earn RECs.
- Accepted registration of residential solar thermal water heating facilities on over one thousand homes which were allowed to install meters on a representative sample of the homes, rather than on each home, to determine the number of British Thermal Units (BTUs) of thermal energy that will be produced and on which RECs will be earned, and assigned to the unmetered homes the thermal heat measures recorded on the metered homes.
- Issued an Order accepting the registrations of nine solar thermal facilities, but found that a request for a waiver of the requirement in G.S. 62-133.8(d) that solar thermal energy be measured by a meter in order to produce RECs eligible to meet the solar set-aside requirement was inappropriate, disallowing the use of RETScreen Analysis Software (RETScreen) to calculate the estimated solar thermal production of each facility. The Commission noted that there was no cited or known legal authority by which the Commission is authorized to grant such a waiver. Further, the Commission concluded that the use of RETScreen is not appropriate because it estimates the total amount of solar thermal energy that could be produced, rather than the amount of energy actually used to heat water.
- The Commission denied the registration of a thermal system as a new renewable energy facility based upon the fact that the system would be integrated into an existing biomass facility and the thermal energy would be used to pre-heat the feed water entering the biomass-fueled boiler resulting in the use of less biomass fuel. The Commission concluded that it was appropriate to view the facility as one entity eligible to earn RECs on the electrical output of the biomass-fueled boiler, rather than two separate entities capable of earning RECs.
- Granted CPCNs with conditions and accepted registrations as new renewable energy facilities for a 300-MW wind facility in Pasquotank

and Perquimans Counties and an 80-MW wind facility in Beaufort County.

- Issued an Order declaring that directed biogas is a renewable energy resource. The Commission stated that for a facility to earn RECs on electricity created using directed biogas appropriate attestations must be made and records kept regarding the source and amounts of biogas injected into the pipeline and used by the facility to avoid double counting. The Commission further noted that as provided in Commission Rule R8-67(d)(2) a facility utilizing directed biogas would earn RECs “based only upon the energy derived from renewable energy resources in proportion to the relative energy content of the fuels used.” Finally, the Commission noted that each facility’s registration will be considered on a case-by-case basis, and that the Commission had not addressed whether RECs earned would be subject to the out-of-state limitation on unbundled RECs under G.S. 62-133.8(b)(2)(e).
- Issued an Order stating that the policy that only net output is eligible for the issuance of RECs was not based solely on the definition of “station service” in the Commission rules, but that G.S. 62.133.8(a)(6) requires that RECs be derived from “electricity or equivalent energy” that is “supplied by a renewable energy facility.” The Commission held that gross electricity used to power the facility itself cannot be considered electricity “supplied by a renewable energy facility.” The Commission interpreted “station service” to encompass all electric demand consumed at the generation facility that would not exist but for the generation itself, including, but not limited to, lighting, office equipment, heating, and air-conditioning at the facility.
- Issued an Order that finding that because compensation could be built into alternative financial arrangements to recover the costs of electric generation, that a scenario in which an electricity producer sold steam and gave away electricity must be considered “[p]roducing, generating, transmitting, delivering, or furnishing electricity ... to or for the public for compensation” under G.S. 62-3(23)a.1. The Commission noted that were it to rule otherwise it create multiple scenarios in which an electric generator could provide electrical services “free of charge” to a third party and build in compensation to recover its costs via other arrangements, thus, avoiding the statutory definition of a public utility in G.S. 62-3(23)a.1.
- Issued an Order on Request for Declaratory Ruling addressing the eligible output, pursuant to S.L. 2010-195 (Senate Bill 886), to which triple credit is applied to any electric power or RECs generated by an eligible facility. The Commission held that, although the first 20 MW of

biomass renewable energy facility generating capacity remained eligible for the triple credit, only the first 10 MW of biomass renewable energy facility generating capacity was eligible to earn additional credits to meet the poultry waste set-aside requirements in G.S. 62-133.8(f). The Commission held that the limit was on the electric generating capacity, not the amount of energy or RECs that may be earned, and that RECs may be derived from both the electric generation and the waste heat used to produce electricity or useful, measurable thermal or mechanical energy at a retail electric customer's facility

- Issued an Order accepting/amending the registrations of a 1.9-MW<sub>AC</sub> Directed Biogas-fueled combined heat and power (CHP) facility and a 1.6-MW<sub>AC</sub> biomass fueled CHP facility that would generate electricity through the pyrolysis of wood (the first of this type registered in the State). Both facilities were certified by the Secretary of State as being located in a “cleanfields renewable energy demonstration parks.”

Since October 1, 2014, the Commission has issued additional orders interpreting provisions of Senate Bill 3 regarding applications for registration of renewable energy facilities, as described below.

***Order Revoking Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (November 19, 2014).***

On November 19, 2014, the Commission issued an Order revoking the registrations of 63 facilities registered as renewable energy facilities or as new renewable energy facilities with the Commission. The owners of the 63 facilities listed in Appendices A and B of the Order did not complete their annual certifications on or before October 15, 2014, as required by the Commission's September 9, 2014 Order, nor had an annual certification been completed for these facilities as of the date of the Order. The Order stated that should the owner of a facility whose registration has been revoked wish to have the energy output from its facility become eligible for compliance with the REPS; the owner must again register the facility with the Commission.

***Order Accepting Registration of Incremental Capacity as a New Renewable Energy Facility, Docket No. SP-2285, Sub 0 (July 21, 2015).***

On November 24, 2014, as amended January 2, 2015, Weyerhaeuser NR Company (Weyerhaeuser) filed an amendment to its previously accepted registration statement as a renewable energy facility. In its amended registration, Weyerhaeuser stated that it undertook an additional plant retrofit that involved the installation of a new steam turbine-generator rated at 38.1 MW<sub>AC</sub>, an increase in capacity of 8.4 MW<sub>AC</sub>. This retrofit was completed on April 26, 2014. In addition, the retrofit increased the steam flow through the turbine from renewable resources from 850 MMBtu/hr to 968 MMBtu/hr, a 118.1 MMBtu/hr increase. These increases in capacity represent 22.1% of the projected electric generation and 12.2% of the projected thermal generation from the facility. Weyerhaeuser requested that the Commission issue an Order accepting the registration of this incremental electric and thermal capacity as a “new” renewable energy facility.

On July 21, 2015, the Commission issued an Order Accepting Registration of Incremental Capacity as a New Renewable Energy Facility, finding that, consistent with previous Commission orders, the incremental capacity of Weyerhaeuser’s renovated CHP system, added subsequent to January 1, 2007, is a “new” renewable energy facility pursuant to G.S. 62-133.8(a)(7). Weyerhaeuser was required to register a new project for the incremental portion in NC-RETS to facilitate the issuance of RECs, with 22.1% of the facility’s electric generation and 12.2% of the facility’s thermal generation reported for the new project and the remainder for the existing project.

***Order Giving Notice of Intent to Revoke Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (August 12, 2015).***

On August 12, 2015, the Commission issued an Order giving notice of its intent to revoke the registration of 233 renewable energy facilities and new renewable energy facilities because their owners had not completed or filed the annual certifications required each April 1, as detailed in Commission Rule R8-66(b) (44 facilities registered with NC-RETS did not complete the on-line form and 189 did not file a verified certification with the Commission). Facility owners were given until October 1, 2015, to file their annual certifications belatedly. Owners that do not complete the annual certifications face their facility’s registrations being revoked pursuant to Commission Rule R8-66(f). The matter is still pending before the Commission.

## North Carolina Renewable Energy Tracking System (NC-RETS)

In its February 29, 2008 Order in Docket No. E-100, Sub 113, the Commission concluded that REPS compliance would be determined by tracking RECs associated with renewable energy and EE. In its Order, the Commission further concluded that a “third-party REC tracking system would be beneficial in assisting the Commission and stakeholders in tracking the creation, retirement and ownership of RECs for compliance with Senate Bill 3” and stated that “[t]he Commission will begin immediately to identify an appropriate REC tracking system for North Carolina.” Pursuant to G.S. 133.8(k), enacted in 2009, the Commission was required to develop, implement, and maintain an online REC tracking system no later than July 1, 2010, in order to verify the compliance of electric power suppliers with the REPS requirements.

On September 4, 2008, the Commission issued an Order in Docket No. E-100, Sub 121, initiating a new proceeding to define the requirements for a third-party REC tracking system, or registry, and to select an administrator. The Commission established a stakeholder process to finalize a Requirements Document for the tracking system.

After issuing an RFP and evaluating the bids received, the Commission signed a Memorandum of Agreement (MOA) with APX, Inc. (APX), on February 2, 2010, to develop and administer NC-RETS. Pursuant to the MOA, on July 1, 2010, APX successfully launched NC-RETS. By letter dated September 3, 2010, the Commission informed APX that, to the best of its knowledge, NC-RETS has performed in substantial conformance with the MOA and has no material defects. The Commission, therefore, authorized APX to begin billing North Carolina electric power suppliers and other users the fees that were established in the MOA.

Funding for NC-RETS is provided directly to APX by the electric power suppliers in North Carolina that are subject to the REPS requirements of Senate Bill 3 and is recovered from the suppliers’ customers through the REPS incremental cost rider. Owners of renewable energy facilities and other NC-RETS users do not incur charges to open accounts, register projects, and create and transfer RECs, but will incur nominal fees to export RECs to other tracking systems or to retire RECs other than for REPS compliance.

At the end of 2014, each electric power supplier was required to place the RECs that it acquired to meet its 2014 REPS requirements into compliance accounts where the RECs are available for audit. The Commission will review each electric power suppliers’ 2014 REPS compliance report; the associated RECs will be permanently retired. Members of the public can access the NC-RETS web site at [www.ncrets.org](http://www.ncrets.org). The site’s “Resources” tab provides extensive information regarding REPS activities and NC-RETS account holders.

NC-RETS also provides an electronic bulletin board where RECs can be offered for purchase.

- As of December 31, 2014, NC-RETS had issued 22,729,013 RECs and 7,598,087 EE certificates. These numbers could increase because renewable energy generators are allowed to enter historic production data for up to two years.
- As of September 1, 2015, 426 organizations, including electric power suppliers and owners of renewable energy facilities, had established accounts in NC-RETS.
- As of September 1, 2015, approximately 969 renewable energy or new renewable energy facilities had been established as NC-RETS projects, enabling the issuance of RECs based on their energy production data.

Pursuant to the MOA, APX has been working with other registries in the United States, such as the Electric Reliability Council of Texas (ERCOT), to establish procedures whereby RECs that were issued in those registries may be transferred to NC-RETS. To date, such arrangements have been established with five such registries. Additionally, the Commission has established an on-going NC-RETS stakeholder group, providing a forum for resolution of issues and discussion of system improvements.

The original MOA with APX expired on December 31, 2013. Based on feedback received from stakeholders, the Commission extended the MOA with APX for an additional three years through 2016.

## **Environmental Impacts**

Pursuant to G.S. 62-133.8(j), the Commission was directed to consult with the North Carolina Department of Environmental Quality (DEQ)<sup>5</sup> in preparing its report and to include any public comments received regarding direct, secondary, and cumulative environmental impacts of the implementation of the REPS requirements of Senate Bill 3. The Commission has not identified, nor has it received from the public or DEQ, any public comments regarding direct, secondary, and cumulative environmental impacts of the implementation of the REPS provision of Senate Bill 3. DEQ, in response to the Commission's request, noted impacts on North Carolina's air, water and land quality. DEQ's full response is attached to this report as a part of Appendix 1.

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<sup>5</sup> On September 18, 2015, Session Law 2015-241 was signed into law. The legislation reorganized and renamed the Department of Environment and Natural Resources to the Department of Environmental Quality.

# ELECTRIC POWER SUPPLIER COMPLIANCE

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Pursuant to Senate Bill 3, electric power suppliers are required, beginning in 2012, to meet an increasing percentage of their retail customers' energy needs by a combination of renewable energy resources and energy reductions from the implementation of EE and DSM measures. Also, pursuant to Senate Bill 3, starting in 2012, part of the REPS requirements must be met through poultry waste and swine waste (as discussed above this requirement has been amended by the Commission.) In addition, beginning in 2010 each electric power supplier was required to meet a certain percentage of its retail electric sales "by a combination of new solar electric facilities and new metered solar thermal energy facilities that use one or more of the following applications: solar hot water, solar absorption cooling, solar dehumidification, solar thermally driven refrigeration, and solar industrial process heat." G.S. 62-133.8(d). An electric power supplier is defined as "a public utility, an electric membership corporation, or a municipality that sells electric power to retail electric power customers in the State." G.S. 62-133.8(a)(3). Described below are the REPS requirements for the various electric power suppliers and, to the extent reported to the Commission, the efforts of each toward REPS compliance.

## **Monitoring of Compliance with REPS Requirement**

Monitoring of electric power supplier compliance with the REPS requirement of Senate Bill 3 is accomplished through annual filings with the Commission. The rules adopted by the Commission require each electric power supplier to file an annual REPS compliance plan and REPS compliance report to demonstrate reasonable plans for and actual compliance with the REPS requirement.

### ***Compliance plan***

Pursuant to Commission Rule R8-67(b), on or before September 1 of each year, each electric power supplier is required to file with the Commission a REPS compliance plan providing, for at least the current and following two calendar years, specific information regarding its plan for complying with the REPS requirement of Senate Bill 3. The information required to be filed includes, for example, forecasted retail sales, RECs earned or purchased, EE measures implemented and projected impacts, avoided costs, incremental costs, and a comparison of projected costs to the annual per-account cost caps.

### ***Compliance report***

Pursuant to Commission Rule R8-67(c), each electric power supplier is required to annually file with the Commission a REPS compliance report. While a



REPS compliance plan is a forward-looking forecast of an electric power supplier's REPS requirement and its plan for meeting that requirement, a REPS compliance report is an annual look back at the RECs earned or purchased and energy savings actually realized during the prior calendar year and the electric power supplier's actual progress toward meeting its REPS requirement. Thus, as part of this annual REPS compliance report, each electric power supplier is required to provide specific information regarding its experience during the prior calendar year, including, for example, RECs actually earned or purchased, retail sales, avoided costs, compliance costs, status of compliance with its REPS requirement, and RECs to be carried forward to future REPS compliance years. An electric power supplier must file with its REPS compliance report any supporting documentation as well as the direct testimony and exhibits of expert witnesses. The Commission will schedule a hearing to consider the REPS compliance report filed by each electric power supplier.

For each electric public utility, the Commission will consider the REPS compliance report and determine the extent of compliance with the REPS requirement at the same time as it considers cost recovery pursuant to the REPS incremental cost rider authorized in G.S. 62-133.8(h). Each EMC and municipally-owned electric utility, over which the Commission does not exercise ratemaking authority, is required to file its REPS compliance report on or before September 1 of each year.

## Cost Recovery Rider

G.S. 62-133.8(h) authorizes each electric power supplier to establish an annual rider to recover the incremental costs incurred to comply with the REPS requirement and to fund certain research. The annual rider, however, may not exceed the following per-account annual charges:

| <u>Customer Class</u>   | <u>2008-2011</u> | <u>2012-2014</u> | <u>2015 and thereafter</u> |
|-------------------------|------------------|------------------|----------------------------|
| Residential per account | \$10.00          | \$12.00          | \$34.00                    |
| Commercial per account  | \$50.00          | \$150.00         | \$150.00                   |
| Industrial per account  | \$500.00         | \$1,000.00       | \$1,000.00                 |

Commission Rule R8-67(e) establishes a procedure under which the Commission will consider approval of a REPS rider for each electric public utility. The REPS rider operates similar to the fuel charge adjustment rider authorized in G.S. 62-133.2. Each electric public utility is required to file its request for a REPS rider at the same time as it files the information required in its annual fuel charge adjustment proceeding, which varies for each utility. The test periods for both the REPS rider and the fuel charge adjustment rider are the same for each utility, as are the deadlines for publication of notice, intervention, and filing of testimony and exhibits. A hearing on the REPS rider will be scheduled to begin as soon as practicable after the hearing held by the Commission for the purpose of determining the utility's fuel charge adjustment rider. The burden of proof as to

whether the REPS costs were reasonable and prudently incurred shall be on the electric public utility. Like the fuel charge adjustment rider, the REPS rider is subject to an annual true-up, with the difference between reasonable and prudently incurred incremental costs and the revenues that were actually realized during the test period under the REPS rider then in effect reflected in a REPS experience modification factor (REPS EMF) rider. Pursuant to G.S. 62-130(e), any over-collection under the REPS rider shall be refunded to a utility's customers with interest through operation of the REPS EMF rider.

## Electric Public Utilities

There are three electric public utilities operating in North Carolina subject to the jurisdiction of the Commission: DEP, DEC, and Dominion. Although DEC and DEP underwent a merger in 2012, for REPS compliance purposes they continue to operate as two distinct entities.

### *REPS requirement*

G.S. 62-133.8(b) provides that each electric public utility in the State (DEC, DEP, and Dominion) shall be subject to a REPS requirement according to the following schedule:

| <u>Calendar Year</u> | <u>REPS Requirement</u>                           |
|----------------------|---|
| 2012                 | 3% of prior year's North Carolina retail sales    |
| 2015                 | 6% of prior year's North Carolina retail sales    |
| 2018                 | 10% of prior year's North Carolina retail sales   |
| 2021 and thereafter  | 12.5% of prior year's North Carolina retail sales |

An electric public utility may meet the REPS requirement by any one or more of the following:

- Generate electric power at a new renewable energy facility.
- Use a renewable energy resource to generate electric power at a generating facility other than the generation of electric power from waste heat derived from the combustion of fossil fuel.
- Reduce energy consumption through the implementation of an EE measure; provided, however, an electric public utility subject to the provisions of this subsection may meet up to 25% of the requirements of this section through savings due to implementation of EE measures. Beginning in calendar year 2021 and each year thereafter, an electric public utility may meet up to 40% of the requirements of this section through savings due to implementation of EE measures.
- Purchase electric power from a new renewable energy facility. Electric power purchased from a new renewable energy facility

located outside the geographic boundaries of the State shall meet the requirements of this section if the electric power is delivered to a public utility that provides electric power to retail electric customers in the State; provided, however, the electric public utility shall not sell the RECs created pursuant to this paragraph to another electric public utility.

- Purchase RECs derived from in-State or out-of-state new renewable energy facilities. Certificates derived from out-of-state new renewable energy facilities shall not be used to meet more than 25% of the requirements of this section, provided that this limitation shall not apply to Dominion.
- Use electric power that is supplied by a new renewable energy facility or saved due to the implementation of an EE measure that exceeds the requirements of this section for any calendar year as a credit towards the requirements of this section in the following calendar year or sell the associated RECs.
- Reduce energy consumption through “electricity demand reduction,” which is a voluntary reduction in the demand of a retail customer achieved by two-way communications devices that are under the real time control of the customer and the electric public utility.<sup>6</sup>

## ***Duke Energy Progress, LLC (DEP)***

### ***Compliance Report***

On June 23, 2014, in Docket No. E-2, Sub 1043, DEP filed its 2013 REPS compliance report and application for approval of its 2013 REPS cost recovery rider pursuant to G.S. 62-133.8 and Rule R8-67. By its application and testimony, DEP proposed to implement the following total REPS rates (including EMF) effective for service rendered on and after December 1, 2014: \$0.83 per month for residential customers; \$6.10 per month for general service/lighting customers; and \$24.53 per month for industrial customers - each of which is below the incremental per-account cost cap established in G.S. 62-133.8(h). The Commission notes that this was the first year in which the approved REPS rider for residential customers equals \$34.00 per year (as opposed to \$12.00 in previous years), as the rider is allocated between customer classes based on the ratio between the approved riders for each class, this accounts for much of the proposed increase to residential customers and the decrease to general service and industrial customers. In its 2013 REPS compliance report, DEP indicated

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<sup>6</sup> Sec. 1 of S.L. 2011-55 amended G.S. 62-133.8(a) by adding a definition of “electricity demand reduction,” and Sec. 2 amended G.S. 62-133.8(b)(2) by adding a new subsection (g) making electricity demand reduction a REPS resource, effective April 28, 2011.

that it acquired sufficient RECs to meet the 2013 requirement of 3% of its 2012 retail sales (1,103,531 RECs representing 3% of combined 2012 retail megawatt-hour sales of 36,784,274.) Additionally, DEP indicated that it acquired sufficient solar RECs to meet the 2013 requirement of 0.07% of its 2012 retail sales (33,070 RECs.) Pursuant to the Commission's March 26, 2014 Order in Docket No. E-100, Sub 113, DEP's 2013 swine waste and poultry waste set-aside requirements were delayed until 2014. A hearing was held on DEP's 2013 REPS compliance report and 2014 REPS cost recovery rider on September 16, 2014. On November 21, 2014, the Commission issued an Order Approving REPS and REPS EMF Riders and 2013 Compliance. The Order approved the following total REPS riders: \$0.83 per month for residential customers; \$6.10 per month for general service/lighting customers; and \$24.53 per month for industrial customers. In addition, the Order approved DEP's 2013 compliance report and retired the RECs associated with that account.

On June 17, 2015, in Docket No. E-2, Sub 1071, DEP filed its 2014 REPS compliance report and application for approval of its 2014 REPS cost recovery rider pursuant to G.S. 62-133.8 and Rule R8-67. By its application and testimony, DEP proposed to implement the following total REPS rates effective for service rendered on and after December 1, 2015: \$1.17 per month for residential customers; \$6.65 per month for general service/lighting customers; and \$60.77 per month for industrial customers - each of which is below the incremental per-account cost cap established in G.S. 62-133.8(h). DEP's proposed new REPS rider, if approved, will increase the current REPS rates (excluding gross receipts taxes and regulatory fee) by \$0.34 per month for residential customers; by \$0.55 per month for general service/lighting customers; and by \$36.24 per month for industrial customers. In its 2014 REPS compliance report, DEP indicated that it acquired sufficient RECs to meet the 2014 requirement of 3% of its 2013 retail sales (1,112,760 RECs representing 3% of combined 2013 retail megawatt-hour sales.) Additionally, DEP indicated that it acquired sufficient solar RECs to meet the 2014 requirement of 0.07% of its 2013 retail sales (25,969 RECs.) DEP also indicated that, in combination with RECs eligible for the poultry requirement pursuant to Session Law 2010-195 (S886), it was able to meet the poultry waste set-aside requirement in 2014. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, DEP's 2014 swine waste set-aside requirement was delayed until 2015. A hearing was held on DEP's 2014 REPS compliance report and 2015 REPS cost recovery rider on September 15, 2015. A final decision is pending before the Commission.

### ***Compliance Plan***

On September 1 2015, in Docket No. E-100, Sub 141, DEP filed its 2015 REPS compliance plan as part of its 2015 Integrated Resource Plan (IRP) update report. In its plan, DEP indicated that its overall compliance strategy to meet the REPS requirements consisted of the following key components:

(1) energy efficiency programs that will generate savings that can be counted towards obligation requirements; (2) purchases of RECs; (3) operations of company-owned renewable facilities; and (4) research studies to enhance its ability to comply in future years. DEP has agreed to provide REPS compliance services for the following wholesale customers, as allowed under G.S. 62-133.8(c)(2)(e): the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, Winterville, and the city of Waynesville.<sup>7</sup>

DEP intends to achieve compliance with the solar set-aside requirements of 0.14% of the prior year's retail sales in 2015-2017 through the execution of a number of solar contracts as well as commercial and residential solar photovoltaic (PV) programs. Based on its 2014 retail sales DEP's 2015 solar set-aside requirement is approximately 52,784 RECs. Based on forecasted retail sales DEP's solar set-aside requirement is projected to be approximately 52,088 RECs and 52,671 RECs in 2016 and 2017, respectively.

DEP identified three primary methods for compliance with the swine waste set-aside requirement: (1) on-farm generation; (2) centralized digestion; and (3) injected/directed biogas. DEP stated that despite its efforts it will be unable to comply with the requirement in 2015 and is highly uncertain of its ability to comply in 2016 and 2017 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. DEP stated in its 2015 compliance plan that it has been unable to secure enough RECs to comply with its 2015 poultry waste set-aside requirement of 202,536 RECs. DEP stated that it remains actively engaged in seeking additional resources and in making every reasonable effort to comply with the swine waste set-aside requirements. DEP stated that its ability to comply in 2016 and 2017 remains uncertain and largely subject to counterparty performance.

DEP stated that its general REPS requirement, net of the set-asides discussed above, is estimated to be 1,980,473 RECs in 2015; 1,898,275 RECs in 2016; and 1,894,231 RECs in 2017. DEP noted several resource options available to the Company to meet its general requirement. DEP stated that it intends to meet 25% (the maximum allowable under the REPS) of its requirement through its energy efficiency programs. In addition, DEP plans to use hydroelectric power procured from suppliers and from its wholesale customers SEPA allocations. Finally, DEP stated that it intends to meet portions of its general requirement through a variety of biomass, wind and solar resources. DEP stated that it purchases RECs from multiple biomass facilities in the Carolinas, including landfill gas to energy facilities and biomass fueled combined heat and power facilities. DEP stated that it recognizes that some land-based wind developers are presently pursuing projects of significant size in North

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<sup>7</sup> DEP indicated in its 2015 compliance plan that its contract with Waynesville for compliance services expires January 31, 2015.

Carolina. DEP also noted that opportunities may exist to transmit land-based wind energy resources into North Carolina from other regions. DEP plans to meet a portion of the general requirement with RECs from solar facilities above that portion required by the solar set-aside. DEP stated it views the downward trend in solar equipment and installation costs as a positive trend and that while uncertainty remains regarding policy support, it fully expects solar resources to contribute to compliance efforts beyond the solar set-aside minimum threshold. Approval of DEP's 2015 Compliance Plan is still pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, DEP, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

### ***Duke Energy Carolinas, LLC (DEC)***

#### ***Compliance Report***

On March 4, 2015, in Docket No. E-7, Sub 1074, DEC filed its 2014 REPS compliance report and an application for approval of a REPS rider to be effective September 1, 2014. The application requested a total REPS rider (including EMF) of \$0.54 per month for residential customers; \$3.55 per month for general customers (the DEC equivalent of commercial class customers); and \$17.04 per month for industrial customers - each of which is below the incremental per-account cost cap established in G.S. 62-133.8(h). In its 2014 REPS compliance report, DEC indicated that it acquired sufficient RECs to meet the 2014 requirement of 3% of its 2013 retail sales (1,760,568 RECs). Additionally, DEC indicated that it acquired sufficient solar RECs to meet the 2014 requirement of 0.07% of its 2013 retail sales (41,175 RECs) and had acquired its pro-rata share of RECs (76,827 RECs) to satisfy the 2014 poultry waste set-aside requirement. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, DEC's 2014 swine waste set-aside requirement was delayed until 2015. A hearing was held on DEC's 2014 compliance report and 2015 REPS cost recovery rider on June 2, 2015. On July 30, 2015, the Commission issued an order approving DEC's proposed REPS riders. In the same Order, the Commission approved DEC's 2014 compliance report and retired the RECs in DEC's 2014 compliance sub account.

#### ***Compliance Plan***

On September 1, 2015, in Docket No. E-100, Sub 141, DEC filed its 2015 REPS compliance plan as part of its 2015 IRP update report. In its plan, DEC indicated that its overall compliance strategy to meet the REPS requirements consisted of the following key components: (1) energy efficiency programs that will generate savings that can be counted towards obligation requirements; (2) purchases of RECs; (3) operations of company-owned renewable facilities; and (4) research studies to enhance its ability to comply in future years. DEC has

agreed to provide REPS compliance services for the following wholesale customers, as allowed under G.S. 62-133.8(c)(2)(e): Rutherford Electric Membership Corporation, Blue Ridge Electric Membership Corporation, Town of Dallas, Town of Forest City, City of Concord, Town of Highlands, and the City of Kings Mountain.

DEC intends to achieve compliance with the solar set-aside requirement of 0.14% of the prior year's retail sales in 2015-2017 through the execution of a number of solar contracts as well as commercial and residential solar photovoltaic (PV) programs. Based on its 2014 retail sales DEC's 2015 solar set-aside requirement is approximately 84,840 RECs. Based on forecasted retail sales DEP's solar set-aside requirement is projected to be approximately 84,563 RECs and 85,671 RECs in 2016 and 2017, respectively.

DEC identified three primary methods for compliance with the swine waste set-aside requirement: (1) on-farm generation; (2) centralized digestion; and (3) injected/directed biogas. DEC stated that despite its efforts it will be unable to comply with the requirement in 2015 and is highly uncertain of its ability to comply in 2016 and 2017 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. DEC stated in its 2015 compliance plan that it has been unable to secure enough RECs to comply with its 2015 poultry waste set-aside requirement of 325,537 RECs. DEC stated that it remains actively engaged in seeking additional resources and in making every reasonable effort to comply with the swine waste set-aside requirements. DEC stated that its ability to comply in 2016 and 2017 remains uncertain and largely subject to counterparty performance.

DEC stated that its general REPS requirement, net of the set-asides discussed above, is estimated to be 3,636,013 RECs in 2015; 3,081,812 RECs in 2016; and 3,081,031 RECs in 2017. DEC noted several resource options available to the Company to meet its general requirement. DEC stated that it intends to meet 25% (the maximum allowable under the REPS) of its requirement through its energy efficiency programs. In addition, DEC plans to use hydroelectric power procured from suppliers and from its wholesale customers SEPA allocations. Finally, DEC stated that it intends to meet portions of its general requirement through a variety of biomass, wind and solar resources. DEC stated that it purchases RECs from multiple biomass facilities in the Carolinas, including landfill gas to energy facilities and biomass fueled combined heat and power facilities. DEC stated that it recognizes that some land-based wind developers are presently pursuing projects of significant size in North Carolina. DEC also noted that opportunities may exist to transmit land-based wind energy resources into North Carolina from other regions. DEC plans to meet a portion of the general requirement with RECs from solar facilities above that portion required by the solar set-aside. DEC stated it views the downward trend in solar equipment and installation costs as a positive trend and

that while uncertainty remains regarding policy support, it fully expects solar resources to contribute to compliance efforts beyond the solar set-aside minimum threshold. Approval of DEC's 2015 Compliance Plan is still pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, DEC, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

## ***Dominion North Carolina Power (Dominion)***

### ***Compliance Report***

On August 28, 2014, in Docket No. E-22, Sub 514, Dominion filed an application for approval of a 2014 REPS recovery rider and its 2014 compliance report (for the 2013 compliance year). The report included compliance status for the Town of Windsor. Dominion stated that it met its 2013 general REPS requirement (120,557 RECs) by purchasing unbundled out-of-state solar and wind RECs and through energy efficiency measures and the Town of Windsor's requirement (1,385 RECs) with additional solar and biomass RECs from within the State. Dominion stated that it met its 2013 solar set-aside requirement (2,881 RECs) and the Town of Windsor's requirement (34 RECs) by purchasing solar RECs. Dominion stated that its 2013 swine and poultry waste set-aside requirements in G.S. 62-133.8(e) and (f) for itself and the Town of Windsor were relieved pursuant to the Commission's March 26, 2014 Order in Docket No. E-100, Sub 113. Dominion further stated that it anticipates compliance with the swine waste set-aside for both itself and Windsor in 2014. Dominion further stated that because it can procure 100% of its requirement from out of state it anticipated it would have been able to fulfill its 2013 and 2014 poultry waste set-aside requirements in G.S. 62-133.8(f), and anticipated fulfillment of the 2014 requirement for the Town of Windsor as well.

Dominion requested the approval of two riders, an RPE rider to recover historical compliance costs, and an RP Rider to recover future projected 2014 compliance costs. The requested RPE rider is \$0.22 for residential accounts, \$0.95 for commercial accounts, and \$6.39 for industrial accounts. The requested RP rider is \$0.47 for residential accounts, \$2.09 for commercial accounts, and \$14.26 for industrial accounts. The total request represents a \$0.32 increase per month for residential customers; a \$2.29 decrease per month for general service customers; and a \$15.28 decrease for industrial customers. A hearing was held by the Commission on November 12, 2014, to consider Dominion's REPS Rider request and its 2013 compliance report. On December 11, 2014, the Commission issued an Order Approving REPS and REPS EMF Riders and 2013 Compliance. The Order approved the following combined REPS riders: \$0.69 per month for residential customers; \$3.04 per month for commercial customers; and \$20.65 per month for industrial customers. In addition, the Order approved Dominion's 2014 compliance report and retired the RECs associated with that account.



On August 19, 2015, in Docket No. E-22, Sub 525, Dominion filed an application for approval of a 2015 REPS recovery rider and its 2015 compliance report (for the 2014 compliance year). The report included compliance status for the Town of Windsor. Dominion stated that it met its 2014 general REPS requirement (129,297 RECs) by purchasing unbundled out-of-state solar and wind RECs, in-state solar RECs, and through energy efficiency measures and the Town of Windsor's requirement (1,385 RECs) with additional biomass RECs from within the State as well as the appropriate SEPA allocations. Dominion stated that it met its 2014 solar set-aside requirement (3,017 RECs) and the Town of Windsor's requirement (35 RECs) by purchasing solar RECs. Dominion stated that its 2014 swine waste set-aside requirement in G.S. 62-133.8(e) and (f) for itself and the Town of Windsor was relieved pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. Dominion further stated that it met its 2015 poultry waste set-aside requirement in G.S. 62-133.8(f), for both itself (5,630 RECs) and the Town of Windsor (64 RECs) and anticipates fulfillment of the 2015 requirement for itself and the Town of Windsor.

Dominion requested the approval of two riders, an RPE rider to recover historical compliance costs, and an RP Rider to recover future projected 2014 compliance costs. The requested RPE rider is \$0.06 for residential accounts, \$0.26 for commercial accounts, and \$1.68 for industrial accounts. The requested RP rider is \$0.17 for residential accounts, \$0.73 for commercial accounts, and \$5.02 for industrial accounts. The matter is still pending before the Commission.

### ***Compliance Plan***

On July 1, 2015, in Docket No. E-100, Sub 141, Dominion filed its 2015 REPS compliance plan as part of its 2015 IRP update report. In its plan, Dominion stated that it intends to meet its general REPS requirements in 2015 through 2017 through the use of new company-generated renewable energy, EE, and REC purchases. Dominion reiterated its responsibility to meeting the REPS requirements for its wholesale customer the Town of Windsor. In addition to the above resources, the Town of Windsor's general REPS requirement for 2015 through 2017 will also be satisfied by utilizing the Town's SEPA allocations. Dominion stated that it has contracted for enough solar RECs to satisfy its solar set-aside requirement in 2015 and 35% of its 2016 and 2017 requirement. Dominion stated that it will continue to make all reasonable efforts to satisfy the solar set-aside moving forward.

Dominion continues to evaluate proposals from swine and poultry waste energy suppliers to meet the swine waste and poultry waste set-aside requirements. Dominion is exempt from the 25% limit on the use of out-of-state RECs for REPS compliance, and thus the company continued to search for poultry and swine waste RECs across the country. Dominion stated that it has contracted for enough swine RECs to meet the Town of Windsor's requirements

for 2015-2017, however, the 2015 and 2016 swine waste set-aside requirements remain difficult to fulfill for Dominion itself. Dominion stated it has entered into contracts for poultry RECs and will be able to meet its 2015 and 2016 poultry waste set-aside requirements and will be able to meet 25% of the Town of Windsor's requirement through these contracts. Dominion stated that it is reasonably confident it will fulfill its 2017 poultry waste set-aside requirement. Dominion further stated that it will be unable to comply with the Town of Windsor's 2015 poultry waste set-aside requirement but believes it has contracted for enough RECs to comply with the Town of Windsor's 2016 and 2017 requirements. On August 12, 2015, in Docket No. E-100, Sub 113, Dominion, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

## **EMCs and Municipally-Owned Electric Utilities**

There are thirty-one EMCs serving customers in North Carolina, including twenty-six that are headquartered in the state. Twenty-six of the EMCs are members of North Carolina EMC (NCEMC), a generation and transmission (G&T) services cooperative that provides wholesale power and other services to its members.

In addition, there are seventy-four municipal and university-owned electric distribution systems serving customers in North Carolina. These systems are members of ElectriCities of North Carolina, Inc. (ElectriCities), an umbrella service organization. ElectriCities is a non-profit organization that provides many of the technical, administrative, and management services required by its municipally-owned electric utility members in North Carolina, South Carolina, and Virginia. ElectriCities is a service organization for its members, not a power supplier. Fifty-one of the North Carolina municipalities are participants in either NCEMPA or NCMPA1, municipal power agencies that provide wholesale power to their members. The remaining municipally-owned electric utilities generate their own electric power or purchase electric power from wholesale electric suppliers.

By Orders issued August 27, 2008, the Commission allowed twenty-two EMCs to file their REPS compliance plans on an aggregated basis through GreenCo,<sup>8</sup> and the fifty-one municipal members of the power agencies to file through NCEMPA and NCMPA1. On September 7, 2010, the Commission similarly allowed TVA to file annual REPS compliance plans and reports on behalf of its four wholesale customers that provide retail service to customers in North Carolina.

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<sup>8</sup> Effective May 1, 2010, Blue Ridge EMC is no longer a member of GreenCo.

## ***REPS requirement***

G.S. 62-133.8(c) provides that each EMC or municipality that sells electric power to retail electric power customers in the State shall be subject to a REPS according to the following schedule:

| <u>Calendar Year</u> | <u>REPS Requirement</u>                         |
|----------------------|---|
| 2012                 | 3% of prior year's North Carolina retail sales  |
| 2015                 | 6% of prior year's North Carolina retail sales  |
| 2018 and thereafter  | 10% of prior year's North Carolina retail sales |

Compliance with the REPS requirement is slightly different for an EMC or municipality than for an electric public utility. An EMC or municipality may meet the REPS requirement by any one or more of the following:

- Generate electric power at a new renewable energy facility.
- Reduce energy consumption through the implementation of DSM or EE measures.
- Purchase electric power from a renewable energy facility or a hydroelectric power facility, provided that no more than 30% of the requirements of this section may be met with hydroelectric power, including allocations made by the Southeastern Power Administration.
- Purchase RECs derived from in-State or out-of-state renewable energy facilities. An electric power supplier subject to the requirements of this subsection may use certificates derived from out-of-state renewable energy facilities to meet no more than 25% of the requirements of this section.
- Acquire all or part of its electric power through a wholesale purchase power agreement with a wholesale supplier of electric power whose portfolio of supply and demand options meet the requirements of this section.
- Use electric power that is supplied by a new renewable energy facility or saved due to the implementation of DSM or EE measures that exceeds the requirements of this section for any calendar year as a credit towards the requirements of this section in the following calendar year or sell the associated RECs.
- Reduce energy consumption through "electricity demand reduction," which is a voluntary reduction in the demand of a retail customer achieved by two-way communications devices that are

under the real time control of the customer and electric power supplier.<sup>9</sup>

### ***Electric Membership Corporations***

#### GreenCo Solutions, Inc. (GreenCo)

On September 2, 2014, in Docket No. E-100, Sub 143, GreenCo filed its 2013 REPS compliance report and its 2014 compliance plan with the Commission on behalf of its member EMCs,<sup>10</sup> as well as Mecklenburg Electric Cooperative, Broad River Electric Cooperative, and the Town of Oak City. In its plan, GreenCo stated that it intended to use its members' allocations from SEPA, RECs purchased from both in-State and out-of-state renewable energy facilities, and EE savings from eleven approved EE programs to meet its members' REPS requirements. GreenCo discussed its M&V plans for the eleven EE as approved by the Commission. GreenCo stated that it has joined other electric power suppliers to request a delay to the 2014 swine waste set-aside REPS requirement, noting that the prospect of complying in 2015 and 2016 is more likely than 2014. GreenCo anticipates compliance in 2014 with the poultry waste set-aside requirements. In its 2013 REPS compliance report, GreenCo stated that it secured adequate resources to meet its members' solar set-aside requirement for 2013 (8,411 RECs for GreenCo, 2 RECs for Mecklenburg, and 4 RECs for Broad River). GreenCo also stated that it secured adequate resources to meet its members' general REPS requirement for 2012 (360,465 RECs for GreenCo, 44 RECs for Mecklenburg, and 157 RECs for Broad River). GreenCo noted that the Commission delayed its poultry and swine waste set-aside requirements until 2014. Lastly, for 2013, the REPS incremental costs incurred by GreenCo's members were less (around one-fifth) of the costs allowed under the per-account cost cap in G.S. 62-133.8(h). GreenCo's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. The Commission approved GreenCo's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

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<sup>9</sup> Sec. 1 of S.L. 2011-55 amended G.S. 62-133.8(a) by adding a definition of "electricity demand reduction," and Sec. 2 amended G.S. 62-133.8(c)(2) by adding a new subsection (g) making electricity demand reduction a REPS resource, effective April 28, 2011.

<sup>10</sup> The following EMCs are members of GreenCo: Albemarle EMC, Brunswick EMC, Cape Hatteras EMC, Carteret-Craven EMC, Central EMC, Edgecombe-Martin County EMC, Four County EMC, French Broad EMC, Haywood EMC, Jones-Onslow EMC, Lumbie River EMC, Pee Dee EMC, Piedmont EMC, Pitt & Greene EMC, Randolph EMC, Roanoke EMC, South River EMC, Surry-Yadkin EMC, Tideland EMC, Tri-County EMC, Union EMC, and Wake EMC. Effective May 1, 2010, Blue Ridge EMC is no longer a member of GreenCo. The REPS requirements of Mecklenburg Electric Cooperative, headquartered in Chase, Virginia, and Broad River Electric Cooperative, headquartered in Gaffney, South Carolina, are aggregated with the GreenCo members in its REPS compliance plan. Beginning in 2012 the requirements for the town of Oak City (a wholesale customer of Edgecombe-Martin County EMC) are included in the compliance requirements for Edgecombe-Martin County EMC.

On September 1, 2015, in Docket No. E-100, Sub 145, GreenCo filed its 2014 REPS compliance report and its 2015 compliance plan with the Commission on behalf of its member EMCs, as well as Mecklenburg Electric Cooperative, Broad River Electric Cooperative, and the Town of Oak City. In its plan, GreenCo stated that it intended to use its members' allocations from SEPA, RECs purchased from both in-State and out-of-state renewable energy facilities, and EE savings from eleven approved EE programs to meet its members' REPS requirements. GreenCo stated that it has joined other electric power suppliers to request a delay to the 2015 poultry and swine waste set-aside REPS requirements, noting that the prospect of complying in 2016 and 2017 is more likely than 2015. In its 2014 REPS compliance report, GreenCo stated that it secured adequate resources to meet its members' solar set-aside requirement for 2014 (8,650 RECs for GreenCo, 2 RECs for Mecklenburg, and 4 RECs for Broad River). GreenCo stated that it secured adequate resources to meet its members' poultry waste set-aside requirement for 2014 (16,220 RECs for GreenCo, 3 RECs for Mecklenburg, and 8 RECs for Broad River). GreenCo also stated that it secured adequate resources to meet its members' general REPS requirement for 2014 (370,685 RECs for GreenCo, 48 RECs for Mecklenburg, and 171 RECs for Broad River). GreenCo noted that the Commission delayed its swine waste set-aside requirements until 2015. Lastly, for 2014, the REPS incremental costs incurred by GreenCo's members were less (around one-fifth) of the costs allowed under the per-account cost cap in G.S. 62-133.8(h). Approval of GreenCo's 2014 compliance report is still pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, GreenCo, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### EnergyUnited Electric Membership Corporation (EnergyUnited)

On August 28, 2014, in Docket No. E-100, Sub 143, EnergyUnited filed its 2014 REPS compliance plan and its 2013 REPS compliance report with the Commission. In its report, EnergyUnited stated that it met its 2013 general REPS requirement (69,131 RECs) through its SEPA allocations, EE programs, and the purchase of RECs. EnergyUnited stated that it met its solar set-aside requirement by purchasing 1,614 solar RECs. In its 2014 compliance plan, EnergyUnited stated that it planned to fulfill its general REPS requirement in 2014 and beyond. EnergyUnited's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. The Commission approved EnergyUnited's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On August 31, 2015, in Docket No. E-100, Sub 145, EnergyUnited filed its 2015 REPS compliance plan and its 2014 REPS compliance report with the Commission. In its report, EnergyUnited stated that it met its 2014 general REPS

requirement (70,785 RECs), its solar set-aside requirement (1,652 RECs) and its poultry waste set-aside requirement (3,012 RECs). In its plan, EnergyUnited stated that it intends to comply with its future obligations through its SEPA allocations, EE programs, and the purchase of RECs. EnergyUnited stated that it planned to fulfill its general and solar REPS requirement in 2015 and beyond, however, EnergyUnited noted that it did not anticipate compliance with the 2015 swine and poultry waste set-aside requirements. EnergyUnited displayed its anticipated REPS riders in its 2015 compliance plan for compliance years 2015-2017 as \$3.60 per annum for residential customers, \$18.36 per annum for commercial customers, and \$184.44 per annum for industrial customers. EnergyUnited stated that it does not anticipate an increase in its rider during the next several years. On August 12, 2015, in Docket No. E-100, Sub 113, EnergyUnited, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Tennessee Valley Authority (TVA)

On September 7, 2010, in Docket No. E-100, Sub 129, the Commission issued an Order approving TVA's request to file an aggregated REPS compliance plan and REPS compliance report on behalf of its four wholesale customers serving retail customers in North Carolina: Blue Ridge Mountain EMC, Mountain Electric Coop, Inc., Tri-State EMC, and Murphy Electric Power Board.

On September 2, 2014, in Docket No. E-100, Sub 143, TVA filed its 2014 REPS compliance plan and 2013 REPS compliance report with the Commission. In its plan, TVA indicated its intent to fulfill the general REPS requirement in 2014 through 2016 with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-State RECs. With regard to its cooperatives' solar set-aside requirement in years 2014 through 2016, TVA reiterated its plans to meet the requirement by generating the energy at its own facilities. In its report, TVA stated it had satisfied its cooperatives' 2013 general REPS requirement with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-State RECs and had satisfied its cooperatives' 2012 solar set-aside requirement through the generation of solar energy. TVA stated in its 2013 compliance report that it had used biomass RECs and solar energy production to comply with its 2013 requirements. TVA noted that it was relieved of its 2013 swine and poultry waste set-aside requirements. TVA stated that it had no incremental costs of compliance (TVA's estimated cost cap is \$1,664,610). TVA's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. The Commission approved TVA's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On August 31, 2015, in Docket No. E-100, Sub 145, TVA filed its 2015 REPS compliance plan and 2014 REPS compliance report with the Commission. In its plan, TVA indicated its intent to fulfill the general REPS requirement in 2015 through 2017 with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-State RECs. With regard to its cooperatives' solar set-aside requirement in years 2015 through 2017, TVA reiterated its plans to meet the requirement by generating the energy at its own facilities. In its report, TVA stated it had satisfied its cooperatives' 2014 general REPS requirement with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-State RECs and had satisfied its cooperatives' 2014 solar set-aside requirement through the generation of solar energy. TVA noted that it was relieved of its 2014 swine waste set-aside requirements and had fulfilled its 2014 poultry waste set-aside requirement. TVA stated that it had no incremental costs of compliance (TVA's estimated cost cap is \$1,694,586). Approval of TVA's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, TVA, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

Halifax Electric Membership Corporation (Halifax)

On September 2, 2014, in Docket No. E-100, Sub 143, Halifax filed its 2014 REPS compliance plan and its 2013 REPS compliance report with the Commission. In its compliance plan, Halifax stated that it intends to meet its REPS requirements with a combination of SEPA allocations, EE programs, various RECs, and additional resources to be determined on an ongoing basis. Halifax noted concerns regarding the addition of industrial customers and its cost cap in future years. According to its 2013 compliance report, Halifax met its 2013 general REPS requirement utilizing its SEPA allocations, various EE programs, and REC purchases. With regard to its 2013 solar set-aside requirement, Halifax met the requirement by generating solar energy and purchasing solar RECs. The Commission's March 26, 2014 Order delayed implementation of Halifax's (and the other electric power suppliers') swine and poultry waste set-aside requirements until 2014. The Commission approved Halifax's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On September 1, 2015, in Docket No. E-100, Sub 145, Halifax filed its 2015 REPS compliance plan and its 2014 REPS compliance report with the Commission. In its compliance plan, Halifax stated that it intends to meet its REPS requirements with a combination of SEPA allocations, EE programs, various RECs, and additional resources to be determined on an ongoing basis. Halifax noted concerns regarding the addition of industrial customers and its cost cap in future years. According to its 2014 compliance report, Halifax met its 2014 general REPS requirement utilizing its SEPA allocations, various EE

programs, and REC purchases. With regard to its 2014 solar set-aside requirement, Halifax met the requirement by generating solar energy and purchasing solar RECs. With regard to its 2014 poultry waste set-aside requirement, Halifax met the requirement by purchasing poultry RECs. Halifax's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. Approval of Halifax's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, Halifax, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

### ***Municipally-owned electric utilities***

#### North Carolina Eastern Municipal Power Agency (NCEMPA)

On August 29, 2014, in Docket No. E-100, Sub 143, NCEMPA filed with the Commission, on behalf of its members, a 2014 REPS compliance plan and 2013 REPS compliance report. In its 2014 compliance plan, NCEMPA stated that its members had no plans to generate electric power at a renewable energy facility. NCEMPA stated that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. The EE programs included the Home EE Kit, and the compliance plan provided a description of the M&V plan for the Home EE Kit program. NCEMPA stated that it had entered into contracts to purchase various types of RECs and will continue to investigate the market for unbundled RECs as a cost-effective means of REPS compliance. In its compliance report, NCEMPA stated that it met its 2013 general REPS requirement (206,389 RECs) through the purchase of bundled renewable energy and the purchase of solar, biomass, and wind RECs. Additionally, NCEMPA stated in its report that it met its 2013 solar set-aside requirement (4,816 RECs) by purchasing solar RECs. In its compliance plan, NCEMPA stated that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2016. NCEMPA stated in its report that its 2013 incremental costs were about one-sixth of the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2014 through 2016. NCEMPA's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. The Commission approved NCEMPA's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On September 1, 2015, in Docket No. E-100, Sub 145, NCEMPA filed with the Commission, on behalf of its members, a 2015 REPS compliance plan and 2014 REPS compliance report. In its 2015 compliance plan, NCEMPA stated that its members had no plans to generate electric power at a renewable energy



facility. NCEMPA stated that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. The EE programs included the Home EE Kit discussed above. The compliance plan provided a description of the M&V plan for the Home EE Kit program. NCEMPA stated that it had entered into contracts to purchase various types of RECs and will continue to investigate the market for unbundled RECs as a cost-effective means of REPS compliance. In its compliance report, NCEMPA stated that it met its 2014 general REPS requirement (207,745 RECs) through the purchase of bundled renewable energy and the purchase of solar, biomass, hydro, and poultry RECs. Additionally, NCEMPA stated in its report that it met its 2014 solar set-aside requirement (4,848 RECs) by purchasing solar RECs and its 2014 poultry waste set-aside requirement (9,071 RECs) by purchasing poultry RECs. In its compliance plan, NCEMPA stated that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2017. NCEMPA also stated that it has entered into contracts for enough RECs to satisfy the poultry waste set-aside requirement in 2015 but has joined the joint motion to delay the requirement because the aggregate goal will not be met. NCEMPA stated in its report that its 2014 incremental costs were well below the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2015 through 2017. Approval of NCEMPA's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, NCEMPA, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### North Carolina Municipal Power Agency No. 1 (NCMPA1)

On August 29, 2014, in Docket No. E-100, Sub 143, NCMPA1 filed with the Commission, on behalf of its members, a 2014 REPS compliance plan and 2013 REPS compliance report. In its 2014 compliance plan, NCMPA1 stated that it intended to investigate and develop, as applicable, new renewable energy facilities. NCMPA1 stated that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. The EE programs include a Home EE Kit. M&V plans were described in the compliance plan for the program. NCMPA1 stated that it had entered into contracts to purchase various types of RECs and would continue to investigate the market for unbundled RECs as a cost-effective means of REPS compliance. In its compliance report, NCMPA1 stated that it met its 2013 general REPS requirement (145,213 RECs) by purchasing renewable energy and through the purchase of solar, biomass, and wind RECs. Additionally, NCMPA1 stated in its report that it met its 2013 solar set-aside requirement (3,389 RECs) by purchasing electricity from solar generating facilities and through the purchase of solar RECs. In its compliance plan, NCMPA1 stated that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2016. NCMPA1 stated in its report that its 2013 incremental costs were about

one-sixth of the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2014 through 2016. NCMPA1's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. The Commission approved NCMPA1's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On September 1, 2015, in Docket No. E-100, Sub 143, NCMPA1 filed with the Commission, on behalf of its members, a 2015 REPS compliance plan and 2014 REPS compliance report. In its 2015 compliance plan, NCMPA1 stated that it intended to investigate and develop, as applicable, new renewable energy facilities. NCMPA1 stated that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. The EE programs include a Home EE Kit. M&V plans were described in the compliance plan for the program. NCMPA1 stated that it had entered into contracts to purchase various types of RECs and would continue to investigate the market for unbundled RECs as a cost-effective means of REPS compliance. In its compliance report, NCMPA1 stated that it met its 2014 general REPS requirement (145,660 RECs) by purchasing renewable energy and through the purchase of solar, biomass, hydro and poultry RECs. Additionally, NCMPA1 stated in its report that it met its 2014 solar set-aside requirement (3,399 RECs) by purchasing electricity from solar generating facilities and through the purchase of solar RECs. In its compliance plan, NCMPA1 stated that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2017. NCMPA1 stated in its report that its 2014 incremental costs were about one-sixth of the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2015 through 2017. Approval of NCMPA1's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, NCMPA1, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Fayetteville Public Works Commission (FPWC)

On August 28, 2014, in Docket No. E-100, Sub 143, FPWC filed its 2013 compliance report and 2014 compliance plan. In its 2014 compliance plan, FPWC stated that it intended to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. In its compliance report, FPWC stated that it met its 2013 general REPS requirement (60,224 RECs) through the purchase of in-State and out-of-state RECs. Additionally, FPWC stated that it met its solar set-aside requirement through the purchase of 1,405 solar RECs. In its compliance plan, FPWC stated that it would

be unable to meet its 2014 swine waste set-aside requirement and that it intended to join with other electric power suppliers in requesting an additional delay of the requirement. Finally, FPWC stated that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2014 through 2016. FPWC's (and the other electric power suppliers') swine waste set-aside requirement was delayed until 2015 pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. The Commission approved FPWC's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On September 1, 2015, in Docket No. E-100, Sub 145, FPWC filed its 2014 compliance report and 2015 compliance plan. In its 2015 compliance plan, FPWC stated that it intended to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. In its compliance report, FPWC stated that it met its 2014 general REPS requirement (60,783 RECs) through the purchase of in-State and out-of-state RECs. Additionally, FPWC stated that it met its solar set-aside requirement through the purchase of 1,418 solar RECs and its poultry waste set-aside requirement through the purchase of 2,713 poultry RECs. In its compliance plan, FPWC stated that it had joined with other electric power suppliers in requesting a delay of the swine and poultry waste set-aside requirements in 2015. Finally, FPWC stated that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2015 through 2017. Approval of FPWC's 2014 compliance report is pending before the Commission. On August 12, 2015, in Docket No. E-100, Sub 113, FPWC, along with several other parties, filed a motion to delay the 2015 swine and poultry waste set-aside requirements. The Commission has requested comments on the matter and it is still pending before the Commission.

#### Town of Fountain (Fountain)

On August 28, 2014, in Docket No. E-100, Sub 143, Fountain filed its 2014 compliance plan and 2013 compliance report. Fountain noted in its compliance plan that compliance for 2014 through 2016 would be satisfied through the purchase of RECs. Fountain stated that it has no plans to explore energy efficiency or demand side management programs. In its compliance report, Fountain stated that its 2013 general REPS requirement was 101 RECs and its solar set-aside requirement was 3 solar RECs, both which were satisfied through the purchase of RECs. Further, Fountain noted that its incremental costs were about one-third of the allowed per-account cost cap. The Commission approved Fountain's 2013 compliance report and retired the associated RECs in its September 8, 2015 Order in Docket E-100, Sub 143.

On August 28, 2015, in Docket No. E-100, Sub 145, Fountain filed its 2015 compliance plan and 2014 compliance report. Fountain noted in its compliance plan that compliance for 2015 through 2017 would be satisfied

through the purchase of RECs. Fountain stated that it has no plans to explore energy efficiency or demand side management programs. In its compliance report, Fountain stated that its 2014 general REPS requirement was 108 RECs. Fountain additionally noted that its solar set-aside requirement was 3 solar RECs and its poultry waste set-aside requirement was 5 RECs, all of which were satisfied through the purchase of RECs. Further, Fountain noted that its incremental costs were 60% of the allowed per-account cost cap. Approval of Fountain's 2015 compliance plan and 2014 compliance report is still pending before the Commission.

#### Wholesale Providers Meeting REPS Requirements

DEP, as the wholesale provider, has agreed to meet the REPS requirements for the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, Winterville, and the city of Waynesville. Similarly, DEC has agreed to meet the REPS requirements for Rutherford EMC; Blue Ridge EMC; the cities of Concord and Kings Mountain; and the towns of Dallas, Forest City, and Highlands. Dominion has agreed to meet the REPS requirements for the Town of Windsor. The towns of Macclesfield, Pinetops, and Walstonburg have previously filed letters stating that the City of Wilson, as their wholesale provider, has agreed to include their loads with its own for reporting to NCEMPA for REPS compliance. Oak City has indicated that Edgecombe-Martin County EMC, its wholesale provider, has agreed to include its loads with its own for reporting to GreenCo for REPS compliance.

# RECOMMENDATION

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The Commission recommends that G.S. 62-300 be amended to add a \$25.00 filing fee for applications for registration of renewable energy facilities. The Commission has received more than 6,000 reports of proposed construction and registration applications since the implementation of Senate Bill 3. A reasonable fee for registration applications will help defray the cost of processing the applications and issuing orders of registration.

# CONCLUSIONS

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All of the electric power suppliers have met or appear to have met the 2012-2014 and appear on track to meet the 2015, general REPS requirements. All of the electric power suppliers have met the 2012 and 2013 and appear to have met the 2014 solar set-aside requirement of Senate Bill 3. A joint motion to delay implementation of the 2014 swine waste set-aside requirements was granted, delaying implementation of that section of the REPS by one additional year. In addition, for the first time the electric power suppliers appear to have met the first tier (170,000kW/hrs) of the poultry waste set-aside in 2014. Despite this, most electric power suppliers do not appear on track to meet the swine and poultry waste set-asides for 2015 and have requested further delays to these requirements. In addition, as stated in the 2014 Report, and as highlighted again in this report, numerous issues continue to arise in the implementation of Senate Bill 3 that have required interpretation by the Commission of the statutory language: e.g., the definition of new renewable energy facility, the electric power suppliers' requirements under the set-aside provisions, the eligibility of renewable energy facilities and resources to meet the set-aside provisions, etc. If the plain language of the statute was ambiguous, the Commission attempted to discern the intent of the General Assembly in reaching its decision on the proper interpretation of the statute.

# APPENDICES

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## APPENDICES

### 1. Environmental Review

- Letter from Chairman Edward S. Finley, Jr., North Carolina Utilities Commission, to Secretary Donald R. van der Vaart, North Carolina Department of Environment and Natural Resources (July 8, 2015)
- Letter from John C. Evans, Deputy Secretary, North Carolina Department of Environmental Quality, to Chairman Edward S. Finley, Jr., North Carolina Utilities Commission (September 29, 2015)

### 2. Rulemaking Proceeding to Implement Session Law 2007-397

- Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief, Docket No. E-100, Sub 113 (November 13, 2014)
- Order Consolidating Reporting Requirements, Docket No. E-100, Sub 113 (December 31, 2014)
- Order Requesting Comments, Docket No. E-100, Sub 113 (August 18, 2015)

### 3. Renewable Energy Facility Registrations

- Order Revoking Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (November 19, 2014).
- Order Accepting Registration of Incremental Capacity as a New Renewable Energy Facility, Docket No. SP-2285, Sub 0 (July 21, 2015).
- Order Giving Notice of Intent to Revoke Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (August 12, 2015).

# APPENDIX 1



# State of North Carolina Utilities Commission

4325 Mail Service Center  
Raleigh, NC 27699-4325

COMMISSIONERS  
EDWARD S. FINLEY, JR., CHAIRMAN  
BRYAN E. BEATTY  
SUSAN W. RABON

July 8, 2015

COMMISSIONERS  
TONOLA D. BROWN-BLAND  
DON M. BAILEY  
JERRY C. DOCKHAM  
JAMES G. PATTERSON

Secretary Donald R. van der Vaart  
North Carolina Department of  
Environment and Natural Resources  
1601 Mail Service Center  
Raleigh, NC 27699-1601

Dear Secretary van der Vaart:

In August 2007, the North Carolina General Assembly enacted comprehensive energy legislation, Session Law 2007-397 (Senate Bill 3), which, among other things, establishes a Renewable Energy and Energy Efficiency Portfolio Standard (REPS) for this State. As part of this legislation, the General Assembly requires the Commission to submit an annual report no later than October 1 of each year on the activities taken by the Commission to implement and by the electric power suppliers to comply with the REPS requirement. The Commission is further required pursuant to G.S. 62-133.8(j) to consult with the Department of Environment and Natural Resources and include in its report "any public comments received regarding direct, secondary, and cumulative environmental impacts of the implementation of" the REPS requirement.

The Commission is not aware of the receipt of any public comments related to this issue. In order to respond to the General Assembly, I am requesting that the Department provide to the Commission any information it may have "regarding direct, secondary, and cumulative environmental impacts of the implementation of" the REPS requirement, including any public comments received by the Department. Your response by September 1, 2015, is appreciated so that the Commission may meet its deadline.



Secretary Donald R. van der Vaart  
July 8, 2015  
Page 2

Please feel free to contact me if you have any questions. With warmest personal regards, I am

Very truly yours,

A handwritten signature in blue ink that reads "Edward S. Finley, Jr." with a stylized flourish at the end.

Edward S. Finley, Jr.

ESF/LSW

cc: Tom Reeder, Assistant Secretary for the Environment, DENR  
Kathleen Waylett, North Carolina Attorney General's Office

# North Carolina Department of Environmental Quality

Pat McCrory  
Governor

Donald R. van der Vaart  
Secretary

September 29, 2015

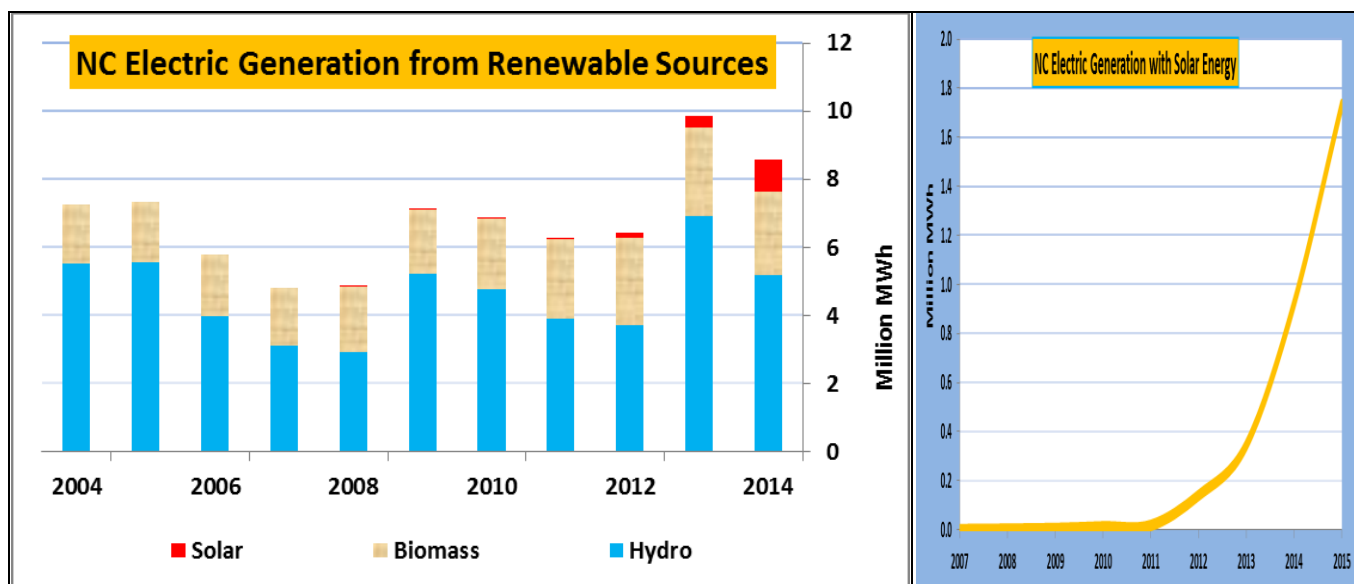
Mr. Edward S. Finley, Chairman  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4325

Re: Renewable Energy and Energy Efficiency Portfolio Standard

Dear Chairman Finley:

I am writing in response to your July 9, 2015 letter requesting information regarding the direct, secondary and cumulative environmental impacts of the implementation of the Senate Bill 3 Renewable Energy and Energy Efficiency Portfolio Standard (SB3), enacted under S.L. 2007-397. The legislation was intended to provide improved air quality and other benefits to energy consumers and citizens of the state. This report identifies its impact on North Carolina's air, water and land quality.

Renewable energy resources – including hydroelectric power, biomass, biogas and solar power – and energy efficiency measures are important components of North Carolina's energy mix. Total in-state power generation from Jan. 1, 2015 to June 30, 2015 consisted of 3.5 percent hydropower, 1.7 percent biomass and 1.3 percent solar energy. Increased utilization of some of these resources has presented both environmental opportunities and challenges.



Based on U.S. Energy Information Administration (EIA) Forms EIA-906, EIA-920, and EIA-923

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Energy efficiency measures have led to significant reductions in per capita energy use in North Carolina. The electric power consumed per person declined 8 percent between 2007 and 2014 in the state. During the same time period many states without a renewable energy or energy efficiency mandate have achieved similar energy use reductions and include South Carolina, Virginia, Tennessee and Georgia,. However, North Carolina has achieved the lowest per capita energy usage among neighboring states.

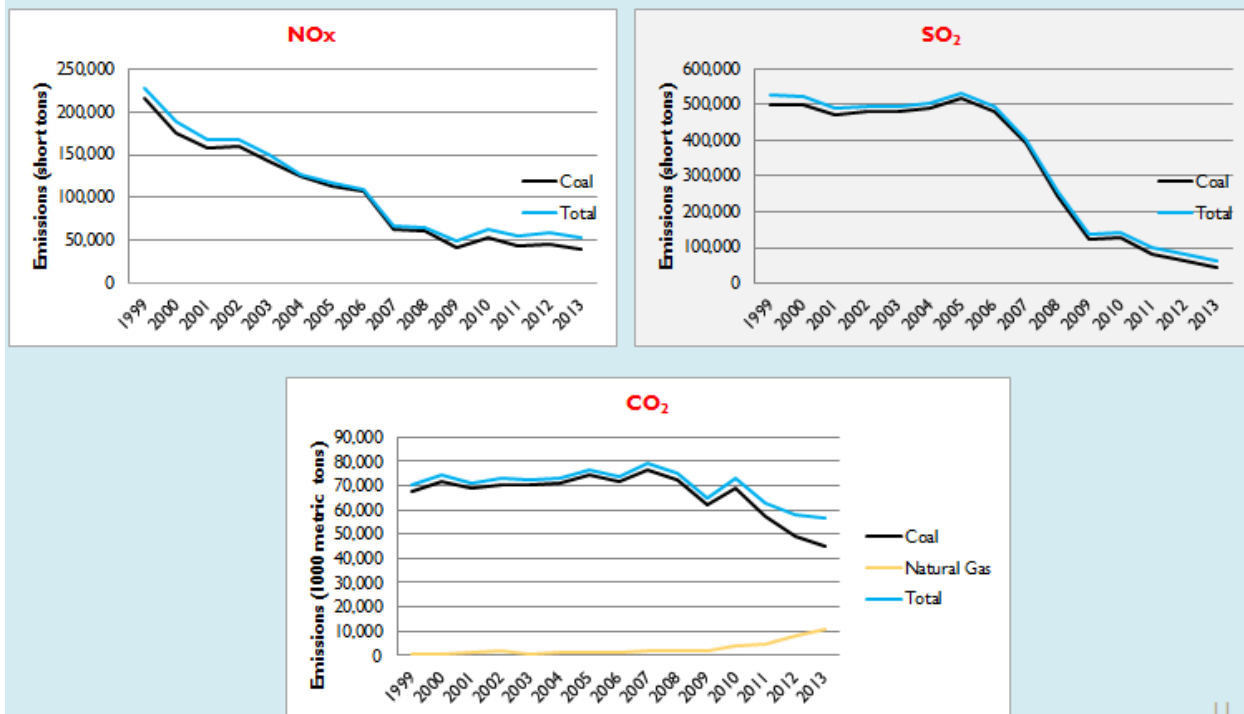
|                          | VA    | NC           | GA    | TN    | SC    |
|--------------------------|-------|--------------|-------|-------|-------|
| MWh sales/person in 2007 | 14.39 | <b>14.51</b> | 14.70 | 17.28 | 18.44 |
| MWh sales/person in 2014 | 13.43 | <b>13.34</b> | 13.43 | 15.00 | 16.91 |
| Percent Reduction        | 6.7%  | <b>8.1%</b>  | 8.6%  | 13.2% | 8.3%  |

Based on EIA Retail Sales of Electricity (Megawatthours) and US Census Data

### Air Quality

North Carolinians are breathing cleaner air today than at any time since the Clean Air Act was enacted in 1970. Over the past 15 years, North Carolina has reduced its toxic air pollutant emissions by more than 80 percent and cut its criteria pollutant emissions in half. For the first time in almost two decades – and in spite of stricter environmental standards and a growing population – the entire state meets all federal air-quality standards. In July 2015, the U.S. Environmental Protection Agency (EPA) officially recognized North Carolina’s last nonattainment area, the Charlotte metropolitan area, as complying with the 2008 federal air quality standard for ozone. That milestone capped years of improvements in air quality across North Carolina.

## All Power Plant Related Emission Trends



The availability of low-cost natural gas has played an important role in improving air quality and reducing greenhouse gas emissions. Highly efficient natural gas power plants emit less air pollutants and produce less than half as much carbon dioxide (CO<sub>2</sub>) emissions than the typical coal-fired power plant. Brought about by technological advancements in hydraulic fracturing and horizontal drilling the shale gas revolution has made natural gas affordable and domestically available for electricity generation.

Since 2007, North Carolina has added more than 4,000 megawatts (MW) summer capacity of natural gas-fired generation sources and shut down more than 2,000 MW summer capacity of its older coal plants. Its current coal fleet is among the most efficient and least polluting in the nation. North Carolina's shift from coal to gas and addition of state-of-the-art emissions control on its coal plants has led to 21 percent less nitrogen oxides (NO<sub>x</sub>), 84 percent less sulfur dioxide (SO<sub>2</sub>) and 28% less CO<sub>2</sub> emitted from power generation in 2013 than in 2007. Among states that coal generates more power than any other resource, North Carolina produced the least amount of CO<sub>2</sub> at 995 pounds per MWh of total energy generation in 2013 and is on track to reach President Obama's stated goal of 30% CO<sub>2</sub> reduction from power generation by 2030.<sup>1,2</sup>

The switch from coal to gas over the last several years has had a positive impact on air quality ambient concentrations. The impact of SB3 on air quality is less certain. Solar energy development has grown exponentially in North Carolina since 2008. The Solar Energy Industries Association [reports](#) that North Carolina installed 397 MW of solar electric capacity in 2014, ranking it 2nd nationally last year.<sup>3</sup> This increase in solar capacity has had a concomitant increase in reliance on traditional fossil fuels that are necessary to provide primary power during the time of day when solar is not available. Additional generating reserves, in the form of dispatchable fossil fuels, are required to prepare for the uncertainty associated with solar generation, including day-ahead planning reserves for forecast uncertainties and regulation reserves to cover minute-by-minute variations. Failure to maintain the system frequency can result in a grid collapse. To maintain reliability, power grid operators must cycle and operate a coal or gas-fired power plant at partial load which is a less efficient operating response.<sup>4</sup> Just as a car uses more fuel and has higher air emissions in the city rather than on the highway, a power plant that is frequently ramping up and down to meet the load demand operates less efficiently and produces more emissions on a per unit (MWh) basis. In addition, low load operation and cycling may impact the performance of the power plant's emissions control equipment.

The Division of Air Quality has observed a trend occurring at several coal-fired plants operating within the state. NO<sub>x</sub> rates per heat input have increased by more than 50 percent at four Duke Energy plants (Allen, Marshall, Mayo and Roxboro) since 2009 during North Carolina's ozone season as illustrated on the chart below. NO<sub>x</sub> is the primary driver of potentially harmful ground-level ozone formation in the state. The performance of the selective catalytic reduction (SCR) and selective non-catalytic reduction (SNCR) control equipment installed at these plants to reduce NO<sub>x</sub> emissions has declined, potentially due to narrow temperature range for reactions.

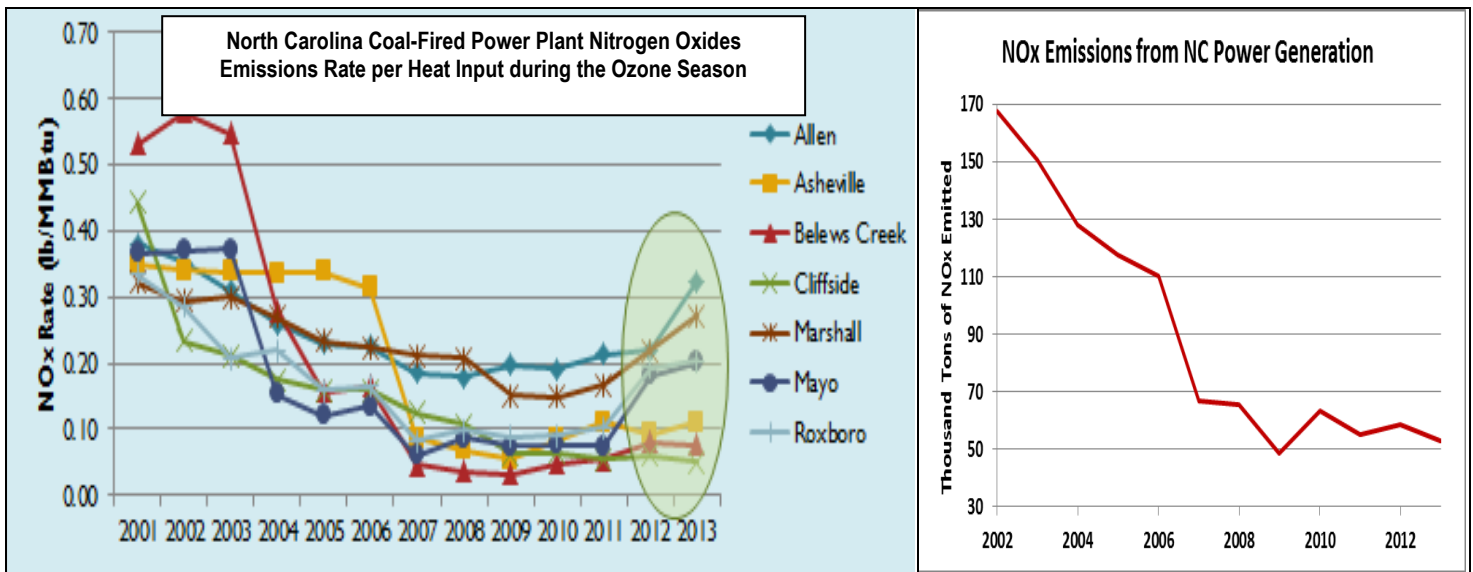
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<sup>1</sup> U.S. Energy Information Administration; State Electricity Profiles; accessed Sep. 19, 2015; <http://www.eia.gov/electricity/state/northcarolina/index.cfm>

<sup>2</sup> CO<sub>2</sub> reduction projections are based on coal retirements and new natural gas power plants announcements made by Duke Energy.

<sup>3</sup> Solar Energy Industries Association website accessed Sep. 26, 2015; <http://www.seia.org/state-solar-policy/north-carolina>.

<sup>4</sup> "Operating Reserves and Variable Generation" National Renewable Energy Laboratory, accessed Sep. 26, 2015; <http://www.nrel.gov/docs/fy11osti/51978.pdf>



As there is increased penetration of intermittent sources like solar and wind energy, there should be continued scrutiny on their overall environmental impact to ensure that gains resulting from natural gas combustion are not offset by the cycling operation of existing fossil fuel necessary to support intermittent energy.

The combustion of biogas and biomass is a broad area that can encompass various fuels and combustion technologies. Bio-power is dispatched on demand, has high capacity factors, and can serve as a valuable resource for power grid operators. To date, results have confirmed that the combustion of wood and woody biomass with traditional technologies generally results in higher emissions of regulated pollutants than coal combustion. However, using landfill and animal waste gas to produce energy has a favorable impact on air quality.

Capturing and using biogas for energy reduces ammonia emissions and odor, particularly from hog farms; eliminates the release of airborne pathogens; and destroys methane, a potent greenhouse gas. The reduced odor associated with using swine and other animal waste gas to generate electricity only benefits North Carolinians if the biogas originates within the state. The swine waste set aside in the Renewable Energy and Energy Efficiency Portfolio Standard can provide direct environmental benefits to our citizens and provide our hog farmers with an effective method of managing waste. Swine waste collected from locations in Oklahoma and Missouri and fired in the Buck combined cycle plant in Rowan County as requested by Duke Energy under Docket No. E-7, Sub 1086, does not meet these objectives.

### Water Quality

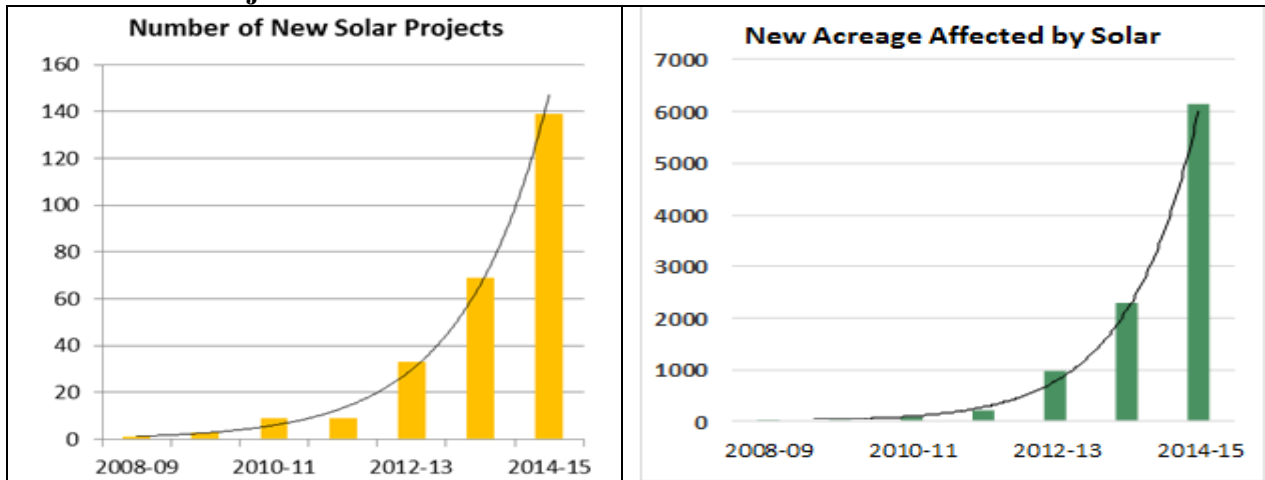
Clean water is essential in supporting the natural environment, public health, and a vibrant economy. Much progress has been made over the past four decades to improve the quality of North Carolina's water supply. Sediment is the largest single nonpoint source pollutant and a primary factor in the deterioration of surface water quality in the state. North Carolina has actively worked to minimize sediment runoff since the NC Sedimentation Act was passed in 1973. All land-disturbing activities of one acre or greater in size must have an approved erosion and sedimentation control plan before work begins. In addition, North Carolina implements post-construction stormwater control programs across

approximately 65 percent of the state. These programs require long-term stormwater control for new development activities to offset the impacts of added construction area on the landscape.

Solar facilities are typically constructed on large tracts of land that in some cases require clearing and grading. Because this activity often results in soil compaction, alteration of drainage channels, and increased runoff and erosion, solar developers are required to obtain approval of their sedimentation and erosion control plans through the Land Quality Section or from a delegated local government program prior to construction. These plans specify actions that may include diverting runoff to a basin and installing silt fences that are required to mitigate the impact of construction. Last year, notice of violations (NOVs) were issued for six solar developments, and enforcement penalties were assessed for two solar projects. The penalties were due to offsite sedimentation into a stream caused by the developer's failure to follow the approved erosion and sedimentation control plan.

The Land Quality Section has observed an exponential increase in acreage affected by solar projects. The number of new solar projects doubled between FY 13-14 and FY 14-15 and there has been a recent trend of much larger projects that expand across several hundred acres each. The Land Quality Section approved sedimentation and erosion control plans for approximately 6,150 acres of solar projects in during the past fiscal year and thousands more acres were approved through local governments.

### Solar Projects with Erosion and Sedimentation Control under State Jurisdiction



This data only captures plans under the jurisdiction of the Department of Environmental Quality (DEQ), not those under the jurisdiction of any of the 53 local delegated erosion and sedimentation control programs throughout the state.

This trend appears to be one that will continue, as DEQ anticipates receiving submissions for solar projects in excess of 1,500 acres during the next fiscal year. These larger solar projects pose a unique challenge with respect to erosion and sedimentation control, given the amount of acreage denuded (and therefore subject to erosion and sedimentation) within a short timeframe. It is imperative that adequate erosion and sedimentation control measures are planned and installed before land-disturbing activities begin. These soil stabilization measures must also be maintained throughout the life of the construction project. Additionally, the use of herbicides both initially and for extended periods at solar facilities should be studied in the future to ensure they do not cause adverse impacts to soils or water quality.

Swine waste-to-energy projects provide hog farmers with an effective solution for managing excess nutrients, and prevent inadvertent discharges to surface waters and groundwater. Methane-rich biogas captured from swine waste anaerobic digesters or covered lagoons can be used to generate electricity

and heat and make water quality protection more cost-effective. Again, these environmental benefits are only realized if swine waste generated in North Carolina is used to satisfy the swine waste set asides in SB3.

### Waste Management

The federal Resource Conservation and Recovery Act (RCRA) requires proper transport, storage and treatment of hazardous wastes to protect public health and the environment. All hazardous wastes generated in North Carolina that cannot be treated or recycled must be shipped out of state to a RCRA-approved disposal facility. North Carolina has no landfills designed to dispose of hazardous waste, and it is illegal to knowingly dispose of hazardous waste in any of its municipal waste landfills.

Breakage and improper handling of solar panels at the end of their useful life could have a significant impact on North Carolina's environment. According to the U.S. Bureau of Land Management (BLM), "photovoltaic panels may contain hazardous materials, and although they are sealed under normal operating conditions, there is the potential for environmental contamination if they were damaged or improperly disposed upon decommissioning."<sup>5</sup> The BLM requires developers of solar energy projects on federal lands to post a bond that covers environmental liability and the decommissioning of solar panels.

On August 6, 2015, the North Carolina House Committee on Agriculture and Natural and Economic Resources held a hearing on the end-of-life management of solar panels to assess the current and projected capacity of solar projects in the state; to understand the current solar panel disposal practice; and minimize the impacts to landowners, local governments and the state. More than 200 million pounds of solar panels have been installed in North Carolina to date.

Many of the solar energy facilities operating in North Carolina use thin film technology that contains hazardous compounds that, if released into the groundwater, could adversely affect human health. For example, First Solar, Inc. is supplying thin film solar modules for a 65 MW solar energy facility in Warsaw, North Carolina.<sup>6</sup> The company's [application](#) for a 550 MW solar energy facility in San Luis Obispo, California identifies cadmium telluride (CdTe) as the semiconductor material that is enclosed within two sheets of glass, and that the 550 MWs of solar modules contain 123 tons of CdTe (57.6 tons of cadmium) and 2.45 tons of cadmium sulfide (1.90 tons of cadmium).<sup>7</sup> If the same solar modules are being used at the Warsaw solar farm, they will contain more than 14,000 pounds of cadmium compounds.

The EPA has found that some cadmium compounds are able to leach through soils to ground water.<sup>8</sup> The solubility of cadmium sulfide in water is 1,300 parts per billion (ppb) and when it comes in contact with soft, acidic waters, its solubility increases. To protect human health, EPA has established the maximum concentration level of cadmium in drinking water at 5 ppb.

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<sup>5</sup> U.S. Bureau of Land Management; accessed Sep. 19, 2015; <http://solareis.anl.gov/guide/environment/index.cfm>

<sup>6</sup> Clean Techna; accessed Sep. 26, 2015; <http://cleantechnica.com/2014/09/26/first-solar-wins-supply-contracts-105-mw-projects-north-carolina/>

<sup>7</sup> Topaz Solar Farm Project; accessed Sep. 19, 2015; [http://www.sloplanning.org/EIRs/topaz/FEIR/FEIR/Vol1/B\\_Proj%20Desc\\_DONE.pdf](http://www.sloplanning.org/EIRs/topaz/FEIR/FEIR/Vol1/B_Proj%20Desc_DONE.pdf)

<sup>8</sup> U.S. EPA; accessed Sep. 19, 2015; <http://water.epa.gov/drink/contaminants/basicinformation/historical/upload/Archived-Consumer-Factsheet-on-Cadmium.pdf>

California is the leading state in solar energy and has been grappling with the end-of-life disposition of solar modules for several years. It classifies discarded solar PV modules as hazardous waste. In 2013, its Department of Toxic Substances Control (CADTSC) sought to designate intact RCRA and non-RCRA hazardous waste solar PV modules as universal wastes in an effort to achieve greater compliance.<sup>9</sup> Universal wastes are exempted from federal hazardous waste management standards if they meet alternative requirements that ensure safe handling, recycling, or disposal. The CADTSC proposed allowing limited treatment (e.g., removal of the junction box and junction cables from the module) without authorization and exempting the recycled modules from manifest requirements in an effort to achieve greater compliance.

The CADTSC received several noteworthy comments on its universal waste proposal implying that broken solar panels may be left in place until they were no longer functional; that the decommissioning process would result in some breakage; and that the toxic metal may be recovered instead of recycling the solar modules:<sup>10</sup>

*“Solar panels that are cracked, crazed or fractured are generally designed to retain functionality and be left in place by their owners.”*

- Sue Kately, Executive Director, California Solar Energy Industries Association

*“Decommissioning arrays in the most efficient way possible may lead to significant module breakage, and that handling modules to prevent breakage would not be practical...”*

- Matthew D. Garamone, Corporate Environmental Director and Senior Counsel - Environmental, Health & Safety First Solar Inc.

Beverly Pester Kennedy, the Environmental Health and Safety Manager for ECS Refining, noted that solar modules can be recycled by a primary smelting operation that includes recovery of any toxic metals that are present, or by stripping the photovoltaic coatings from the silicon substrate and chemically recovering the metals. In the first scenario, the toxic metals would be recovered but not necessarily sold as recovered end products

The California Office of Administrative Law disapproved of the universal waste designation of solar modules, stating:

*“The department shall not adopt or revise standards and regulations which result in the imposition of any requirement for the management of a RCRA waste that is less stringent than a corresponding requirement adopted by the Environmental Protection Agency pursuant to the federal act.”*

And,

*“A hazardous waste is presumed to be a RCRA hazardous waste, unless it is determined pursuant to section 66261.101 that the hazardous waste is a non-RCRA hazardous waste.” In other words, the Department must demonstrate that PV modules are in fact non-RCRA hazardous wastes, otherwise the PV modules would be presumed to be RCRA hazardous wastes.”*

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<sup>9</sup> California Department of Toxic Substances Control; accessed Sep. 18, 2015; [http://ccelearn.csus.edu/wasteclass/mod3/mod3\\_09.html](http://ccelearn.csus.edu/wasteclass/mod3/mod3_09.html)

<sup>10</sup> <https://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/Solar-Modules-Regulations-Public-Comments.pdf>



California's next course of action is to petition the EPA to regulate discarded solar modules as universal wastes.

### Onshore Wind Energy

The groundbreaking on North Carolina's first wind energy project took place in July 2015 for the Amazon U.S. Wind Farm East. The project owner, Iberdrola, has been planning the project since 2009 and was grandfathered from the state wind energy facility siting and operational permit requirements enacted in 2013. Some residents near the project in Perquimans and Pasquotank counties have voiced concern about the possible noise and health impacts.

Limited wind energy development is expected in North Carolina due to the Mountain Ridge Protection law, which, according to the North Carolina Attorney General's office, prevents utility-scale wind turbines from being placed along mountain ridges.<sup>11</sup> Many of the other potentially economically viable onshore wind energy resources in the state conflict with military operations or are located in areas where the U.S. Fish and Wildlife Service deems wind energy a high risk for wildlife and habitats.<sup>12</sup>

North Carolina has made great strides toward diversifying its energy portfolio in a manner that meets the needs of consumers, provides greater energy security, and protects the environment. The state's economic and environmental health depends upon responsible, timely, and efficient energy production. NC DEQ supports the use of clean, reliable energy sources as part of an "all of the above" strategy, and will continue to monitor the environmental impacts of the implementation of the SB3 requirements.

Sincerely,

John C. Evans, Deputy Secretary

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<sup>11</sup> "The Legislature in 1983 had in mind, the traditional, solitary farm windmill which has long been in use in rural communities, not windfarm turbines of the size, type or certainly number proposed here, especially when "all the turbines would probably be seen together from most viewing locations." Letter to the Tennessee Valley Authority from North Carolina Attorney General Roy Cooper Regarding "Environmental Assessment for the 20-MW Windfarm and Associated Energy Storage System Facility," February 4, 2002.)

<sup>12</sup> U.S. Fish and Wildlife Service; accessed Sep. 25, 2015; [http://www.fws.gov/raleigh/pdfs/NC\\_wind\\_tool.pdf](http://www.fws.gov/raleigh/pdfs/NC_wind_tool.pdf)

# APPENDIX 2

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Rulemaking Proceeding to Implement     ) ORDER MODIFYING THE SWINE  
Session Law 2007-397                     ) WASTE SET-ASIDE REQUIREMENT  
   ) AND PROVIDING OTHER RELIEF

BY THE COMMISSION: On August 28, 2014, a joint motion to modify and delay the 2014 requirements of G.S. 62-133.8(e) was filed by Duke Energy Carolinas, LLC (DEC);<sup>1</sup> Duke Energy Progress, Inc. (DEP);<sup>2</sup> Virginia Electric and Power Company, d/b/a Dominion North Carolina Power (Dominion);<sup>3</sup> GreenCo Solutions, Inc. (GreenCo); Public Works Commission of the City of Fayetteville (Fayetteville); EnergyUnited Electric Membership Corporation (EnergyUnited); Halifax Electric Membership Corporation (Halifax); the Tennessee Valley Authority (TVA);<sup>4</sup> North Carolina Eastern Municipal Power Agency (NCEMPA);<sup>5</sup> and North Carolina Municipal Power Agency Number 1 (NCMPA1)<sup>6</sup> (hereinafter referred to collectively as the Joint Movants). The Joint Movants requested that the Commission relieve them of compliance with G.S. 62.133.8(e) (Compliance With [North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS)] Requirement Through Use of Swine Waste Resources) by delaying their need to comply with this requirement by one year until 2015. The joint motion further requested that the Commission allow the Joint Movants to bank any swine renewable energy certificates (RECs) previously or subsequently acquired for use in future compliance years, and allow the Joint Movants to replace compliance with the swine waste requirements in 2014 with other compliance measures

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<sup>1</sup> DEC asserted that it is also acting in its capacity as REPS compliance aggregator for Blue Ridge Electric Membership Corporation (EMC), Rutherford EMC, the City of Dallas, Forest City, City of Concord, the Town of Highlands and the City of Kings Mountain.

<sup>2</sup> DEP asserted that it is also acting in its capacity as REPS compliance aggregator for the Towns of Sharpsburg, Lucama, Black Creek, and Stantonsburg, and the City of Waynesville.

<sup>3</sup> Dominion asserted that it is also acting in its capacity as REPS compliance aggregator for the Town of Windsor.

<sup>4</sup> TVA asserted that it is acting in its capacity as REPS compliance aggregator for Blue Ridge Mountain EMC, Mountain Electric Cooperative, Tri-State EMC and Murphy Electric Power Board.

<sup>5</sup> NCEMPA asserted that it is acting in its capacity as REPS compliance aggregator for its 32 member municipalities which are electric power suppliers.

<sup>6</sup> NCMPA1 asserted that it is acting in its capacity as REPS compliance aggregator for its 19 member municipalities which are electric power suppliers.

pursuant to G.S. 62-133.8(b), (c), and (d). The Joint Movants requested that the Commission consider and approve their joint motion without an evidentiary hearing.

The Joint Movants stated that they have individually and collectively made reasonable efforts to comply with the REPS swine waste resource provisions, and that the relief sought is in the public interest. The Joint Movants identified a number of actions taken to display their efforts to comply. Specifically, these actions, according to the Joint Movants, included actively engaging swine waste-to-energy developers, issuing requests for proposals, evaluating bids received, negotiating and executing long-term REC purchase agreements for these resources, processing interconnection requests from these generators, actively monitoring executed agreements, and, in some cases, further modifying REC purchase agreements to provide developers reasonable opportunity for successful project execution.

On September 17, 2014, the Commission issued an Order Requesting Comments in the above captioned docket, requesting that interested parties file comments on the Joint Movants' request on or before Friday, October 10, 2014. On October 9, 2014, Environmental Defense Fund (EDF) submitted comments. On October 10, 2014, the North Carolina Pork Council (NCPC) and the Public Staff submitted comments. No party submitted comments in opposition to the Joint Movants' request to delay the swine waste set-aside requirement.

EDF, in its comments, did not challenge the Joint Movant's request to delay the swine waste set-aside. EDF noted the increasing number of technologies by which swine waste may be converted to electricity, in particular, biogas. EDF stated that it does not support routine annual extensions and that they should not become the norm. EDF stated that the utilities should become more involved in the development of swine waste resources in future years to display that they have made a reasonable effort to comply with the swine waste set-aside requirement. EDF requested that the Commission (1) set forth enumerated milestones at which the utilities must publicly report to ensure that they remain on course for compliance and (2) require DEC and DEP to develop a stakeholder process to "scale" the requirement and establish subsequent deadlines. Finally, EDF attached to its comments an analysis completed by Duke University of options for collecting and using biogas generated from swine waste.

NCPC, in its comments, noted that this is the third straight year that the electric suppliers have asked to modify or delay compliance with the swine waste set-aside requirement. NCPC stated that it did not oppose the Joint Movants' request, however, NCPC noted that not much progress towards compliance has been made and added recommendations which it felt could help move the electric suppliers closer to achieving compliance. Specifically, NCPC requested (1) that the tri-annual reporting requirements be continued; and (2) that the Public Staff evaluate the prices offered to assess the reasonableness of efforts to comply and conduct an analysis of the relevant market, including price. NCPC also noted the Duke University study attached to EDF's comments as evidence that swine waste development, contrary to the claims of several electric power suppliers, can be done economically in North Carolina.

The Public Staff, in its comments, stated that it had reviewed the tri-annual reports as well as information obtained at stakeholder meetings. As a result of this review, the Public Staff stated its belief that the electric power suppliers, in general, are making a good faith effort to comply with the swine waste set-aside requirement. The Public Staff identified several problem areas affecting compliance including: interconnection; reluctance of farmers to sign long-term fuel supply agreements; the sunset of the federal production tax credit; uncertainty in contract fulfillment based on past lack of performance; air quality permit delays; issues in the anaerobic digestion process, including waste disposal; and the uncertainty caused by the previous delays to the swine waste set-aside requirement. The Public Staff noted potential solutions to these problems discussed at stakeholder meetings including: electric power suppliers and the public bearing more risk in swine waste facility construction and operation, and the allowance of back-up fuels to generate electricity for a period of time in which swine waste fuels may become unavailable. The Public Staff recommended that the Commission grant the Joint Movants' request to delay the swine waste set-aside requirement until 2015. The Public Staff further recommended that the Commission allow electric power suppliers to bank any swine waste RECs previously or subsequently acquired for use in future compliance years. Finally, the Public Staff recommended that the Commission proceed in this matter without a hearing.

G.S. 62-133.8(i)(2) states that the Commission, in developing rules, shall:

Include a procedure to modify or delay the provisions of subsections (b), (c), (d), (e), and (f) of this section in whole or in part if the Commission determines that it is in the public interest to do so. The procedure adopted pursuant to this subdivision shall include a requirement that the electric power supplier demonstrate that it made a reasonable effort to meet the requirements set out in this section.

Commission Rule R8-67(c)(5) states:

In any year, an electric power supplier or other interested party may petition the Commission to modify or delay the provisions of G.S. 62-133.8(b), (c), (d), (e) and (f), in whole or in part. The Commission may grant such petition upon a finding that it is in the public interest to do so. If an electric power supplier is the petitioner, it shall demonstrate that it has made a reasonable effort to meet the requirements of such provisions.

The Commission has previously exercised this authority and delayed compliance with the swine waste set-aside requirement on two occasions, first as delineated in its November 29, 2012 Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Granting Other Relief (2012 Delay Order), and a second time as delineated in its March 26, 2014 Final Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Providing Other Relief (2013 Delay Order), both issued in Docket No. E-100, Sub 113.

Based on the tri-annual reports submitted by the electric power suppliers in Docket No. E-100, Sub 113A, the Joint Movants' motion, the intervenors' comments, and the entire record herein, the Commission finds that the State's electric power suppliers have made a reasonable effort to comply with the 2014 statewide swine waste set-aside requirement established by G.S. 62-133.8(e), but will not be able to comply. Compliance with the set-aside requirements has been hindered by the fact that the technology of power production from swine waste continues to be in its early stages of development. Additional factors contributing to the inability to comply include interconnection issues, reluctance of farmers to sign long-term fuel supply agreements, uncertainty in contract fulfillment based on past lack of performance, and the uncertainty caused by the previous delays to the swine waste set-aside requirement, among others. No party presented evidence that the aggregate 2014 swine waste set-aside requirement could be met; nor did any party oppose the Joint Movants' request. The Commission further finds that it is in the public interest to delay required compliance by the State's electric power suppliers with the requirements of G.S. 62-133.8(e) for one year. Electric power suppliers that have acquired swine waste RECs for 2014 REPS compliance should be allowed to bank such RECs for swine waste set-aside requirement compliance in future years. Electric power suppliers should continue to make efforts to comply with the swine waste set-aside requirement as modified by this Order. In addition, all electric power suppliers subject to the tri-annual reporting requirements shall continue to file reports until the Commission orders that they be discontinued. Finally, it remains appropriate for the Public Staff to arrange and facilitate two stakeholder meetings during 2015.

The Commission does not find that good cause exists at the present time to grant EDF's request that the Commission set forth enumerated milestones at which the utilities must publicly report and that the Commission require DEC and DEP to develop a stakeholder process to "scale" the swine waste set-aside requirement. The Commission, in the 2012 Delay Order, as modified by the 2013 Delay Order, has established a tri-annual reporting requirement to track compliance efforts relative to both the swine and poultry waste set-aside requirements throughout the year. The purpose of the reports is to provide the Commission with an accurate portrayal of compliance efforts throughout the year and the reports have proven useful in this capacity. The Commission finds that the tri-annual reporting requirement has proven to be an adequate method to track compliance efforts over a given year, and, thus, EDF's request would result in unnecessary duplicative requirements.

IT IS, THEREFORE, ORDERED as follows:

1. That the 2014 requirement of G.S. 62-133.8(e), as established in the Commission's 2013 Delay Order, is delayed for one year. The electric power suppliers, in the aggregate, shall comply with the requirements of G.S. 62-133.8(e) according to the following schedule:

| <u>Calendar Year</u> | <u>Requirement for Swine Waste Resources</u> |
|----------------------|--|
| 2015-2016            | 0.07%  |
| 2017-2019            | 0.14%  |
| 2020 and thereafter  | 0.20%  |

Electric power suppliers shall be allowed to bank any swine waste RECs previously or subsequently acquired for use in future compliance years and to replace compliance with the swine waste requirements in 2014 with other compliance measures pursuant to G.S. 62-133.8(b), (c), and (d).

2. That the Public Staff is requested to arrange and facilitate two stakeholder meetings during 2015. The electric power suppliers that are subject to the triannual filing requirement (as discussed below) shall attend. Developers and other stakeholders are encouraged to participate and discuss potential obstacles to achieving the swine and poultry waste requirements and options for addressing them.

3. That the tri-annual filing requirement first required by the Commission's 2012 Delay Order and that now, pursuant to the 2013 Delay Order, applies to DEP, DEC, Dominion, GreenCo, Fayetteville, EnergyUnited, Halifax, NCEMPA and NCMPA1 shall be due to the Commission on each May 1, September 1, and January 1, until the Commission finds that they are no longer necessary. The filing requirements shall be as specified in ordering paragraph 4 of the Commission's 2012 Delay Order.

ISSUED BY ORDER OF THE COMMISSION.

This the 13<sup>th</sup> day of November, 2014.

NORTH CAROLINA UTILITIES COMMISSION

*Gail L. Mount*

Gail L. Mount, Chief Clerk

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Rulemaking Proceeding to Implement            )   ORDER CONSOLIDATING  
Session Law 2007-397                            )   REPORTING REQUIREMENTS

BY THE COMMISSION: Prior to the implementation of Senate Bill 3 (Session Law 2007-397), qualifying facilities, as defined in the federal Public Utility Regulatory Policies Act of 1978, that received from the Commission a certificate of public convenience and necessity (CPCN) to construct a generation facility were required by Rule R1-37(d)(2) to file annual progress reports during construction. On February 29, 2008, in its Order Adopting Final Rules implementing Senate Bill 3, the Commission recodified Rule R1-37 as Rules R8-64 and R8-65. Specifically, the requirement of Rule R1-37(d)(2) was continued as Rule R8-64(e) in the recodified rule.

On June 3, 2014, the Commission issued an Order Requesting Comments regarding the potential changes to Rules R8-64 and R8-65, as well as the reporting requirements in Docket No. E-100, Subs 101, 83, and 41B (June Order). In the June Order, the Commission took note that, over the past few years, a large number of facilities, particularly solar photovoltaic, have been filing applications for CPCNs. However, it is currently unclear whether certificate holders for solar facilities are complying with this construction progress report requirement. Further, due to the fact that there is no requirement for notice of completion, the Commission cannot easily discern how many facilities are actually being built. The June Order requested that interested parties file comments by June 30, 2014, and that reply comments be filed by July 21, 2014.

On June 30, 2014, the North Carolina Sustainable Energy Association (“NCSEA”), Virginia Electric and Power Company, d/b/a Dominion North Carolina Power, Duke Energy Carolinas, LLC and Duke Energy Progress, Inc. (collectively “NC Utilities”), and the North Carolina Utilities Commission – Public Staff (“Public Staff”) filed comments. On July 18, 2014, the NC Utilities filed a Motion for Extension of Time to file reply comments. On July 23, 2014, the Commission issued an Order extending the due date for reply comments to July 28, 2014. On July 28, 2014, the NC Utilities filed reply comments. On July 29, 2014, the Public Staff filed a Motion for Leave to File Comments Out of Time and Reply Comments on Reporting Requirements. The Commission finds good cause to accept the Public Staff’s reply comments out of time.



I. Comments

A. NCSEA

In its filing, NCSEA initially summarizes the current status of the North Carolina Renewable Tracking System (NC-RETS). In 2012, NCSEA realized that it could not easily identify how many non-utility generating facilities were actually being built. At that time, the downloadable spreadsheet on the NC-RETS website did not include a North Carolina Utilities Commission (NCUC) Docket No. column. In 2013, the NCSEA worked with the NC-RETS stakeholder group to add a NCUC Docket No. column at NCSEA's expense. This spreadsheet, however, does not give a complete picture of all of the non-utility generating facilities that have commenced operation in North Carolina.

The Commission's June Order asked for comments as to whether or not Rule R8-64 should be modified to require a notice of completion of construction. NCSEA does not support such an amendment to Rule R8-64. NCSEA states that this change will not provide any additional information from the information that can now be obtained from NC-RETS. NCSEA also opposes the change due to the additional administrative work that filing such a notice will create.

NCSEA does not support amending Rule R8-65 to impose an annual progress report until construction is complete, similar to the reporting requirement contained in Rule R8-64. Although NCSEA recognizes that Rule R8-65 applies to persons exempt from the CPCN process and such construction cannot be discerned from NC-RETS, NCSEA argues there is a more efficient means to obtaining such information.

NCSEA posits that the most efficient way for the Commission to obtain the requested information is to require the NC Utilities to provide it. NCSEA states that currently electric utilities must provide the Commission with information regarding small power producers and interconnection. In Docket Nos. E-100, Sub 41 and Sub 57, the Commission issued an Order Regarding Cogeneration and Small Power Production Status Reports on June 6, 1989. In the Order, the Commission directed electric utilities to provide status reports annually providing information on the following categories:

(1) cogenerators and small power producers which have contacted the utility but not yet executed a contract (2) cogenerators and small power producers which have executed a contract with the utility, but not yet begun producing power; and (3) cogenerators and small power producers which have executed a contract and begun producing power. As to category (1) the reports shall provide the name and address of the cogenerator or small power producer, the project's projected capacity, the project's fuel and technology; and the status of negotiations. As to categories (2) and (3), the report shall provide the name and address of the cogenerator or small power producer, the project's capacity, the project's fuel and technology, the contract term and rates, and the actual or anticipated date of initial power production.

In the interconnection docket, Docket No. E-100, Sub 101, the Commission issued an Order Approving Tariffs, Riders and Regulations Implementing Net Metering and Consolidating Reporting Requirements on December 27, 2005. In this Order, the Commission directed electric utilities to file an annual report providing detailed information regarding any interconnection requests, including the type and size of the generator, the impact on the distribution circuit, whether the proposed generator passed the Impact Screens, and the status of the interconnection requests.

NCSEA recommends that, to the extent that any supplementation is needed to information available on the NC-RETS website, the utilities should provide this information to the Commission. NCSEA recommends that the two separate reports that are currently being filed in Commission Docket Nos. E-100, Sub 41B and Sub 101A be revised and consolidated into one report that the utilities file in March and September of each year. NCSEA suggests additional information that should be included in this consolidated report as follows:

1. The report be a complete report as opposed to an update;
2. The report cover all interconnections/interconnection requests for the grid as opposed to only requests for projects that are 100 kW or less;
3. The report includes a column that identifies the project by Commission Docket No. in which the facility filed a report of proposed construction, registration or a certificate of convenience and necessity.

Lastly, NCSEA recommends that the electric utilities make the filed reports available in electronic spreadsheet form to parties to the dockets.

#### B. The NC Utilities

In the joint comments filed, the NC Utilities recommend that the annual construction progress reporting requirement currently provided in Commission Rule R8-64(e) should be maintained and that the Rule be revised to require 1) that the report of construction progress be submitted by February 1 of each year, 2) that a qualifying facility (QF) be required to submit a notice of completion of construction and 3) that if any QF fails to submit an annual construction progress report, the QF will have its CPCN revoked without prejudice to refile for a new CPCN. The NC Utilities state that these recommendations are reasonable to enable the Commission to ensure that CPCNs that the Commission has issued are actually being implemented. The NC Utilities further recommend that Commission Rule R8-65 should be modified to insert a requirement that each QF submit a notice of completion of construction within 30 days of completion. This requirement would capture QFs under 2 MW.

The NC Utilities state that it is more appropriate for the QF to file the report of notice of completion than the utility because the QF is the entity that currently is required to file annual construction progress reports and requiring the QF to file should be more efficient and timely.

### C. The Public Staff

The Public Staff recommends that the Commission not add new reporting requirements to Rules R8-64 and R8-65 due to the fact that there is so little compliance with the existing requirements. Rather, the Public Staff recommends that the NC Utilities provide additional information to the Commission. Specifically, the Public Staff recommends that the Commission cancel the utilities' existing annual generation facility reporting requirements in Docket Nos. E-100, Sub 41B and Sub 101A and submit three different reports in a new docket, Docket No. E-100, Sub 113B. The Public Staff states that creating a single docket for all of the reporting requirements will make the information more accessible and easier to manage. The Public Staff states that the electric utilities should submit this consolidated report containing the three lists electronically, in EXCEL format, to the Commission and the Public Staff and that each list should be complete and not merely an update. The Public Staff further recommends that the electronic version of the lists should be made available on the Commission's website and that the lists should not be confidential. The consolidated reports should be filed on a quarterly basis on March 1, June 1, September 1, and December 1 of each year.

The suggested three lists for the consolidated report are:

1. An Interconnection Application List of all applications in the utility's interconnection queue that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), application date, county and interconnection application status.
2. An Interconnection List of all generators interconnected with the utility's system in North Carolina that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), power delivery date, county and whether the facility is net metering.
3. A Purchased Power Agreement (PPA) List of all facilities with which the utility has a purchased power agreement that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), energized date, tariff name(s), term (years), county and PPA application status.

The Public Staff provided a suggested format for each of the lists in Appendices A-C of its filing. In addition to the lists, the Public Staff recommends that the Commission require the electric utilities to file in the consolidated report (1) any claims for personal injury or property damage caused by the interconnection or operation of a customer-generator, and (2) any customer-generators removed or rejected from net metering and the reason for the rejection or removal.

## II. Reply Comments

### A. The NC Utilities

In the reply comments, the NC Utilities indicate disagreement with the Public Staff's and NCSEA's comments recommending that the Commission direct electric utilities to file a combined report with the requested information. The NC Utilities state that if the Commission accepts the proposals offered by NCSEA and the Public Staff, the cost and the majority of the burden of reporting information regarding QF development and interconnection will shift from the QFs themselves to the utilities. The NC Utilities further state that the rationale that the QFs have not been fulfilling their current reporting requirements so the Commission should have the utilities perform those duties is not a valid reason to shift these responsibilities from the QFs to the utilities. The NC Utilities state that even though a utility tracks information pertaining to the utility's own processing of interconnection requests, the utility does not track the developer's own progress in constructing their facility. Therefore, the NC Utilities recommend that the most efficient manner to obtain the information is from the QFs, which is also the most appropriate entity to provide the information.

The NC Utilities request that if the Commission decides to accept any portion of the NCSEA's or Public Staff's proposals to impose reporting requirements on the utilities, the utilities should be permitted to file as confidential any information that they typically treat as such, subject to the execution of a Confidentiality Agreement by any party seeking access to that information. The NC Utilities do not support increasing the frequency of any utility reporting requirements.

### B. The Public Staff

In its reply comments, the Public Staff reiterates that the current system of utility reporting in Docket Nos. E-100, Sub 41B and Sub 101A are difficult to review and analyze because the reports are not in mathematical format and do not contain all of the information that is necessary for a reasonable analysis. The Public Staff states that although NC-RETS keeps track of all renewable facilities that have an account, many facilities with a CPCN or a Report on Proposed Construction do not have an NC-RETS account. The Public Staff provides that the proposed system of utility reporting will be helpful to respond to the frequent requests from the public and the Commission Staff for renewable facility information.

The Public Staff agrees with most of the comments filed by NCSEA and specifically agrees that the reports filed by utilities be complete and not merely updates; include all interconnection requests, interconnections completed and proposals for construction of new generating facilities; include the Commission docket number for the facility; be in electronic spreadsheet format; and be consolidated into one report. In addition, the Public Staff recommends that the report should indicate what information has been updated since the last report, which can be accomplished through italicizing, underlining, bolding or capitalizing.

The Public Staff specifically disagrees with two of the NCSEA's recommendations. The NCSEA suggests that the consolidated reports be filed semiannually. The Public Staff recommends that the reports be filed quarterly to provide the most current information as possible. The Public Staff does not believe that NC-RETS is the best venue for the filing of the reports. Rather, the reports should continue to be filed with the Commission and be made available on the Commission's website.

The Public Staff disagrees with the NC Utilities that non-utility generators (NUGs), which consist of QFs (cogenerators and small power producers) and merchant generators, should be responsible for the reporting on the construction progress of the facility and that if the NUG does not file such reports is subject to revocation of its CPCN. The Public Staff states that this creates an unnecessary administrative burden on the Commission. In this vein, the Public Staff recognizes that the NC Utilities will have to expend time and effort to prepare the reports suggested by the Public Staff, but posits that after the initial work of creating the spreadsheet is completed that updating and filing should not be difficult for the NC Utilities.

### III. Discussion and Conclusions

The Commission agrees with the Public Staff and the NCSEA that the current reporting requirements by the NC Utilities should be streamlined to provide a more coherent and complete picture of the status of NUGs within North Carolina. Currently, the NC Utilities are required to make filings in two different dockets, Docket Nos. E-100, Sub 41 and Sub 101. In Docket No. E-100, Sub 41<sup>1</sup>, the utilities are required to file the following information annually pursuant to the Commission's Order Regarding Cogeneration and Small Power Production Status Reports issued on June 6, 1989:

(1) cogenerators and small power producers which have contacted the utility but not yet executed a contract (2) cogenerators and small power producers which have executed a contract with the utility, but not yet begun producing power; and (3) cogenerators and small power producers which have executed a contract and begun producing power. As to category (1) the reports shall provide the name and address of the cogenerator or small power producer, the project's projected capacity, the project's fuel and technology; and the status of negotiations. As to categories (2) and (3), the report shall provide the name and address of the cogenerator or small power producer, the project's capacity, the project's fuel and technology, the contract term and rates, and the actual or anticipated date of initial power production. The status reports may include such additional information as the utilities choose to provide in order to present a complete and current report on their cogeneration and small power production activities.

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<sup>1</sup> The actual filing of the report occurs in Docket No. E-100, Sub 41B.

On October 20, 2005, in Docket No. E-100, Sub 83, the Commission issued an order adopting net metering in North Carolina. The October 20, 2005 Order required the utilities to:

file on or before December 1 of each year ... an annual report indicating the numbers of net metering applicants and customer-generators, the aggregate capacity of net metered generation, the size and types of renewable energy facilities, the amounts of on-peak and off-peak generation credited and ultimately granted to the utility, and the reasons for any rejections or removals of customer-generators from net metering.

In Docket No. E-100, Sub 101, on March 22, 2005, the Commission issued an Order Approving in Part, Proposed Interconnection Standard. In this Order, the Commission required the utilities to:

file a report by October 1, 2005, and every six months thereafter, providing detailed information regarding (1) any interconnection requests, including the type and size of the generator, the impact on the distribution circuit, whether the proposed generator passed the Impact Screens, and the status of the interconnection request; and (2) any claims for personal injury or property damage caused by the interconnection or operation of a customer generator.

On December 27, 2005, the Commission issued an Order Approving Tariffs, Riders, and Regulations Implementing Net Metering and Consolidating Reporting Requirements in Docket Nos. E-100, Sub 83 and Sub 101. In the December 27, 2005 Order, the Commission changed the reporting requirements and consolidated the two reports. The Commission specifically ordered that utilities file a report on March 31 of each year which incorporates and consolidates the requirements of the March 22, 2005 Order in Docket No. E-100, Sub 101 and the requirements of the October 20, 2005 Order in Docket No. E-100, Sub 83 as spelled out in the two preceding paragraphs. This interconnection report is the one currently filed annually in Docket No. E-100, Sub 101A.

As stated above, the Commission agrees that a consolidated report would be beneficial to all parties. Further, the Commission agrees with the Public Staff regarding the suggested three lists to be contained in the consolidated report, as well as the suggested format for each of the lists. The suggested three lists and the information contained in each for the consolidated report are:

1. An Interconnection Application List of all applications in the utility's interconnection queue that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), application date, county and interconnection application status.

2. An Interconnection List of all generators interconnected with the utility's system in North Carolina that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), power delivery date, county and whether the facility is net metering.
3. A Purchased Power Agreement List of all facilities with which the utility has a purchased power agreement (or application) that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), energized date, tariff name(s), term (years), county and PPA application status.

The Commission further agrees with the Public Staff and the NCSEA that the consolidated filing shall contain complete lists and not merely the updates. The NC Utilities should indicate what information has been updated since the last report by italicizing, underlining, bolding, or capitalizing. The Commission further agrees with the Public Staff and the NCSEA that the NC Utilities should file the report in an electronic spreadsheet format.

The Commission does not agree with the Public Staff that the lists should be filed quarterly or with the NCSEA that the reports should be filed semiannually. The Commission agrees with the NC Utilities that it is placing additional burdens on the NC Utilities that may be more appropriately assigned to the QFs. In its reply comments, the Public Staff recognizes that the NC Utilities will have to expend time and effort to prepare such reports. Therefore, the Commission shall only require an annual filing, in March, of the consolidated report. The Commission also recognizes that the NC Utilities will be providing a service to non-utility generators. Therefore, the Commission encourages the parties to discuss whether compensation to the NC Utilities by the NUGs is appropriate in the proceeding in Docket No. E-100, Sub 101.

Based upon the fact that the NC Utilities will be filing an annual consolidated report and based upon the information available through NC-RETS, the Commission does not find any benefit in amending Rules R8-64 and R8-65 to add additional requirements at the present time. Rather, the Commission finds that maintaining the current construction progress report requirement in R8-64(e) is not useful. Therefore, the Commission finds good cause to repeal R8-64(e).

Lastly, in their reply comments the NC Utilities requested that if the Commission decides to accept any portion of the NCSEA's or Public Staff's proposals to impose reporting requirements on the utilities, the utilities should be permitted to file, as confidential, any information that they typically treat as such, subject to the execution of a Confidentiality Agreement by any party seeking access to that information. The Commission is not opposed to allowing the NC Utilities to maintain as confidential the information that they typically treat as such. However, before ruling on this issue, the Commission requests that the NC Utilities detail what types of information they typically treat as confidential in the dockets at issue in this matter.

IT IS, THEREFORE, ORDERED as follows:

1. That the NC Utilities shall file a consolidated annual report in Docket No. E-100, Sub 113B, by March 31, of each year, beginning March 31, 2015, containing three lists with the following information:

- a. An Interconnection Application List of all applications in the utility's interconnection queue that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), application date, county and interconnection application status.
- b. An Interconnection List of all generators interconnected with the utility's system in North Carolina that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), power delivery date, county and whether the facility is net metering.
- c. A Purchased Power Agreement List of all facilities with which the utility has a purchased power agreement (or application) that provides the owner's name, Commission Docket No., AC capacity (kW), fuel type(s), energized date, tariff name(s), term (years), county and PPA application status.

2. That the consolidated filing shall contain complete lists and not merely the updates, that the NC Utilities should indicate what information has been updated since the last report by either italicizing, underlining, bolding, or capitalizing, and that the NC Utilities should file the report in an electronic spreadsheet format.

3. That the consolidated filing shall contain (1) any claims for personal injury or property damage caused by the interconnection or operation of a customer-generator, and (2) any customer-generators removed or rejected from net metering and the reason for the rejection or removal.

4. That Commission Rule R8-64(e) is repealed.

5. That on or before January 26, 2015, the NC Utilities provide to the Commission more details regarding what information that they are requesting be kept confidential prior to the Commission making a determination on that issue.

ISSUED BY ORDER OF THE COMMISSION.

This the 31<sup>st</sup> day of December, 2014.

NORTH CAROLINA UTILITIES COMMISSION

*Gail L. Mount*

Gail L. Mount, Chief Clerk



**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Rulemaking Proceeding to Implement                    )       ORDER REQUESTING  
Session Law 2007-397                                    )       COMMENTS

BY THE COMMISSION: On August 12, 2015, a joint motion to modify and delay the 2015 requirements of G.S. 62-133.8(e) and (f) was filed by Duke Energy Carolinas, LLC (DEC); Duke Energy Progress, LLC (DEP); Virginia Electric and Power Company, d/b/a Dominion North Carolina Power (Dominion); GreenCo Solutions, Inc.; Public Works Commission of the City of Fayetteville; EnergyUnited Electric Membership Corporation; Halifax Electric Membership Corporation; the Tennessee Valley Authority (TVA); North Carolina Eastern Municipal Power Agency (NCEMPA); and North Carolina Municipal Power Agency Number 1 (NCMPA1) (hereinafter referred to collectively as the Joint Movants).<sup>1</sup> The Joint Movants requested that the Commission relieve them of compliance with G.S. 62-133.8(e) (Compliance With [North Carolina’s Renewable Energy and Energy Efficiency Portfolio Standard (REPS)] Requirement Through Use of Swine Waste Resources) and G.S. 62-133.8(f) (Compliance With REPS Requirement Through Use of Poultry Waste Resources) by delaying their need to comply with these requirements by one year until 2016. The joint motion further requested that the Commission allow the Joint Movants to bank any poultry and swine renewable energy certificates previously or subsequently acquired for use in future compliance years, and allow the Joint Movants to replace compliance with the poultry and swine waste requirements in 2015 with other compliance measures pursuant to G.S. 62-133.8(b), (c), and (d). The Joint Movants stated that they have individually and collectively made reasonable efforts to comply with the REPS poultry and swine waste resource provisions, and that the relief sought is in the public interest. The Joint Movants requested that the Commission consider and approve their joint motion without an evidentiary hearing.

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<sup>1</sup> DEC asserted that it is also acting in its capacity as REPS compliance aggregator for Blue Ridge Electric Membership Corporation (EMC), Rutherford EMC, the City of Dallas, Forest City, City of Concord, the Town of Highlands and the City of Kings Mountain. DEP asserted that it is also acting in its capacity as REPS compliance aggregator for the Towns of Sharpsburg, Lucama, Black Creek, and Stantonsburg, and the City of Waynesville. Dominion asserted that it is also acting in its capacity as REPS compliance aggregator for the Town of Windsor. TVA asserted that it is acting in its capacity as REPS compliance aggregator for Blue Ridge Mountain EMC, Mountain Electric Cooperative, Tri-State EMC and Murphy Electric Power Board. NCEMPA asserted that it is acting in its capacity as REPS compliance aggregator for its 32 member municipalities which are electric power suppliers. NCMPA1 asserted that it is acting in its capacity as REPS compliance aggregator for its 19 member municipalities which are electric power suppliers.

G.S. 62-133.8(i)(2) states that the Commission, in developing rules, shall:

Include a procedure to modify or delay the provisions of subsections (b), (c), (d), (e), and (f) of this section in whole or in part if the Commission determines that it is in the public interest to do so. The procedure adopted pursuant to this subdivision shall include a requirement that the electric power supplier demonstrate that it made a reasonable effort to meet the requirements set out in this section.

Commission Rule R8-67(c)(5) states:

In any year, an electric power supplier or other interested party may petition the Commission to modify or delay the provisions of G.S. 62-133.8(b), (c), (d), (e) and (f), in whole or in part. The Commission may grant such petition upon a finding that it is in the public interest to do so. If an electric power supplier is the petitioner, it shall demonstrate that it has made a reasonable effort to meet the requirements of such provisions.

The Commission finds good cause to request comments from interested parties on the Joint Movants' motion. In their comments, parties are requested to address whether the poultry waste requirement would be achievable in 2015 if it were maintained at the 2014 level. Further, the Commission finds good cause to require the Joint Movants' to verify their motion.

IT IS, THEREFORE, ORDERED as follows:

1. That interested parties are requested to file comments on the Joint Movants' August 12, 2015 motion on or before Friday, October 2, 2015.
2. That the Joint Movants shall verify their August 12, 2015 motion.
3. That the Commission will proceed as it deems appropriate after receiving comments.

ISSUED BY ORDER OF THE COMMISSION.

This the 18<sup>th</sup> day of August, 2015.

NORTH CAROLINA UTILITIES COMMISSION



Jackie Cox, Deputy Clerk

# APPENDIX 3

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 130  
DOCKET NO. EMP-44, SUB 0  
DOCKET NO. EMP-45, SUB 0  
DOCKET NO. EMP-64, SUB 0  
DOCKET NO. EMP-67, SUB 0  
DOCKET NO. SP-275, SUB 1  
DOCKET NO. SP-578, SUB 0  
DOCKET NO. SP-665, SUB 0  
DOCKET NO. SP-716, SUB 0  
DOCKET NO. SP-719, SUB 0  
DOCKET NO. SP-815, SUB 0  
DOCKET NO. SP-991, SUB 0  
DOCKET NO. SP-1022, SUB 0  
DOCKET NO. SP-1039, SUB 0  
DOCKET NO. SP-1039, SUB 2  
DOCKET NO. SP-1049, SUB 0  
DOCKET NO. SP-1060, SUB 1  
DOCKET NO. SP-1081, SUB 0  
DOCKET NO. SP-1122, SUB 0  
DOCKET NO. SP-1246, SUB 0  
DOCKET NO. SP-1278, SUB 1  
DOCKET NO. SP-1321, SUB 1  
DOCKET NO. SP-1383, SUB 1  
DOCKET NO. SP-1399, SUB 1  
DOCKET NO. SP-1454, SUB 3  
DOCKET NO. SP-1490, SUB 1  
DOCKET NO. SP-1550, SUB 0  
DOCKET NO. SP-1652, SUB 0  
DOCKET NO. SP-1665, SUB 0  
DOCKET NO. SP-1676, SUB 0  
DOCKET NO. SP-1690, SUB 0  
DOCKET NO. SP-1706, SUB 1  
DOCKET NO. SP-1708, SUB 0  
DOCKET NO. SP-1723, SUB 1  
DOCKET NO. SP-1724, SUB 1  
DOCKET NO. SP-1725, SUB 1  
DOCKET NO. SP-1740, SUB 1  
DOCKET NO. SP-1770, SUB 0  
DOCKET NO. SP-1793, SUB 1  
DOCKET NO. SP-1810, SUB 0  
DOCKET NO. SP-2001, SUB 3  
DOCKET NO. SP-2001, SUB 4

DOCKET NO. SP-2001, SUB 5  
DOCKET NO. SP-2041, SUB 0  
DOCKET NO. SP-2119, SUB 0  
DOCKET NO. SP-2185, SUB 0  
DOCKET NO. SP-2211, SUB 0  
DOCKET NO. SP-2220, SUB 0  
DOCKET NO. SP-2283, SUB 0  
DOCKET NO. SP-2320, SUB 0  
DOCKET NO. SP-2322, SUB 0  
DOCKET NO. SP-2350, SUB 0  
DOCKET NO. SP-2351, SUB 0  
DOCKET NO. SP-2354, SUB 0  
DOCKET NO. SP-2378, SUB 0  
DOCKET NO. SP-2430, SUB 0  
DOCKET NO. SP-2606, SUB 1  
DOCKET NO. SP-2635, SUB 0  
DOCKET NO. SP-2816, SUB 0  
DOCKET NO. SP-2875, SUB 0  
DOCKET NO. SP-2899, SUB 0  
DOCKET NO. SP-2910, SUB 3  
DOCKET NO. SP-2951, SUB 0  
DOCKET NO. SP-3050, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

|   |   |                              |
|---|---|------------------------------|
| In the Matter of                        | ) |                              |
| Revocation of Registration of Renewable | ) | ORDER REVOKING REGISTRATION  |
| Energy Facilities and New Renewable     | ) | OF RENEWABLE ENERGY          |
| Energy Facilities Pursuant to           | ) | FACILITIES AND NEW RENEWABLE |
| Rule R8-66(f) – 2014                    | ) | ENERGY FACILITIES            |

BY THE COMMISSION: On September 9, 2014, the Commission issued an Order giving notice of its intent to revoke the registration of 191 new and renewable energy facilities because their owners had not completed or filed the annual certifications required each April 1 as detailed in Commission Rule R8-66(b). According to Commission records, and records maintained in North Carolina Renewable Energy Tracking System (NC-RETS), the owners of the 63 new and renewable energy facilities listed in Appendices A and B did not complete their annual certifications on or before October 15, 2014, as required by the Commission’s September 9, 2014 Order, nor has an annual certification been completed for these facilities as of the date of this Order.

The Commission, therefore, finds good cause to revoke the registrations for the 63 facilities listed in Appendices A and B effective October 15, 2014.

IT IS, THEREFORE, ORDERED as follows:

1. That the registrations previously approved by the Commission for the 63 facilities listed in Appendices A and B shall be, and are hereby, revoked effective October 1, 2013.

2. That the NC-RETS Administrator shall not allow the owners of the facilities listed in Appendices A and B to establish those facilities as “projects” in NC-RETS.

3. That the NC-RETS Administrator shall not allow any NC-RETS account holder to import from the facilities listed in Appendices A and B renewable energy certificates (RECs) that are dated October 2014 or later.

4. That any RECs dated October 2014 or later earned by one of the facilities listed in Appendices A and B whose registration has been revoked pursuant to this Order are ineligible to be used by an electric power supplier for compliance with the Renewable Energy and Energy Efficiency Portfolio Standard.

5. That in the future, should the owner of a facility whose registration has been revoked pursuant to this Order wish to have the energy output from its facility become eligible for compliance with the Renewable Energy and Energy Efficiency Portfolio Standard, the owner must again register the facility with the Commission.

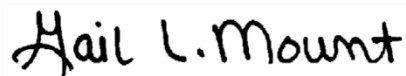
6. That the Administrator of NC-RETS shall post a copy of this Order on the home page of the NC-RETS web site.

7. That the Chief Clerk shall serve a copy of this Order on all of the parties in Docket No. E-100, Sub 113.

ISSUED BY ORDER OF THE COMMISSION.

This the 19<sup>th</sup> day of November 2014.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink that reads "Gail L. Mount". The signature is written in a cursive, slightly slanted style.

Gail L. Mount, Chief Clerk

Revocation of Registered Facilities  
(*NC-RETS Participants*)

| <b>Docket Number</b> | <b>Facility Owner</b>                    | <b>State</b> |
|----------------------|--|--------------|
| SP-716 Sub 0         | ABCZ Solar, LLC                          | NC           |
| SP-1060, Sub 1       | Friendship Renewable Energy Project, LLC | NC           |
| SP-1652, Sub 0       | Rock Solar Energy Plant, LLC             | NC           |

| Revocation of Registered Facilities<br>(Non NC-RETS Participants) |  |       |
|---|--|-------|
| Docket Number   | Facility Owner                             | State |
| EMP-44, Sub 0   | Moraine Wind, LLC                          | MN    |
| EMP-45, Sub 0   | MinnDakota Wind, LLC                       | MN    |
| EMP-64, Sub 0   | New Harvest Wind Project, LLC              | IA    |
| EMP-67, Sub 0   | South Chestnut, LLC                        | PA    |
| SP-1022, Sub 0  | Sun Edison SD, LLC                         | CA    |
| SP-1049, Sub 0  | Green Energy Partners, LLC                 | GA    |
| SP-1770, Sub 0  | Emm; Thomas A.                             | PA    |
| SP-578, Sub 0   | Green Energy Solutions NV, Inc.            | SC    |
| SP-275, Sub 1   | Holt Family Farm Power; Jefferson Holt dba | NC    |
| SP-665, Sub 0   | Semprius, Inc.                             | NC    |
| SP-719, Sub 0   | Sunstruck Energy, LLC                      | NC    |
| SP-815, Sub 0   | Jamie & Amy Ager                           | NC    |
| SP-991, Sub 0   | MP Wilson, LLC                             | NC    |
| SP-1039, Sub 0  | New World Renewable Energy Leasing, Inc.   | NC    |
| SP-1039, Sub 2  | New World Renewable Energy Leasing, Inc.   | NC    |
| SP-1081, Sub 0  | McDowell Green Energy, LLC                 | NC    |
| SP-1122, Sub 0  | NC-CHP Owner I, LLC                        | NC    |
| SP-1246, Sub 0  | Coutu; Stephen and AJ                      | NC    |
| SP-1278, Sub 1  | Altadore Investments LLC                   | NC    |
| SP-1321, Sub 1  | Due; Steven A.                             | NC    |
| SP-1383, Sub 1  | Morrissey; Michael T.                      | NC    |
| SP-1399, Sub 1  | Innovative Solar Systems 1, LLC            | NC    |
| SP-1454, Sub 3  | City of Charlotte                          | NC    |
| SP-1490, Sub 1  | North Kannapolis Baptist Church            | NC    |
| SP-1550, Sub 0  | Pierre & Nancy Burke                       | NC    |
| SP-1665, Sub 0  | Neuse River Solar Farm II, LLC             | NC    |
| SP-1676, Sub 0  | Airport Ground Solar 1, LLC                | NC    |
| SP-1690, Sub 0  | Solar Specialization & Technologies, LLC   | NC    |
| SP-1706, Sub 1  | Innovative Solar 3, LLC                    | NC    |
| SP-1708, Sub 0  | Highland Brewing Solar, LLC                | NC    |
| SP-1723, Sub 1  | Innovative Solar 2, LLC                    | NC    |
| SP-1724, Sub 1  | Innovative Solar 6, LLC                    | NC    |
| SP-1725, Sub 1  | Innovative Solar 7, LLC                    | NC    |
| SP-1740, Sub 1  | Frame; Darrell                             | NC    |



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|----------------|--|----|
| SP-1793, Sub 1 | Innovative Solar 4, LLC                      | NC |
| SP-1810, Sub 0 | Sanford Solar, LLC                           | NC |
| SP-2001, Sub 3 | Energy United EMC                            | NC |
| SP-2001, Sub 4 | Energy United EMC                            | NC |
| SP-2001, Sub 5 | Energy United EMC                            | NC |
| SP-2041, Sub 0 | Mount Olive Solar, LLC                       | NC |
| SP-2119, Sub 0 | John I Howell, III                           | NC |
| SP-2185, Sub 0 | Southeastern Freight Lines, Inc.             | NC |
| SP-2211, Sub 0 | Chinquapin Solar, LLC                        | NC |
| SP-2220, Sub 0 | Kevin Dougherty                              | NC |
| SP-2283, Sub 0 | Derrell Harman                               | NC |
| SP-2320, Sub 0 | Michael Patrick Rooney                       | NC |
| SP-2322, Sub 0 | Pine Street Solar, LLC                       | NC |
| SP-2350, Sub 0 | Radiant Solar at Pumpkin Patch Mountain, LLC | NC |
| SP-2351, Sub 0 | Radiant Solar at Sharp Top, LLC              | NC |
| SP-2354, Sub 0 | West Wayne Solar, LLC                        | NC |
| SP-2378, Sub 0 | James & Julia Barham                         | NC |
| SP-2430, Sub 0 | Karl Vondracek                               | NC |
| SP-2606, Sub 1 | Sean Adams                                   | NC |
| SP-2635, Sub 0 | Lawrence M Papula                            | NC |
| SP-2816, Sub 0 | Mark Rufty                                   | NC |
| SP-2875, Sub 0 | Terry Rushing                                | NC |
| SP-2899, Sub 0 | Sara Lavelle                                 | NC |
| SP-2910, Sub 3 | SOLNCPower1, LLC                             | NC |
| SP-2951, Sub 0 | Sam Huang                                    | NC |
| SP-3050, Sub 0 | Admark Graphic Systems, Inc.                 | NC |



increased the steam flow through the turbine from renewable resources from 850 MMBtu/hr to 968 MMBtu/hr, a 118.1 MMBtu/hr increase. These increases in capacity represent 22.1% of the projected electric generation and 12.2% of the projected thermal generation from the Facility. Weyerhaeuser requested that the Commission issue an Order accepting the registration of this incremental electric and thermal capacity as a “new” renewable energy facility.

On March 27, 2015, the Public Staff filed the recommendation required by Commission Rule R8-66(e) stating that Weyerhaeuser’s registration statement should be considered to be complete. The Public Staff recommended that “the Commission consider the Facility as a new renewable energy facility only to the extent that the electrical and thermal capacity of the Facility to generate from renewable energy resources as a result of the retrofit exceeds the electric and thermal capacity of the Facility prior to the retrofit.” Specifically, the Public Staff recommended that the Commission:

- (a) Accept the Weyerhaeuser facility as a new renewable energy facility following the completion of its retrofit on April 26, 2014, but only to the extent that the electrical and thermal capacity of the Facility to generate from renewable energy resources as a result of the retrofit exceeds the electric and thermal capacity of the Facility prior to the retrofit. The new renewable portion of the electricity produced will be 22.1% of the electric energy produced and the new renewable portion of the thermal energy produced will be 12.2% of the thermal energy produced post retrofit. The remaining electrical and thermal energy output of the Facility from renewable energy resources should be considered as being generated from an existing renewable energy facility.
- (b) Authorize Weyerhaeuser to enter appropriate historic energy production data in NC-RETS for REC issuance purposes related to RECs generated from both the new renewable energy and existing renewable energy portions of the facility for the time period from April 26, 2014 until the present.
- (c) Direct the NC-RETS Administrator to consider 22.1% of the electric energy and 12.2% of the thermal energy produced from renewable energy resources since Weyerhaeuser completed the retrofit on April 26, 2014, as having been produced by a new renewable energy facility, with the remaining electrical and thermal energy output of the Facility from renewable energy resources be considered as being generated from an existing renewable energy facility.

## DISCUSSION AND CONCLUSIONS

In its June 18, 2013 Order, the Commission identified the relevant issue as “whether Weyerhaeuser’s newly renovated facility should be classified as a renewable or a new renewable energy facility.” The Commission reviewed the relevant precedent and determined that Weyerhaeuser’s retrofitted facility

was capable of generating electricity from a renewable energy resource prior to the retrofit. Additionally, in contrast to the Commission’s Order on incremental hydroelectric capacity, Weyerhaeuser’s retrofit did not add additional capacity through the addition of a new boiler, but rather extended the useful life and increased the efficiency of an existing facility already capable of using a renewable energy resource prior to January 1, 2007.

The matter at hand is distinguished from Weyerhaeuser’s original registration request in that the retrofit under consideration has added additional capacity, rather than only extending the useful life and increasing overall plant efficiency. As the relevant issue is the registration of added capacity, not the retrofit of the entire facility, the Commission need not apply the standard established in the Commission’s July 5, 2011 Order, issued in Docket No. SP-100, Sub 9 and Docket No. SP-976, Sub 0, and applied to Weyerhaeuser’s prior retrofit in the Commission’s June 18, 2013 Order. Rather, the relevant precedent is the Commission’s June 7, 2009 Order in Docket No. E-100, Sub 113, addressing capacity additions with respect to increments of additional hydroelectric power placed into service on or after January 1, 2007. The Commission determined that such additions shall be considered a “new” renewable energy facility. The Commission agrees with Weyerhaeuser and the Public Staff that the matter at hand is analogous to the hydroelectric additions discussed in the Docket No. E-100, Sub 113 Order.

Weyerhaeuser’s retrofit added an additional 8.4 MW<sub>AC</sub> of electric generating capacity (a 22.1% increase) and increased the steam flow through the turbine from renewable resources by 118.1 MMBtu/hr (a 12.2% increase). Therefore, consistent with previous Commission orders, the Commission concludes that the incremental capacity of Weyerhaeuser’s renovated CHP system, added subsequent to January 1, 2007, is a “new” renewable energy facility pursuant to G.S. 62-133.8(a)(7). Having concluded that spent pulping liquors are a renewable energy resource as defined by G.S. 62-133.8(a)(8), the Commission concludes that the incremental capacity additions to the Weyerhaeuser facility qualify as, and should be registered as, a new renewable energy facility pursuant to G.S. 62-133.8(a)(7) and Commission Rule R8-66. Pursuant to Commission Rule R8-67(d)(2), if the facility uses both renewable energy resources and nonrenewable energy resources to produce energy, the facility shall earn RECs based only upon the energy derived from renewable energy resources in proportion to the relative energy content of the fuels used.

Weyerhaeuser shall register a new project for the incremental portion in NC-RETS to facilitate the issuance of RECs, with 22.1% of the facility’s electric

generation and 12.2% of the facility's thermal generation reported for the new project and the remainder for the existing project. Finally, with regard to the Public Staff's recommendation that Weyerhaeuser be permitted to enter historic generation for the time period from April 26, 2014, until the present, the Commission notes that Commission Rule R8-67(h)(4) states that "facilities registered in NC-RETS may only enter historic energy production data for REC issuance that goes back two years from the current date." Thus, Weyerhaeuser's newly registered incremental capacity addition, which became operational on April 26, 2014, falls well within this already established time range.

IT IS, THEREFORE, ORDERED as follows:

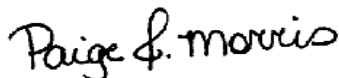
1. That the registration by Weyerhaeuser for its incremental capacity additions of 8.4 MW<sub>AC</sub> and 118.1 MMBtu/hr at its biomass-fueled CHP system facility located in Vanceboro in Craven County, North Carolina, as a new renewable energy facility shall be, and is hereby, accepted.

2. That Weyerhaeuser shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year.

ISSUED BY ORDER OF THE COMMISSION.

This the 21<sup>st</sup> day of July, 2015.

NORTH CAROLINA UTILITIES COMMISSION



Paige J. Morris, Deputy Clerk

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 130

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Revocation of Registration of Renewable Energy Facilities and New Renewable Energy Facilities Pursuant to Rule R8-66(f) - 2015 ) ORDER GIVING NOTICE OF INTENT TO REVOKE REGISTRATION OF RENEWABLE ENERGY FACILITIES AND NEW RENEWABLE ENERGY FACILITIES

BY THE COMMISSION: Pursuant to Commission Rule R8-66(b), for renewable energy certificates (RECs) earned by a facility to be eligible for use by an electric power supplier in North Carolina for compliance with the Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the owner of the facility shall register it with the Commission as a renewable energy facility or new renewable energy facility and is thereafter required to file an annual certification. Each Commission order approving the registration of a renewable energy facility or new renewable energy facility states that the owner of the facility shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year. Specifically, Commission Rule R8-66(b)(7) states that annual certifications are due April 1 of each year, and that owners of facilities that are registered as projects in the North Carolina Renewable Energy Tracking System (NC-RETS) may complete their annual certification electronically via the NC-RETS system. Pursuant to Commission Rule R8-66(f), failure to file an annual certification may result in the revocation of a facility's registration.

According to records maintained in NC-RETS, 44 renewable energy facilities and/or new renewable energy facilities registered in NC-RETS (listed in Appendix A of this Order) have not completed the on-line annual certification that was due April 1, 2015. In addition, 189 renewable energy facilities and/or new renewable energy facilities that are registered with the Commission but that are not registered as projects in NC-RETS (listed in Appendix B of this Order) have not filed with the Commission the annual certification that was due April 1, 2015.

The Commission finds good cause to notice its intent to revoke, as of October 1, 2015, the registration of any facility listed in Appendix A of this Order, unless the owner of the facility completes the on-line certification on or before that date. Further, the Commission finds good cause to notice its intent to revoke, as of October 1, 2015, the registration of any facility listed in Appendix B of this Order, unless the owner of the facility files the verified certification required by Rule R8-66(b) (attached as Appendix C of this Order) on or before that date. Finally, the Commission concludes that it is appropriate to waive the 2015 annual certification requirement in Rule R8-66(b)

for recently-registered facilities that received orders approving registration after January 1, 2015.

IT IS, THEREFORE, ORDERED as follows:

1. That the Commission shall issue orders revoking the registration of any renewable energy facilities and/or new renewable energy facilities listed in Appendix A as of October 1, 2015, unless the owner of the facility completes the on-line certification required by Rule R8-66(b) on or before that date.

2. That the Commission shall issue orders revoking the registration of any renewable energy facility and/or new renewable energy facility listed in Appendix B as of October 1, 2015, unless the owner of the facility files the verified certification required by Rule R8-66(b) (attached as Appendix C of this Order) on or before that date.

3. That the NC-RETS Administrator shall not import any RECs from a renewable energy facility or new renewable energy facility listed in Appendix B until the owner of the facility has filed with the Commission the certification required by Rule R8-66(b) and this Order.

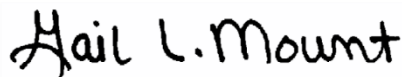
4. That the Chief Clerk shall serve a copy of this Order on the owner of each facility listed in Appendices A and B by certified mail, return receipt requested.

5. That the Chief Clerk shall distribute a copy of this Order to all of the parties in Docket No. E-100, Sub 113.

ISSUED BY ORDER OF THE COMMISSION.

This the 12<sup>th</sup> day of August, 2015.

NORTH CAROLINA UTILITIES COMMISSION



Gail L. Mount, Chief Clerk

Chairman Edward S. Finley, Jr., did not participate in this decision.

| Registered Facilities Pending Revocation<br>(NC-RETS Participants) |  |       |
|--|--|-------|
| Docket Number  | Facility Owner                               | State |
| E-37 Sub 1   | Lake Lure; Town of                           | NC    |
| RET-10 Sub 0   | North Mecklenburg Aquatics                   | NC    |
| SP-137 Sub 2   | Mayo Hydropower, LLC                         | NC    |
| SP-278 Sub 1   | Tennis; Dexter L. Morris and Patricia        | NC    |
| SP-362 Sub 3   | QVC, Inc.                                    | NC    |
| SP-379 Sub 1   | Honeycutt: Travis CB Honeycutt and Andrea LB | NC    |
| SP-404 Sub 0   | Landfair Farms, LLC                          | NC    |
| SP-445 Sub 0   | Inman Mills                                  | NC    |
| SP-628 Sub 2   | Reily; Kevin                                 | NC    |
| SP-629 Sub 2   | Kunal Thakkar, LLC                           | NC    |
| SP-630 Sub 2   | Triangle Realty Investment, LLC              | NC    |
| SP-630 Sub 4   | Triangle Realty Investment, LLC              | NC    |
| SP-630 Sub 6   | Triangle Realty Investment, LLC              | NC    |
| SP-630 Sub 9   | Triangle Realty Investment, LLC              | NC    |
| SP-630 Sub 10  | Triangle Realty Investment, LLC              | NC    |
| SP-631 Sub 2   | Jewels Realty Investment, LLC                | NC    |
| SP-631 Sub 4   | Jewels Realty Investment, LLC                | NC    |
| SP-631 Sub 6   | Jewels Realty Investment, LLC                | NC    |
| SP-883 Sub 0   | Powers; Ronnie                               | NC    |
| SP-898 Sub 1   | Shree Dutt SAI, LLC                          | NC    |
| SP-930 Sub 2   | Vandewouw; Dave                              | NC    |
| SP-930 Sub 5   | Vandewouw; Dave                              | NC    |
| SP-930 Sub 6   | Vandewouw; Dave                              | NC    |
| SP-976 Sub 1   | Yao; Hong SHI & Chengwei                     | NC    |
| SP-977 Sub 1   | Patel; Asmita K. & Kaushik                   | NC    |
| SP-1015 Sub 1  | Commonwealth Brands, Inc.                    | NC    |
| SP-1084 Sub 0  | Dairy Dixon Road, LLC                        | NC    |
| SP-1275 Sub 2  | Waller; Steven                               | NC    |
| SP-1275 Sub 4  | Waller; Steven                               | NC    |



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|---------------|--|----|
| SP-1287 Sub 1 | Barber; Peter                          | NC |
| SP-1520 Sub 1 | Information Analytics Consulting, Inc. | NC |
| SP-1520 Sub 3 | Information Analytics Consulting, Inc  | NC |
| SP-1521 Sub 1 | Yin Yin                                | NC |
| SP-1522 Sub 1 | Plutusmax, LLC                         | NC |
| SP-1522 Sub 3 | Plutusmax, LLC                         | NC |
| SP-1538 Sub 1 | Farrelly; Eugene M. and Amber R.J.     | NC |
| SP-1539 Sub 1 | Lui; Kejun                             | NC |
| SP-1580 Sub 1 | Kamath; Rajeev V.                      | NC |
| SP-1582 Sub 1 | Bamboo Stone Properties, LLC           | NC |
| SP-1582 Sub 3 | Bamboo Stone Properties, LLC           | NC |
| SP-2397 Sub 1 | Patel; Snehalkumar V.                  | NC |
| SP-2470 Sub 1 | Flying Dragon, LLC                     | NC |
| SP-3231 Sub 1 | Flippini; David                        | NC |
| SP-3277 Sub 1 | McFarland Septic, LLC                  | NC |

| Registered Facilities Pending Revocation<br>(Non NC-RETS Participants) |  |       |
|--|--|-------|
| Docket Number  | Facility Owner                           | State |
| SP-1082 Sub 0  | GCL Eastside, LLC                        | CA    |
| SP-1175 Sub 0  | GCL Highland, LLC                        | CA    |
| SP-1176 Sub 0  | GCL Antelope Valley, LLC                 | CA    |
| SP-1177, Sub 0   | GCL AV Adult, LLC                        | CA    |
| SP-1179 Sub 0  | GCL Lancaster, LLC                       | CA    |
| SP-1180, Sub 0   | GCL Quartz Hill, LLC                     | CA    |
| SP-1181 Sub 0  | GCL Palmdale, LLC                        | CA    |
| SP-1182 Sub 0  | GCL Little Rock, LLC                     | CA    |
| SP-1183 Sub 0  | GCL Desert Winds, LLC                    | CA    |
| SP-1184 Sub 0  | GCL Knight, LLC                          | CA    |
| SP-674 Sub 0   | Exelon Solar Chicago, LLC                | IL    |
| EMP-50 Sub 0   | Streator-Cayuga Ridge Wind Power, LLC    | IL    |
| EMP-40 Sub 0   | Barton Windpower, LLC                    | IA    |
| EMP-33 Sub 0   | Smoky Hills Wind Project II, LLC         | KS    |
| EMP-39 Sub 0   | Smoky Hills Wind Farm, LLC.              | KS    |
| SP-1616 Sub 0  | Ecocorp Inc.                             | MD    |
| SP-3229 Sub 0  | Scenic View Dairy, LLC                   | MI    |
| EMP-51 Sub 0   | Elm Creek Wind II, LLC                   | MN    |
| SP-1506 Sub 0  | Fibrominn                                | MN    |
| EMP-35 Sub 0   | Farmers City Wind, LLC                   | MO    |
| EMP-14 Sub 1   | Industrial Power Generating Company, LLC | NC    |
| EMP-49 Sub 0   | Atlantic Wind, LLC                       | NC    |
| RET-8 Sub 5  | FLS Owner II, LLC                        | NC    |
| RET-8 Sub 10   | FLS Owner II, LLC                        | NC    |
| RET-27 Sub 0   | Gaston County Schools                    | NC    |
| RET-35 Sub 0   | Midtown Development Associates, LLC      | NC    |
| SP-203 Sub 1   | Aquesta Bank                             | NC    |
| SP-203 Sub 2   | Aquesta Bank                             | NC    |
| SP-265 Sub 1   | Jenkins; William Thomas                  | NC    |
| SP-393 Sub 1   | United Therapeutics Corporation          | NC    |
| SP-405 Sub 1   | Potluck Power Company                    | NC    |
| SP-432 Sub 3   | Madison County Public Schools            | NC    |
| SP-432 Sub 4   | Madison County Public Schools            | NC    |
| SP-482 Sub 1   | Raylen Vineyards, Onc.                   | NC    |

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|----------------|---|----|
| SP-605 Sub 1   | Samuel B. Moore                                   | NC |
| SP-605 Sub 3   | Samuel B. Moore                                   | NC |
| SP-677 Sub 0   | Renewable Energy Business Group, Inc.             | NC |
| SP-779 Sub 0   | Grandfather Mountain Stewardship Foundation, Inc. | NC |
| SP-804 Sub 1   | 510 REPP One, LLC                                 | NC |
| SP-833 Sub 0   | Tony Smith  | NC |
| SP-833 Sub 1   | Tony Smith  | NC |
| SP-844 Sub 1   | Tropical Nut & Fruit Co.                          | NC |
| SP-895 Sub 1   | Asheville Alternative Energy, LLC                 | NC |
| SP-931 Sub 1   | White Owl Woods Farm, LLC                         | NC |
| SP-967 Sub 0   | Raleigh Steam Producers, LLC                      | NC |
| SP-1012 Sub 0  | Public Library of Charlotte & Mecklenburg County  | NC |
| SP-1104 Sub 0  | RES Ag-Melville 2, LLC                            | NC |
| SP-1105 Sub 0  | RES AG-DM 3-3, LLC                                | NC |
| SP-1108 Sub 4  | North Carolina Renewable Energy, LLC              | NC |
| SP-1108 Sub 5  | North Carolina Renewable Energy, LLC              | NC |
| SP-1108 Sub 6  | North Carolina Renewable Energy, LLC              | NC |
| SP-1221 Sub 0  | RES Ag-DM 101, LLC                                | NC |
| SP-1308 Sub 1  | Effect Energy, Inc                                | NC |
| SP-1375 Sub 0  | Wright of Thomasville                             | NC |
| SP-1377 Sub 0  | FLS Solar 60, LLC                                 | NC |
| SP-1393 Sub 1  | Mountain Heritage Expo Center, LLC                | NC |
| SP-1413 Sub 2  | Kazmer; Paul                                      | NC |
| SP-1518 Sub 0  | Great Train Robbery Solar Plant, LLC              | NC |
| SP-1519 Sub 0  | ADDCO Solar Plant, LLC                            | NC |
| SP-1565 Sub 11 | ESA Renewables IV, LLC                            | NC |
| SP-1623 Sub 0  | North Cargo Building, LLC                         | NC |
| SP-1635 Sub 0  | Vale Farm, LLC                                    | NC |
| SP-1754 Sub 0  | Alamance Community College                        | NC |
| SP-1765 Sub 1  | Trenton Farm 2, LLC                               | NC |
| SP-1794 Sub 1  | Innovative Solar 9, LLC                           | NC |
| SP-1795 Sub 1  | Innovative Solar 8, LLC                           | NC |
| SP-1846 Sub 1  | Trenton Farm, LLC                                 | NC |
| SP-1942 Sub 0  | Buffalo Ridge I, LLC                              | NC |
| SP-2061 Sub 0  | Sophie Solar, LLC                                 | NC |
| SP-2068 Sub 1  | All States Medical Supply, Inc.                   | NC |
| SP-2092 Sub 0  | Sylvester; Rick                                   | NC |
| SP-2094 Sub 1  | Town of Cary                                      | NC |
| SP-2104, Sub 0 | Hoffman and Hoffman, Inc.                         | NC |

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|---------------|-----------------------------|----|
| SP-2152 Sub 1 | Innovative Solar 12, LLC    | NC |
| SP-2164 Sub 0 | Wake Solar, LLC             | NC |
| SP-2170 Sub 1 | Irwin Funderburk            | NC |
| SP-2218 Sub 0 | Audrey Solar, LLC           | NC |
| SP-2222 Sub 1 | Tyson Furniture             | NC |
| SP-2224 Sub 0 | Alesia & Perry Dickerson    | NC |
| SP-2239 Sub 0 | TelExpress, Inc.            | NC |
| SP-2239 Sub 1 | TelExpress, Inc.            | NC |
| SP-2290 Sub 0 | Broadway Solar Center, LLC  | NC |
| SP-2298 Sub 0 | Sampson Solar, LLC          | NC |
| SP-2342 Sub 0 | Adventure Solar, LLC        | NC |
| SP-2371 Sub 0 | Red Springs Farm, LLC       | NC |
| SP-2373 Sub 0 | Wagstaff Farm 2, LLC        | NC |
| SP-2401 Sub 1 | Tier One Solar, LLC         | NC |
| SP-2413 Sub 0 | Pitt Electric, Inc.         | NC |
| SP-2423 Sub 1 | Innovative Solar II, LLC    | NC |
| SP-2431 Sub 0 | FLS Solar 220, LLC          | NC |
| SP-2443 Sub 0 | Carthage Farm, LLC          | NC |
| SP-2444 Sub 0 | Greenville Farm, LLC        | NC |
| SP-2453 Sub 0 | Montgomery Solar, LLC       | NC |
| SP-2484 Sub 1 | Lily; Richard               | NC |
| SP-2485 Sub 0 | FLS Solar 140, LLC          | NC |
| SP-2524 Sub 0 | Amethyst Solar, LLC         | NC |
| SP-2538 Sub 1 | Bethel Solar, LLC           | NC |
| SP-2573 Sub 0 | Star Solar, LLC             | NC |
| SP-2576 Sub 1 | John Mayfield               | NC |
| SP-2704 Sub 0 | Webb Solar Farm, LLC        | NC |
| SP-2705 Sub 0 | Whiteheart Farm, LLC        | NC |
| SP-2707 Sub 0 | Dunlap Farm, LLC            | NC |
| SP-2708 Sub 0 | Enfield Farm, LLC           | NC |
| SP-2710 Sub 0 | Goldengate Farm, LLC        | NC |
| SP-2711 Sub 0 | Monroe Farm, LLC            | NC |
| SP-2712 Sub 0 | Goldivey Farm, LLC          | NC |
| SP-2715 Sub 0 | Myrick Farm, LLC            | NC |
| SP-2720 Sub 0 | Peanut Farm, LLC            | NC |
| SP-2721 Sub 0 | Redding Solar Farm, LLC     | NC |
| SP-2722 Sub 0 | Rutherford Farm, LLC        | NC |
| SP-2741 Sub 1 | Bladenboro Solar, LLC       | NC |
| SP-2786 Sub 0 | Neisler Street Solar I, LLC | NC |

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|---------------|--------------------------------|----|
| SP-2871 Sub 0 | 349 Cayuga, LLC                | NC |
| SP-2887 Sub 0 | HXOap Solar One, LLC           | NC |
| SP-2893 Sub 0 | Dobbins Mill Farm, LLC         | NC |
| SP-2894 Sub 0 | Greenville Farm 2, LLC         | NC |
| SP-2895 Sub 0 | Mayodan Farm, LLC              | NC |
| SP-2896 Sub 0 | Ostrich Farm, LLC              | NC |
| SP-2900 Sub 0 | Wiggins Mill Farm, LLC         | NC |
| SP-2922 Sub 0 | Elroy Farm, LLC                | NC |
| SP-2924 Sub 0 | Sunfish Farm, LLC              | NC |
| SP-2972 Sub 0 | Wall Solar Farm, LLC           | NC |
| SP-2990 Sub 0 | Eubanks Solar Farm, LLC        | NC |
| SP-3024 Sub 0 | Parmele Farm, LLC              | NC |
| SP-3026 Sub 0 | Sandy Ridge Solar Farm, LLC    | NC |
| SP-3062 Sub 0 | Coastal Beverage Company, Inc. | NC |
| SP-3074 Sub 0 | Nichols; Patricia              | NC |
| SP-3096 Sub 0 | McBride Place Energy, LLC      | NC |
| SP-3103 Sub 0 | Pinewood Solar Center, LLC     | NC |
| SP-3105 Sub 0 | Tower Solar Center, LLC        | NC |
| SP-3107 Sub 0 | Highland Solar Center, LLC     | NC |
| SP-3109 Sub 0 | Industrial Centers, LLC        | NC |
| SP-3116 Sub 1 | Cooley; Wayne                  | NC |
| SP-3168 Sub 0 | South Winston Farm, LLC        | NC |
| SP-3176 Sub 0 | ESA Benson Solar NC, LLC       | NC |
| SP-3181 Sub 0 | Gantt Farm, LLC                | NC |
| SP-3189 Sub 1 | Windsor Cooper Hill Solar, LLC | NC |
| SP-3190 Sub 0 | Bethel Price Solar, LLC        | NC |
| SP-3201 Sub 0 | Gates Solar, LLC               | NC |
| SP-3225 Sub 0 | Bunch Solar Farm, LLC          | NC |
| SP-3239 Sub 0 | Edgecomb Mercer Farm, LLC      | NC |
| SP-3241 Sub 0 | Sun-Power Systems, Inc.        | NC |
| SP-3253 Sub 1 | Johnson Breeders, Inc.         | NC |
| SP-3255 Sub 0 | Raody Lane Farm, LLC           | NC |
| SP-3284 Sub 0 | Battleboro Farm, LLC           | NC |
| SP-3380 Sub 0 | Berkeley Farm, LLC             | NC |
| SP-3414 Sub 0 | Bethel Farm, LLC               | NC |
| SP-3436 Sub 0 | Kim Solar, LLC                 | NC |
| SP-3444 Sub 0 | Tarboro Farm, LLC              | NC |
| SP-3450 Sub 0 | British Farm, LLC              | NC |
| SP-3453 Sub 0 | Kempter; Brian                 | NC |

|               |                                 |    |
|---------------|---------------------------------|----|
| SP-3468 Sub 0 | RayLen Vineyards Solar, LLC     | NC |
| SP-3492 Sub 0 | Stoneville Farm, LLC            | NC |
| SP-3512 Sub 0 | TWE Creswell Solar Project, LLC | NC |
| SP-3520 Sub 0 | Chambless; David                | NC |
| SP-3523 Sub 0 | Parker; Leon                    | NC |
| SP-3550 Sub 0 | Harvest Beulaville, LLC         | NC |
| SP-3606 Sub 0 | Battleboro Dolar, LLC           | NC |
| SP-3619 Sub 0 | Innovative Solar 40, LLC        | NC |
| SP-3666 Sub 0 | North Siler Farm, LLC           | NC |
| SP-3673 Sub 0 | Pit 64 Farm, LLC                | NC |
| SP-3687 Sub 0 | Innovative Solar 53, LLC        | NC |
| SP-3688 Sub 0 | Innovative Solar 54, LLC        | NC |
| SP-3689 Sub 0 | Innovative Solar 67, LLC        | NC |
| SP-3690 Sub 0 | Innovative Solar 68, LLC        | NC |
| SP-3717 Sub 0 | SolNCPower5, LLC                | NC |
| SP-3833 Sub 0 | TWE Ahoskie Solar Project, LLC  | NC |
| SP-3880 Sub 0 | Estes Express Lines, Inc.       | NC |
| SP-3897 Sub 0 | Innovative Solar 69, LLC        | NC |
| SP-3898 Sub 0 | Innovative solar 71, LLC        | NC |
| SP-3899 Sub 0 | Innovative Solar 72, LLC        | NC |
| SP-4001 Sub 0 | Harvest Solar, LLC              | NC |
| SP-4005 Sub 0 | Davidson Solar, LLC             | NC |
| SP-4024 Sub 0 | North Selma Solar, LLC          | NC |
| SP-4092 Sub 0 | Wilkesboro Hydrpower, LLC       | NC |
| SP-4131 Sub 0 | Hoffland Environmental, Inc     | NC |
| SP-4132 Sub 0 | SolNCPower3, LLC                | NC |
| SP-4305 Sub 0 | Colonial Eagle Solar, LLC       | NC |
| SP-4410 Sub 0 | Yadkinville Solar, LLC          | NC |
| SP-4667 Sub 0 | Railroad Soalr Farm, LLC        | NC |
| EMP-36 Sub 0  | Rugby Wind LLC                  | ND |
| SP-2795 Sub 0 | Ampersand Mt. Ida Hydro, LLC    | NY |
| EMP-66 Sub 0  | Blue Creek Wind Farm, LLC       | OH |
| SP-1336 Sub 0 | Wisniewski; Raymond             | PA |
| EMP-41 Sub 0  | Buffalo Ridge II, LLC           | SD |
| EMP-31 Sub 0  | Barton Chapel Wind Farm         | TX |
| EMP-32 Sub 0  | Penascal Wind Power, LLC        | TX |
| EMP-34 Sub 0  | Penascal II Wind Project, LLC   | TX |
| SP-2802 Sub 0 | Zirpolo; Michael                | VA |

**Annual Certification for Renewable Energy Facility Registration**

**Facility Name:** \_\_\_\_\_

**Facility NCUC Docket No.:** \_\_\_\_\_

|                          |  |
|--------------------------|--|
| <input type="checkbox"/> | <p>I certify that the facility is in substantial compliance with all federal and state laws, regulations, and rules for the protection of the environment and conservation of natural resources.</p>   |
| <input type="checkbox"/> | <p>I certify that the facility satisfies the requirements of G.S. 62-133.8(a)(5) or (7) as a <input type="radio"/> renewable energy facility, or <input type="radio"/> new renewable energy facility,<br/><br/>and the facility will be operated as a <input type="radio"/> renewable energy facility, or <input type="radio"/> new renewable energy facility.</p>   |
| <input type="checkbox"/> | <p>I certify that 1) my organization is not simultaneously under contract with NC GreenPower to sell our RECs emanating from the same electricity production being tracked in NC-RETS; and 2) any renewable energy certificates (whether or not bundled with electric power) sold to an electric power supplier to comply with G.S. 62-133.8 have not, and will not, be remarketed or otherwise resold for any other purpose, including another renewable energy portfolio standard or voluntary purchase of renewable energy certificates in North Carolina (such as NC GreenPower) or any other state or country, and that the electric power associated with the certificates will not be offered or sold with any representation that the power is bundled with renewable energy certificates.</p> |
| <input type="checkbox"/> | <p>I certify that I consent to the auditing of my organization's books and records by the Public Staff insofar as those records relate to transactions with North Carolina electric power suppliers, and agree to provide the Public Staff and the Commission access to our books and records, wherever they are located and to the facility.</p>  |
| <input type="checkbox"/> | <p>I certify that the information provided is true and correct for all years that the facility has earned RECs for compliance with G.S. 62-133.8.</p>  |
| <input type="checkbox"/> | <p>I certify that I am the owner of the renewable energy facility or am fully authorized to act on behalf of the owner for the purpose of this filing.</p>   |

Name (print) \_\_\_\_\_

Title \_\_\_\_\_

Facility Owner \_\_\_\_\_

Phone Number \_\_\_\_\_

**VERIFICATION**

STATE OF \_\_\_\_\_ COUNTY OF \_\_\_\_\_

\_\_\_\_\_, personally appeared before me this day and, being first duly sworn, says that the facts stated in the foregoing certification and any exhibits, documents, and statements thereto attached are true as he or she believes.

WITNESS my hand and notarial seal, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

My Commission Expires: \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary Public

\_\_\_\_\_  
Name of Notary Public – Typed or Printed

The name of the person who completes and signs the certification must be typed or printed by the notary in the space provided in the verification. The notary's name must be typed or printed below the notary's seal. This original verification must be affixed to the original certification, and a copy of this verification must be affixed to each of the 15 copies that are also submitted to the Commission at:

Chief Clerk's Office  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4325