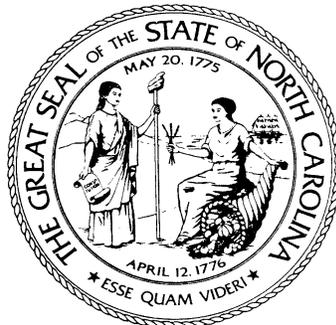


**ANNUAL REPORT REGARDING  
RENEWABLE ENERGY AND ENERGY EFFICIENCY  
PORTFOLIO STANDARD IN NORTH CAROLINA  
REQUIRED PURSUANT TO G.S. 62-133.8(j)**

**DATE DUE:           OCTOBER 1, 2017**

**SUBMITTED:        OCTOBER 1, 2017**

**RECEIVED BY  
THE GOVERNOR OF NORTH CAROLINA,  
THE ENVIRONMENTAL REVIEW COMMISSION,  
THE JOINT LEGISLATIVE OVERSIGHT COMMITTEE  
ON AGRICULTURE AND NATURAL AND ECONOMIC  
RESOURCES, THE SENATE APPROPRIATIONS  
COMMITTEE ON AGRICULTURE, NATURAL, AND  
ECONOMIC RESOURCES, AND THE CHAIRS OF THE  
HOUSE OF REPRESENTATIVES APPROPRIATIONS  
COMMITTEE ON AGRICULTURE AND NATURAL AND  
ECONOMIC RESOURCES**



**SUBMITTED BY  
THE NORTH CAROLINA UTILITIES COMMISSION**

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- Letter from Secretary Michael S. Regan, North Carolina Department of Environmental Quality, to Chairman Edward S. Finley, Jr., North Carolina Utilities Commission (September 18, 2017)

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

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# 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 Oversight Committee on Agriculture and Natural and Economic Resources, the Senate Appropriations Committee on Agriculture, Natural, and Economic Resources, and the chairs of the House of Representatives Appropriations Committee on Agriculture and Natural and Economic Resources on the activities taken by the Commission to implement, and by electric power suppliers to comply with, the REPS requirement.

## 2017 Legislation

The 2017 General Assembly enacted House Bill 589 (S.L. 2017-192), which amends the REPS by amending G.S. 62-133.8(h)(4) and by adding a new subsection, G.S. 62-133.8(l). Subsection 62-133.8(h)(4) provides that an electric power supplier shall be allowed to recover the incremental costs incurred to comply with the REPS requirements through an annual rider not to exceed the per-account annual charges set out in that subsection. The amendment enacted by S.L. 2017-192 reduces the per-account annual charge applicable to residential customers from \$34.00 to \$27.00. Subsection 62-133.8(l) requires that the owner of each renewable energy facility or new renewable energy facility that intends for renewable energy certificates (RECs) it earns to be eligible for use by an electric power supplier to comply with the REPS requirements register the facility with the Commission. This statutory requirement is consistent with the requirement in Commission Rule R8-66(b), which was adopted by the Commission in Docket No. E-100, Sub 113. In addition, S.L. 2017-57 (the Appropriations Act of 2017) amended G.S. 62-133.8(j) to require that this report be delivered to additional legislative committees.

## 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 2016 report to the General Assembly:

- On October 17, 2016, the Commission issued an Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief. The Order concluded that the electric suppliers made a reasonable effort to comply with the swine and poultry waste set-aside REPS requirements in 2016, but would not be able to comply. As to the swine waste set-aside requirement, the Commission noted that despite allowing electric power suppliers to bank RECs for three years, the cumulative effect of this banking has yet to result in the ability to comply with the initial swine waste set-aside. Therefore, the Commission concluded that it is in the public interest to delay the entire requirement of G.S. 62-133.8(e) for one year and allow electric power suppliers to continue to bank RECs for swine waste set-aside requirement compliance in future years. As to the poultry waste set-aside requirement, the Commission noted that compliance has been hindered by the fact that the technology of power production from poultry waste continues to be in its early stages of development. No party presented evidence that the aggregate 2016 poultry waste set-aside could be met, however, the Public Staff, DEC and DEP stated that, due to the availability of RECs pursuant to Section 4 of S.L. 2010-195, as amended by S.L. 2011-279 (Senate Bill 886), the 2015 level of the poultry waste set-aside could be maintained. Therefore, the Commission concluded that the poultry waste set-aside requirement should be modified by adding an additional year (2016) of compliance at the 170,000 MWh threshold, prior to escalating the requirement to 700,000 MWh.

The Order resulted in the following updated compliance schedules for the swine waste and poultry waste set-asides REPS requirements:

<u>Calendar Year</u> <u>Resources</u>	<u>Requirement for Swine Waste</u>
2017-2018	0.07%
2019-2021	0.14%
2022 and thereafter	0.20%

<u>Calendar Year</u> <u>Resources</u>	<u>Requirement for Poultry Waste</u>
2015	170,000 MWh
2016	170,000 MWh
2017	700,000 MWh
2018 and thereafter	900,000 MWh

On August 30, 2017, in Docket No. E-100, Sub 113, DEP, DEC, Dominion, GreenCo, FPWC, EnergyUnited, Halifax, TVA, NCMPA1, and NCEMPA, filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

### *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, 2016, the Commission has accepted registration statements filed by 1419 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>.

Since the 2016 report, the Commission has issued a number of orders addressing issues related to the registrations of a renewable energy facility or new renewable energy facility, including the following:

- On November 15, 2016, the Commission issued an Order revoking the registrations of 112 facilities registered with the Commission as renewable energy facilities or as new

renewable energy facilities. The owners of the 112 facilities did not complete their annual certifications on or before October 1, 2016, as required by the Commission's August 25, 2016 Order, nor had an annual certification been completed for these facilities as of the date of the Order. The Order states 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 August 30, 2017, the Commission issued an Order giving notice of its intent to revoke the registration of 19 renewable energy facilities and 157 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, 2017, 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 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 through December 31, 2017, and subsequently extended the MOA through December 31, 2020.

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 2010-2016 REPS solar set-aside requirements, the 2016 poultry waste set-aside requirement, and the 2012-2016 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) 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, notes impacts on North Carolina's air, water and land quality. DEQ's full response is attached to this report as part of Appendix 1.

## **Electric Power Supplier Compliance**

The REPS requires electric power suppliers, 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*

The Commission monitors compliance with the REPS requirements 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 30, 2016, in Docket No. E-2, Sub 1109, DEP filed its 2015 REPS compliance report and application for approval of its 2016 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, 2016: \$1.31 per month for residential customers; \$10.78 per month for general service/lighting customers; and \$83.33 per month for industrial customers. DEP's proposed rates for residential customers and for general service/lighting customers are both below the incremental per-account cost cap established in G.S. 62-133.8(h). However, DEP's proposed rate for industrial customers, on an annual basis is \$999.96 per customer account, as compared to the annual cost cap of \$1,000.00 per customer account. In its report, DEP indicates that it acquired sufficient RECs to meet the 2015 requirement of 6% of its 2014 retail sales. Additionally, DEP indicates that it acquired sufficient solar RECs to meet the 2015 requirement of 0.14% of its 2014 retail sales. DEP also indicates that it was able to meet the revised poultry waste set-aside requirement in 2015. Pursuant to the Commission's December 1, 2015 Order in Docket No. E-100, Sub 113, DEP's 2015 swine waste set-aside requirement was delayed until 2016. A hearing was held on DEP's 2015 REPS compliance report and 2016 REPS cost recovery rider on September 20, 2016. On November 10, 2016, the Commission issued an order allowing DEP's proposed REPS rider charges to become effective subject to refund. On January 17, 2017, the Commission issued an order approving DEP's REPS rider charges as recalculated to remove certain interconnection related expenses that the Commission determined should not be recovered through the REPS rider. In addition, that Order approved DEP's method of reallocating to other customers costs incurred to comply with the REPS requirements that would have been recovered from industrial customers to avoid exceeding the annual per-account limit on charges applicable to industrial customers.

On September 1 2017, in Docket No. E-100, Sub 147, DEP filed its 2017 REPS compliance plan as part of its 2017 Integrated Resource Plan (IRP) update report. In its plan, DEP indicates that its overall compliance strategy to meet the REPS requirements consisted of the following key components: (1) purchases of RECs; (2) operations of company-owned renewable facilities; (3) energy efficiency programs that will generate savings that can be counted towards obligation requirements; and (4) research studies to enhance its ability to comply in future years. DEP states that it intends to fully satisfy and vastly exceed the minimum solar set-aside requirements of 0.14% of the prior year's retail sales in 2017 and 0.20% of prior year's retail sales in 2018 and 2019 through purchase

power agreements, company-owned solar PV facilities, and REC purchases. DEP identifies three primary methods for compliance with the swine waste set-aside requirement and states that despite its active and diligent efforts, it will be unable to comply with the requirement in 2017 and is highly uncertain of its ability to comply in 2018 and 2019 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. As to compliance with the poultry waste set-aside requirements, DEP states that it continues to pursue various efforts to meet its compliance requirement. DEP states that, in spite of these efforts, it has been unable to secure enough RECs to comply with its share of the 2017 aggregate poultry waste set-aside requirement and that its ability to achieve compliance with the requirements in 2018 and 2019 remains uncertain and largely subject to counterparty performance. DEP notes several resource options available to the Company to meet its general REPS requirements. DEP states it views the downward trend in solar equipment and installation costs as a positive trend and that it expects solar resources to contribute to compliance efforts beyond the solar set-aside minimum threshold. DEP notes that its agreement to provide REPS compliance services for the following wholesale customers, as allowed under G.S. 62-133.8(c)(2)(e), expires effective December 31, 2017: the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville. Therefore, DEP's estimated retail sales for the purposes of estimating DEP's future REPS compliance obligations excludes the amounts related to these wholesale customers for compliance years 2018 and 2019. Approval of DEP's 2017 compliance plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, DEP, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

On March 8, 2017, in Docket No. E-7, Sub 1131, DEC filed its 2016 REPS compliance report and an application for approval of a REPS rider to be effective September 1, 2017. By its application and testimony DEC requested a total REPS rider of \$0.88 per month for residential customers; \$4.00 per month for general customers (the DEC equivalent of commercial class customers); and \$13.68 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 2016 REPS compliance report, DEC indicates that it acquired sufficient RECs to meet the 2016 requirement of 6% of its 2015 retail sales. Additionally, DEC indicates that it acquired sufficient solar RECs to meet the 2016 requirement of 0.14% of its 2015 retail sales and had acquired its pro-rata share of poultry RECs to satisfy the 2016 poultry waste set-aside requirement. Pursuant to the Commission's October 17, 2016 Order in Docket No. E-100, Sub 113, DEC's 2016 swine waste set-aside requirement was delayed until 2017. On June 6, 2017, the Commission held a hearing on DEC's

2016 compliance report and REPS cost recovery application. On August 25, 2017, the Commission issued an order approving DEC's proposed REPS riders. In the same Order, the Commission approved DEC's 2016 compliance report and retired the RECs in DEC's 2016 compliance sub account.

On September 1, 2017, in Docket No. E-100, Sub 147, DEC filed its 2017 REPS compliance plan as part of its 2017 IRP update report. In its plan, DEC indicates that its overall compliance strategy to meet the REPS requirements consisted of the following key components: (1) purchases of RECs; (2) operations of company-owned renewable facilities; (3) energy efficiency programs that will generate savings that can be counted towards obligation requirements; and (4) research studies to enhance its ability to comply in future years. DEC intends to achieve compliance with the solar set-aside requirement of 0.14% of the prior year's retail sales in 2017 and 0.20% of prior year's sales in 2018 and 2019 through a combination of power purchase agreements and company owned solar PV facilities. DEC identifies three primary methods for compliance with the swine waste set-aside requirement, but states that despite its efforts it will be unable to comply with the requirement in 2017 and is highly uncertain of its ability to comply in 2018 and 2019 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. As for compliance with the poultry waste set-aside requirements, DEC states in its compliance plan that it continues to pursue various efforts to meet its compliance requirement, but in spite of these efforts, it has been unable to secure enough RECs to comply with its share of the 2017 aggregate poultry waste set-aside requirement and that its ability to achieve compliance with the requirements in 2018 and 2019 remains uncertain and largely subject to counterparty performance. DEC notes encouraging developments in its prospects for compliance with the poultry waste set-aside requirements in a growing use of thermal poultry RECs and DEC having recently signed a contract to purchase poultry waste-derived directed biogas from a project in North Carolina that will be used for fuel in DEC's Dan River or Buck combined-cycle plants. DEC notes several resource options available to the Company to meet its general requirement, including meeting 25% (the maximum allowable under the REPS) of its requirement through its energy efficiency programs, hydroelectric power procured from suppliers and from its wholesale customers SEPA allocations, and through a variety of biomass, wind and solar resources. 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 states it views the downward trend in solar equipment and installation costs as a positive trend. Approval of DEC's 2017 Compliance Plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, DEC, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

### Dominion North Carolina Power (Dominion)

On August 25, 2016, in Docket No. E-22, Sub 535, Dominion filed an application for approval of a 2016 REPS recovery rider and its 2016 compliance report (for the 2015 compliance year). The report included compliance status for the Town of Windsor (Windsor). Dominion states that it met its 2015 general REPS requirement (254,902 RECs) by purchasing unbundled out-of-state solar and wind RECs, in-state solar RECs, and through energy efficiency measures and met the Windsor's requirement (2,883 RECs) with additional biomass RECs from within the State as well as the appropriate SEPA allocations. Dominion states that it met its 2015 solar set-aside requirement (6,226 RECs) and the Town of Windsor's requirement (71 RECs) by purchasing solar RECs. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, Dominion and Windsor's 2015 swine waste set-aside requirements were delayed until 2016. Dominion further states that it met its 2015 poultry waste set-aside requirements for both itself (5,678 RECs) and Windsor (65 RECs) and anticipates fulfillment of the 2016 requirement for itself and the Town of Windsor. On December 20, 2016, in Docket No. E-22, Sub 535, the Commission issued an Order Approving REPS and REPS EMF Riders and 2015 REPS Compliance. The Order approved the following total REPS rider charges for Dominion's use during the 2017 calendar year: \$0.88 per month for residential customers; \$3.87 per month for commercial customers; and \$25.82 per month for industrial customers. In addition, the Order approved Dominion's 2015 REPS compliance report and retired the RECs and EECs in Dominion's and Windsor's 2015 compliance sub-accounts. On April 29, 2016, in Docket No. E-100, Sub 147, Dominion filed its 2016 REPS compliance plan as part of its 2016 IRP update report. Dominion states that it intends to meet its general REPS requirements in 2016 through 2018 through the use of RECs, EE, and new company-generated renewable energy where economically feasible. Dominion also detailed its efforts to comply with the REPS set-aside requirements. Through those efforts, Dominion states that it currently has, or has contracts to purchase, sufficient RECs to satisfy the solar, swine waste, and poultry waste set-aside requirements. However, Dominion notes that there is some uncertainty around swine waste compliance due to the fact that its single supply source is under construction and has not yet reached commercial operation. On June 27, 2017, the Commission issued an Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans, accepting Dominion's 2016 IRP and 2016 REPS compliance plan.

On May 1, 2017, in Docket No. E-100, Sub 147, Dominion filed its 2017 REPS compliance plan as part of its 2017 IRP update. Dominion's 2017 compliance plan covers the calendar years 2017, 2018, and 2019. Dominion states that, during the 2017-2019 planning period, Dominion plans to meet its general REPS requirements in 2017 through 2019 through the use of RECs, EE, and new company-generated renewable energy where economically feasible. Dominion continues to be responsible for meeting the REPS requirements for Windsor. Dominion projects that it will meet the solar set-aside requirements for itself

through 2018, as it has executed contracts for the sale of solar RECs sufficient to meet these requirements. Dominion further states that it has executed contracts with solar facilities located in North Carolina sufficient to meet Windsor's in-state compliance requirements for 2017 through 2019. Dominion states that it will continue to make all reasonable efforts to satisfy these requirement during the 2017-2019 planning period. As a result of Dominion's efforts to locate operational swine digesters in the continental United States, Dominion has executed contracts with two suppliers that Dominion believes will provide sufficient RECs to meet the swine waste set-aside requirements for itself and for Windsor during the 2017-2019 planning period. Dominion further states that it believes that it will be likely to have sufficient poultry RECs to achieve compliance with the poultry waste set-aside requirements for years 2017, 2018, and 2019. Consideration of Dominion's 2017 compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, Dominion, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is 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-five 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, 2017, in Docket No. E-100, Sub 152, GreenCo filed with the Commission its 2016 REPS compliance report and 2017 compliance plan. In its plan, GreenCo states that it intends 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 states that it has joined other electric power suppliers to

request a delay to the 2017 poultry and swine waste set-aside REPS requirements, noting that the prospect of complying in 2018 is more likely than 2017. GreenCo also responded to the Commission's questions related to administrative costs that were raised by the Public Staff in the proceeding in Docket No. E-100, Sub 149. In its 2016 REPS compliance report, GreenCo states that in 2016, its member cooperatives, as well as Broad River and Mecklenburg EMCs, fully met the general REPS requirement. GreenCo further states that for 2016, the REPS incremental costs incurred by GreenCo's members were less than the costs allowed under the per-account cost cap in G.S. 62-133.8(h). Approval of GreenCo's 2016 compliance report and 2017 compliance plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, GreenCo, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### EnergyUnited Electric Membership Corporation (EnergyUnited)

On September 1, 2017 in Docket No. E-100, Sub 152, EnergyUnited filed its 2016 REPS compliance report and 2017 REPS compliance plan. In its report, EnergyUnited states that it met its 2016 general REPS requirement (147,024 RECs), its solar set-aside requirement (3,431 RECs), and its poultry waste set-aside requirement (3,102 RECs). In its plan, EnergyUnited states that it intends to comply with its future obligations through its SEPA allocations, EE programs, and the purchase of RECs and renewable energy, including the purchase of renewable energy from Iredell Transmission, LLC (a landfill gas-powered generation facility). EnergyUnited states that it plans to fulfill its general and solar REPS requirement in 2017 and beyond. EnergyUnited states that it has entered into several contractual arrangements to purchase swine RECs and is currently in negotiations with three additional potential suppliers of swine RECs. EnergyUnited displayed its anticipated annual REPS riders in its 2016 compliance plan for compliance years 2017-2019 as \$3.60 for residential customers, \$18.36 for commercial customers, and \$184.44 for industrial customers. EnergyUnited states that it does not anticipate an increase in its rider during the next several years. Approval of EnergyUnited's 2017 REPS compliance plan and 2016 REPS compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, EnergyUnited, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

### Tennessee Valley Authority (TVA)

On September 13, 2017, TVA filed its 2017 REPS compliance plan and 2016 REPS compliance report with the Commission. In its plan, TVA indicates its intent to fulfill the general REPS requirement in 2017 through 2019 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 2016 through 2018, TVA stated that it plans to use its TVA Generation Partners solar site for meeting 100% of the cooperatives' solar set-aside requirements. TVA states that it is making reasonable efforts to procure potential and available swine RECs, but it believes that there are not sufficient amounts of such energy and RECs available to meet the 2017 swine waste set-aside requirements. TVA also states that it is making reasonable efforts to procure energy and RECs from available poultry waste resources, including generating electricity at its own facility and other permitted resources, to meet the REPS poultry waste set-aside requirements. In its report, TVA states it had satisfied its cooperatives' 2016 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' 2015 solar set-aside requirement through the generation of solar energy. TVA notes that it was relieved of its 2016 swine waste set-aside requirements and had fulfilled its 2016 poultry waste set-aside requirement. TVA states that it had no incremental costs of compliance (TVA's estimated cost cap is \$2,553,036).

On August 30, 2017, in Docket No. E-100, Sub 113, TVA, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

### Halifax Electric Membership Corporation (Halifax)

On September 1, 2016 in Docket No. E-100, Sub 147, Halifax filed with the Commission its 2016 compliance plan and 2015 compliance report. On June 14, 2017, the Commission issued an order requiring Halifax to file additional comments addressing three specific issues, and requiring the Public Staff to file additional comments in response to Halifax's required filing. On August 10, 2017, and on August 22, 2017, respectively, Halifax and the Public Staff made these additional filings. Consideration of Halifax's response and approval of Halifax's 2015 compliance plan and 2014 compliance report is pending before the Commission.

On September 1, 2017, in Docket No. E-100, Sub 152, Halifax filed with the Commission its 2017 compliance plan and 2016 compliance report, which are also pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, Halifax, along with several other parties filed a motion to delay the requirements of the 2017 swine

waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

On September 1, 2017, in Docket No. E-100, Sub 152, NCEMPA filed with the Commission, on behalf of its members, its 2017 REPS compliance plan and 2016 REPS compliance report. In its 2017 compliance plan, NCEMPA states that its members will continue to meet their REPS requirements by purchasing RECs, through SEPA allocations, continued implementation of EE programs, but it will no longer use EE as a method of REPS compliance, citing the costs of M&V, the low number of RECs actually produced, and through other REPS compliance methods. NCEMPA states that it has entered into contracts to purchase various types of RECs and will continue to meet its REPS compliance requirements. NCEMPA further states that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2019, and its pro rata share of the statewide aggregate of the poultry waste set-aside requirement through 2019. With regard to the swine waste set-aside requirements, NCEMPA states that it contracted for swine waste RECs and taken delivery of a portion of these RECs; however, counterparty delays and failures continue to place NCEMPA in a position where it will be unable to meet its swine waste set-aside requirements in 2017. In its compliance report, NCEMPA states that it met its 2015 general REPS requirement (434,715 RECs) through the purchase of bundled renewable energy from hydro generation sources and the purchase of solar, biomass, and poultry RECs. Additionally, NCEMPA states in its report that it met its 2014 solar set-aside requirement (10,144 RECs) by purchasing solar RECs and its 2014 poultry waste set-aside requirement (9,122 RECs) by purchasing poultry RECs and RECs available under S.L. 2011-279 (Senate Bill 886). NCEMPA's compliance report demonstrates that its 2015 actual incremental compliance costs were well below the per-account cost cap. Approval of NCEMPA's 2017 REPS compliance plan and 2016 REPS compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, NCEMPA, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

On September 1, 2017, NCMPA1 filed its 2017 REPS compliance plan and 2016 REPS compliance report, on behalf of its member municipalities. NCMPA1 states that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations. NCMPA1 states that it will continue to implement its current EE programs, but it will no longer use EE as a method of REPS compliance, citing the costs of M&V, the low number of RECs actually

produced, and the availability of other REPS compliance methods. NCMPA1 states 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 plan, NCMPA1 states that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2019. In its compliance report, NCMPA1 states that it met its 2016 general REPS requirement (302,148 RECs) by purchasing renewable energy from solar generation resources, purchase of bundled renewable energy from hydro generation resources, and through the purchase of solar, biomass, hydro and poultry RECs. Additionally, NCMPA1 states that it met its 2016 solar set-aside requirement (7,051 RECs) by purchasing electricity from solar generating facilities and through the purchase of solar RECs, and met its 2016 poultry set-aside requirement (6,367 poultry RECs) through the purchase of RECs. NCMPA1 states that its 2016 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 2017 through 2019. Approval of NCMPA1's 2017 REPS compliance plan and 2016 REPS compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, NCMPA1, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### Fayetteville Public Works Commission (FPWC)

On September 1, 2017, in Docket No. E-100, Sub 152, FPWC filed its 2016 compliance report and 2017 compliance plan. In its compliance plan, FPWC states that it intends to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE and DSM programs. In addition, FPWC states that it intends to construct a community solar project with a generation capacity of approximately 1-MW. Further, FPWC notes that it continues to seek and consider all reasonable opportunities to engage in efforts to achieve compliance with the swine and poultry waste set-aside requirements. Finally, FPWC states that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2017 through 2019. In its compliance report, FPWC states that it met its 2016 general REPS requirement (123,572 RECs) through the purchase of in-state and out-of-state RECs. Additionally, FPWC states that it met its solar set-aside requirement through the purchase of 2,883 solar RECs and its poultry waste set-aside requirement through the purchase of 2,646 poultry RECs. Approval of FPWC's 2016 compliance report and 2017 compliance plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, FPWC, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### Town of Fountain (Fountain)

On August 31, 2017, in Docket No. E-100, Sub 152, Fountain filed its 2017 compliance plan and 2016 compliance report. Fountain notes in its compliance plan that compliance for 2016 through 2018 would be satisfied through the purchase of RECs. Fountain states that it has no plans to explore energy efficiency or demand side management programs. In its compliance report, Fountain states that its 2016 general REPS requirement was 199 RECs. Fountain additionally notes that its solar set-aside requirement was 5 solar RECs and its poultry waste set-aside requirement was 5 RECs, all of which were satisfied through the purchase of RECs. Further, Fountain notes that its incremental costs were 31.5% of the allowed per-account cost cap. Approval of Fountain's 2015 compliance report and 2016 compliance plan is pending before the Commission.

#### Town of Waynesville (Waynesville)

On August 31, 2017, in Docket No. E-100, Sub 152, Waynesville filed its 2016 REPS compliance report and 2017 REPS compliance plan. In its plan, Waynesville states that it seeks to comply with its REPS obligations through a diverse portfolio of cost-effective renewable energy resources, and that the key components of its compliance plan include purchase or RECs, use of Waynesville's SEPA allocations, and EE programs. In its compliance report, Waynesville states that its 2016 general REPS obligation was 5,361 RECs, of which 126 must be solar RECs to meet the solar set-aside requirements and 117 must be poultry waste set-aside requirements. Waynesville states that it retired the required number of RECs to meet these requirements. In addition, Waynesville's projections demonstrate that it should meet its REPS obligations and incur costs that are well below the annual spending limits established in G.S. 62-133.8(h).

On August 30, 2017, in Docket No. E-100, Sub 113, Waynesville, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### NC Towns

On September 1, 2017, in Docket No. E-100, Sub 152, the Towns of Black Creek, Lucama, Sharpsburg, and Statonsburg (collectively, NC Towns) filed their 2017 REPS compliance plan. The NC Towns state that their all-requirements power supply contracts with DEP terminate at the end of 2017, and DEP has

indicated that it will no longer provide REPS compliance services after the termination of the contracts. Therefore, the NC Towns' 2017 REPS compliance plan is their first REPS compliance filing. Approval of the NC Towns' 2017 REPS compliance plan is pending before the Commission.

### Wholesale Providers Meeting REPS Requirements

As noted above, DEP will no longer provide REPS compliance services after its contracts with the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville expire at the end of 2017. 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. However, as noted below, DEC's contracts with Concord and Kings Mountain expire at the end of 2018, at which time DEC will cease providing REPS compliance services. 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**

On March 29, 2016, the Commission and Public Staff submitted to the General Assembly a report pursuant to Section 15.16A of the 2015 Budget. The report described the various fees and charges allowed under G.S. 62-300 and the legislative history since 1963 when G.S. 62-300 was first enacted. The report states that, upon review by the Utilities Commission and Public Staff, the current fees are not sufficient to cover the Commission's administrative costs associated with processing filings. The report included three recommendations, two of which are relevant to the Commission's implementation of the REPS:

1. That the General Assembly consider adding new categories of fees allowed under G.S. 62-300 to defray processing costs for renewable energy registration statements, reports of proposed construction, and CPCN applications by non-utility generators; and
2. That the General Assembly consider expanding the Commission's authority under G.S. 62-71(d) to allow the Commission to recover all direct hearing costs from non-utility entities not subject to the regulatory fee.

On July 27 2017, the Governor signed into law House Bill 589 (S.L. 2017-192). Section 10 of S.L. 2017-192 amended G.S. 62-300(a) by requiring the Commission to receive and collect a \$250.00 fee with each

registration statement for a renewable energy facility or new renewable energy facility, and a \$50.00 fee for each report of proposed construction. On August 3, 2017, in Docket No. E-100, Sub 113, the Commission issued an order giving notice of the implementation of these new fees and other administrative changes required to implement this portion of S.L. 2017-192. That matter is pending before the Commission.

The Commission recommends that the General Assembly consider the other recommendations contained in the March 29, 2016 report pursuant to Section 15.16A of the 2015 Budget, which were not enacted in 2017, during the 2018 legislative session.

## **Conclusions**

All of the electric power suppliers have met or appear to have met the 2012-2016 general REPS requirements and appear on track to meet the 2017 general REPS requirements. All of the electric power suppliers have met the 2012-2016 solar set-aside requirements and appear to be on track to meet the 2017 solar set-aside requirement. The Commission granted a joint motion to delay implementation of the 2016 swine waste set-aside requirement, delaying implementation of that section of the REPS by one additional year. In addition, the electric power suppliers appear to have met the poultry waste set-aside requirement in 2016. Despite this, most electric power suppliers do not appear on track to meet the swine and poultry waste set-aside requirements for 2017 and have requested a delay in the requirements of the 2017 swine waste set-aside and a modification of the requirements of the poultry waste set-aside to keep that requirement at the same level as the 2016 requirement. The matter is pending before the Commission. In addition, a limited number of issues continue to arise in the implementation of the REPS statute 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>1</sup>

On October 1, 2008, the Commission made its first annual report pursuant to G.S. 62-133.8(j),<sup>2</sup> and last year, on October 1, 2016, the Commission made its ninth annual report.<sup>3</sup> The remaining sections of this report detail, as required by the General Assembly, developments related to Senate Bill 3, activities undertaken by the

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<sup>1</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, and further amended by Session Law 2017-57 to require that the annual REPS Report be submitted to the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources, the Senate Appropriations Committee on Agriculture, Natural, and Economic Resources, and the chairs of the House of Representatives Appropriations Committee on Agriculture and Natural and Economic Resources.

<sup>2</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>3</sup> Annual Report of the North Carolina Utilities Commission to the Governor of North Carolina, the Environmental Review Commission and the Joint Legislative Commission on Governmental Operations Regarding Energy and EE Portfolio Standard, October 1, 2015 (2015 REPS Report).

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.

# 2017 LEGISLATION

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The 2017 General Assembly enacted House Bill 589 (S.L. 2017-192), which amends the REPS by amending G.S. 62-133.8(h)(4) and by adding a new subsection, G.S. 62-133.8(l). Subsection 62-133.8(h)(4) provides that an electric power supplier shall be allowed to recover the incremental costs incurred to comply with the REPS requirements through an annual rider not to exceed the per-account annual charges set out in that subsection. The amendment enacted in S.L. 2017-192 reduces the per-account annual charge applicable to residential customers from \$34.00 to \$27.00. Subsection 62-133.8(l) requires that the owner of each renewable energy facility or new renewable energy facility that intends for renewable energy certificates (RECs) it earns to be eligible for use by an electric power supplier to comply with the REPS requirements register the facility with the Commission. This statutory requirement is consistent with the requirement in Commission Rule R8-66(b), which the Commission adopted by order issued in Docket No. E-100, Sub 113. In addition, S.L. 2017-57 (the Appropriations Act of 2017) amended the reporting requirement under the REPS to require that this report be submitted to the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources, the Senate Appropriations Committee on Agriculture, Natural, and Economic Resources, and the chairs of the House of Representatives Appropriations Committee on Agriculture and Natural and Economic Resources.

## 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 2016 REPS Report, the Commission notes that it had issued a number of orders interpreting various provisions of the REPS statute, 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.

- 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.
- A Pro Rata Mechanism (PRM) is 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 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). Therefore, 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).
- RECs associated with the thermal energy output of a CHP facility which uses poultry waste as a fuel should not be eligible for use to meet the poultry waste set-aside requirement under G.S. 62-133.8(f). 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.
- 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.
- Amendments to NC-RETS Operating Procedures, Rules R8-64 through R8-69, and an application form for use by owners of renewable energy facilities in obtaining registration of a facility under Rule R8-66 should be adopted. 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.

- Commission Rules R8-67(b), R8-67(c), and R8-67(h) should be amended by adding 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.
- That Commission Rules R8-61, R8-63, and R8-64 should be amended by adding 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.
- That the electric power suppliers 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.
- The electric power suppliers 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.
- 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.

- The electric power suppliers made a reasonable effort to comply with the swine waste set-aside REPS requirement in 2014, but will not be able to comply. The Commission's determination was 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 Commission found that, among the reasons the electric power suppliers would not be able to comply, is that the technology is in early stages of development. 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 Order resulted in updated compliance schedules for the swine waste set-aside REPS requirement.
- 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.
- 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's order states 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; and

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).

- On December 1, 2015, the Commission issued an Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief. The Order concluded that the electric suppliers made a reasonable effort to comply with the swine and poultry waste set-aside REPS requirements in 2015, but would not be able to comply. As to the swine waste set-aside requirement, the Commission notes that despite allowing electric power suppliers to bank RECs for three years, the cumulative effect of this banking has yet to result in the ability to comply with the initial swine waste set-aside. Therefore, the Commission concluded that it is in the public interest to delay the entire requirement of G.S. 62-133.8(e) for one year and allow electric power suppliers to continue to bank RECs for swine waste set-aside requirement compliance in future years. As to the poultry waste set-aside requirement, the Commission notes that compliance has been hindered by the fact that the technology of power production from poultry waste continues to be in its early stages of development. No party presented evidence that the aggregate 2015 poultry waste set-aside could be met, however, the Public Staff, DEC and DEP state that, due to the availability of RECs pursuant to Section 4 of S.L. 2010-195, as amended by S.L. 2011-279 (Senate Bill 886), the 2014 level of the poultry waste set-aside could be maintained. Therefore, the Commission concluded that the poultry waste set-aside requirement should be modified by adding an additional year (2015) of compliance at the 170,000 MWh threshold, prior to escalating the requirement to 700,000 MWh.
- On December 15, 2015, the Commission issued an Order Establishing 2015 Poultry Waste Set-Aside Requirement Allocation. The Commission recognized that the pendency of the matter regarding the allocation of the aggregate poultry waste set-aside requirement for 2015 created uncertainty for electric power suppliers. Therefore, the Commission found good cause to clarify the allocation of the aggregate poultry waste set-aside requirement for compliance year 2015. The Order established that the 2014 retail sales data reported to NC-RETS by electric power suppliers and utility compliance aggregators, shall be used to allocate, on a pro-rata basis, the 170,000 MWh aggregate poultry waste set-aside requirement for 2015.

- On April 18, 2016, in Docket No. E-100, Sub 113, the Commission issued an Order Establishing Method of Allocating the Aggregate Poultry Waste Resource Set-Aside Requirement concluding that, starting with the 2016 compliance year, the aggregate poultry waste set-aside obligation shall be allocated among the electric power suppliers by averaging three years of historic retail sales (2013, 2014, and 2015), with the resulting allocation held constant for three years (2016, 2017, and 2018).
- On June 6, 2016, in Docket No. E-100, Sub 113, the Commission issued an Order on NCSEA's Request, concluding that a topping cycle combined heat and power system does not constitute an energy efficiency measure under G.S. 62-133.8(a)(4), except to the extent that the secondary component, the waste heat component, is used. NCSEA appealed the Commission's decision to the North Carolina Court of Appeals, which reversed the Commission decision finding that the statute (62-133.8) is unambiguous and that it allows the entire CHP system to be considered an energy efficiency measure. See State ex. rel. Util' Comm. v. North Carolina Sustainable Energy Association, No. COA16-1067, filed August 1, 2017.
- On August 5, 2016, in Docket No. E-100, Sub 113, the Commission Issued an Order Establishing the 2016, 2017, and 2018 Poultry Waste Set-Aside Requirement Allocation. The Order established that the aggregate poultry waste set-aside requirement for 2016, 2017, and 2018 shall be allocated among the electric power suppliers and utility compliance aggregators based on the load ratio share calculations filed by the NC-RETS administrator in Docket No. E-100, Sub 113 on July 11, 2016 and the methodology previously adopted by the Commission. The resulting requirements will be held constant for three years, and the allocation process will be repeated in 2018 in order to set the allocation requirements for compliance years 2019, 2020, and 2021.

Since the October 1, 2016 report was submitted, the Commission has issued a limited number of additional Orders interpreting various provisions of the REPS statute and seeking additional information to aid the Commission in future interpretations. The following Order is of particular interest:

***Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief, Docket No. E-100, Sub 113 (October 17, 2016)***

On August 11, 2016, DEC, DEP, Dominion, GreenCo, FPWC, EnergyUnited, Halifax, TVA, NCEMPA, and NCMPA1 (Joint Movants) filed a joint motion to modify and delay the 2016 swine and poultry waste set-aside requirements of G.S. 62-133.8(e) and (f), respectively. Joint Movants requested that the Commission relieve them of compliance with the swine and poultry waste set-aside requirements by delaying their need to comply with these requirements by one year until 2017. The Joint Movants state that they have individually and collectively made reasonable efforts to comply with the REPS swine and poultry

waste resource provisions. On August 31, 2016, the Commission issued an Order Requesting Comments. Between September 22, 2016 and September 30, 2016, the North Carolina Poultry Federation (NCPF), the North Carolina Pork Council (NCPC), the Public Staff, and the North Carolina Sustainable Energy Association (NCSEA) filed comments on Joint Movants' motion.

On October 17, 2016, the Commission issued an Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief. The Order concluded that the electric suppliers made a reasonable effort to comply with the swine and poultry waste set-aside REPS requirements in 2016, but would not be able to comply. As to the swine waste set-aside requirement, the Commission noted that despite allowing electric power suppliers to bank RECs for three years, the cumulative effect of this banking has yet to result in the ability to comply with the initial swine waste set-aside. Therefore, the Commission concluded that it is in the public interest to delay the entire requirement of G.S. 62-133.8(e) for one year and allow electric power suppliers to continue to bank RECs for swine waste set-aside requirement compliance in future years. As to the poultry waste set-aside requirement, the Commission notes that compliance has been hindered by the fact that the technology of power production from poultry waste continues to be in its early stages of development. No party presented evidence that the aggregate 2016 poultry waste set-aside could be met, however, the Public Staff, DEC and DEP state that, due to the availability of RECs pursuant to Section 4 of S.L. 2010-195, as amended by S.L. 2011-279 (Senate Bill 886), the 2015 level of the poultry waste set-aside could be maintained. Therefore, the Commission concluded that the poultry waste set-aside requirement should be modified by adding an additional year (2016) of compliance at the 170,000 MWh threshold, prior to escalating the requirement to 700,000 MWh.

The Order resulted in the following updated compliance schedules for the swine waste and poultry waste set-asides REPS requirements:

<u>Calendar Year</u>	<u>Requirement for Swine Waste Resources</u>
2017-2018	0.07%
2019-2021	0.14%
2022 and thereafter	0.20%

<u>Calendar Year</u>	<u>Requirement for Poultry Waste Resources</u>
2015	170,000 MWh
2016	170,000 MWh
2017	700,000 MWh
2018 and thereafter	900,000 MWh

On August 30, 2017, in Docket No. E-100, Sub 113, DEP, DEC, Dominion, GreenCo, FPWC, EnergyUnited, Halifax, TVA, NCMPA1, and NCEMPA, filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify

the requirements of the poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

## **Renewable Energy Facilities**

The REPS statute 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, 2016, the Commission has accepted registration statements filed by 1419 facilities.

As detailed in the 2016 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, the Commission also concluded 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 notes 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's order states 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's order further notes 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 notes 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 finding that, because compensation could be built into alternative financial arrangements to recover the costs of electric generation, 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 notes that were it to rule otherwise it would 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 amended 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.”
- 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 states 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.

- 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 NR Company'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.
- Issued an Order revoking the registrations of 127 facilities registered with the Commission as renewable energy facilities or as new renewable energy facilities. The owners of the 127 facilities did not complete their annual certifications on or before October 1, 2015, as required by the Commission's August 12, 2015 Order, nor had an annual certification been completed for these facilities as of the date of the Order. The Order states 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..
- Issued an Order Accepting Registration of New Renewable Energy Facilities, accepting the registration of DEC's Buck and Dan River combined-cycle facilities as new renewable energy facilities. Consistent with previous Commission orders, the Commission found that when biogas derived from anaerobic digestion of animal waste is injected into the natural gas pipeline, nominated for use by a natural gas-fueled electric generating facility, and a proper showing can be made that it is displacing or offsetting conventional natural gas, it is a renewable energy resource pursuant to G.S. 62-133.8(a)(5). Noting that Buck and Dan River were placed into service subsequent to January 1, 2007, the Commission concluded that those facilities are "new renewable energy facilities" pursuant to G.S. 62-133.8(a)(7). The Commission further concluded that the RECs associated with the renewable energy generated at Buck and Dan River from directed biogas will not be deemed out-of-state RECs subject to the 25% limitation on the use for REPS compliance of unbundled out-of-state RECs.
- Issued an Order giving notice of its intent to revoke the registration of 26 renewable energy facilities and 215 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, 2016, 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 pending before the Commission.

Since the October 1, 2016 report was submitted, the Commission has issued a limited number of orders interpreting provisions of the REPS Statute 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 15, 2016).***

On November 15, 2016, the Commission issued an Order revoking the registrations of 112 facilities registered with the Commission as renewable energy facilities or as new renewable energy facilities. The owners of the 112 facilities did not complete their annual certifications on or before October 1, 2016, as required by the Commission's August 25, 2016 Order, nor had an annual certification been completed for these facilities as of the date of the Order. The Order states 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 Giving Notice of Intent to Revoke Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (August 30, 2017).***

On August 30, 2017, the Commission issued an Order giving notice of its intent to revoke the registration of 19 renewable energy facilities and 157 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, 2017, 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 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 states 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 2015, each electric power supplier was required to place the RECs that it acquired to meet its 2015 REPS requirements into compliance accounts where the RECs are available for audit. The Commission will review each electric power suppliers’ 2015 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, 2016, NC-RETS had issued 43,694,105 RECs and 18,051,755 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, 2017, 474 organizations, including electric power suppliers and owners of renewable energy facilities, had established accounts in NC-RETS.
- As of September 1, 2017, approximately 1102 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 through 2017, and subsequently extended the MOA through 2020.

## **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) 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, notes 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.

# 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	\$27.00
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>4</sup>

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

### ***Compliance Report***

On June 30, 2016, in Docket No. E-2, Sub 1109, DEP filed its 2015 REPS compliance report and application for approval of its 2016 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, 2016: \$1.31 per month for residential customers; \$10.78 per month for general service/lighting customers; and \$83.33 per month for industrial customers. DEP’s proposed rates for residential customers and for general service/lighting customers are both below the incremental per-account cost cap established in G.S. 62-133.8(h). However, DEP’s proposed rate for industrial customers, on an annual basis is \$999.96 per customer account, as compared to the annual cost cap of \$1,000.00 per customer account. DEP’s proposed new REPS rider, if approved, will increase the current REPS rates (excluding gross receipts taxes and regulatory fee) by \$0.14 per month for residential customers; by \$4.12 per month for general service/lighting customers; and by \$22.48 per month for industrial customers. In its 2015 REPS

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<sup>4</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.

compliance report, DEP indicates that it acquired sufficient RECs to meet the 2015 requirement of 6% of its 2014 retail sales. Additionally, DEP indicates that it acquired sufficient solar RECs to meet the 2015 requirement of 0.14% of its 2014 retail sales. DEP also indicates that it was able to meet the revised poultry waste set-aside requirement in 2015. Pursuant to the Commission's December 1, 2015 Order in Docket No. E-100, Sub 113, DEP's 2015 swine waste set-aside requirement was delayed until 2016. On September 20, 2016, the Commission held a hearing on DEP's 2015 REPS compliance report and 2016 REPS cost recovery rider.

On November 10, 2016, the Commission issued an order allowing DEP's proposed REPS rider charges to become effective subject to refund. On January 17, 2017, the Commission issued an order approving DEP's REPS rider charges as recalculated to remove certain interconnection related expenses that the Commission determined should not be recovered through the REPS rider. In addition, that Order approved DEP's method of reallocating to other customers costs incurred to comply with the REPS requirements that would have been recovered from industrial customers to avoid exceeding the annual per-account limit on charges applicable to industrial customers. That Order also directed DEP and the Public Staff to jointly file updated rate schedules, including REPS rider charges to be effective February 1 2017, and a plan for refunding money that DEP over-collected from customers through REPS rider charges from December 1, 2016 to January 31, 2017, plus 10% interest. In response to that joint filing, the Commission issued an order on January 24, 2017, approving the following REPS rider charges applicable to DEP for service rendered from February 1, 2017 to November 30, 2016: \$1.29 per month for residential customers; \$10.66 per month for commercial customers; and \$83.21 per month for industrial customers. In addition, the Commission's January 17, 2017 Order approved DEP's 2015 compliance report.

On June 6, 2017, in Docket No. E-2, Sub 1144, DEP filed its 2016 REPS compliance report and application for approval of its 2017 REPS cost recovery rider pursuant to G.S. 62-133.8 and Commission 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, 2017: \$0.62 per month for residential customers; \$5.99 per month for general service/lighting customers; and \$63.38 per month for industrial customers. DEP's proposed new REPS rates, if approved, will change current REPS rates (including regulatory fee), as follows: decrease the residential customer charge by \$0.67 per month; decrease the general service/lighting customer charge by \$4.67 per month; and decrease the industrial customer charge by \$19.83 per month. In its 2016 REPS compliance report, DEP indicates that it acquired sufficient RECs to meet the 2016 requirement of 6% of its 2015 retail sales. Additionally, DEP indicates that it acquired sufficient solar RECs to meet the 2016 requirement of 0.14% of its 2015 retail sales. DEP also indicates that it was able to meet the revised poultry waste set-aside requirement in 2016. Pursuant to the Commission's October 17, 2016 Order in

Docket No. E-100, Sub 113, DEP's 2016 swine waste set-aside requirement was delayed until 2017. On September 19, 2017, the Commission held a hearing on DEP's 2016 REPS compliance report and 2017 REPS cost recovery rider. A final decision is pending before the Commission.

### ***Compliance Plan***

On September 1, 2016, in Docket No. E-100, Sub 147, DEP filed its 2016 REPS compliance plan as part of its 2016 Integrated Resource Plan (IRP). In its compliance plan, DEP indicates 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. On February 27, 2017, the Commission held a required public hearing on DEP's 2016 REPS compliance plan and 2016 IRP. On June 27, 2017, the Commission issued an Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans, accepting DEP's 2016 IRP and 2016 REPS compliance plan.

On September 1 2017, in Docket No. E-100, Sub 147, DEP filed its 2017 REPS compliance plan as part of its 2017 Integrated Resource Plan (IRP) update report. In its plan, DEP indicates that its overall compliance strategy to meet the REPS requirements consisted of the following key components: (1) purchases of RECs; (2) operations of company-owned renewable facilities; (3) energy efficiency programs that will generate savings that can be counted towards obligation requirements; and (4) research studies to enhance its ability to comply in future years. DEP notes that its agreement to provide REPS compliance services for the following wholesale customers, as allowed under G.S. 62-133.8(c)(2)(e), expires effective December 31, 2017: the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville. Therefore, DEP's estimated retail sales for the purposes of estimating DEP's future REPS compliance obligations excludes the amounts related to these wholesale customers for compliance years 2018 and 2019.

DEP states that it intends to fully satisfy and vastly exceed the minimum solar set-aside requirements of 0.14% of the prior year's retail sales in 2017 and 2017 and 0.20% of prior year's retail sales in 2018 through purchase power agreements, company-owned solar PV facilities, and REC purchases. Based on its 2016 retail sales DEP's 2017 solar set-aside requirement is approximately 52,341 RECs. Based on forecasted retail sales DEP's solar set-aside requirement is projected to be approximately 74,707 RECs in 2018 and 75,501 RECs in 2019.

DEP identifies 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 states that despite its active and diligent efforts,

it will be unable to comply with the requirement in 2017 and is highly uncertain of its ability to comply in 2018 and 2019 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. Therefore, DEP notes that it has joined other electric power suppliers in a motion to delay the swine waste set-aside requirement by one year.

As to compliance with the poultry waste set-aside requirements, DEP states that it continues to pursue various efforts to meet its compliance requirement, including, (1) direct negotiations for additional supplies of both in-state and out-of-state resources with multiple counterparties; (2) gaining an understanding of the technological, permitting, and operational risks associated with various methods to produce qualifying RECs; (3) exploring leveraging current biomass contracts by working with developers to add poultry waste to their fuel mix; (4) exploring poultry derived directed biogas at facilities in North Carolina for use at its combined cycle plants; and (5) utilizing its REC trader to search for out-of-state poultry RECs available in the market. DEP states that, in spite of these efforts, it has been unable to secure enough RECs to comply with its share of the 2017 aggregate poultry waste set-aside requirement (197,939 RECs) and that its ability to achieve compliance with the requirements in 2018 (253,695 RECs) and 2019 (253,695 RECs) remains uncertain and largely subject to counterparty performance. DEP notes that one new poultry project has come online in 2017 and another has ramped up production, but a third is undergoing an outage to perform repairs. Therefore, DEP has joined other electric suppliers in submitting a motion to the Commission requesting a modification to the poultry waste set-aside requirements.

DEP states that its general REPS requirement, net of the set-asides discussed above, is estimated to be 1,966,715 RECs in 2017; 3,380,785 RECs in 2018 and 3,392,990 RECs in 2019. DEP notes several resource options available to the Company to meet its general requirement, including, using the maximum allowable use of EE savings (25%), hydroelectric power procured from suppliers and from its wholesale customers SEPA allocations, and a variety of biomass, wind and solar resources. DEP states 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 states it views the downward trend in solar equipment and installation costs as a positive trend and that it expects solar resources to contribute to compliance efforts beyond the solar set-aside minimum threshold. Approval of DEP's 2017 Compliance Plan is pending before the Commission. In addition, DEP notes the passage of House Bill 589 introducing a competitive procurement process for procurement of 2,660 MW of additional energy and capacity supplied by renewable energy facilities. Finally, DEP states that it is assessing other renewable technologies such as battery storage and wind, and that, as battery storage costs are expected to continue to decline, it may become a viable option in the long run to support increased renewables portfolio diversity and long-term general compliance needs. Approval of DEP's 2017 REPS compliance plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, DEP, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

### ***Compliance Report***

On March 8, 2017, in Docket No. E-7, Sub 1131, DEC filed its 2016 REPS compliance report and an application for approval of a REPS rider to be effective September 1, 2017. By its application and testimony, DEC requested a total REPS rider of \$0.88 per month for residential customers; \$4.00 per month for general customers (the DEC equivalent of commercial class customers); and \$13.68 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 2016 REPS compliance report, DEC indicates that it acquired sufficient RECs to meet the 2016 requirement of 6% of its 2015 retail sales. Additionally, DEC indicates that it acquired sufficient solar RECs to meet the 2016 requirement of 0.14% of its 2015 retail sales and had acquired its pro-rata share of poultry RECs to satisfy the 2016 poultry waste set-aside requirement. Pursuant to the Commission's October 17, 2016 Order in Docket No. E-100, Sub 113, DEC's 2016 swine waste set-aside requirement was delayed until 2017. On June 6, 2017, the Commission held a hearing on DEC's 2016 compliance report and REPS cost recovery application. On August 25, 2017, the Commission issued an order approving DEC's proposed REPS riders. In the same Order, the Commission approved DEC's 2016 compliance report and retired the RECs in DEC's 2016 compliance sub account.

### ***Compliance Plan***

On September 1, 2016, in Docket No. E-100, Sub 147, DEC filed its 2016 REPS compliance plan as part of its 2016 IRP. In its compliance plan, DEC indicates 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. On February 27, 2017, the Commission held a required public hearing on DEC's 2016 REPS compliance plan and 2016 IRP. On June 27, 2017, the Commission issued an Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans, accepting DEC's 2016 IRP and 2016 REPS compliance plan.

On September 1, 2017, in Docket No. E-100, Sub 147, DEC filed its 2017 REPS compliance plan as part of its 2017 IRP update report. In its compliance plan, DEC indicates that its overall compliance strategy to meet the REPS

requirements consisted of the following key components: (1) purchases of RECs; (2) operations of company-owned renewable facilities; (3) energy efficiency programs that will generate savings that can be counted towards obligation requirements; 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 notes that its wholesale power contracts with the City of Concord and the City of Kings Mountain expire on December 31, 2018, and DEC's obligation to provide REPS compliance services to these customers terminates on the same date. Therefore, DEC's compliance plan only reflects REPS compliance services for these customers through 2018.

DEC intends to achieve compliance with the solar set-aside requirement of 0.14% of the prior year's retail sales in 2017 and 0.20% of prior year's sales in 2018 and 2019 through a combination of power purchase agreements and company owned solar PV facilities. Based on its 2016 retail sales, DEC's 2017 solar set-aside requirement is approximately 85,571 RECs. Based on forecasted retail sales DEC's solar set-aside requirement is projected to be approximately 121,195 RECs in 2018 and 119,949 RECs in 2019. DEC states that it has fully satisfied and exceeded the minimum solar set-aside requirements in the planning period covered by the 2017 compliance plan. In addition, DEC notes that two company-owned facilities came online in the last year: the Monroe Solar Facility, placed in service on March 29, 2017; and the Mocksville Solar Facility, placed in service on December 16, 2016.

DEC identifies 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 states that it has entered into two contracts to purchase swine waste-derived directed biogas from projects in the Midwest and one contract to purchase swine waste-derived directed biogas from a project in North Carolina. DEC further states that it continues to explore opportunities for additional directed biogas in North Carolina through discussions with developers as well as participation in a collaborative group working to deploy renewable natural gas in Eastern North Carolina. DEC states that despite its efforts it will be unable to comply with the requirement in 2017 and is highly uncertain of its ability to comply in 2018 and 2019 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. DEC notes that, due to its expected non-compliance in 2017, it has submitted a motion to the Commission requesting a delay in the swine waste set-aside compliance obligation for one year.

As for compliance with the poultry waste set-aside requirements, DEC states in its compliance plan that it continues to pursue various efforts to meet its compliance requirement, including, (1) direct negotiations for additional supplies

of both in-state and out-of-state resources with multiple counterparties; (2) gaining an understanding of the technological, permitting, and operational risks associated with various methods to produce qualifying RECs; (3) exploring leveraging current biomass contracts by working with developers to add poultry waste to their fuel mix; (4) exploring adding thermal capabilities to current poultry sites to bolster REC production; (5) exploring poultry derived directed biogas at facilities in North Carolina for use at its combined cycle plants; and (6) utilizing its REC trader to search for out-of-state poultry RECs available in the market. DEC further states that, in spite of these efforts, it has been unable to secure enough RECs to comply with its share of the 2017 aggregate poultry waste set-aside requirement (318,866 RECs) and that its ability to achieve compliance with the requirements in 2018 (409,970 RECs) and 2019 (403,214 RECs) remains uncertain and largely subject to counterparty performance. DEC notes encouraging developments in its prospects for compliance with the poultry waste set-aside requirements in the future, including, the growing use of thermal poultry RECs, DEC having recently signed a contract to purchase poultry waste-derived directed biogas from a project in North Carolina that will be used for fuel in DEC's Dan River or Buck combined cycle plants, and that two new poultry projects have come online in 2017 and another expected to do so later this year. DEC notes that, due to its expected non-compliance in 2017, it has submitted a motion to the Commission requesting a delay in the swine waste set-aside compliance obligation for one year.

DEC states that its general REPS requirement, net of the set-asides discussed above, is estimated to be 3,667,340 RECs in 2017; 6,059,740 RECs in 2018; and 5,997,430 RECs in 2019. DEC notes several resource options available to the Company to meet its general requirement. DEC states 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 states that it intends to meet portions of its general requirement through a variety of biomass, wind and solar resources. DEC states 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 notes the passage of House Bill 589 introducing a competitive procurement process for procurement of 2,660 MW of additional energy and capacity supplied by renewable energy facilities. Finally, DEP states that it is assessing other renewable technologies such as battery storage and wind, and that, as battery storage costs are expected to continue to decline, it may become a viable option in the long run to support increased renewables portfolio diversity and long-term general compliance needs. Approval of DEC's 2017 Compliance Plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, DEC, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste

set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

### ***Compliance Report***

On August 25, 2016, in Docket No. E-22, Sub 535, Dominion filed an application for approval of a 2016 REPS recovery rider and its 2016 compliance report (for the 2015 compliance year). The report included compliance status for the Town of Windsor (Windsor). Dominion states that it met its 2015 general REPS requirements (254,902 RECs) by purchasing unbundled out-of-state solar and wind RECs, in-state solar RECs, and through energy efficiency measures and met the Windsor's requirements (2,883 RECs) with additional biomass RECs from within the State as well as the appropriate SEPA allocations. Dominion states that it met its 2015 solar set-aside requirement (6,226 RECs) and the Town of Windsor's requirements (71 RECs) by purchasing solar RECs. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, Dominion and Windsor's 2015 swine waste set-aside requirements were delayed until 2016. Dominion further states that it met its 2015 poultry waste set-aside requirements for both itself (5,678 RECs) and Windsor (65 RECs) and anticipates fulfillment of the 2016 requirement for itself and the Town of Windsor. On December 20, 2016, in Docket No. E-22, Sub 535, the Commission issued an Order Approving REPS and REPS EMF Riders and 2015 REPS Compliance. The Order approved the following total REPS rider charges for use during the 2017 calendar year: \$0.88 per month for residential customers; \$3.87 per month for commercial customers; and \$25.82 per month for industrial customers. In addition, the Order approved Dominion's 2015 REPS compliance report and retired the RECs and EECs in Dominion's and Windsor's 2015 compliance sub-accounts.

On August 23, 2017, in Docket No. E-22, Sub 544, Dominion filed its application for approval of a 2017 REPS recovery rider and its 2016 compliance report (for the 2016 compliance year). The report included compliance status for Windsor and was submitted with direct testimony and exhibits in support of Dominion's application for REPS cost recovery and 2016 REPS compliance report. By its application, Dominion requests recovery of \$1.186 million of incremental REPS costs and proposes to implement the following total REPS rates, including regulatory fee, effective for service rendered on and after January 1, 2018: a \$0.49 charge per month for residential customers; a \$2.71 charge per month for commercial customers; and an \$18.12 charge per month for industrial customers. In addition, Dominion's compliance report details its efforts to achieve compliance with the REPS requirements. The Commission has scheduled a public hearing in this proceeding for November 6, 2017, and approval of Dominion's report and application are pending before the Commission.

## ***Compliance Plan***

On April 29, 2016, in Docket No. E-100, Sub 147, Dominion filed its 2016 REPS compliance plan as part of its 2016 IRP. In its plan, Dominion states that it intends to meet its general REPS requirements in 2016 through 2018 through the use of RECs, EE, and new company-generated renewable energy where economically feasible. Dominion reiterated its responsibility for 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 2016 through 2018 will also be satisfied by utilizing the Town's SEPA allocations. Dominion states that its plan to comply with the solar set-aside requirements is similar to previous years, in that Dominion plans to buy unbundled solar RECs and that it has executed contracts with solar facilities located in North Carolina to satisfy Windsor's in-state portion of Windsor's solar set-aside requirements. Dominion further states that it will continue to make all reasonable efforts to satisfy these requirements during the planning period. Dominion summarized its efforts to comply with the swine waste set-aside requirements through 2018, stating that it has spent considerable time and effort attempting to locate operational swine waste digesters. This effort identified only two small and three large potential suppliers, and Dominion has executed contracts sufficient to meet Windsor's swine waste set-aside requirements in 2016-2018. In addition, Dominion has sufficient RECs in NC-RETS to meet its swine waste set-aside requirements in 2016-2018; however, Dominion notes that its compliance is dependent upon a single supply source that has not yet achieved commercial operation. Dominion's efforts to comply with the poultry waste set-aside requirements have been more successful, resulting in three contracts that could individually provide sufficient poultry RECs to meet its 2016 poultry waste set-aside requirements. In addition, Dominion states that it is reasonably confident that Windsor will achieve compliance with the poultry waste set-aside requirements in 2017 and 2018. Dominion also states that it continues to search for opportunities to purchase poultry RECs in North Carolina and throughout the continental United States, and that these efforts yielded multiple contracts that should allow both Dominion and Windsor to comply with the poultry waste set-aside requirement in 2017 and 2018. On February 27, 2017, the Commission held a required public hearing on Dominion's 2016 REPS compliance plan and 2016 IRP. On June 27, 2017, the Commission issued an Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans, accepting Dominion's 2016 IRP and 2016 REPS compliance plan.

On May 1, 2017, in Docket No. E-100, Sub 147, Dominion filed its 2017 REPS compliance plan as part of its 2017 IRP update. Dominion states that, during the 2017-2019 planning period, Dominion plans to meet its general REPS requirements in 2017 through 2019 through the use of RECs, EE, and new company-generated renewable energy where economically feasible. Dominion continues to be responsible for meeting the REPS requirements for Windsor. Dominion projects that it will meet the solar set-aside requirements for itself through 2019, as it has executed contracts for the sale of solar RECs sufficient to

meet these requirements. Dominion further states that it has executed contracts with solar facilities located in North Carolina sufficient to meet Windsor's in-state compliance requirements for 2017 through 2019. Dominion states that it will continue to make all reasonable efforts to satisfy these requirements during the 2017-2019 planning period. As a result of Dominion's efforts to locate operational swine digesters in the continental United States, Dominion has executed contracts with two suppliers that Dominion believes will provide sufficient RECs to meet the swine waste set-aside requirements for itself and for Windsor during the 2017-2019 planning period. Dominion further states that it believes that it will be likely to have sufficient poultry RECs to achieve compliance with the poultry waste set-aside requirements for years 2017, 2018, and 2019. Consideration of Dominion's 2017 compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, Dominion, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is 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-five 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>5</sup> and the fifty-one municipal members of the power agencies to file through NCEMPA and NCMPA1. On September 7, 2010, the Commission similarly

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<sup>5</sup> Effective May 1, 2010, Blue Ridge EMC is no longer a member of GreenCo.

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.

***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>6</sup>

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

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

On September 1, 2016, in Docket No. E-100, Sub 149, GreenCo filed with the Commission its 2015 REPS compliance report and its 2016 compliance plan. In its plan, GreenCo states that it intends 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 states that it has joined other electric power suppliers to request a delay to the 2016 poultry and swine waste set-aside REPS requirements, noting that the prospect of complying in 2017 is more likely than 2016. In its 2015 REPS compliance report, GreenCo states that, in 2015, its member cooperatives, as well as Broad River and Mecklenburg EMCs, fully met the general REPS requirement. GreenCo states that it secured adequate resources to meet its members' solar set-aside requirement for 2015 (18,177 RECs for GreenCo, 3 RECs for Mecklenburg, and 9 RECs for Broad River) and to meet its members' poultry waste set-aside requirement for 2015 (16,577 RECs for GreenCo, 3 RECs for Mecklenburg, and 8 RECs for Broad River). GreenCo also states that it secured adequate resources to meet its members' general REPS requirement for 2015 (779,006 RECs for GreenCo, 105 RECs for Mecklenburg, and 353 RECs for Broad River). GreenCo notes that the Commission delayed its swine waste set-aside requirements until 2016. Lastly, for 2015, the REPS incremental costs incurred by GreenCo's members were less (around one-tenth) of the costs allowed under the per-account cost cap in G.S. 62-133.8(h). On June 14, 2017, the Commission issued an order approving GreenCo's 2015 compliance report, accepting GreenCo's 2016 compliance plan, and retiring the associated RECs in GreenCo's 2015 compliance sub account.

On September 1, 2017, in Docket No. E-100, Sub 152, GreenCo filed with the Commission its 2016 REPS compliance report and 2017 compliance plan. In its plan, GreenCo states that it intends 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 states that it has joined other electric power suppliers to request a delay to the 2017 poultry and swine waste set-aside REPS requirements, noting that the prospect of complying in 2018 is more likely than 2017. GreenCo also responded to the Commission's questions related to administrative costs that were raised by the Public Staff in the proceeding in Docket No. E-100, Sub 149. In

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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(c)(2) by adding a new subsection (g) making electricity demand reduction a REPS resource, effective April 28, 2011.

its 2016 REPS compliance report, GreenCo states that, in 2016, its member cooperatives as well as Broad River and Mecklenburg EMCs fully met the general REPS requirement. GreenCo further states that for 2016, the REPS incremental costs incurred by GreenCo's members were less than the costs allowed under the per-account cost cap in G.S. 62-133.8(h). Approval of GreenCo's 2016 compliance report and 2017 compliance plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, GreenCo, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### EnergyUnited Electric Membership Corporation (EnergyUnited)

On August 31, 2016, in Docket No. E-100, Sub 149, EnergyUnited filed its 2015 REPS compliance report with the Commission and on September 6, 2016, in the same docket, EnergyUnited filed its compliance plan. In its report, EnergyUnited states that it met its 2015 general REPS requirement (145,649 RECs), its solar set-aside requirement (3,399 RECs), and its poultry waste set-aside requirement (3,100 RECs). In its plan, EnergyUnited states that it intends to comply with its future obligations through its SEPA allocations, EE programs, and the purchase of RECs and renewable energy. EnergyUnited states that it planned to fulfill its general and solar REPS requirement in 2016 and beyond. EnergyUnited states that it has entered into several contractual arrangements to purchase swine RECs and is currently in negotiations with three additional potential suppliers of swine RECs. Based upon those contracts, banking of swine RECs from prior years, and the potential that EnergyUnited will take delivery of additional swine RECs from a swine and poultry operation in Mt. Olive, NC, EnergyUnited states that it would be able to meet its swine waste set-aside requirements for 2017-2021. EnergyUnited further states that its efforts to comply with the poultry waste set-aside requirements include having entered into several poultry REC agreements with various suppliers and participation in the same Mt. Olive-located project. EnergyUnited displayed its anticipated annual REPS riders in its 2016 compliance plan for compliance years 2016-2018 as \$3.60 for residential customers, \$18.36 for commercial customers, and \$184.44 for industrial customers. EnergyUnited states that it does not anticipate an increase in its rider during the next several years. On June 14, 2017, the Commission issued an order approving EnergyUnited's 2015 compliance report, accepting EnergyUnited's 2016 compliance plan, and retiring the associated RECs in GreenCo's 2015 compliance sub account.

On September 1, 2017 in Docket No. E-100, Sub 152, EnergyUnited filed its 2016 REPS compliance report and 2017 REPS compliance plan. In its report, EnergyUnited states that it met its 2016 general REPS requirement (147,024 RECs), its solar set-aside requirement (3,431 RECs), and its poultry waste

set-aside requirement (3,102 RECs). In its plan, EnergyUnited states that it intends to comply with its future obligations through its SEPA allocations, EE programs, and the purchase of RECs and renewable energy, including the purchase of renewable energy from Iredell Transmission, LLC (a landfill gas-powered generation facility). EnergyUnited states that it plans to fulfill its general and solar REPS requirement in 2017 and beyond. EnergyUnited states that it has entered into several contractual arrangements to purchase swine RECs and is currently in negotiations with three additional potential suppliers of swine RECs. Based upon those contracts, banking of swine RECs from prior years, and the potential that EnergyUnited will take delivery of additional swine RECs from a swine and poultry operation in Mt. Olive, NC, EnergyUnited states that it would be able to meet its swine waste set-aside requirements for 2018-2022. EnergyUnited further states that despite these efforts, EnergyUnited does not anticipate meeting its portion of the swine waste set-aside requirements in 2017. EnergyUnited displayed its anticipated annual REPS riders in its 2016 compliance plan for compliance years 2017-2019 as \$3.60 for residential customers, \$18.36 for commercial customers, and \$184.44 for industrial customers. EnergyUnited states that it does not anticipate an increase in its rider during the next several years. Approval of EnergyUnited's 2017 REPS compliance plan and 2016 REPS compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, EnergyUnited, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is 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 1, 2016, TVA filed its 2016 REPS compliance plan and 2015 REPS compliance report with the Commission. In its plan, TVA indicates its intent to fulfill the general REPS requirement in 2016 through 2018 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 2016 through 2018, TVA reiterated its plans to meet the requirement by generating the energy at its own facilities. TVA states that it is making reasonable efforts to procure potential and available swine RECs, but it believes that there are not sufficient amounts of such energy and RECs available to meet the 2016 swine waste set-aside requirements. TVA states that it is making reasonable efforts to procure energy and RECs from available poultry waste resources, including

generating electricity at its own facility and other permitted resources, to meet the REPS poultry waste set-aside requirements. In its report, TVA states it had satisfied its cooperatives' 2015 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' 2015 solar set-aside requirement through the generation of solar energy. TVA notes that it was relieved of its 2015 swine waste set-aside requirements and had fulfilled its 2015 poultry waste set-aside requirement. TVA states that it had no incremental costs of compliance (TVA's estimated cost cap is \$1,763,934). On June 14, 2017, the Commission issued an order approving TVA's 2015 compliance report, accepting TVA's 2016 compliance plan, and retiring the associated RECs in TVA's 2015 compliance sub account.

On September 13, 2017, TVA filed its 2017 REPS compliance plan and 2016 REPS compliance report with the Commission. In its plan, TVA indicates its intent to fulfill the general REPS requirement in 2017 through 2019 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 2016 through 2018, TVA stated that it plans to use its TVA Generation Partners solar site for meeting 100% of the cooperatives' solar set-aside requirements. TVA states that it is making reasonable efforts to procure potential and available swine RECs, but it believes that there are not sufficient amounts of such energy and RECs available to meet the 2017 swine waste set-aside requirements. TVA also states that it is making reasonable efforts to procure energy and RECs from available poultry waste resources, including generating electricity at its own facility and other permitted resources, to meet the REPS poultry waste set-aside requirements. In its report, TVA states it had satisfied its cooperatives' 2016 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' 2015 solar set-aside requirement through the generation of solar energy. TVA notes that it was relieved of its 2016 swine waste set-aside requirements and had fulfilled its 2016 poultry waste set-aside requirement. TVA states that it had no incremental costs of compliance (TVA's estimated cost cap is \$2,553,036).

On August 30, 2017, in Docket No. E-100, Sub 113, TVA, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is 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 states 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 notes 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. On March 29, 2016, the Commission issued an order approving Halifax's 2014 compliance report and retiring the associated RECs in Halifax's 2014 compliance sub account. In the same order, the Commission required Halifax to include in its 2015 REPS compliance report an explanation for the prices that it pays customers for wind and solar RECs via its renewable energy tariff.

On September 1, 2016 in Docket No. E-100, Sub 147, Halifax filed with the Commission its 2016 compliance plan and 2015 compliance report. In its compliance plan, Halifax states 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 notes concerns regarding the addition of industrial customers and its cost cap in future years. 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 2016 pursuant to the Commission's December 1, 2015 Order in Docket No. E-100, Sub 113. On June 14, 2017, the Commission issued an order requiring Halifax to file additional comments addressing three specific issues, and requiring the public staff to file additional comments in response to Halifax's required filing. On August 10, 2017, and on August 22, 2017, respectively, Halifax and the Public Staff made these additional filings. Consideration of Halifax's response and approval of Halifax's 2015 compliance plan and 2014 compliance report is pending before the Commission.

On September 1, 2017, in Docket No. E-100, Sub 152, Halifax filed with the Commission its 2017 compliance plan and 2016 compliance report, which are also pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, Halifax, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

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

On September 1, 2016, in Docket No. E-100, Sub 149, NCEMPA filed with the Commission, on behalf of its members, its 2016 REPS compliance plan and 2015 REPS compliance report. In its 2016 compliance plan, NCEMPA states that its members have no plans to generate electric power at a renewable energy facility. NCEMPA states that its members would meet their REPS requirements by purchasing RECs and SEPA allocations. NCEMPA states that it will continue to implement its current EE programs, but it will no longer use EE as a method of REPS compliance, citing the costs of M&V, the low number of RECs actually produced, and the availability of other REPS compliance methods. NCEMPA states that it has 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. NCEMPA further states that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2018. NCEMPA has also entered into agreements to secure NCEMPA's pro rata share of the statewide aggregate of the poultry waste set-aside requirement through 2017, but has joined the joint motion to delay the requirement because the aggregate goal will not be met. NCEMPA cites a number of challenges in securing swine waste RECs and states that it is not in a position to meet the 2016 swine waste requirements. In its compliance report, NCEMPA states that it met its 2015 general REPS requirement (427,085 RECs) through the purchase of bundled renewable energy from hydro generation sources and the purchase of solar, biomass, and poultry RECs. Additionally, NCEMPA states in its report that it met its 2014 solar set-aside requirement (9,966 RECs) by purchasing solar RECs and its 2014 poultry waste set-aside requirement (9,089 RECs) by purchasing poultry RECs and RECs available under S.L. 2011-279 (Senate Bill 886). NCEMPA shows in its report that its 2015 actual incremental compliance 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. On June 14, 2017, the Commission issued an order approving NCEMPA's 2015 compliance report, accepting NCEMPA's 2016 compliance plan, and retiring the associated RECs in NCEMPA's 2015 compliance sub account.

On September 1, 2017, in Docket No. E-100, Sub 152, NCEMPA filed with the Commission, on behalf of its members, its 2017 REPS compliance plan and 2016 REPS compliance report. In its 2017 compliance plan, NCEMPA states that its members have no plans to generate electric power at a renewable energy facility. NCEMPA states that its members will continue to meet their REPS requirements by purchasing RECs, through SEPA allocations, continued implementation of EE programs, but it will no longer use EE as a method of REPS compliance, citing the costs of M&V, the low number of RECs actually produced, and through other REPS compliance methods. NCEMPA states that it has entered

into contracts to purchase various types of RECs and will continue to meet its REPS compliance requirements. NCEMPA further states that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2019, and its pro rata share of the statewide aggregate of the poultry waste set-aside requirement through 2019. With regard to the swine waste set-aside requirements, NCEMPA states that it contracted for swine waste RECs and taken delivery of a portion of these RECs; however, counterparty delays and failures continue to place NCEMPA in a position where it will be unable to meet its swine waste set-aside requirements in 2017. In its compliance report, NCEMPA states that it met its 2015 general REPS requirement (434,715 RECs) through the purchase of bundled renewable energy from hydro generation sources and the purchase of solar, biomass, and poultry RECs. Additionally, NCEMPA states in its report that it met its 2014 solar set-aside requirement (10,144 RECs) by purchasing solar RECs and its 2014 poultry waste set-aside requirement (9,122 RECs) by purchasing poultry RECs and RECs available under S.L. 2011-279 (Senate Bill 886). NCEMPA shows in its report that its 2015 actual incremental compliance costs were well below the per-account cost cap. Approval of NCEMPA's 2017 REPS compliance plan and 2016 REPS compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, NCEMPA, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

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

On August 31, 2016, in Docket No. E-100, Sub 149, NCMPA1 filed with the Commission, on behalf of its members, its 2016 REPS compliance plan and 2015 REPS compliance report. In its plan, NCMPA1 states that it intends to investigate and develop, as applicable, new renewable energy facilities. NCMPA1 states that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations. NCMPA1 states that it will continue to implement its current EE programs, but it will no longer use EE as a method of REPS compliance, citing the costs of M&V, the low number of RECs actually produced, and the availability of other REPS compliance methods. NCMPA1 states 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 plan, NCMPA1 states that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2018. In its compliance report, NCMPA1 states that it met its 2015 general REPS requirement (297,968 RECs) by purchasing renewable energy from solar generation resources purchase of bundled renewable energy from hydro generation resources, and through the purchase of solar, biomass, hydro and poultry RECs. Additionally, NCMPA1 states that it met its 2015 solar set-aside requirement (6,953 RECs) by purchasing electricity from solar generating facilities

and through the purchase of solar RECs, and met its 2015 poultry set-aside requirement (6,341 poultry RECs) through the purchase of RECs. NCMPA1 states that its 2015 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 2016 through 2018. On June 14, 2017, the Commission issued an order approving NCMPA1's 2015 compliance report, accepting NCMPA1's 2016 compliance plan, and retiring the associated RECs in NCMPA1's 2015 compliance sub account.

On September 1, 2017, in Docket No. E-100, Sub 152, NCMPA1 filed its 2017 REPS compliance plan and 2016 REPS compliance report, on behalf of its member municipalities. In its plan, NCMPA1 states that it intends to investigate and develop, as applicable, new renewable energy facilities. NCMPA1 states that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations. NCMPA1 states that it will continue to implement its current EE programs, but it will no longer use EE as a method of REPS compliance, citing the costs of M&V, the low number of RECs actually produced, and the availability of other REPS compliance methods. NCMPA1 states 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 plan, NCMPA1 states that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2019. In its compliance report, NCMPA1 states that it met its 2016 general REPS requirement (302,148 RECs) by purchasing renewable energy from solar generation resources purchase of bundled renewable energy from hydro generation resources, and through the purchase of solar, biomass, hydro and poultry RECs. Additionally, NCMPA1 states that it met its 2016 solar set-aside requirement (7,051 RECs) by purchasing electricity from solar generating facilities and through the purchase of solar RECs, and met its 2016 poultry set-aside requirement (6,367 poultry RECs) through the purchase of RECs. NCMPA1 states that its 2016 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 2017 through 2019. Approval of NCMPA1's 2017 REPS compliance plan and 2016 REPS compliance report is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, NCMPA1, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### Fayetteville Public Works Commission (FPWC)

On September 1, 2016, in Docket No. E-100, Sub 149, FPWC filed its 2015 compliance report and 2016 compliance plan. In its 2016 compliance plan,

FPWC states that it intends to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE and DSM programs. Finally, FPWC states that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2016 through 2018. In its compliance report, FPWC states that it met its 2015 general REPS requirement (125,268 RECs) through the purchase of in-state and out-of-state RECs. Additionally, FPWC states that it met its solar set-aside requirement through the purchase of 2,923 solar RECs and its poultry waste set-aside requirement through the purchase of 2,666 poultry RECs. Approval of FPWC's 2015 compliance report and 2016 compliance plan is pending before the Commission. On June 14, 2017, the Commission issued an order approving FPWC's 2015 compliance report, accepting FPWC's 2016 compliance plan, and retiring the associated RECs in FPWC's 2015 compliance sub account.

On September 1, 2017, in Docket No. E-100, Sub 152, FPWC filed its 2016 compliance report and 2017 compliance plan. In its 2016 compliance plan, FPWC states that it intends to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE and DSM programs. In addition, FPWC states that it intends to construct a community solar project with a generation capacity of approximately 1-MW. Further, FPWC notes that it continues to seek and consider all reasonable opportunities to engage in efforts to achieve compliance with the swine and poultry waste set-aside requirements. Finally, FPWC states that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2017 through 2019. In its compliance report, FPWC states that it met its 2016 general REPS requirement (123,572 RECs) through the purchase of in-State and out-of-state RECs. Additionally, FPWC states that it met its solar set-aside requirement through the purchase of 2,883 solar RECs and its poultry waste set-aside requirement through the purchase of 2,646 poultry RECs. Approval of FPWC's 2016 compliance report and 2017 compliance plan is pending before the Commission.

On August 30, 2017, in Docket No. E-100, Sub 113, FPWC, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

#### Town of Fountain (Fountain)

On August 23, 2016, in Docket No. E-100, Sub 149, Fountain filed its 2016 compliance plan and 2015 compliance report. Fountain notes in its compliance plan that compliance for 2016 through 2018 would be satisfied through the purchase of RECs. Fountain states that it has no plans to explore energy efficiency or demand side management programs. In its compliance report, Fountain states that its 2015 general REPS requirement was 187 RECs. Fountain additionally notes that its solar set-aside requirement was 5 solar RECs and its poultry waste set-aside requirement was 5 RECs, all of which were satisfied through the

purchase of RECs. Further, Fountain notes that its incremental costs were 30% of the allowed per-account cost cap. On June 14, 2017, the Commission issued an order approving Fountain's 2015 compliance report, accepting Fountain's 2016 compliance plan, and retiring the associated RECs in Fountain's 2015 compliance sub account.

On August 31, 2017, in Docket No. E-100, Sub 152, Fountain filed its 2017 compliance plan and 2016 compliance report. Fountain notes in its compliance plan that compliance for 2016 through 2018 would be satisfied through the purchase of RECs. Fountain states that it has no plans to explore energy efficiency or demand side management programs. In its compliance report, Fountain states that its 2016 general REPS requirement was 199 RECs. Fountain additionally notes that its solar set-aside requirement was 5 solar RECs and its poultry waste set-aside requirement was 5 RECs, all of which were satisfied through the purchase of RECs. Further, Fountain notes that its incremental costs were 31.5% of the allowed per-account cost cap. Approval of Fountain's 2015 compliance report and 2016 compliance plan is pending before the Commission.

#### Town of Waynesville (Waynesville)

On June 30, 2016, in Docket No. E-2, Sub 1109, DEP filed its 2015 REPS compliance report and application for approval of its 2016 REPS cost recovery rider pursuant to G.S. 62-133.8 and Rule R8-67. In its report, DEP states that it provided REPS compliance for Waynesville for 2015 and that DEP met the REPS requirements for its wholesale power customers, including Waynesville. DEP further states that its contract as wholesale power provider and for providing REPS compliance services for Waynesville expired on December 31, 2015. On September 12, 2016, in Docket No. E-100, Sub 149, Waynesville filed its 2016 compliance plan. Consistent with the foregoing, Waynesville states that beginning in 2016 it will be responsible for its own REPS compliance. Waynesville further states that the key components of its compliance plan include purchases of RECs, SEPA RECs up to 30% of the requirement, and energy efficiency programs. Waynesville expects to fully exceed the minimum solar set-aside requirements during 2016-2018 compliance years but notes that meeting the swine and poultry waste set-aside requirements during that period will be challenging. Waynesville states that it is well positioned to meet the general REPS requirements during 2016-2018 compliance years. On June 14, 2017, the Commission issued an order accepting Waynesville's 2016 compliance plan.

On August 31, 2017, in Docket No. E-100, Sub 152, Waynesville filed its 2016 REPS compliance report and 2017 REPS compliance plan. In its plan, Waynesville states that it seeks to comply with its REPS obligations through a diverse portfolio of cost-effective renewable energy resources, and that the key components of its compliance plan include purchase or RECs, use of Waynesville's SEPA allocations, and EE programs. In its compliance report, Waynesville states that its 2016 general REPS obligation was 5,361 RECs, of

which 126 must be solar RECs to meet the solar set-aside requirements and 117 must be poultry waste set-aside requirements. Waynesville states that it retired the required number of RECs to meet these requirements. In addition, Waynesville's projections demonstrate that it should meet its REPS obligations and incur costs that are well below the annual spending limits established in G.S. 62-133.8(h).

On August 30, 2017, in Docket No. E-100, Sub 113, Waynesville, along with several other parties filed a motion to delay the requirements of the 2017 swine waste set-aside and to modify the requirements of the 2017 poultry waste set-aside. The Commission has requested comments on the matter and it is pending before the Commission.

### NC Towns

On September 1, 2017, in Docket No. E-100, Sub 152, the Towns of Black Creek, Lucama, Sharpsburg, and Statonsburg (collectively, NC Towns) filed their 2017 REPS compliance plan. The NC Towns state that their all-requirements power supply contracts with DEP terminate at the end of 2017, and DEP has indicated that it will no longer provide REPS compliance services after the termination of the contracts. Therefore, the NC Towns' 2017 REPS compliance plan is their first REPS compliance filing. Approval of the NC Towns' 2017 REPS compliance plan is pending before the Commission.

### Wholesale Providers Meeting REPS Requirements

DEP, as the wholesale provider, had agreed to meet the REPS requirements for the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville. Similarly, DEC had 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. As noted in the foregoing discussion, as these wholesale power contracts terminate, the wholesale providers have or will cease providing REPS compliance services.

# RECOMMENDATION

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On September 18, 2015, the Governor signed into law House Bill 97/Session Law 2015-241 (2015 Budget). Section 15.16A of the 2015 Budget directs the Utilities Commission and the Public Staff to jointly review all fees and charges provided for in G.S. 62-300 to determine: 1) whether the fees and charges are sufficient to cover the costs of processing the applications and filings required by G.S. 62-300 and 2) whether new categories should be established to impose fees or charges on persons or entities who make applications or filings to the Commission, but are not expressly included in any of the current categories of fees and charges listed in G.S. 62-300.

On March 29, 2016, the Commission and Public Staff submitted a report pursuant to Section 15.16A of the 2015 Budget. The report described the various fees and charges allowed under G.S. 62-300 and the legislative history since 1963 when G.S. 62-300 was first enacted. The report states that, upon review by the Utilities Commission and Public Staff, the current fees are not sufficient to cover the Commission's administrative costs associated with processing filings. The report includes three recommendations, two of which are relevant to the Commission's implementation of the REPS:

1. That the General Assembly consider adding new categories of fees allowed under G.S. 62-300 to defray processing costs for renewable energy registration statements, reports of proposed construction, and CPCN applications by non-utility generators; and
2. That the General Assembly consider expanding the Commission's authority under G.S. 62-71(d) to allow the Commission to recover all direct hearing costs from non-utility entities not subject to the regulatory fee.

On July 27 2017, the Governor signed into law House Bill 589 (S.L. 2017-192). Section 10 of S.L. 2017-192 amended G.S. 62-300(a) by requiring the Commission to receive and collect a \$250.00 fee with each registration statement for a renewable energy facility or new renewable energy facility, and a \$50.00 fee for each report of proposed construction. On August 3, 2017, in Docket No. E-100, Sub 113, the Commission issued an order giving notice of the implementation of these new fees and other administrative changes required to implement this portion of S.L. 2017-192). That matter is pending before the Commission.

The Commission recommends that the General Assembly consider the other recommendations contained in the March 29, 2016 report pursuant to Section 15.16A of the 2015 Budget, which were not enacted in 2017, during the 2018 legislative session.

# CONCLUSIONS

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All of the electric power suppliers have met or appear to have met the 2016 REPS requirements and appear on track to meet the 2017 general REPS requirements. All of the electric power suppliers have met or appear to have met the 2016 solar set-aside requirement of the REPS. A joint motion to delay implementation of the 2016 swine waste set-aside requirements was granted, delaying implementation of that section of the REPS by one additional year. In addition, after meeting the poultry waste set-aside requirement for the first time in 2014, the electric power suppliers met the 2015 and 2016 poultry waste set-aside requirement at the same 170,000 MWh level as was required in 2014. Despite this, most electric power suppliers do not appear on track to meet the swine and poultry waste set-asides for 2017 and have requested further delays to these requirements. In addition, as stated in the 2016 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 Michael S. Regan, North Carolina Department of Environmental Quality (August 25, 2017)
- Letter from Secretary Michael S. Regan, North Carolina Department of Environmental Quality, to Chairman Edward S. Finley, Jr., North Carolina Utilities Commission (September 15, 2017)

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

- Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief, Docket No. E-100, Sub 113 (October 17, 2016)

### 3. Renewable Energy Facility Registrations

- Order Revoking Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (November 15, 2016)
- Order Giving Notice of Intent to Revoke Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (August 30, 2017)

# APPENDIX 1



## State of North Carolina Utilities Commission

COMMISSIONERS  
EDWARD S. FINLEY, JR., CHAIRMAN  
BRYAN E. BEATTY  
TONOLA D. BROWN-BLAND

4325 Mail Service Center  
Raleigh, N.C. 27699-4300

COMMISSIONERS  
JERRY C. DOCKHAM  
JAMES G. PATTERSON  
LYONS GRAY  
DANIEL G. CLODFELTER

August 25, 2017

Secretary Michael S. Regan  
North Carolina Department of  
Environmental Quality  
1601 Mail Service Center  
Raleigh, NC 27699-1601

Dear Secretary Regan:

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 Environmental Quality 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 15, 2017, is appreciated so that the Commission may meet its deadline.

Secretary Michael S. Regan  
August 25, 2017  
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 black ink, appearing to read "Ed S. Finley, Jr.", written in a cursive style.

Edward S. Finley, Jr.  
Chairman  
North Carolina Utilities Commission

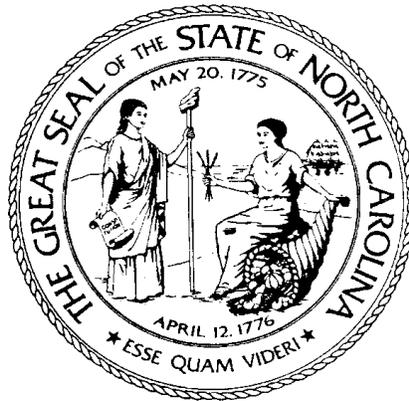
cc: Sheila Holman, Assistant Secretary for the Environment, DENR  
Kathleen Waylett, North Carolina Attorney General's Office

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

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

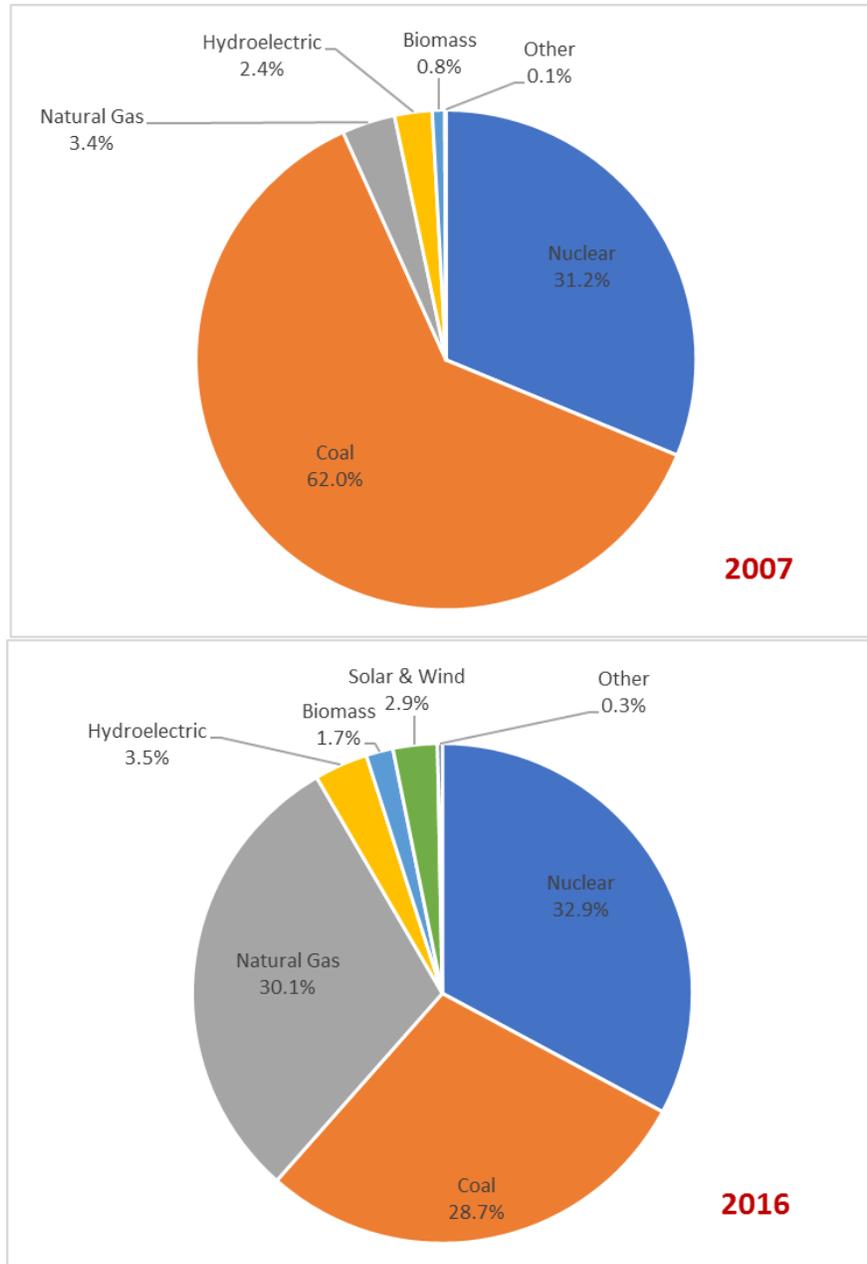
**DATE DUE: SEPTEMBER 15, 2017**

**SUBMITTED BY  
DEPARTMENT OF ENVIRONMENTAL QUALITY**



Renewable energy resources including hydroelectric, biomass, biogas, solar and wind, along with energy efficiency measures, are important to North Carolina’s diverse energy portfolio. The figure below shows North Carolina’s net electric power generation from all sectors in 2007, the year Senate Bill 3 (SB3) Renewable Energy and Energy Efficiency Portfolio Standard (REPS) was enacted under S.L. 2007-397. In contrast to this figure, the 2016 electric power generation profile shows a significant decrease in coal generation, offset by an equivalent increase in natural gas generation. Generation from renewable energy resources increased from 3 percent in 2007 to 8 percent in 2016.

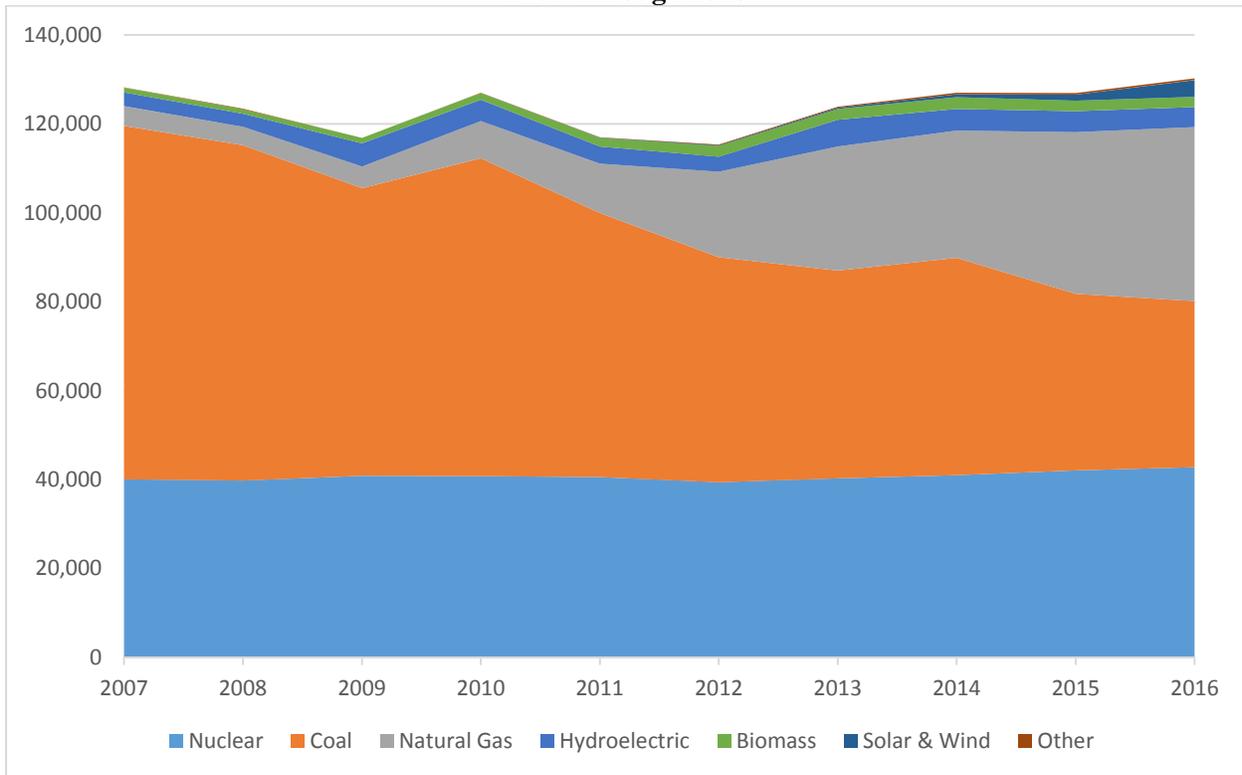
### N.C. Electric Power Generation Profile



Source: U.S. Energy Information Administration

The following figure shows historical power generation by source type between 2007 and 2016. The notable rise in natural gas generation is due to economic drivers such as lower natural gas prices and federal and state regulations (such as the North Carolina Clean Smokestacks Act) which resulted in the retirement of smaller, inefficient coal units. The rise in hydroelectric and solar photovoltaic generation is due to SB3 and a large number of new utility-scale solar facilities coming online. The pace of solar PV development remains strong based on the significant rise in solar capacity installed in 2016 and 2017.

**Historical Trends in North Carolina’s Electric Power Generation (Thousand MWh)  
2007 Through 2016**



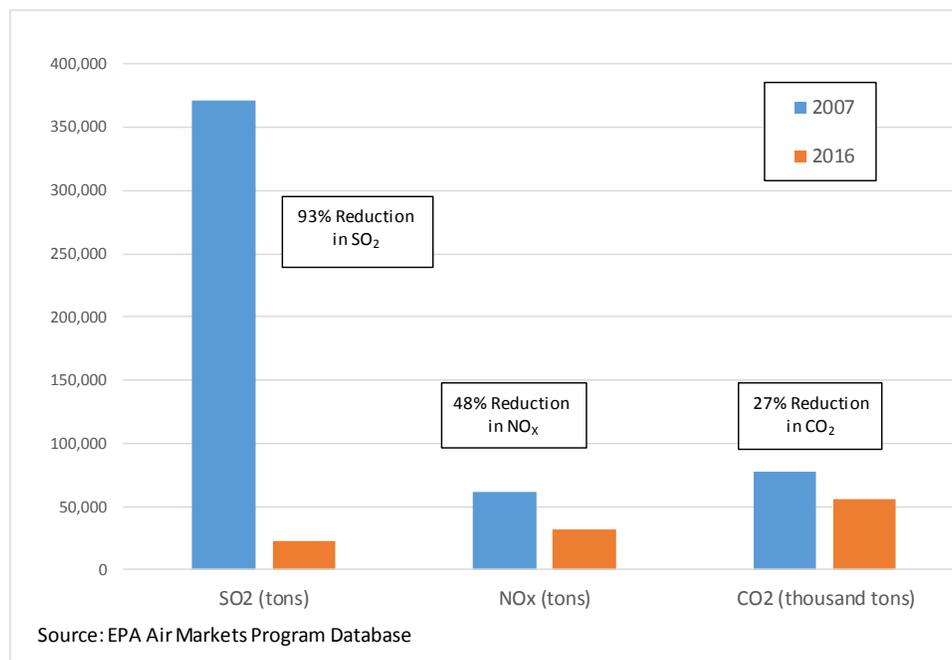
Source: U.S. Energy Information Administration

## Air Quality

### **Overall Emission Reductions Due to Shift in Electric Power Generation**

North Carolina is attaining and maintaining all national ambient air quality standards. Based on the generation profile shown earlier, it is estimated that emissions of nitrogen oxides (NOx) and sulfur dioxide (SO<sub>2</sub>) decreased by 93 percent and 48 percent between 2007 and 2016, respectively, from the electric power sector. Carbon dioxide (CO<sub>2</sub>) emissions have declined by 27 percent during this same period. As shown in the figure below, the 2016 CO<sub>2</sub> emissions level was 56.5 million tons. North Carolina’s CO<sub>2</sub> emission target under the EPA’s Clean Power Plan regulation is 51.3 million tons by 2030. While the implementation of EPA’s Clean Power Plan was stayed by the U.S. Supreme Court in early 2016, the current trends and projected emission profile indicate that North Carolina is on a trajectory to achieve the 2030 compliance target (if required). This is supported by planned coal plant retirements, additional natural gas generation, growth in RE generation, and demand side management programs.

### North Carolina Power Plant Emissions



### Emission Reductions Due to REPS Energy Efficiency Measures

The NC RETS program tracks the estimated amount of avoided electricity generation in MWh for each year from the energy efficiency (EE) programs operated by the electricity retailers in North Carolina. The Division of Air Quality (DAQ) obtained the number of energy efficiency RECS issued for each year as shown in table below from the NC RETS publicly available data. In 2016, North Carolina issued 4,046,094 MWh of RECS. The DAQ assumes that total EE RECS issued in 2016 can be assumed to be equal to the avoided electrical generation in the state of North Carolina during 2016.

### North Carolina Energy Efficiency RECs Issued During Each Year

Year	Certificates Issued (MWh)
2008	22,907
2009	79,861
2010	499,582
2011	1,127,747
2012	1,278,013
2013	2,101,819
2014	2,699,578
2015	6,196,154
2016	4,046,094

The electrical power supplied to a given facility or residence is not obtained from a specific power plant but from the regional electricity grid. The power plants on the grid use a variety of fuels and have different efficiencies and air pollution control equipment. Therefore, the DAQ estimated the air pollution reductions as the reductions from the average power plant on the electrical grid. North Carolina is part of the Southeastern Electric Reliability Council (SERC) and Florida Reliability Coordinating Council (FRCC) in the Virginia Carolinas Sub region (VACAR). To estimate reductions in air pollution due to EE, the DAQ utilized air pollution emission factors compiled for the SERC VACAR grid region. The US EPA has developed average CO<sub>2</sub>, NO<sub>x</sub>, and SO<sub>2</sub> emission factors for each grid region for the past eleven years through the Emissions & Generation Resource Integrated Database (eGRID)<sup>1</sup>.

The DAQ calculated the reduction in emissions using the avoided electricity generation due to EE measures and the EPA eGRID emission factors. These emissions reductions would occur at power plants located in the SERC/FRCC grid regions. The DAQ did not attempt to quantify the emissions reductions that would occur in North Carolina as that requires complex modeling analysis that is beyond the scope of this report. The grid region approach used in this report is a common practice used by EPA and other environmental agencies. The following table presents a summary of the maximum reduction in emissions due to EE savings achieved through SB3.

#### **Emission Reductions Due to REPS EE Measures**

<b>Year</b>	<b>Avoided Generation (MWh)</b>	<b>CO<sub>2</sub> (tons)</b>	<b>NO<sub>x</sub> (tons)</b>	<b>SO<sub>2</sub> (tons)</b>
2008	22,907	12,810	11	55
2009	79,861	41,363	27	85
2010	499,582	268,188	200	509
2011	1,127,747	605,403	451	1,150
2012	1,278,013	596,110	425	688
2013	2,101,819	980,362	700	1,131
2014	2,699,578	1,156,206	786	912
2015	6,196,154	2,653,760	1,803	2,094
2016	4,046,094	1,732,908	1,177	1,368

#### **Emission Reductions Due to Non-Emitting Renewable Energy Measures**

Each year, the NC RETS program tracks the estimated amount of renewable energy (RE) generation in MWh from projects receiving RECS. There are two categories of RE generation sources; (1) sources that combust fuel such as biomass and emit air pollution and (2) sources that do not emit air pollution such as solar. The DAQ obtained the number of renewable energy RECS issued for each year by RE project type from the NC RETS publicly available data. The DAQ then split the generation RECS into the emitting and non-emitting sources as shown in the table below. Non-emitting RE source generated a total of 3,599,222 MWh in 2016.

#### **Renewable Energy RECs Generation by**

<sup>1</sup> eGRID2014 Technical Support Document, Prepared for: Clean Air Markets Division Office of Atmospheric Programs U.S. Environmental Protection Agency, February 2017

### Emitting and Non-Emitting Source Categories

Year	RECS from Emitting RE Sources*	RECS from Non-Emitting RE Sources**
2008	523,352	539,142
2009	705,098	790,184
2010	918,776	829,911
2011	2,290,003	719,672
2012	3,256,230	773,196
2013	4,005,084	1,420,290
2014	4,810,110	1,687,381
2015	4,442,271	2,131,594
2016	4,615,521	3,599,222

\*Emitting sources include biomass, cogeneration, tire-derived fuel projects

\*\*Non-Emitting sources include hydropower, solar, and wind projects

The DAQ then estimated the reduction in emissions from electricity generation due to non-emitting RE projects and the EPA eGRID emission factors discussed in the previous section. As discussed previously, these emissions reductions would not all occur in North Carolina but at power plants located in the SERC/FRCC grid regions. The following table presents a summary of the maximum reductions in emissions due to non-emitting RE generation projects achieved through SB3.

### Maximum Emission Reductions Due to REPS RE Non-Emitting Projects

Year	Non-Emitting RECs (MWh)	CO <sub>2</sub> (tons)	NO <sub>x</sub> (tons)	SO <sub>2</sub> (tons)
2008	539,142	301,491	262	1,287
2009	790,184	409,264	269	837
2010	829,911	445,517	332	846
2011	719,672	386,338	154	0
2012	773,196	360,646	257	416
2013	1,420,290	662,473	473	764
2014	1,687,381	722,691	491	570
2015	2,131,594	912,944	620	720
2016	3,599,222	1,541,516	1,047	1,217

### Permit Reviews

North Carolina General Statute § 62-133.8(g) requires a biomass combustion process at any new renewable energy facility that delivers electric power to an electric power supplier to meet Best Available Control Technology (BACT). BACT is an emissions limitation for an air pollutant based on the maximum degree of emission reductions achievable for a facility, taking into account energy, environmental, and economic impacts, and other costs. The DAQ continues to review air permit applications and make case-by-case BACT determinations for new renewable energy facilities.

As of December 31, 2016, the DAQ permitted or registered 39 facilities receiving renewable energy credits under the REPS program. Most of the permitted facilities capture and utilize landfill gas at municipal solid waste landfills (see table below). The second largest category of permitted and registered facilities utilize anaerobic digestion of swine waste to produce biogas at hog operations. More recently, electric generating units utilizing poultry litter have been permitted by DAQ.

#### **Renewable Energy Facilities with BACT Limits**

<b>Type of New Biomass Facility with BACT Limits</b>	<b>Number of Permitted or Registered Facilities</b>
Biomass & Tire-Derived Fuels	3
Landfills	19
Swine Waste	11
Poultry Litter	1 <sup>2</sup>
Biomass & Poultry Litter	5
<b>Total</b>	<b>39</b>

The DAQ continues to inspect and assure compliance for each BACT limit specified in a facility's operating permit. All landfills are meeting their respective BACT limits. One of the biomass facilities combusting tire-derived fuels has experienced compliance challenges related to the SO<sub>2</sub> ambient air quality standard. Using its existing authority, the DAQ has entered into a Special Order by Consent (SOC) with the facility to address the associated air quality violations and non-compliance status. The DAQ is also addressing exceedances of BACT limits at several poultry operations based on initial stack testing results.

#### Water Resources

Three new swine biogas systems, including a total of five digesters, have been permitted in the past 12 months. These systems are part of an overall directed biogas project. Additional projects are in development.

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<sup>2</sup> Excludes one application filed with DAQ and is undergoing permit review.

# 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 Session Law 2007-397	) ORDER MODIFYING THE SWINE ) AND POULTRY WASTE SET-ASIDE ) REQUIREMENTS AND PROVIDING ) OTHER RELIEF
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BY THE COMMISSION: On August 11, 2016, a verified motion to modify and delay the 2016 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 seek Commission approval of the following requests: 1) to delay the requirements of 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) until 2017; 2) to modify the requirements of G.S. 62-133.8(f) (Compliance With REPS Requirement Through Use of Poultry Waste Resources) by lowering the 2016 requirement to 170,000 MWh and delaying subsequent increases until 2017; 3) to allow Joint Movants "to bank any swine and/or poultry renewable energy certificates (RECs) previously or subsequently acquired for use in future compliance years;" and 4) to "allow Joint Movants to replace compliance with the poultry and swine waste requirements in 2016 with other compliance measures in accordance with G.S. 62-133.8(b), (c), and (d)." The Joint Movants state 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. Finally, the Joint Movants request that the Commission consider and approve their motion without

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<sup>1</sup> DEC asserts 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, the Town of Forest City, the City of Concord, the Town of Highlands and the City of Kings Mountain. DEP asserts that it is also acting in its capacity as REPS compliance aggregator for the Towns of Sharpsburg, Lucama, Black Creek, Winterville and Stantonsburg. Dominion asserts that it is also acting in its capacity as REPS compliance aggregator for the Town of Windsor. TVA asserts 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 asserts that it is acting in its capacity as REPS compliance aggregator for its 32 member municipalities, which are electric power suppliers. NCMPA1 asserts that it is acting in its capacity as REPS compliance aggregator for its 19 member municipalities, which are electric power suppliers.

an evidentiary hearing because they believe that through required semiannual reports and stakeholder meetings, stakeholders and regulatory staff have ample information surrounding the Joint Movants' compliance efforts.

On August 31, 2016, the Commission issued an Order Requesting Comments. On September 26, 2016, the Commission granted a motion for an extension of time filed by the Public Staff, extending the deadline by which parties may file comments until September 30, 2016.

Between September 22, 2016 and September 30, 2016, the North Carolina Poultry Federation (NCPF), the North Carolina Pork Council (NCPC), the Public Staff, and the North Carolina Sustainable Energy Association (NCSEA) filed comments on Joint Movants' motion. No other party filed comments on the motion.

### SUMMARY OF THE COMMENTS

NCPF, in its comments, states that it "does not oppose" the portion of the motion requesting to modify the requirements of G.S. 62-133.8(f) by lowering the 2016 compliance requirement to 170,000 MWh and delaying the subsequent increases in compliance requirements until calendar year 2017. NCPF limits its comments to the motion and its application to G.S. 62-133.8(f). Thus, NCPF takes no position with regard to banking poultry waste RECs and substituting other types of RECs for 2016 compliance purposes. NCPF stipulates and agrees that the Commission may enter an order on the motion on the basis of written submissions without the need for an evidentiary hearing. Finally, NCPF requests that the Commission "continue to monitor the process" and "continue to use its authority to motivate the parties to achieve compliance with the poultry waste set-aside as soon as practicable."

NCPC, in its comments, states that it recognizes the impediments to compliance facing the electric power suppliers and does not oppose the relief requested in the motion. Nevertheless, NCPC states that it believes that progress continues to be achieved and the modified set-aside requirement should be obtainable in the near term. NCPC devotes a substantial portion of its comments to addressing the Joint Movant's description of the swine waste set-aside requirement as a "collective" or "aggregate" requirement despite the Commission's adoption of a pro rata allocation method. See NCPC's Comments at 2-3, Docket No. E-100, Sub 113 (September 23, 2016) (citing Order on Pro Rata Allocation of Aggregate Swine and Poultry Waste Set-Aside Requirements and Motion for Clarification, Docket E-100, Sub 113 (March 31, 2010)). NCPC further states that the confidential semiannual progress reports submitted by electric power suppliers in Docket No. E-100, Sub 113A, and relied upon in support of the motion, lack sufficient detail to provide adequate information for making the required findings and determination. Therefore, while NCPC recommends that the Commission grant the delay or modification requested, it further recommends that the Commission inform the electric power suppliers that any future similar requests will be considered on an individual basis supported by specific detailed information related to each electric power supplier's compliance efforts.

The Public Staff, in its comments, states that it has reviewed the motion, the semiannual reports, and the data in the North Carolina Renewable Energy Tracking System (NC-RETS). In addition, the Public Staff states that it has obtained useful information from the swine waste and poultry waste stakeholder meetings. The Public Staff's comments include a review of detailed data available in the triannual and semiannual reports filed with the Commission in Docket E-100, Sub 113A, showing the approximate overall compliance position of the electric power suppliers. Based upon this review of the data, the Public Staff concludes that the Joint Movants are making good faith efforts to comply with the swine and poultry waste set-aside requirements, but will fall short for 2016. Therefore, the Public Staff recommends that the Commission: (1) delay for one year the swine waste set-aside requirement; (2) modify the poultry waste set-aside requirements to maintain the current 170,000 MWh or equivalent for calendar year 2016 and delay all of the additional poultry waste set-aside compliance obligations for one year; (3) allow the electric power suppliers to bank any swine and poultry waste RECs previously or subsequently acquired for use in the future, exclusive of poultry waste RECs retired in 2014, 2015, and 2016; (4) "allow the electric power suppliers to replace compliance with G.S. 62-133.8(e) in 2016 with compliance measures in accordance with G.S. 62-133.8(b), (c), and (d);" and (5) not require an evidentiary hearing on this matter.

NCSEA, in its comments, states that it does not object to the Joint Movants' request to modify the poultry waste set-aside requirement by lowering the 2016 compliance requirement to 170,000 MWh. NCSEA requests that the Commission consider whether to modify, rather than to delay, the swine waste set-aside requirement to positively impact the swine waste market. NCSEA argues that the modification of the swine waste set-aside requirement, allowing for partial compliance and requiring the retirement of swine waste RECs, will have a stimulative effect on the market for swine waste fueled electric generation projects similar to that experienced in the poultry waste market after the Commission's 2015 delay order modifying the poultry waste set-aside requirement. In support of its position, NCSEA states that DEC's and DEP's 2016 Integrated Resource Plan (IRP) and 2016 REPS Compliance Plan filings demonstrate that DEC and DEP should be in a position to comply with the swine waste set-aside requirements for future years. In response to the other parties' comments, NCSEA notes that compliance with the set-aside requirements has been a struggle for all stakeholders and states that incremental steps can be taken to improve transparency into electric power suppliers' compliance efforts. Thus, NCSEA supports and endorses the request by NCPC to require electric power suppliers to provide additional information about their compliance efforts when they seek similar relief under G.S. 62-133.8(i)(2) in the future and to account for their compliance efforts on an individual basis. In conclusion, NCSEA requests that the Commission exercise its authority and modify the set-aside requirements to require partial compliance with both set-aside requirements in 2016 and requests that the Commission require the additional and individualized reporting as proposed by NCPC.

## DISCUSSION

Pursuant to G.S. 62-133.8(i)(2), the Commission, in developing rules implementing the REPS, 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 and/or poultry waste set-aside requirements on several occasions by the following orders in this docket: the November 29, 2012 Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Granting Other Relief (2012 Delay Order); the March 26, 2014 Final Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Providing Other Relief (2013 Delay Order); the November 13, 2014 Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief (2014 Delay Order), and the December 1, 2015 Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief (2015 Delay Order).

As an initial matter, the Commission considers Joint Movants' request to consider and approve their motion without the need for an evidentiary hearing. In support of this request, Joint Movants state that the compliance status for the swine and poultry waste set-aside requirements is essentially unchanged since the Commission issued its 2015 Delay Order. The motion is verified by David B. Fountain, North Carolina President of Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC, pursuant to Commission Rule R1-7 on behalf of the Joint Movants. The Public Staff, like the Joint Movants, recommends that the Commission approve the request without an evidentiary hearing. No party filed comments opposing this portion of the motion. Based upon the foregoing, the Commission finds that the material facts in this matter, including those contained in Joint Movants' verified motion and in the semiannual reports filed in Docket No. E-100, Sub 113A, are uncontroverted and concludes that the motion may be decided without an evidentiary hearing.

Based on the triannual and semiannual reports submitted by the electric power suppliers in Docket No. E-100, Sub 113A, the verified motion, the parties' 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 2016 statewide swine waste set-aside requirements established by G.S. 62-133.8(e), but will not be able to comply. Compliance with the swine waste set-aside requirement has been hindered by the fact that the technology of power production from swine waste continues to be in its early stages of development. No party presented evidence that the aggregate 2016 swine waste set-aside requirement could be met. However, the Commission notes that the electric power suppliers report encouraging developments in the technology of power production from swine waste that, combined with the availability of RECs banked from current and prior years, increase the likelihood that compliance with the swine waste set-aside requirements will be achieved in 2017. The Commission further notes that it has permitted the Joint Movants to bank RECs for four consecutive years and the cumulative effect of this banking has yet to result in the ability to comply with the initial swine waste set-aside requirement. To require that the Joint Movants retire their banked swine RECs would, thus, result in wiping the slate clean for compliance purposes in future years. Therefore, consistent with the 2015 Delay Order, the Commission finds that it is in the public interest to delay the entire requirement of G.S. 62-133.8(e) for one additional year. Electric power suppliers that have acquired swine waste RECs for 2016 REPS compliance should be allowed to bank such RECs for swine waste set-aside 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.

The Commission carefully considered NCPC's recommendations related to the level of detail included in the electric power suppliers' semiannual reports and NCSEA's expression of support for, and endorsement of, these recommendations. The Commission, at this time, is not persuaded that the semiannual reporting requirements should be further amended beyond that information additionally required in the 2015 Delay Order. The Commission notes that two sets of semiannual reports have been filed since the Commission issued its 2015 Delay Order. Further, the minutes of the most recent stakeholder meeting on swine waste set-aside requirement compliance filed by the Public Staff on August 23, 2016, in Docket No. E-100, Sub 113A, do not reflect that a discussion occurred among the interested parties regarding the specificity or level of detail of the semiannual reports. Therefore, the Commission finds that the issues NCPC raises related to the appropriate level of detail of the semiannual reports, though not without merit, are best addressed through the semiannual stakeholder meetings, or, if necessary, through a proceeding before the Commission that brings the issues into sharper relief. Thus, the Commission will continue to require the filing of semiannual reports consistent with Ordering Paragraph 3 of the 2015 Delay Order and to require and/or encourage participation in the semiannual stakeholder meetings. The Commission encourages the parties to the stakeholder meetings to address NCPC's concerns to the end that the semiannual reports will provide an appropriate level of transparency into the electric power suppliers' individual and aggregate efforts to comply with the swine waste set-aside requirements.

Based on the semiannual reports submitted by the electric power suppliers in Docket No. E-100, Sub 113A, the verified motion, the parties' comments, and the entire

record herein, the Commission similarly finds that the State’s electric power suppliers have made a reasonable effort to comply with the 2016 statewide poultry waste set-aside requirement established by G.S. 62-133.8(f), but will not be able to comply. As with the swine waste set-aside requirement, compliance with the poultry waste set-aside requirement has been hindered by the fact that the technology of power production from poultry waste continues to be in its early stages of development. No party presented evidence that the aggregate 2016 poultry waste set-aside requirement could be met; however, the parties agree that the 2015 compliance level of 170,000 MWh, if maintained for 2016, can be met. Therefore, the Commission finds that it is in the public interest to modify the entire requirement of G.S. 62-133.8(f) for one year. Consistent with the 2015 Delay Order, the Commission finds good cause to modify the poultry waste set-aside requirement established by G.S. 62-133.8(f) by adding an additional year (2016) of compliance at the 170,000 MWh threshold, prior to escalating the requirement to 700,00 MWh. Electric power suppliers should continue to make efforts to comply with the poultry waste set-aside requirements as modified by this Order.

IT IS, THEREFORE, ORDERED as follows:

1. That the 2016 swine waste set-aside requirements of G.S. 62-133.8(e), as established in the Commission’s 2015 Delay Order, are delayed for one additional 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>
2017-2018	0.07%
2019-2021	0.14%
2022 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 set-aside requirement in 2016 with other compliance measures pursuant to G.S. 62-133.8(b) and (c), including the use of solar RECs beyond the requirements of G.S. 62-133.8(d);

2. That the 2016 poultry waste set-aside requirement of G.S. 62-133.8(f), as established in the Commission’s 2015 Delay Order, is modified to maintain the same level as the 2015 requirement, and that the scheduled increases in the requirement be delayed by one year. The electric power suppliers, in the aggregate, shall comply with the requirements of G.S. 62 133.8(f) according to the following schedule:

<u>Calendar Year</u>	<u>Requirement for Poultry Waste Resources</u>
2015	170,000 MWh
2016	170,000 MWh
2017	700,000 MWh
2018 and thereafter	900,000 MWh;

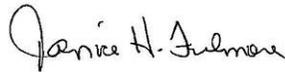
3. That the electric power suppliers subject to the semiannual filing requirement shall continue to report on the schedule established in the 2015 Delay Order. These reports shall continue to include the information specified in Ordering Paragraph 3 of the Commission's 2015 Delay Order; and

4. That the Public Staff shall continue to arrange and facilitate stakeholder meetings within six weeks of the filing of a semiannual report. The electric power suppliers subject to the semiannual filing requirement shall attend. Developers and other stakeholders are encouraged to participate and discuss potential obstacles to achieving the swine and poultry waste set-aside requirements, options for addressing them, and the need for more detailed individualized semiannual reports. The Public Staff shall continue to file minutes of the stakeholder meetings in Docket No. E-100, Sub 113A.

ISSUED BY ORDER OF THE COMMISSION.

This the 17<sup>th</sup> day of October, 2016.

NORTH CAROLINA UTILITIES COMMISSION



Janice H. Fulmore, Deputy Clerk

# APPENDIX 3

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. EMP-72, SUB 0  
DOCKET NO. RET-7, SUB 0  
DOCKET NO. RET-7, SUB 2  
DOCKET NO. RET-7, SUB 3  
DOCKET NO. RET-7, SUB 4  
DOCKET NO. RET-7, SUB 5  
DOCKET NO. RET-7, SUB 6  
DOCKET NO. RET-7, SUB 7  
DOCKET NO. RET-7, SUB 8  
DOCKET NO. RET-7, SUB 9  
DOCKET NO. RET-7, SUB 10  
DOCKET NO. RET-7, SUB 11  
DOCKET NO. SP-605, SUB 1  
DOCKET NO. SP-605, SUB 3  
DOCKET NO. SP-619, SUB 0  
DOCKET NO. SP-619, SUB 1  
DOCKET NO. SP-619, SUB 2  
DOCKET NO. SP-804, SUB 1  
DOCKET NO. SP-877, SUB 0  
DOCKET NO. SP-1026, SUB 0  
DOCKET NO. SP-1027, SUB 0  
DOCKET NO. SP-1204, SUB 0  
DOCKET NO. SP-1249, SUB 1  
DOCKET NO. SP-1308, SUB 1  
DOCKET NO. SP-1616, SUB 0  
DOCKET NO. SP-1623, SUB 0  
DOCKET NO. SP-1761, SUB 0  
DOCKET NO. SP-1960, SUB 0  
DOCKET NO. SP-1979, SUB 0  
DOCKET NO. SP-2224 SUB 0  
DOCKET NO. SP-2236, SUB 0  
DOCKET NO. SP-2408, SUB 0  
DOCKET NO. SP-2431, SUB 0  
DOCKET NO. SP-2665, SUB 16  
DOCKET NO. SP-2826, SUB 1  
DOCKET NO. SP-2993, SUB 0  
DOCKET NO. SP-3029, SUB 0  
DOCKET NO. SP-3062, SUB 1  
DOCKET NO. SP-3062, SUB 2  
DOCKET NO. SP-3062, SUB 3  
DOCKET NO. SP-3062, SUB 4  
DOCKET NO. SP-3074, SUB 1

DOCKET NO. SP-3101, SUB 0  
DOCKET NO. SP-3106, SUB 0  
DOCKET NO. SP-3132, SUB 0  
DOCKET NO. SP-3268, SUB 0  
DOCKET NO. SP-3269, SUB 0  
DOCKET NO. SP-3275, SUB 1  
DOCKET NO. SP-3476, SUB 0  
DOCKET NO. SP-3606, SUB 0  
DOCKET NO. SP-3649, SUB 0  
DOCKET NO. SP-3952, SUB 0  
DOCKET NO. SP-3955, SUB 0  
DOCKET NO. SP-4012, SUB 0  
DOCKET NO. SP-4065, SUB 0  
DOCKET NO. SP-4090, SUB 0  
DOCKET NO. SP-4106, SUB 0  
DOCKET NO. SP-4106, SUB 1  
DOCKET NO. SP-4106, SUB 2  
DOCKET NO. SP-4106, SUB 3  
DOCKET NO. SP-4106, SUB 4  
DOCKET NO. SP-4132, SUB 0  
DOCKET NO. SP-4184, SUB 0  
DOCKET NO. SP-4318, SUB 0  
DOCKET NO. SP-4399, SUB 0  
DOCKET NO. SP-4403, SUB 0  
DOCKET NO. SP-4411, SUB 0  
DOCKET NO. SP-4412, SUB 0  
DOCKET NO. SP-4449, SUB 0  
DOCKET NO. SP-4468, SUB 0  
DOCKET NO. SP-4469, SUB 0  
DOCKET NO. SP-4636, SUB 0  
DOCKET NO. SP-4638, SUB 0  
DOCKET NO. SP-4639, SUB 0  
DOCKET NO. SP-4640, SUB 0  
DOCKET NO. SP-4649, SUB 0  
DOCKET NO. SP-4683, SUB 0  
DOCKET NO. SP-4774, SUB 0  
DOCKET NO. SP-4776, SUB 0  
DOCKET NO. SP-4788, SUB 0  
DOCKET NO. SP-4789, SUB 0  
DOCKET NO. SP-4795, SUB 0  
DOCKET NO. SP-4796, SUB 0  
DOCKET NO. SP-4841, SUB 0  
DOCKET NO. SP-4866, SUB 0  
DOCKET NO. SP-4899, SUB 0  
DOCKET NO. SP-4902, SUB 0  
DOCKET NO. SP-4903, SUB 0

DOCKET NO. SP-4927, SUB 0  
 DOCKET NO. SP-4937, SUB 0  
 DOCKET NO. SP-5065, SUB 0  
 DOCKET NO. SP-5095, SUB 0  
 DOCKET NO. SP-5097, SUB 0  
 DOCKET NO. SP-5100, SUB 0  
 DOCKET NO. SP-5246, SUB 0  
 DOCKET NO. SP-5331, SUB 0  
 DOCKET NO. SP-5400, SUB 2  
 DOCKET NO. SP-5412, SUB 0  
 DOCKET NO. SP-5475, SUB 0  
 DOCKET NO. SP-5593, SUB 0  
 DOCKET NO. SP-5594, SUB 0  
 DOCKET NO. SP-5671, SUB 0  
 DOCKET NO. SP-5876, SUB 0  
 DOCKET NO. SP-5883, SUB 0  
 DOCKET NO. SP-5884, SUB 0  
 DOCKET NO. SP-6020, SUB 1  
 DOCKET NO. SP-6020, SUB 2  
 DOCKET NO. SP-6052, SUB 0  
 DOCKET NO. SP-6179, SUB 0  
 DOCKET NO. SP-6937, SUB 0  
 DOCKET NO. SP-6949, SUB 0  
 DOCKET NO. SP-6950, SUB 0  
 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) – 2016	) ) ) ) )	ORDER REVOKING REGISTRATIONS OF RENEWABLE ENERGY FACILITIES AND NEW RENEWABLE ENERGY FACILITIES AND CLOSING DOCKETS
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BY THE COMMISSION: On August 25, 2016, the Commission issued an Order giving notice of its intent to revoke the registrations of 241 new and renewable energy facilities because their owners had not completed or filed the annual certification required each April 1 as detailed in Commission Rule R8-66(b)(9). According to Commission records, and records maintained in North Carolina Renewable Energy Tracking System (NC-RETS), the owners of the 112 new and renewable energy facilities listed in Appendices A and B did not complete their annual certifications on or before October 1, 2016, as required by the Commission's August 25, 2016 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 registration of each of the 112 facilities listed in Appendices A and B effective October 1, 2016.

IT IS, THEREFORE, ORDERED as follows:

1. That the registration, previously approved by the Commission, of each of the 112 facilities listed in Appendices A and B shall be, and are hereby, revoked effective October 1, 2016;

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 1, 2016 or later;

4. That any RECs dated October 1, 2016 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;

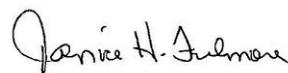
7. That the Chief Clerk shall close the dockets listed in Appendices A and B; and

8. 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 15<sup>th</sup> day of November, 2016.

NORTH CAROLINA UTILITIES COMMISSION



Janice H. Fulmore, Deputy Clerk

Revocation of Registered Facilities ( <i>NC-RETS Participants</i> )		
<b>Docket Number</b>	<b>Facility Owner</b>	<b>State</b>
SP-1249, SUB 1	Rockingham; County of	NC
RET-7, SUB 0	Vanir Fund I Owner, LLC	NC
RET-7, SUB 2	Vanir Fund I Owner, LLC	NC
RET-7, SUB 3	Vanir Fund I Owner, LLC	NC
RET-7, SUB 4	Vanir Fund I Owner, LLC	NC
RET-7, SUB 5	Vanir Fund I Owner, LLC	NC
RET-7, SUB 6	Vanir Fund I Owner, LLC	NC
RET-7, SUB 7	Vanir Fund I Owner, LLC	NC
RET-7, SUB 8	Vanir Fund I Owner, LLC	NC
RET-7, SUB 9	Vanir Fund I Owner, LLC	NC
RET-7, SUB 10	Vanir Fund I Owner, LLC	NC
RET-7, SUB 11	Vanir Fund I Owner, LLC	NC
SP-877, SUB 0	Wyoming Premium Farms, LLC	NC

Revocation of Registered Facilities (Non NC-RETS Participants)		
Docket Number	Facility Owner	State
SP-1761, SUB 0	Tuskegee Solar Services, LLC	AL
SP-619, SUB 0	Constellation Energy Projects & Services Group	CA
SP-619, SUB 1	Constellation Energy Projects & Services Group	CA
SP-619, SUB 2	Constellation Energy Projects & Services Group	CA
SP-1026, SUB 0	RE-SDS, LLC	CA
SP-1027, SUB 0	RE-PRI, LLC	CA
EMP-72, SUB 0	Elk Rover Windfarm, LLC	KS
SP-1616, SUB 0	Ecocorp Inc.	MD
SP-605, SUB 1	Samuel B. Moore	NC
SP-605, SUB 3	Samuel B. Moore	NC
SP-804, SUB 1	510 REPP One, LLC	NC
SP-1204, SUB 0	Solar Noir, LLC	NC
SP-1308, SUB 1	Effect Energy, Inc.	NC
SP-1623, SUB 0	North Cargo Building, LLC	NC
SP-1960, SUB 0	Paul Anthony McInerney	NC
SP-1979, SUB 0	Manway Solar, LLC	NC
SP-2224, SUB 0	Alesia & Perry Dickerson	NC
SP-2236, SUB 0	Graham Avenue Solar, LLC	NC
SP-2408, SUB 0	Jim Stramler	NC
SP-2431, SUB 0	FLS Solar 220, LLC	NC
SP-2665, SUB 16	Fresh Air Energy II, LLC	NC
SP-2826, SUB 0	Charles R. Hayes	NC
SP-2993, SUB 0	Aulander Solar, LLC	NC
SP-3029, SUB 0	Ashok and Mary Ann Iyer	NC
SP-3062, SUB 1	Coastal Beverage Company, Inc.	NC
SP-3062, SUB 2	Coastal Beverage Company, Inc.	NC
SP-3062, SUB 3	Coastal Beverage Company, Inc.	NC
SP-3062, SUB 4	Coastal Beverage Company, Inc.	NC
SP-3074, SUB 1	Patricia C. Nichols	NC
SP-3101, SUB 0	Lincoln A. Baxter	NC
SP-3106, SUB 0	Lake Solar Center, LLC	NC
SP-3132, SUB 0	Mason Solar Center, LLC	NC
SP-3268, SUB 0	MMG Solar Fusion, LLC	NC
SP-3269, SUB 0	Morrison Solar Park, LLC	NC

SP-3275, SUB 1	Grover Innovative Solar Park, LLC	NC
SP-3476, SUB 0	Innovative Solar 41, LLC	NC
SP-3606, SUB 0	Battleboro Solar, LLC	NC
SP-3649, SUB 0	Ariel Solar, LLC	NC
SP-3952, SUB 0	Winding Oak Solar Center, LLC	NC
SP-3955, SUB 0	Meares Solar Center, LLC	NC
SP-4012, SUB 0	Johnson Solar, LLC	NC
SP-4065, SUB 0	Highwater Solar II, LLC	NC
SP-4090, SUB 0	Maxton Solar Two, LLC	NC
SP-4106, SUB 0	Project Sunday Development, LLC	NC
SP-4106, SUB 1	Project Sunday Development, LLC	NC
SP-4106, SUB 2	Project Sunday Development, LLC	NC
SP-4106, SUB 3	Project Sunday Development, LLC	NC
SP-4106, SUB 4	Project Sunday Development, LLC	NC
SP-4132, SUB 0	SolNCPower3, LLC	NC
SP-4184, SUB 0	John Messenheimer	NC
SP-4318, SUB 0	Laurel Hill Solar, LLC	NC
SP-4399, SUB 0	Vass Solar 2, LLC	NC
SP-4403, SUB 0	Oxford Solar 1, LLC	NC
SP-4411, SUB 0	Tar Heel Solar, LLC	NC
SP-4412, SUB 0	Grant Solar, LLC	NC
SP-4449, SUB 0	Thomas Solar 1, LLC	NC
SP-4468, SUB 0	Four Oaks Solar, LLC	NC
SP-4469, SUB 0	Thomas Solar 2, LLC	NC
SP-4636, SUB 0	New Hill Solar, LLC	NC
SP-4638, SUB 0	Wilmington Solar, LLC	NC
SP-4639, SUB 0	Clinton Solar, LLC	NC
SP-4640, SUB 0	White Street Renewables, LLC	NC
SP-4649, SUB 0	North Webb Solar, LLC	NC
SP-4683, SUB 0	Midway Power, LLC	NC
SP-4774, SUB 0	Lobelia Solar, LLC	NC
SP-4776, SUB 0	SunE Bearpond Lessee, LLC	NC
SP-4788, SUB 0	Jewel Solar, LLC	NC
SP-4789, SUB 0	Eagle's Nest Solar, LLC	NC
SP-4795, SUB 0	SunE Graham Lessee, LLC	NC
SP-4796, SUB 0	SunE Shankle Lessee, LLC	NC
SP-4841, SUB 0	GTP 3, LLC	NC
SP-4866, SUB 0	Wire Grass Solar, LLC	NC
SP-4899, SUB 0	Fresh Air Energy XXXVI, LLC	NC
SP-4902, SUB 0	Warwick Solar, LLC	NC
SP-4903, SUB 0	Progressive Farm Solar, LLC	NC
SP-4927, SUB 0	Daniela & Thomas Doyle	NC
SP-4937, SUB 0	United Shiloh Solar, LLC	NC

SP-5065, SUB 0	Flatwoods Solar, LLC	NC
SP-5095, SUB 0	Landmark Solar Farm, LLC	NC
SP-5097, SUB 0	Vivid Solar I, LLC	NC
SP-5100, SUB 0	Fire Solar I, LLC	NC
SP-5246, SUB 0	Red Toad Phase 2 Cleveland Rd, LLC	NC
SP-5331, SUB 0	Herndon Solar, LLC	NC
SP-5400, SUB 2	Pinedale Springs, LLC	NC
SP-5412, SUB 0	Innovative Solar 51, LLC	NC
SP-5475, SUB 0	Louisburg Solar 1, LLC	NC
SP-5593, SUB 0	Lyon Solar, LLC	NC
SP-5594, SUB 0	Tolson Solar, LLC	NC
SP-5671, SUB 0	Holden Solar Farm Number One, LLC	NC
SP-5876, SUB 0	Ledge Creek Solar, LLC	NC
SP-5883, SUB 0	Irwin Creek, LLC	NC
SP-5884, SUB 0	Sugar Creek WWTP, LLC	NC
SP-6020, SUB 1	Farmer Ed, LLC	NC
SP-6020, SUB 2	Farmer Ed, LLC	NC
SP-6052, SUB 0	Keith Comier	NC
SP-6179, SUB 0	Michael Allen Johnson	NC
SP-6937, SUB 0	Sundown Solar, LLC	NC
SP-6949, SUB 0	Merlin Solar, LLC	NC
SP-6950, SUB 0	Maverick Solar 1, LLC	NC

**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) - 2017 ) ORDER GIVING NOTICE OF INTENT  
) TO REVOKE REGISTRATION OF  
) RENEWABLE ENERGY FACILITIES  
) AND NEW RENEWABLE ENERGY  
) FACILITIES

BY THE COMMISSION: Pursuant to G.S. 62-133.8(l) and 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. Thereafter, each facility owner is required to file an annual certification. Further, 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)(9) 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, 19 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, 2017. In addition, 157 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, 2017.

The Commission finds good cause to notice its intent to revoke, as of October 1, 2017, 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, 2017, 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 2017 annual certification requirement in Rule R8-66(b) for recently-registered facilities that received orders approving registration after January 1, 2017.

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, 2017, 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, 2017, 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.

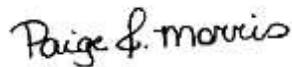
4. That the Chief Clerk shall serve a copy of this Order on the owner of each facility listed in Appendices A and B by certified mail, return receipt requested.

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 31<sup>st</sup> day of August, 2017.

NORTH CAROLINA UTILITIES COMMISSION



Paige J. Morris, Deputy Clerk

Commissioner Jerry C. Dockham did not participate in the Decision

<b>Registered Facilities Pending Revocation (NC-RETS Participants)</b>		
<b>Docket Number</b>	<b>Facility Owner</b>	<b>State</b>
RET-23, Sub 0	CMGM, Inc.	NC
SP-1240, Sub 0	AGPower, LLC	NC
SP-332, Sub 0	Barkley-Sexton Energy, LLC	NC
SP-569, Sub 1	Bayer CropScience	NC
SP-1350, Sub 0	Big Toe Farm, LLC	NC
SP-3, Sub 2	Lake Upchurch Power, Inc.	NC
SP-404, Sub 0	Landair Farms, LLC	NC
SP-1279, Sub 0	Old Dominion Freight Line, Inc.	NC
SP-3277, Sub 1	McFarland Septic, LLC	NC
E-37, Sub 1	Town of Lake Lure	NC
SP-85, Sub 1	South Yadkin Power, Inc.	NC
SP-1320, Sub 1	Westgate Auto Group, LLC	NC
SP-2524, Sub 0	Amethyst Solar, LLC	NC
SP-2218, Sub 0	Audrey Solar, LLC	NC
SP-1965, Sub 0	Milo Solar, LLC	NC
SP-1967, Sub 0	Minnie Solar, LLC	NC
SP-2156, Sub 0	Owen Solar, LLC	NC
SP-2061, Sub 0	Sophie Solar, LLC	NC
SP-2573, Sub 0	STAR Solar, LLC	NC

<b>Registered Facilities Pending Revocation (Non NC-RETS Participants)</b>		
<b>Docket Number</b>	<b>Facility Owner</b>	<b>State</b>
SP-5587, Sub 0	San Jose Unified School District	CA
SP-5587, Sub 1	San Jose Unified School District	CA
SP-5587, Sub 2	San Jose Unified School District	CA
SP-5587, Sub 3	San Jose Unified School District	CA
SP-5587, Sub 4	San Jose Unified School District	CA
SP-5587, Sub 5	San Jose Unified School District	CA
SP-5587, Sub 6	San Jose Unified School District	CA
SP-5587, Sub 7	San Jose Unified School District	CA
SP-5587, Sub 8	San Jose Unified School District	CA
SP-5587, Sub 9	San Jose Unified School District	CA
SP-5587, Sub 10	San Jose Unified School District	CA
SP-5587, Sub 11	San Jose Unified School District	CA
SP-5587, Sub 12	San Jose Unified School District	CA
SP-4747, Sub 0	Unadilla Solar, LLC	GA
EMP-33, Sub 0	Smoky Hills Wind Project II, LLC	KS
EMP-39, Sub 0	Smoky Hills Wind Farm, LLC	KS
EMP-43, Sub 0	Moraine Wind II, LLC	MN
EMP-44, Sub 0	Moraine Wind Farm, LLC	MN
EMP-45, Sub 0	MinnDakota Wind, LLC	MN
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
EMP-65, Sub 0	John J. and Ann L. Campbell	NC
SP-634, Sub 1	Bend of Ivy Lodge	NC
SP-203, Sub 1	Aquesta Bank	NC
SP-299, Sub 1	Mary Bennett	NC
SP-420, Sub 3	City of Wilmington	NC
SP-432, Sub 3	Madison County Public Schools	NC
SP-432, Sub 4	Madison County Public Schools	NC
SP-677, Sub 0	Renewable Energy Business Group, Inc.	NC
SP-833, Sub 0	Tony Smith	NC
SP-833, Sub 1	Tony Smith	NC

SP-898, Sub 1	Shree Dutt Sai, LLC	NC
SP-1413, Sub 2	Paul Kazmer	NC
SP-1568, Sub 0	Plymouth Solar, LLC	NC
SP-1754, Sub 0	Alamance Community College	NC
SP-1768, Sub 0	Water & Sewer Authority of Cabarrus County	NC
SP-2068, Sub 1	All States Medical Supply, Inc.	NC
SP-2142, Sub 0	Mill Solar I, LLC	NC
SP-2197, Sub 1	Oakboro Farm, LLC	NC
SP-2222, Sub 1	Tyson Furniture	NC
SP-2446, Sub 1	Green Creek Vineyards, LLC	NC
SP-2538, Sub 1	Bethel Solar, LLC	NC
SP-2665, Sub 29	Fresh Air Energy II, LLC	NC
SP-2665, Sub 32	Fresh Air Energy II, LLC	NC
SP-2811, Sub 0	Mark and Janet Hosey	NC
SP-2942, Sub 1	Louisburg Solar, LLC	NC
SP-2962, Sub 0	Lucky Clays Farm, LLC	NC
SP-2962, Sub 1	Lucky Clays Farm, LLC	NC
SP-2962, Sub 2	Lucky Clays Farm, LLC	NC
SP-2962, Sub 3	Lucky Clays Farm, LLC	NC
SP-3051, Sub 1	Ayrshire Holdings, LLC	NC
SP-3062, Sub 0	Coastal Beverage Company, Inc.	NC
SP-3116, Sub 1	Wayne S. Cooley	NC
SP-3189, Sub 1	Windsor Cooper Hill Solar, LLC	NC
SP-3214, Sub 0	Westside Solar Farm, LLC	NC
SP-3234, Sub 0	Jamesville Solar, LLC	NC
SP-3241, Sub 0	Sun-Power-System, Inc.	NC
SP-3284, Sub 0	Battleboro Farm, LLC	NC
SP-3548, Sub 0	Hemlock Solar, LLC	NC
SP-3557, Sub 1	Fresh Air Energy XI, 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-3784, Sub 0	Kennedy Solar, LLC	NC
SP-3797, Sub 0	Bearford Solar II, LLC	NC
SP-3816, Sub 0	American Proteins, Inc.	NC
SP-3871, Sub 0	McCullenSolar, LLC	NC

SP-3880, Sub 0	Estes Express Lines, Inc.	NC
SP-4001, Sub 1	Harvest Solar 1, LLC	NC
SP-4027, Sub 0	Smithfield Solar, LLC	NC
SP-4184, Sub 0	John Messenheimer	NC
SP-4315, Sub 0	Cline Solar, LLC	NC
SP-4340, Sub 0	Hardison Farm Solar, LLC	NC
SP-4341, Sub 0	Modlin Farm Solar, LLC	NC
SP-4344, Sub 0	Haywood Farm Solar, LLC	NC
SP-4349, Sub 0	Highland Brewing Company, Inc.	NC
SP-4393, Sub 0	Bizzell Church Solar, LLC	NC
SP-4397, Sub 0	St. Pauls Solar 2, LLC	NC
SP-4420, Sub 0	Red Toad 4188 Cleveland Rd, LLC	NC
SP-4441, Sub 0	Peach Solar, LLC	NC
SP-4463, Sub 0	Staley Solar, LLC	NC
SP-4471, Sub 0	White Farm Solar, LLC	NC
SP-4474, Sub 0	Hood Farm Solar, LLC	NC
SP-4476, Sub 0	Boaz Farm Solar, LLC	NC
SP-4637, Sub 0	Rocky Cross Solar, LLC	NC
SP-4776, Sub 0	SunE Bearpond Lessee, LLC	NC
SP-4795, Sub 0	SunE Graham Lessee, LLC	NC
SP-4796, Sub 0	SunE Shankle Lessee, LLC	NC
SP-4904, Sub 0	Bo Biggs Solar, LLC	NC
SP-5002, Sub 0	Upper Piedmont Renewables, LLC	NC
SP-5003, Sub 0	Foothills Renewables, LLC	NC
SP-5013, Sub 0	Willard Keith Oneal	NC
SP-5031, Sub 0	Gantts Grove Church Road, LLC	NC
SP-5092, Sub 0	Flowers Solar, LLC	NC
SP-5095, Sub 0	Landmark Solar Farm, LLC	NC
SP-5098, Sub 0	Shine Solar, LLC	NC
SP-5138, Sub 0	Mark Mautner	NC
SP-5145, Sub 0	Country Oak Solar Farm, LLC	NC
SP-5154, Sub 0	Rowan Solar, LLC	NC
SP-5155, Sub 0	Catawba Solar, LLC	NC
SP-5195, Sub 0	Red Toad Powhatan Phase 2, LLC	NC
SP-5196, Sub 0	Lane Solar Farm, LLC	NC
SP-5263, Sub 0	Centerville Church Solar, LLC	NC
SP-5264, Sub 0	Cherry Grove Solar, LLC	NC

SP-5272, Sub 0	Sunflower Solar, LLC	NC
SP-5306, Sub 0	Red Toad 243 Mort Harris Rd	NC
SP-5344, Sub 0	Sadiebrook Solar Farm, LLC	NC
SP-5375, Sub 0	Innovative Solar 49, LLC	NC
SP-5410, Sub 0	Innovative Solar 32, LLC	NC
SP-5422, Sub 0	North 301 Solar, LLC	NC
SP-5440, Sub 0	Five Forks Solar, LLC	NC
SP-5474, Sub 0	Broadway Road Solar, LLC	NC
SP-5661, Sub 0	234 Williamston WF Solar I, LLC	NC
SP-5701, Sub 0	David Rubinow	NC
SP-5971, Sub 0	Whitt Town Solar, LLC	NC
SP-6230, Sub 0	Lynda Haberer	NC
SP-6380, Sub 0	Doubs Chapel Solar, LLC	NC
SP-6935, Sub 0	Crimson Solar, LLC	NC
SP-6951, Sub 0	Discovery Solar, LLC	NC
SP-6966, Sub 0	Research Station Solar, LLC	NC
SP-6994, Sub 0	Charlotte Latin Schools, Inc.	NC
SP-7200, Sub 0	Lucky Clays Farming & Forestry, LLC	NC
SP-7214, Sub 0	Atkinson Solar II, LLC	NC
SP-7216, Sub 0	Horus North Carolina 6, LLC	NC
SP-7379, Sub 0	Todd Bowland	NC
SP-7384, Sub 0	Horus North Carolina 8, LLC	NC
SP-7394, Sub 0	Horus North Carolina 7, LLC	NC
SP-7440, Sub 0	Salisbury Solar, LLC	NC
SP-7487, Sub 0	ESA Goldsboro NC 2, LLC	NC
SP-7550, Sub 0	Horus North Carolina 4, LLC	NC
SP-7665, Sub 0	Cell Tower Solar, LLC	NC
SP-7729, Sub 0	U.S. Ecogen Polk, LLC	NC
SP-7737, Sub 0	Eastway Solar, LLC	NC
SP-7759, Sub 0	Legion Solar, LLC	NC
SP-7781, Sub 0	Bear Poplar Solar, LLC	NC
SP-7797, Sub 0	Clarksbury Solar, LLC	NC
SP-7964, Sub 0	Seven Bridges Solar, LLC	NC
SP-7984, Sub 0	Hwy 97 Solar, LLC	NC
SP-7985, Sub 0	Sharpburg Solar, LLC	NC
SP-7986, Sub 0	Princeville Solar, LLC	NC
SP-7987, Sub 0	South Tarboro Solar, LLC	NC

SP-7988, Sub 0	New Hope Solar, LLC	NC
SP-8038, Sub 0	Marchpast Solar, LLC	NC
SP-8045, Sub 0	CB Bladen Solar II, LLC	NC
SP-8166, Sub 0	Longneck Solar, LLC	NC
SP-8191, Sub 0	Gamble Solar, LLC	NC
SP-8203, Sub 0	C&C Solar, LLC	NC
SP-8205, Sub 0	Brewington Solar, LLC	NC
SP-8209, Sub 0	CL Solar, LLC	NC
SP-8220, Sub 0	Alpha Value Solar, LLC	NC
SP-8276, Sub 0	Grays Mill Solar, LLC	NC
SP-8278, Sub 0	Pitt County Solar, LLC	NC
SP-8506, Sub 0	Horus North Carolina 3, LLC	NC
SP-8576, Sub 0	Horus North Carolina, LLC	NC

**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,  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 27699-4300