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

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THE GOVERNOR OF NORTH CAROLINA
THE ENVIRONMENTAL REVIEW COMMISSION
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COMMISSION ON GOVERNMENTAL OPERATIONS

SUBMITTED BY

THE NORTH CAROLINA UTILITIES COMMISSION

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EXECUTIVE SUMMARY

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

2016 Legislation

The 2015-2016 General Assembly did not pass any legislation amending the REPS.

Commission Implementation

Rulemaking Proceeding

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

Since issuing this Order, the Commission has issued a number of orders interpreting various REPS provisions, including the following Orders issued since the 2015 report to the General Assembly:

- On December 1, 2015, in Docket No. E-100, Sub 113, 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 REPS swine and poultry waste set-aside requirements in 2015, but would not be able to comply. The Order resulted in the following updated

compliance schedules for the swine waste and poultry waste set-asides REPS requirements:

Calendar Year	Requirement for Swine Waste Resources
2016-2017	0.07%
2018-2020	0.14%
2021 and thereafter	0.20%

Calendar Year	Requirement for Poultry Waste Resources
2014	170,000 MWh
2015	170,000 MWh
2016	700,000 MWh
2021 and thereafter	900,000 MWh

On August 11, 2016, in Docket No. E-100, Sub 113, electric power suppliers filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of the poultry waste set-aside. On August 31, 2016, the Commission issued an Order Requesting Comments on the motion. The matter is pending before the Commission.

- On December 15, 2015, in Docket No. E-100, Sub 113, the Commission issued an Order Establishing 2015 Poultry Waste Set-Aside Requirement Allocation. 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. The Order established 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.

- 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 shown in the spreadsheet 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.

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 2015 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 December 2, 2015, the Commission 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 15, 2015, as required by the Commission's August 12, 2015 Order giving notice of intent to revoke registrations, 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 March 11, 2016, in Docket No. E-7, Subs 1086 and 1087, the Commission issued an Order Accepting Registration of New Renewable Energy Facilities accepting the registration

of Duke Energy Carolina's Buck and Dan River combined-cycle generating facilities as new renewable energy facilities. The facilities will be combusting directed biogas to generate electricity for Duke Energy Carolina's customers. The biogas will be produced by anaerobic digestion of swine waste and other biomass at facilities located in Missouri and Oklahoma, cleaned to pipeline quality, metered, injected into the interstate pipeline, and nominated for use by Duke Energy Carolinas at Buck and Dan River. In previous orders, the Commission concluded that biogas derived from the anaerobic digestion of animal waste is a renewable energy resource and that when such biogas is produced outside of North Carolina, injected into the natural gas pipeline, and nominated for use by a natural gas-fueled electric generating facility, it is a renewable energy resource and the resulting electric generation would be eligible to earn RECs that may be used for REPS compliance, so long as appropriate attestations are made and records kept to ensure that no biogas is double-counted. Consistent with these past orders, the Commission concluded that the registration statements for the Buck and Dan River combined-cycle generating facilities should be accepted. Further, 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.

- On August 25, 2016, in Docket No. E-100, Sub 130, the Commission issued an Order giving notice of its intent to revoke the registrations 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.

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.

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 2010-2015 REPS solar set-aside requirements, the 2015 poultry waste set-aside requirement, and the 2012-2015 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

Monitoring by the Commission of compliance with the REPS requirements of Senate Bill 3 is accomplished through the annual filing by each electric power supplier of a REPS compliance plan and a REPS compliance report. Pursuant to

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

Cost recovery rider

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

Electric public utilities

Duke Energy Progress, LLC (DEP)

On June 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. A final decision is pending before the Commission.

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) 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 2016 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. 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 2016 and is highly uncertain of its ability to comply in 2017 and 2018 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 2016 aggregate poultry waste set-aside requirement and that its ability to achieve compliance with the requirements in 2017 and 2018 remains uncertain and largely subject to counterparty performance. DEP notes several resource options available to the Company to meet its general requirement. 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 2016 compliance plan is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, DEP, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of the poultry waste set-aside. On August 31, 2016, the Commission issued an Order Requesting Comments on the motion. The matter is pending before the Commission.

Duke Energy Carolinas, LLC (DEC)

On March 9, 2016, in Docket No. E-7, Sub 1106, as corrected by a filing on March 15, 2016, DEC filed its 2015 REPS compliance report and an application for approval of a REPS rider to be effective September 1, 2016. The application requested a total REPS rider of $0.95 per month for residential customers; $4.38 per month for general customers (the DEC equivalent of commercial class customers); and $22.27 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 2015 REPS compliance report, DEC indicates that it acquired sufficient RECs to meet the 2015 requirement of 6% of its 2014 retail sales. Additionally, DEC indicates that it acquired sufficient solar RECs to meet the 2015 requirement of 0.14% of its

2014 retail sales and had acquired its pro-rata share of poultry RECs to satisfy the 2015 poultry waste set-aside requirement. Pursuant to the Commission's December 1, 2015 Order in Docket No. E-100, Sub 113, DEC's 2015 swine waste set-aside requirement was delayed until 2016. On March 9, 2016, the Commission held a hearing on DEC's 2015 compliance report and REPS cost recovery rider. On August 16, 2016, the Commission issued an order approving DEC's proposed REPS riders. In the same Order, the Commission approved DEC's 2015 compliance report and retired the RECs in DEC's 2015 compliance sub account. Additionally, in the same Order, the Commission notes several specific concerns regarding DEC's charging of interconnection costs to the REPS rider and required DEC to address these concerns in future proceedings.

On September 1, 2016, in Docket No. E-100, Sub 147, DEC filed its 2016 REPS compliance plan as part of its 2016 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 2016 and 2017 and 0.20% of prior year's sales in 2018 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 2016 and is highly uncertain of its ability to comply in 2017 and 2018 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 2016 aggregate poultry waste set-aside requirement and that its ability to achieve compliance with the requirements in 2017 and 2018 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 2016 Compliance Plan is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, DEC, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of poultry waste set-aside. On August 31, 2016, the Commission issued an Order Requesting Comments on the motion. The matter is pending before the Commission.

Dominion North Carolina Power (Dominion)

On August 19, 2015, in Docket No. E-22, Sub 525, Dominion filed an application for approval of a 2015 REPS recovery rider and its 2015 compliance report (for the 2014 compliance year). The report included compliance status for the Town of Windsor. Dominion states that it met its 2014 general REPS requirement by purchasing unbundled out-of-state solar and wind RECs, in-state solar RECs, and through energy efficiency measures and met the Town of Windsor's requirement with additional biomass RECs from within the State as well as the appropriate SEPA allocations. Dominion states that it met its 2014 solar set-aside requirement and the Town of Windsor's requirement by purchasing solar RECs. Dominion states that its 2014 swine waste set-aside requirement in G.S. 62-133.8(e) and (f) for itself and the Town of Windsor was relieved pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. Dominion further states that it met its 2015 poultry waste set-aside requirement in G.S. 62-133.8(f), for both itself and the Town of Windsor and anticipates fulfillment of the 2015 requirement for itself and the Town of Windsor. On December 16, 2015, the Commission issued an Order Approving REPS and REPS EMF Riders and 2014 REPS Compliance. The Order approved the following total 2014 REPS riders: $0.23 per month for residential customers; $0.99 per month for commercial customers; and $6.70 per month for industrial customers. In addition, the Order approved Dominion's 2015 REPS compliance report and retired the RECs and EECs associated with that account.

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. The matter is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, Dominion, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of poultry waste set-aside. On August 31, 2016, the Commission issued an Order Requesting Comments on the motion. The matter 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, 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 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 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). Approval of GreenCo's 2016 compliance plan and 2015 compliance report is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, GreenCo, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, its solar set-aside requirement, and its poultry waste set-aside requirement. 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. On August 11, 2016, in Docket No. E-100, Sub 113, EnergyUnited, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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 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 requirements, TVA reiterates 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 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 August 11, 2016, in Docket No. E-100, Sub 113, TVA, along with

several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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. 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 August 11, 2016, in Docket No. E-100, Sub 113, Halifax, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, 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 2015 solar set-aside requirement (9,966 RECs) by purchasing solar RECs and its 2015 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. Approval of NCEMPA's 2016 REPS compliance plan and 2015 REPS compliance report is pending before the Commission. On August 11, 2016, in Docket No. E-100, Sub 113, NCEMPA, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, 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 hydroelectric generation resources, and through the purchase of solar, biomass, hydroelectric and poultry RECs. Additionally, NCMPA1 states that it met its 2015 solar set-aside requirement by purchasing electricity from solar generating facilities and through the purchase of solar RECs, and met its 2015 poultry set-aside requirement 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. Approval of NCMPA1's 2016 REPS compliance plan and 2015 REPS compliance report is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, NCMPA1, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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 113, 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 August 11, 2016, in Docket No. E-100, Sub 113, FPWC, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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. 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 18 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. Approval of Fountain's 2015 compliance report and its 2016 compliance plan is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, Fountain, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of the 2016 poultry waste set-aside. The Commission has requested comments on the matter and it 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. On September 12, 2016, in Docket No. E-100, Sub 149, Waynesville filed its 2016 compliance plan. In its plan, Waynesville states that, beginning in 2016,

Waynesville 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.

Wholesale Providers Meeting REPS Requirements

DEP, as the wholesale provider, has agreed to meet the REPS requirements for the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville.[1] Similarly, DEC has agreed to meet the REPS requirements for Rutherford EMC; Blue Ridge EMC; the cities of Concord and Kings Mountain; and the towns of Dallas, Forest City, and Highlands. Dominion has agreed to meet the REPS requirements for the Town of Windsor. The towns of Macclesfield, Pinetops, and Walstonburg have previously filed letters stating that the City of Wilson, as their wholesale provider, has agreed to include their loads with its own for reporting to NCEMPA for REPS compliance. Oak City has indicated that Edgecombe-Martin County EMC, its wholesale provider, has agreed to include its loads with its own for reporting to GreenCo for REPS compliance.

Recommendation

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. As discussed in detail below, the report states that 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] 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. In its report, DEP states its contract as wholesale power provider and for providing REPS compliance services for Waynesville expired on December 31, 2015.

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.

Legislation amending G.S. 62-300 was not enacted in 2016. The Commission recommends that the General Assembly consider the recommendations contained in the March 29, 2016 report pursuant to Section 15.16A of the 2015 Budget during the 2016 legislative session.

Conclusions

All of the electric power suppliers have met or appear to have met the 2012-2015 general REPS requirement and appear on track to meet the 2016 general REPS requirements. All of the electric power suppliers have met the 2012-2015 solar set-aside requirements and appear to be on track to meet the 2016 solar set-aside requirement. The Commission granted a joint motion to delay implementation of the 2015 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 2015. Despite this, most electric power suppliers do not appear on track to meet the swine and poultry waste set-aside requirements for 2016 and have requested further delays to both of these requirements. The electric power suppliers requested a delay in the requirements of the 2016 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 2015 requirement. The matter is pending before the Commission. In addition, numerous 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

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.[2]

On October 1, 2008, the Commission made its first annual report pursuant to G.S. 62-133.8(j),[3] and last year, on October 1, 2015, the Commission made its eighth annual report.[4] The remaining sections of this report detail, as required by the General Assembly, developments related to Senate Bill 3, activities undertaken by the Commission during the past year to implement Senate Bill 3, and actions by the electric power suppliers to comply with G.S. 62-133.8, the REPS provisions of Senate Bill 3.

[2] 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.

[3] 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).

[4] 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, 2015 (2015 REPS Report).

2016 LEGISLATION

The 2016 General Assembly did not pass any legislation amending the REPS.

COMMISSION IMPLEMENTATION

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 2015 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 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.

This Order resulted in the following updated compliance schedules for the swine waste set-aside REPS requirement:

Calendar Year	Requirement for Swine Waste Resources
2015-2016	0.07%
2017-2019	0.14%
2020 and thereafter	0.20%

- 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).

Since the October 1, 2015 report was submitted, the Commission has issued a number of additional Orders interpreting various provisions of the REPS statute and seeking additional information to aid the Commission in future interpretations. The following Orders are of particular interest:

Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief, Docket No. E-100, Sub 113 (December 1, 2015)

On August 12, 2015, DEC, DEP, Dominion, GreenCo, FPWC, EnergyUnited, Halifax, TVA, NCEMPA, and NCMPA1 (Joint Movants) filed a joint motion to modify and delay the 2015 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 2016. 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 18, 2015, the Commission issued an Order Requesting Comments. On October 2, 2015, the North Carolina Poultry Federation, the Public Staff and NCSEA filed comments. On October 9, 2015, North Carolina Pork Council and Optima KV, LLC, filed comments. On October 16, 2015, DEC and DEP filed supplemental comments.

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.

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

Calendar Year	Requirement for Swine Waste Resources
2016-2017	0.07%
2018-2020	0.14%
2021 and thereafter	0.20%

Calendar Year	Requirement for Poultry Waste Resources
2014	170,000 MWh
2015	170,000 MWh
2016	700,000 MWh
2021 and thereafter	900,000 MWh

On August 11, 2016, 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 2016 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.

Order Establishing 2015 Poultry Waste Set-Aside Requirement Allocation, Docket No. E-100, Sub 113 (December 15, 2014)

On October 19, 2015 in Docket No. E-100, Sub 113, the Commission issued an Order Addressing Poultry Compliance Shortfall and Requesting Comments on New Allocation Method. In that Order, the Commission found that the current functionality in NC-RETS for allocating the aggregate poultry waste set-aside requirement is “too dynamic” in that every electric power supplier’s obligation changes whenever one electric power supplier corrects a retail sales data That Order also requested comments as to alternative methods of allocating the aggregate poultry waste set-aside requirement to be filed by December 30, 2015 and reply comments to be filed by January 29, 2016.

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.

Order Establishing Method of Allocating the Aggregate Poultry Waste Resource Set-Aside Requirement, Docket E-100, Sub 113 (April 18, 2016)

On October 19, 2015 in Docket No. E-100, Sub 113, the Commission issued an Order Addressing Poultry Compliance Shortfall and Requesting Comments on New Allocation Method. In that Order, the Commission found that the current functionality in NC-RETS for allocating the aggregate poultry waste set-aside requirement is "too dynamic" in that every electric power supplier's obligation changes whenever one electric power supplier corrects a retail sales data error. That Order also requested comments as to alternative methods of allocating the aggregate poultry waste set-aside requirement to be filed by December 30, 2015 and reply comments to be filed by January 29, 2016. On December 30, 2015, DEC and DEP jointly filed comments as did the Public Staff. No reply comments were filed. DEC's and DEP's joint comments and those of the Public Staff were in agreement as to a proposed method of allocating the aggregate poultry waste set-aside requirement based on three years of average annual retail sales with the resulting allocation held constant for three years. No party opposed this recommendation.

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 the proposal put forward by the Public Staff and supported by DEC and DEP is a reasonable way to proceed. The Order established 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).

Order on NCSEA's Request, Docket No. E-100, Sub 113 (June 6, 2016)

On June 1, 2015, NCSEA filed a Request for Declaratory Ruling on Meaning of G.S. 62-133.9 and Commission Rule R8-67. In summary, NCSEA requested that the Commission issue a declaratory ruling that a new topping cycle combined heat and power (CHP) system, including such a system that uses nonrenewable energy resources, that both produces electricity or useful, measureable thermal or mechanical energy at a retail customer's facility and results in less energy being used to perform the

same function or provide the same level of service at the retail electric customer's facility constitutes an "energy efficiency measure" for purposes of G.S. 62-133.9 and Commission Rule R8-67. DEC and DEP jointly filed comments arguing that topping cycle CHP systems do not use waste heat to produce electricity, and therefore, do not qualify as energy efficiency measures under G.S. 62-133.8(a)(4), except to the extent that they use waste heat to produce electricity or useful, measureable thermal or mechanical energy. The Public Staff filed comments supporting an interpretation of the REPS statute that would only allow electricity or measureable useful energy from the waste heat component of a topping cycle CHP to qualify for energy efficiency. On October 14, 2015, NCSEA filed reply comments responding to the other parties' comments.

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. On June 6, 2016, NCSEA filed a Notice of Appeal and Exceptions. This matter is pending before the North Carolina Court of Appeals.

Order Establishing the 2016, 2017, and 2018 Poultry Waste Set-Aside Requirement Allocation

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.

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 2015 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_{AC} Directed Biogas-fueled combined heat and power (CHP) facility and a 1.6-MW_{AC} 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 bv 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 giving notice of its intent to revoke the registration of 233 renewable energy facilities and new renewable energy facilities because their owners had not completed or filed the annual certifications required each April 1, as detailed in Commission Rule R8-66(b) (44 facilities registered with NC-RETS did not complete the on-line form and 189 did not file a verified certification with the Commission). Facility owners were given until October 1, 2015, to file their annual certifications belatedly. Owners that do not complete the annual certifications face their facility’s registrations being revoked pursuant to Commission Rule R8-66(f). The matter is pending before the Commission.

Since the October 1, 2015 report was submitted, the Commission has issued additional 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 (December 2, 2015).

On December 2, 2015, the Commission 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.

Order Accepting Registration of New Renewable Energy Facilities, Docket No. E-7, Subs 1086 and 1087 (March 11, 2016).

On June 8, 2015, DEC filed registration statements as new renewable energy facilities for its Buck and Dan River combined-cycle generating facilities, respectively. DEC states that Buck and Dan River will be combusting directed biogas derived from swine waste and other biomass to generate electricity for DEC's customers. DEC further states that it has entered contracts with biogas suppliers that will produce biogas by anaerobic digestion of swine waste and other biomass at facilities located in the Midwest. The biogas produced by the biogas suppliers will be cleaned to pipeline quality, metered, injected into the interstate pipeline system, and nominated for use by DEC at Buck and Dan River.

On March 11, 2016, 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.

Order Giving Notice of Intent to Revoke Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (August 25, 2016).

On August 25, 2016, the Commission 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.

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. 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, 2015, NC-RETS had issued 39,291,430 RECs and 7,598,087 EE certificates. These numbers could increase because renewable energy generators are allowed to enter historic production data for up to two years.

- As of September 1, 2016, 470 organizations, including electric power suppliers and owners of renewable energy facilities, had established accounts in NC-RETS.

- As of September 1, 2016, approximately 1006 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.

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

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:

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

Commission Rule R8-67(e) establishes a procedure under which the Commission will consider approval of a REPS rider for each electric public utility. The REPS rider operates similar to the fuel charge adjustment rider authorized in

G.S. 62-133.2. Each electric public utility is required to file its request for a REPS rider at the same time as it files the information required in its annual fuel charge adjustment proceeding, which varies for each utility. The test periods for both the REPS rider and the fuel charge adjustment rider are the same for each utility, as are the deadlines for publication of notice, intervention, and filing of testimony and exhibits. A hearing on the REPS rider will be scheduled to begin as soon as practicable after the hearing held by the Commission for the purpose of determining the utility's fuel charge adjustment rider. The burden of proof as to whether the REPS costs were reasonable and prudently incurred shall be on the electric public utility. Like the fuel charge adjustment rider, the REPS rider is subject to an annual true-up, with the difference between reasonable and prudently incurred incremental costs and the revenues that were actually realized during the test period under the REPS rider then in effect reflected in a REPS experience modification factor (REPS EMF) rider. Pursuant to G.S. 62-130(e), any over-collection under the REPS rider shall be refunded to a utility's customers with interest through operation of the REPS EMF rider.

Electric Public Utilities

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

REPS requirement

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

Calendar Year	REPS Requirement
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.[5]

Duke Energy Progress, LLC (DEP)

Compliance Report

On June 17, 2015, in Docket No. E-2, Sub 1071, DEP filed its 2014 REPS compliance report and application for approval of its 2015 REPS cost recovery rider pursuant to G.S. 62-133.8 and Rule R8-67. By its application and testimony, DEP proposed to implement the following total REPS rates effective for service rendered on and after December 1, 2015: $1.17 per month for residential customers; $6.65 per month for general service/lighting customers; and $60.77 per month for industrial customers; each of which is below the incremental per-account

[5] 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.

cost cap established in G.S. 62-133.8(h). In its 2014 REPS compliance report, DEP indicates that it acquired sufficient RECs to meet the 2014 requirement of 3% of its 2013 retail sales (1,112,760 RECs representing 3% of combined 2013 retail megawatt-hour sales). Additionally, DEP indicates that it acquired sufficient solar RECs to meet the 2014 requirement of 0.07% of its 2013 retail sales (25,969 RECs). DEP also indicates that, in combination with RECs eligible for the poultry requirement pursuant to Session Law 2010-195 (S886), it was able to meet the poultry waste set-aside requirement in 2014. Pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113, DEP's 2014 swine waste set-aside requirement was delayed until 2015. The Commission held a hearing on DEP's 2014 REPS compliance report and 2015 REPS cost recovery rider on September 15, 2015. On November 17, 2015, the Commission issued an Order Approving REPS and REPS EMF Rider and 2014 REPS Compliance. The Order approved the following total REPS riders applicable to DEP for service rendered on or after December 1, 2015: $1.17 per month for residential customers; $6.66 per month for commercial customers; and $60.85 per month for industrial customers. In addition, the Order approved DEP's 2014 REPS compliance report and retired the RECs and EECs associated with that account.

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 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. A final decision is pending before the Commission.

Compliance Plan

On September 1, 2015, in Docket No. E-100, Sub 141, DEP filed its 2015 REPS compliance plan as part of its 2015 Integrated Resource Plan (IRP) update report. In its plan, DEP 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 8, 2016, the Commission held a required public hearing on DEP's 2015 REPS compliance plan and 2015 IRP update report. On March 22, 2016, the Commission issued an Order Accepting Filing of 2015 Update Reports and Approving 2015 REPS Compliance Plans accepting DEP's IRP update and REPS compliance plan. On February 8, 2016, the Commission held a required public hearing on DEP's 2015 REPS compliance plan and 2015 IRP update report. On March 22, 2016, the Commission issued an Order Accepting Filing of 2015 Update Reports and Approving 2015 REPS Compliance Plans accepting DEP's IRP update and REPS 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) 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 has agreed to provide REPS compliance services for the following wholesale customers, as allowed under G.S. 62-133.8(c)(2)(e): the towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville.

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 2016 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 2015 retail sales DEP's 2016 solar set-aside requirement is approximately 52,605 RECs. Based on forecasted retail sales DEP's solar set-aside requirement is projected to be approximately 52,373 RECs in 2016 and 75,275 RECs in 2017.

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 2016 and is highly uncertain of its ability to comply in 2016 and 2017 due to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. 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 2016 aggregate poultry waste set-aside requirement (197,939 RECs) and that its ability to achieve compliance with the requirements in 2017 (254,493 RECs) and 2018 (254,493 RECs) remains uncertain and largely subject to counterparty performance.

DEP states that its general REPS requirement, net of the set-asides discussed above, is estimated to be 1,977,517 RECs in 2016; 1,911,494 RECs in 2017 and 3,381,274 RECs in 2018. 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 that it recognizes that some land-based wind developers are presently pursuing projects of significant size in North Carolina and that opportunities may exist to transmit land-based wind energy resources into North Carolina from other regions. DEP plans to meet a portion of the general requirement with RECs from solar facilities above that portion required by the solar set-aside. DEP 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 2016 Compliance Plan is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, DEP, along with several other parties, filed a motion to delay the requirements of the 2016 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.

Duke Energy Carolinas, LLC (DEC)

Compliance Report

On March 9, 2016, in Docket No. E-7, Sub 1106, as corrected by a filing on March 15, 2016, DEC filed its 2015 REPS compliance report and an application

for approval of a REPS rider to be effective September 1, 2016. The application requested a total REPS rider of $0.95 per month for residential customers; $4.38 per month for general customers (the DEC equivalent of commercial class customers); and $22.27 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 2015 REPS compliance report, DEC indicates that it acquired sufficient RECs to meet the 2015 requirement of 6% of its 2014 retail sales. Additionally, DEC indicates that it acquired sufficient solar RECs to meet the 2015 requirement of 0.14% of its 2014 retail sales and had acquired its pro-rata share of poultry RECs to satisfy the 2015 poultry waste set-aside requirement. Pursuant to the Commission's December 1, 2015 Order in Docket No. E-100, Sub 113, DEC's 2015 swine waste set-aside requirement was delayed until 2016. On March 9, 2016, the Commission held a hearing on DEC's 2015 compliance report and REPS cost recovery rider. On August 16, 2016, the Commission issued an order approving DEC's proposed REPS riders. In the same Order, the Commission approved DEC's 2015 compliance report and retired the RECs in DEC's 2015 compliance sub account.

Compliance Plan

On September 1, 2015, in Docket No. E-100, Sub 141, DEC filed its 2015 REPS compliance plan as part of its 2015 Integrated Resource Plan (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) 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 8, 2016, the Commission held a required public hearing on DEC's 2015 REPS compliance plan and 2015 IRP update report. On March 22, 2016, the Commission issued an Order Accepting Filing of 2015 Update Reports and Approving 2015 REPS Compliance Plans accepting DEC's IRP update and REPS 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 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 has agreed to provide REPS compliance services for the following wholesale customers, as allowed under G.S. 62-133.8(c)(2)(e): Rutherford Electric Membership Corporation, Blue Ridge Electric Membership Corporation, Town of Dallas, Town of Forest City, City of Concord, Town of Highlands, and the City of Kings Mountain.

DEC intends to achieve compliance with the solar set-aside requirement of 0.14% of the prior year's retail sales in 2016 and 2017 and 0.20% of prior year's sales in 2018 through a combination of power purchase agreements and company owned solar PV facilities. Based on its 2015 retail sales, DEC's 2015 solar set-aside requirement is approximately 85,835 RECs. Based on forecasted retail sales DEC's solar set-aside requirement is projected to be approximately 84,926 RECs in 2017 and 122,221 RECs in 2018.

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 despite its efforts it will be unable to comply with the requirement in 2016 and is highly uncertain of its ability to comply in 2017 and 2018 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 2016, 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 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. DEC further states that, in spite of these efforts, it has been unable to secure enough RECs to comply with its share of the 2016 aggregate poultry waste set-aside requirement (318,866 RECs) and that its ability to achieve compliance with the requirements in 2017 (409,970 RECs) and 2018 (409,970 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 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 that, due to its expected non-compliance in 2016, 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 3,230,850 RECs in 2016; 3,102,306 RECs in 2017; and 5,493,284 RECs in 2018. 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 states that it recognizes that some land-based wind developers are presently pursuing projects of significant size in North Carolina. DEC also notes that opportunities may exist to transmit land-based wind energy resources into North Carolina form other regions. DEC plans to meet a portion of the general requirement with RECs from solar facilities above that portion required by the solar set-aside. DEC states it views the downward trend in solar equipment and installation costs as a positive trend. Approval of DEC's 2016 Compliance Plan is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, DEC, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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 19, 2015, in Docket No. E-22, Sub 525, Dominion filed an application for approval of a 2015 REPS recovery rider and its 2015 compliance report (for the 2014 compliance year). The report included compliance status for the Town of Windsor. Dominion states that it met its 2014 general REPS requirement (129,297 RECs) by purchasing unbundled out-of-state solar and wind RECs, in-state solar RECs, and through energy efficiency measures and met the Town of Windsor's requirement (1,385 RECs) with additional biomass RECs from within the State as well as the appropriate SEPA allocations. Dominion states that it met its 2014 solar set-aside requirement (3,017 RECs) and the Town of Windsor's requirement (35 RECs) by purchasing solar RECs. Dominion states that its 2014 swine waste set-aside requirement in G.S. 62-133.8(e) and (f) for itself and the Town of Windsor was relieved pursuant to the Commission's November 13, 2014 Order in Docket No. E-100, Sub 113. Dominion further states that it met its 2015 poultry waste set-aside requirement in G.S. 62-133.8(f), for both itself (5,630 RECs) and the Town of Windsor (64 RECs) and anticipates fulfillment of the 2015 requirement for itself and the Town of Windsor. On December 16, 2015, the Commission issued an Order Approving REPS and REPS EMF Riders and 2014 REPS Compliance. The Order approved the following total 2014 REPS riders: $0.23 per month for residential customers; $0.99 per month for commercial customers; and $6.70 per month for industrial customers. In addition, the Order

approved Dominion's 2015 REPS compliance report and retired the RECs and EECs associated with that account.

Compliance Plan

On July 1, 2015, in Docket No. E-100, Sub 141, Dominion filed its 2015 REPS compliance plan as part of its 2015 IRP update report. In its plan, Dominion states that it intends to meet its general REPS requirements in 2015 through 2017 through the use of new company-generated renewable energy, EE, and REC purchases. Dominion states that it has contracted for enough solar RECs to satisfy its solar set-aside requirement in 2015 and 35% of its 2016 and 2017 requirement. Dominion states that it will continue to make all reasonable efforts to satisfy the solar set-aside moving forward. Dominion states that the 2015 and 2016 swine waste set-aside requirements remain difficult to fulfill. Dominion states it has entered into contracts for poultry RECs and will be able to meet its 2015 and 2016 poultry waste set-aside requirements. On February 8, 2016, the Commission held a required public hearing on Dominion's 2015 REPS compliance plan and 2015 IRP update report. On March 22, 2016, the Commission issued an Order Accepting Filing of 2015 Update Reports and Approving 2015 REPS Compliance Plans accepting Dominion's IRP update and REPS 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 update report. 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 customers, including 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 continues its efforts to comply with the REPS set-aside requirements. Dominion states that it has purchased RECs or entered into contracts to purchase solar RECs to satisfy its compliance for 2015 and 2016, and approximately 25% of its requirements for 2017. Dominion has executed contracts with solar facilities in North Carolina that will satisfy the in-state portion of the Town of Windsor's compliance requirements for 2016 through 2018. Dominion states that it continues to evaluate opportunities to purchase both in-state and out-of-state solar RECs, and will continue to make all reasonable efforts to satisfy its and the Town's solar set-aside requirements.

Dominion states that it has spent considerable time and effort attempting to locate operational swine waste digesters in the continental United States. As a result of Dominion's search it has entered into contracts with two suppliers and presented offers to two additional suppliers. Through these efforts, both Dominion and the Town of Windsor have sufficient RECs to meet the

2016-2018 requirements. However, Dominion notes that its compliance is dependent on a single supply source that is under construction and has not yet reached commercial operation. Dominion continues to evaluate opportunities to purchase swine RECs and, due to the high default rate with swine to energy contracts, intends to contract for RECs above and beyond the initial requirement to increase the probability of achieving compliance. Dominion intends to bank any excess RECs to be used for future compliance.

Dominion states it has continued to search for opportunities to purchase poultry waste RECs in North Carolina and throughout the continental United States. These efforts yielded multiple poultry waste REC contracts and sufficient delivered volume to comply with both Dominion's and Windsor's out-of-state requirements for years 2016, 2017, and 2018. Dominion believes it is likely, although not guaranteed, that it will have enough in-state RECs for Windsor to comply with the poultry waste set-aside requirement in 2016. Dominion is reasonably confident that Windsor will be in compliance with the poultry waste set aside requirements in 2017 and 2018.

On August 11, 2016, in Docket No. E-100, Sub 113, Dominion, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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,[6] and the fifty-one municipal members of the power agencies to file through NCEMPA and NCMPA1. On September 7, 2010, the Commission similarly allowed TVA to file annual REPS compliance plans and reports on behalf of its four wholesale customers that provide retail service to customers in North Carolina.

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:

Calendar Year	REPS Requirement
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

[6] Effective May 1, 2010, Blue Ridge EMC is no longer a member of GreenCo.

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.[7]

Electric Membership Corporations

GreenCo Solutions, Inc. (GreenCo)

On September 1, 2015, in Docket No. E-100, Sub 145, GreenCo filed with the Commission on behalf of its member EMCs, as well as Mecklenburg Electric Cooperative, Broad River Electric Cooperative, and the Town of Oak City [8] its 2014 REPS compliance report and its 2015 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 2015 poultry and swine waste set-aside requirements, noting that the prospect of complying in 2016 and 2017 is more likely than 2015. In its 2014 REPS compliance report, GreenCo states that it secured adequate resources to meet its members' solar set-aside requirement for 2014 (8,650 RECs for GreenCo, 2 RECs for Mecklenburg, and 4 RECs for Broad River). GreenCo states that it secured adequate resources to meet its members' poultry waste set-aside requirement for 2014 (16,220 RECs for GreenCo, 3 RECs for Mecklenburg, and 8 RECs for Broad River). GreenCo also states that it secured adequate resources to meet its members' general REPS requirement for 2014 (370,685 RECs for GreenCo, 48 RECs for Mecklenburg, and 171 RECs for Broad River). GreenCo notes that the Commission delayed its swine waste set-aside requirements until 2015. Lastly, for 2014, the REPS incremental costs incurred by GreenCo's members were less (around one-fifth) of the costs allowed under the per-account cost cap in

[7] 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.

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

G.S. 62-133.8(h). On March 29, 2016, the Commission issued an order approving GreenCo's 2014 compliance report and retiring the associated RECs in GreenCo's 2014 compliance sub account.

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 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). Approval of GreenCo's 2016 compliance plan and 2015 compliance report is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, GreenCo, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, 2015, in Docket No. E-100, Sub 145, EnergyUnited filed its 2015 REPS compliance plan and its 2014 REPS compliance report with the Commission. In its report, EnergyUnited states that it met its 2014 general REPS-requirement (70,785 RECs), its solar set-aside requirement (1,652 RECs) and its poultry waste set-aside requirement (3,012 RECs). In its plan, EnergyUnited states that it intends to comply with its future obligations through its SEPA allocations, EE programs, and the purchase of RECs. EnergyUnited states that it planned to fulfill its general and solar REPS requirement in 2015 and beyond. However, EnergyUnited notes that it did not anticipate compliance with the 2015 swine and poultry waste set-aside requirements. EnergyUnited displayed its anticipated REPS riders in its 2015 compliance plan for compliance years

2015-2017 as $3.60 per annum for residential customers, $18.36 per annum for commercial customers, and $184.44 per annum for industrial customers. EnergyUnited states that it does not anticipate an increase in its rider during the next several years. On March 29, 2016, the Commission issued an order approving EnergyUnited's 2014 compliance report and retiring the associated RECs in EnergyUnited's 2014 compliance sub account.

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 requirement include having entered into several poultry REC agreements with various suppliers and participation in the same Mt. Olive located project. EnergyUnited displayed its anticipated REPS riders in its 2016 compliance plan for compliance years 2016-2018 as $3.60 per annum for residential customers, $18.36 per annum for commercial customers, and $184.44 per annum for industrial customers. EnergyUnited states that it does not anticipate an increase in its rider during the next several years. Approval of EnergyUnited's 2016 REPS compliance plan and 2015 REPS compliance report is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, EnergyUnited, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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 August 31, 2015, in Docket No. E-100, Sub 145, TVA filed its 2015 REPS compliance plan and 2014 REPS compliance report with the Commission. In its plan, TVA indicates its intent to fulfill the general REPS requirement in 2015 through 2017 with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-state RECs. With regard to its cooperatives' solar set-aside requirement in years 2015 through 2017, TVA reiterated its plans to meet the requirement by generating the energy at its own facilities. In its report, TVA states it had satisfied its cooperatives' 2014 general REPS requirement with its SEPA allocations, purchase of out-of-state wind RECs, and the purchases of various in-state RECs and had satisfied its cooperatives' 2014 solar set-aside requirement through the generation of solar energy. TVA notes that it was relieved of its 2014 swine waste set-aside requirements and had fulfilled its 2014 poultry waste set-aside requirement. TVA states that it had no incremental costs of compliance (TVA's estimated cost cap is $1,694,586). On March 29, 2016, the Commission issued an order approving TVA's 2014 compliance report and retiring the associated RECs in TVA's 2014 compliance sub account.

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 August 11, 2016, in Docket No. E-100, Sub 113, TVA, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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 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 August 11, 2016, in Docket No. E-100, Sub 113, Halifax, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, 2015, in Docket No. E-100, Sub 145, NCEMPA filed with the Commission, on behalf of its members, its 2015 REPS compliance plan and 2014 REPS compliance report. In its 2015 compliance plan, NCEMPA states that its members had no plans to generate electric power at a renewable energy facility. NCEMPA states that its members would meet their REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. The EE programs included the Home EE Kit and the compliance plan provided a description of the M&V plan for the Home EE Kit program. NCEMPA states that it had entered into contracts to purchase various types of RECs and will continue to investigate the market for unbundled RECs as a cost-effective means of REPS compliance. In its compliance report, NCEMPA states that it met its 2014 general REPS requirement (207,745 RECs) through the purchase of bundled renewable energy and the purchase of solar, biomass, hydro, and poultry RECs. Additionally, NCEMPA states in its report that it met its 2014 solar set-aside requirement (4,848 RECs) by purchasing solar RECs and its 2014 poultry waste set-aside requirement (9,071 RECs) by purchasing poultry RECs. In its compliance plan, NCEMPA states that it has entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2017. NCEMPA also states that it has entered into contracts for enough RECs to satisfy the poultry waste set-aside requirement in 2015 but has joined the joint motion to delay the requirement because the aggregate goal will not be met. NCEMPA states in its report that its 2014 incremental costs were well below the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2015 through 2017. On March 29, 2016, the Commission issued an order approving NCEMPA's 2014 compliance report and retiring the associated RECs in NCEMPA's 2014 compliance sub account.

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. Approval of NCEMPA's 2016 REPS compliance plan and 2015 REPS compliance report is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, NCEMPA, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, 2015, in Docket No. E-100, Sub 143, NCMPA1 filed with the Commission, on behalf of its members, a 2015 REPS compliance plan and 2014 REPS compliance report. In its 2015 compliance plan, NCMPA1 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 and EE programs. The EE programs include a Home EE Kit. M&V plans were described in the compliance plan for the program. 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 report, NCMPA1 states that it met its 2014 general REPS requirement (145,660 RECs) by purchasing renewable energy and through the purchase of solar, biomass, hydro and poultry RECs. Additionally, NCMPA1 states in its report that it met its 2014 solar set-aside requirement (3,399 RECs) by purchasing electricity from solar generating facilities and through the purchase of solar RECs. In its compliance plan, NCMPA1 states that it had entered into contracts for enough RECs to satisfy the solar set-aside requirement through 2017. NCMPA1 states in its report that its 2014 incremental costs were about one-sixth of the per-account cost cap and estimated in its compliance plan that the incremental costs for REPS compliance will be significantly less than its per-account cost cap in 2015 through 2017.On March 29, 2016, the Commission issued an order approving NCMPA1's 2014

compliance report and retiring the associated RECs in NCMPA1's 2014 compliance sub account.

On August 31, 2016, 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. Approval of NCMPA1's 2016 REPS compliance plan and 2015 REPS compliance report is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, NCMPA1, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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, 2015, in Docket No. E-100, Sub 145, FPWC filed its 2014 compliance report and 2015 compliance plan. In its 2015 compliance plan, FPWC states that it intends to meet its REPS requirements by purchasing RECs, as well as utilizing SEPA allocations and EE programs. In its compliance report, FPWC states that it met its 2014 general REPS requirement (60,783 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 1,418 solar RECs and its poultry waste set-aside requirement through the purchase of

2,713 poultry RECs. In its compliance plan, FPWC states that it had joined with other electric power suppliers in requesting a delay of the swine and poultry waste set-aside requirements in 2015. Finally, FPWC states that its incremental costs for REPS compliance are projected to be less than its per-account cost cap in 2015 through 2017. On March 29, 2016, the Commission issued an order approving FPWC's 2014 compliance report and retiring the associated RECs in FPWC's 2014 compliance sub account.

On September 1, 2016, in Docket No. E-100, Sub 113, 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 August 11, 2016, in Docket No. E-100, Sub 113, FPWC, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of 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 28, 2015, in Docket No. E-100, Sub 145, Fountain filed its 2015 compliance plan and 2014 compliance report. Fountain notes in its compliance plan that compliance for 2015 through 2017 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 2014 general REPS requirement was 108 RECs. Fountain additionally notes that its solar set-aside requirement was 3 solar RECs and its poultry waste set-aside requirement was 5 RECs, all of which were satisfied through the purchase of RECs. Further, Fountain notes that its incremental costs were 60% of the allowed per-account cost cap. On March 29, 2016, the Commission issued an order approving Fountain's 2014 compliance report and retiring the associated RECs in Fountain's 2014 compliance sub account.

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 18 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. Approval of Fountain's 2015 compliance report and 2016 compliance plan is pending before the Commission.

On August 11, 2016, in Docket No. E-100, Sub 113, Fountain, along with several other parties, filed a motion to delay the requirements of the 2016 swine waste set-aside and to modify the requirements of the 2016 poultry waste set-aside. The Commission has requested comments on the matter and it 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. In its plan, Waynesville states that beginning in 2016 Waynesville 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.

Wholesale Providers Meeting REPS Requirements

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

RECOMMENDATION

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.

Legislation amending G.S. 62-300 was not enacted in 2016. The Commission recommends that the General Assembly consider the recommendations contained in the March 29, 2016 report pursuant to Section 15.16A of the 2015 Budget during the 2016 legislative session.

CONCLUSIONS

All of the electric power suppliers have met or appear to have met the 2012-2015 and appear on track to meet the 2016 general REPS requirements. All of the electric power suppliers have met the 2012-2014 and appear to have met the 2015 solar set-aside requirement of the REPS. A joint motion to delay implementation of the 2015 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 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 2016 and have requested further delays to these requirements. In addition, as stated in the 2015 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

APPENDICES

1. Environmental Review

   - Letter from Chairman Edward S. Finley, Jr., North Carolina Utilities Commission, to Secretary Donald R. van der Vaart, North Carolina Department of Environmental Quality (June 8, 2016)
   - Letter from Secretary Donald R. van der Vaart, North Carolina Department of Environmental Quality, to Chairman Edward S. Finley, Jr., North Carolina Utilities Commission (September 15, 2016)

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 (December 1, 2015)
   - Order Establishing 2015 Poultry Waste Set-Aside Requirement Allocation, Docket No. E-100, Sub 113 (December 15, 2015)
   - Order Establishing Method of Allocating the Aggregate Poultry Waste Resource Set-Aside Requirement, Docket No. E-100, Sub 113 (April 18, 2016)
   - Order on NCSEA's Request, Docket No. E-100, Sub 113 (June 6, 2016)
   - Order Establishing the 2016, 2017, and 2018 Poultry Waste Set-Aside Requirement Allocation, Docket No. E-100, Sub 113 (August 5, 2016)

3. Renewable Energy Facility Registrations

   - Order Revoking Registration of Renewable Energy Facilities and New Renewable Energy Facilities, Docket No. E-100, Sub 130 (December 2, 2015)
   - Order Accepting Registration of New Renewable Energy Facilities, Docket No. E-7, Subs 1086 and 1087 (March 11, 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 25, 2016)

APPENDIX 1

State of North Carolina
Utilities Commission
4325 Mail Service Center
Raleigh, NC 27699-4300

June 8, 2016

Secretary Donald R. van der Vaart
North Carolina Department of
Environmental Quality
1601 Mail Service Center
Raleigh, NC 27699-1601

Dear Secretary van der Vaart:

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

The Commission is not aware of the receipt of any public comments related to this issue. In order to respond to the General Assembly, I am requesting that the Department provide to the Commission any information it may have "regarding direct, secondary, and cumulative environmental impacts of the implementation of" the REPS requirement, including any public comments received by the Department. Your response by September 1, 2016, is appreciated so that the Commission may meet its deadline.

430 North Salisbury Street • Raleigh, North Carolina 27603
Telephone No: 919-733-4249
Facsimile No: 919-733-7300
www.ncuc.net

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

Very truly yours,

Edward S. Finley, Jr.

Edward S. Finley, Jr.

ESF/LSW

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

Environmental Quality

PAT McCRORY
Governor

DONALD R. VAN DER VAART
Secretary

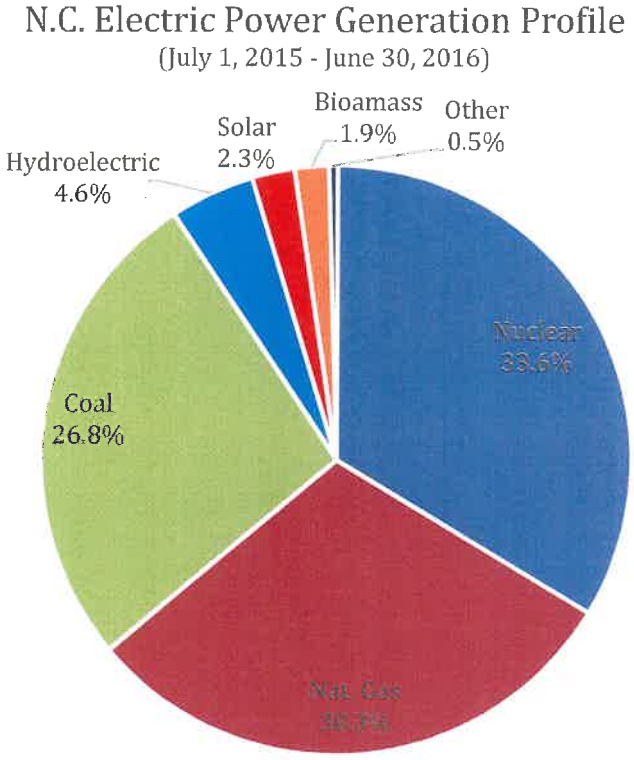
September 15, 2016

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

Re: Renewable Energy and Energy Efficiency Portfolio Standard

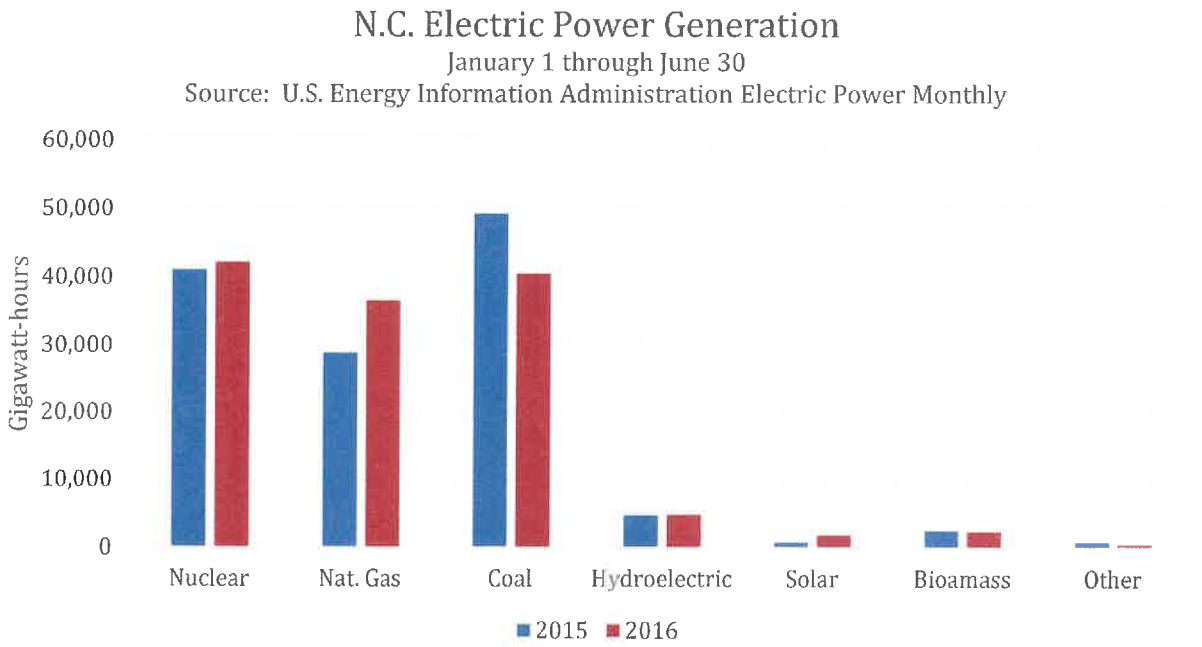
Dear Chairman Finley:

The following information is regarding the direct, secondary and cumulative environmental impacts of the implementation of Senate Bill 3 (SB3) Renewable Energy and Efficiency Portfolio Standard (REPS), enacted under S.L. 2007-397. 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 is North Carolina's net electricity generated from all sectors from July 1, 2015 through the end of June, 2016. During this period, renewable energy resources provided 8.8 percent of all the electric power generated in the state.



Data Source: U.S. Energy Information Administration Electric Power Monthly

The following figure compares power production during the first half of 2016 to the first half of 2015. North Carolina's electricity demand during the first six months of 2016 was down 3.4 percent from the same period in the previous year while its renewable energy generation increased almost 50 percent. The notable rise in hydroelectric and solar photovoltaic (PV) generation is due to increased rainfall and a large number of new utility-scale solar PV facilities coming online. The renewable energy growth has displaced electric power that would have been generated with fossil fuels.

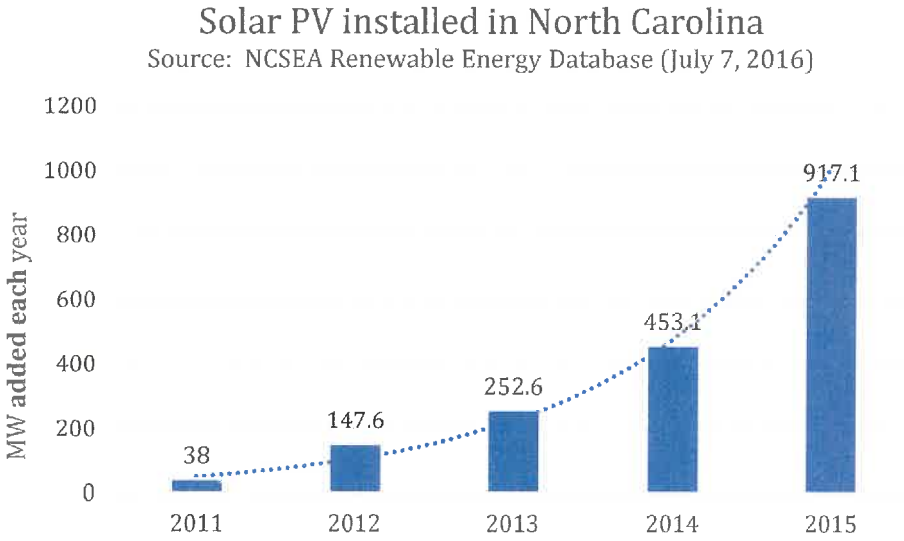


Last year, more than 900 megawatts (MWs) of nameplate capacity solar PV were connected to North Carolina's grid prior to the sunset of the state renewable energy investment tax credit.[1] The pace of solar PV development remains strong even without state tax incentives. Extended federal tax credits enable solar and wind energy generation to grow by shifting their higher cost from the ratepayers to the taxpayers.[2] In fact, the Solar Energy Industries Association (SEIA) expects twice as much solar energy will be developed in the state over the next five years than during the previous five-year period. Furthermore, SEIA projects that over that time span, North

[1] 900 MW nameplate of solar energy with an 18 percent annual capacity factor is expected to produce the same amount of power on an annual basis as a 180 to 200 MW conventional power plant. (See https://www.eia.gov/forecasts/aeo/pdf/electricity_generation.pdf.)

[2] In its *Levelized Cost and Levelized Avoided Cost of New Generation Resources in the Annual Energy Outlook 2016*, the U.S. Energy Information Administration projects that the U.S. average levelized cost of energy (LCOE) in 2022 for new solar energy generation ($74.2 per megawatt-hour) is 30 percent higher than the cost of natural gas power generation. ($56.4per megawatt-hour (MWh). Adjusting for the state's lower solar energy capacity factor, the LCOE of solar energy generation in North Carolina in 2022 is expected to be 90 percent higher than natural gas power generation. (See https://www.eia.gov/forecasts/aeo/pdf/electricity_generation.pdf.)

Carolina will continue to remain third in the country in installed solar capacity, behind California and Arizona.[3] The state is on track to add more solar capacity in 2016 than it did in 2015 and expects to connect its first wind energy facility – the 208 MW Amazon Wind Farm – to the grid by year's end.



Air Quality

With the increase in renewable energy generation, there are growing concerns of how its intermittent availability may be stressing the electric power system and creating localized air quality issues. The intermittent availability resulting in variable output makes balancing the power frequency and the load difficult for the grid operators. A sudden shutdown when clouds roll by or the wind stops blowing requires the prompt ramping up of a complementary dispatchable energy resource to maintain grid stability. Frequent ramping affects a power plant much like a car driving in stop-and-go traffic – it lowers fuel efficiency, increases emissions per unit of power generated and adds significant wear and tear, which over time causes the plant to operate less efficiently. For example, emissions per unit of energy generated can increase considerably when coal-fired plants are not operated as designed. The controls on these plants must reach a minimum temperature to effectively reduce nitrogen oxide (NOx) - a precursor to ground-level ozone formation.

North Carolina needs to exercise caution as it moves forward with connecting more renewables to the grid to ensure it continues to meet its environmental quality objectives. As of 2015, North Carolina has successfully improved its air quality to where all 100 counties are in attainment with all federal ambient air quality standards – an achievement that took 18 years to reach. Much of the improvement came from the electric power sector, which reduced its NOx and sulfur dioxide (SO_2) emissions by more than 80 percent by replacing its aging coal power plants with

[3] http://www.seia.org/state-solar-policy/north-carolina

efficient natural gas units and equipping its remaining coal plants with 21st century emissions controls. North Carolina's electric power sector has also been effective in reducing greenhouse gases (GHG), having cut its carbon dioxide (carbon) emissions by 24 percent since 2005.

Energy policies favoring renewable energy resources over nuclear power may be hindering progress toward cleaner power generation. Environmental Progress finds that "zero-carbon power as a percentage of global electricity declined from 36 to 31 percent between 1993 and 2014." For example, Germany's energy policy, which calls for replacing all of its nuclear plants with renewable energy, is failing to meet its GHG reduction targets. Although it increased its renewable energy generation as a percent of its total power production from 27.4 percent in 2014 to 32.5 percent in 2015, Germany emitted slightly more carbon per unit of electric power produced in 2015 than it did in 2014. Last year, the United States achieved a 6.3 percent reduction in carbon emissions from its electric power sector and had its lowest carbon emissions from electricity generation since 1993, due in large part to the abundant supply and low cost of natural gas.

California's GHG reduction efforts have also stalled, and that state continues to have metropolitan areas with the worst ozone and particulate pollution nationally – despite having an aggressive renewable energy portfolio standard and 16,000 MWs of solar and wind energy nameplate capacity as of October, 2015. The U.S. Energy Information Administration database shows that California's carbon emissions from in-state electric power generation were higher in 2013 than they were in 2011 – the last full year that the zero-emissions San Onofre Nuclear Generating Station operated. Although North Carolina's carbon emissions per unit of electricity produced were about 10 percent higher than California's in 2011, by 2013 there was less than a 1 percent difference between the two states, and today, North Carolina likely generates less carbon per unit of electricity generated than California.

One way to avoid the potential adverse air quality impacts associated with increased intermittent generation (e.g., solar and wind) is to require a pairing approach. Under this approach, commonly referred to as Pairing Environmentally Protective Generation (PEP-G), each unit of new intermittent power must be matched with new non-intermittent clean generation (e.g., nuclear, pump storage). The PEP-G approach has multiple benefits including the continued development of intermittent sources like solar and wind, ensuring reliable energy availability, added flexibility, and protecting air quality like the National Ambient Air Quality Standards.

For example, North Carolina could require "X" MWs of new pumped storage capacity before allowing "Y" percent of total energy generation to come from intermittent renewable energy resources like solar PV. The U.S. Department of Energy (DOE) released a report in July, 2016 that showed excellent opportunities to develop pumped storage projects in the Southeast and how adding pumped storage and electrifying unpowered dams could strengthen energy reliability and enable higher penetrations of renewable energy resources. Another effective strategy would be to modify REPS to ensure all clean energy technologies are advanced equally.

The N.C. Department of Environmental Quality (DEQ) proposes a full air quality analysis to determine the effects of REPS on the quality of the air we breathe. The study would evaluate the impacts that naturally fluctuating renewable energy generation may have on the state's air resource – particularly in the vicinity of the cycled dispatchable power plants. It would include obtaining emissions data from all electricity-producing facilities across the state and possibly neighboring states, running a photochemical grid model to determine ozone formation, and then comparing the results to the meteorological conditions during the designated time period. A modeling analysis using emission data and meteorological conditions could reveal indirect effects to North Carolina's air quality. The challenge will be distinguishing emissions changes resulting from solar integration from those associated with the retirement of several coal-fired facilities.

Land and Water Quality

Clean water is essential in supporting the natural environment, public health, and a vibrant economy. Much progress has been made over the past four decades to improve the quality of North Carolina's water supply. Sediment is the largest single nonpoint source pollutant and a primary factor in the deterioration of surface water quality in the state. North Carolina has actively worked to minimize sediment runoff since the N.C. Sedimentation Act was passed in 1973. All land-disturbing activities of one acre or greater in size must have an approved erosion and sedimentation control plan before work begins. In addition, North Carolina implements post-construction stormwater control programs across approximately 65 percent of the state. These programs require long-term stormwater control for new development activities to offset the impacts of added construction area on the landscape.

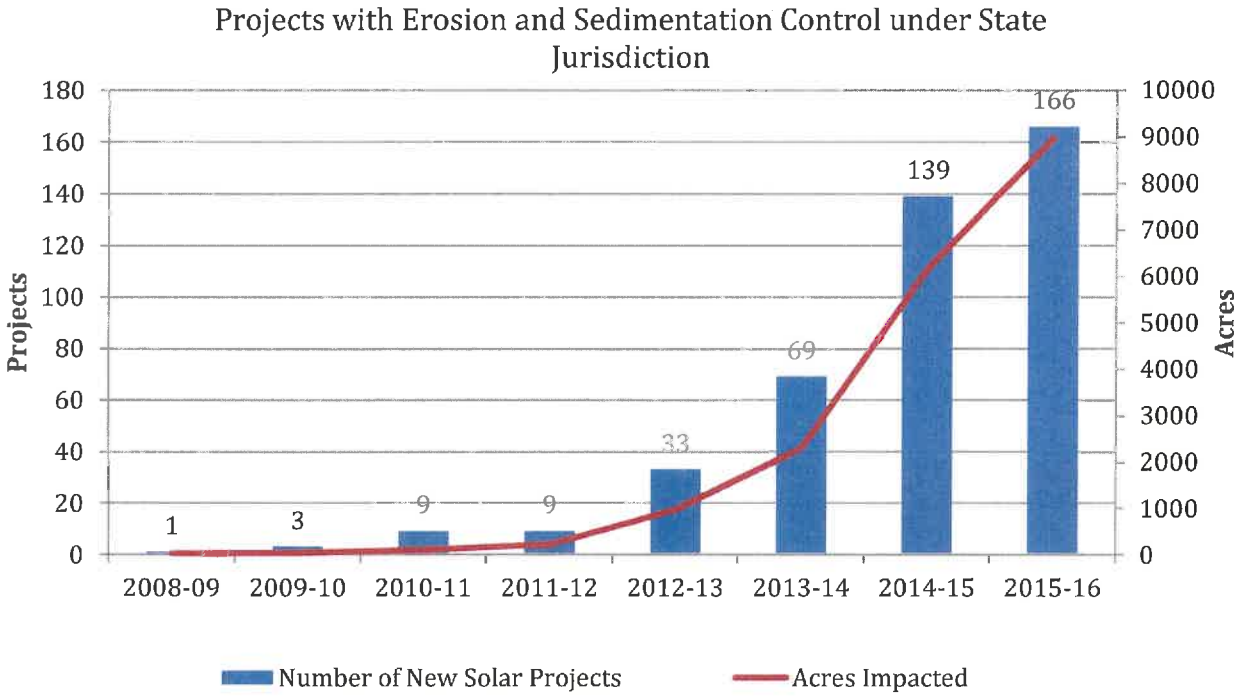
Solar and wind energy facilities are typically constructed on large tracts of land that in some cases require clearing and grading. The Amazon U.S. Wind Farm East is a 104-wind-turbine facility that will span across 22,000 acres, including about 700 acres of land that will be disturbed during its construction. Utility-scale, ground-mounted solar PV facilities are generally built on previously cleared areas, some of which include prime farmland having the best combination of physical and chemical characteristics for producing food, feed, and other crops. The largest 2015 solar energy project in the state affected 1,400 acres.

The larger solar projects pose a unique challenge with respect to erosion and sedimentation control, given the amount of acreage denuded (and therefore subject to erosion and sedimentation) within a short timeframe. It is imperative that adequate erosion and sedimentation control measures are planned and installed before land-disturbing activities begin. These soil stabilization measures must also be maintained throughout the life of the construction project.

Construction activities often result in soil compaction, alteration of drainage channels, and increased runoff and erosion and cannot begin without an approved sedimentation and erosion control plan. These plans must be approved by the N.C. Land Quality Section or by a delegated local government program prior to construction, and must specify mitigation actions that may include diverting runoff to a basin and installing silt fences. For renewable projects where prior

ditching systems (prior converted areas) are modified or call for new ditches or irrigational channels to be dug near wetland areas, the applicant may also be required to work with the U.S. Army Corp of Engineers or the N.C. Division of Water Resources (DWR) to ensure that the ditches will not impact or drain the adjacent wetland feature.

The N.C. Land Quality Section has continued to observe strong growth in solar energy. The trend toward larger projects that expand across hundreds of acres each has continued. During the past fiscal year ending June 30, 2016, the N.C. Land Quality Section received 177 sedimentation and erosion control plans totaling 8,979 acres of solar projects. The sites ranged in size from 2.4 acres to 1,412 acres. The average size site was 50.7 acres, and the median size was 32.5 acres. Eleven solar developments received a notice of violation (NOV) for failing to adhere to their plan, up from six NOVs in the 2014-2015 fiscal year.



The chart above only captures plans under the jurisdiction of the N.C. Land Quality Section, not those under the jurisdiction of any of the 53 local delegated erosion and sedimentation control programs throughout the state. Thousands more acres of solar energy facilities were approved through local governments.

The following pictures are a few examples of some of the sedimentation and erosion control issues observed by state inspectors.

Overwhelmed silt fence

Very good plan that was not followed

New ditches installed/old ditches eliminated – rerouting drainage pattern

Waste Management

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

Breakage and improper handling of solar panels at the end of their useful life could have a significant impact on North Carolina's environment. According to the U.S. Bureau of Land Management (BLM), "photovoltaic panels may contain hazardous materials, and although they are sealed under normal operating conditions, there is the potential for environmental contamination if they were damaged or improperly disposed upon decommissioning."[4] The BLM requires developers of solar energy projects on federal lands to post a bond that covers environmental liability and the decommissioning of solar panels.

Many solar energy facilities are now using thin-film solar PV panels. Little is known about the long-term effects of thin-film compounds on the environment or human health. A 1997 study indicated that cadmium telluride (CdTe), the most prominent thin-film compound in solar panels installed in North Carolina, may have the greatest impact. [5] In 2003, the Brookhaven National

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[4] U.S. Bureau of Land Management; accessed Sep. 19, 2015; http://solareis.anl.gov/guide/environment/index.cfm

[5] The study abstract states, "Copper gallium diselenide (CGS), copper indium diselenide (CIS), and cadmium telluride (CdTe) are novel compounds used in the photovoltaic and semiconductor industries. This study was

Laboratory (BNL) and the DOE nominated cadmium telluride (CdTe) for inclusion in the National Toxicology Program. The nomination noted that there were no human data on CdTe, no case reports or epidemiological studies on its long-term toxic effects, and only limited information on animal- and human-toxicity for CdTe including "ingestion studies that showed no significant deleterious effects" and "inhalation studies [that] demonstrated the compound's toxicity."[6]

It will be important that solar energy facilities are decommissioned and that the panels are recycled or properly disposed of at the end of their useful life. Some panel manufacturers have recycling programs that allow for the free transportation and recycling of their panels at the end of life. Decommissioning bonds, similar to those required by the BLM, would allow for proper disposal of the panels regardless of the financial status of the solar developer or panel manufacturer.

Biogas Renewable Energy

Biogas energy projects provide a relatively small amount of electric power generation in North Carolina and generally have positive environmental and local impacts. They provide an effective solution for managing methane-rich gases from municipal landfills and wastewater treatment facilities and reduce GHG. Swine waste-to-energy projects help hog farmers to manage excess nutrients, control odors and prevent inadvertent discharges to surface waters and groundwater.

Onshore Wind Energy

The construction of North Carolina's first and the Southeast's largest wind energy project – the Amazon U.S. Wind Farm East – is underway. The 208 MW nameplate capacity wind energy facility will be owned and operated by Avangrid Renewables. Some citizens living in

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conducted to characterize the relative toxicities of these compounds and to evaluate the pulmonary absorption and distribution after intratracheal instillation. Female Sprague-Dawley rats were administered a single equimolar dose (70 mM) of CGS (21 mg/kg), CIS (24 mg/kg), CdTe (17 mg/kg), or saline by intratracheal instillation. Bronchoalveolar lavage fluid (BALF) protein, fibronectin, inflammatory cells, lung hydroxyproline, and tissue distribution were measured 1, 3, 7, 14, and 28 days after instillation. Relative lung weights were significantly increased in CIS- and CdTe-treated rats at most time points. Inflammatory lesions in the lungs consisting of an influx of macrophages, lymphocytes, and PMNs were most severe in CdTe-treated rats, intermediate in CIS-treated rats, and minimal in rats receiving CGS. Hyperplasia of alveolar type 2 cells was present in CIS- and CdTe-treated rats and was greatest in CdTe-treated rats. Pulmonary interstitial fibrosis was observed in CdTe-treated rats at all time points. All three compounds caused marked increases in total BALF cell numbers, with the greatest increase observed in CIS-treated rats. BALF protein, fibronectin, and lung hydroxyproline were significantly increased in all treated animals and were highest in CdTe-treated animals. There was no apparent pulmonary absorption or tissue distribution of CGS. Indium levels increased in extrapulmonary tissues of CIS-treated rats, although Cu and Se levels remained unchanged. CdTe was absorbed from the lung to a greater extent than CGS and CIS. Cd and Te levels decreased in the lung and increased in extrapulmonary tissues. Of these compounds CdTe presents the greatest potential health risk because it causes severe pulmonary inflammation and fibrosis and because it is readily absorbed from the lung may potentially cause extrapulmonary toxicity."
http://www.ncbi.nlm.nih.gov/pubmed/9439735

[6] DOE and BNL Nomination of CdTe to the NTP, April 11, 2003,
https://ntp.niehs.nih.gov/ntp/htdocs/chem_background/exsumpdf/cdte_508.pdf

Perquimans and Pasquotank counties have voiced concern about the local impacts of the wind energy facility. Without a comprehensive assessment of the public health and safety concerns associated with the design and operation of industrial wind turbines, we do not know if the audible noise or infrasound produced by the wind turbines will have physiological impacts on nearby residents. The impacts of the shadows cast by the rotating blades can be lessened with setbacks and vegetation buffers. However, because the project is grandfathered under the North Carolina wind energy facility permitting rules, DEQ has no mechanism to require shadow flicker mitigation.

North Carolina's economic and environmental health depends upon responsible, timely, and efficient energy production. DEQ supports the use of clean, reliable energy sources as part of an "all of the above" strategy, and will continue to monitor the environmental impacts of the implementation of the SB3 requirements.

Sincerely,

Donald R. van der Vaart

APPENDIX 2

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

BY THE COMMISSION: On August 12, 2015, a joint motion to modify and delay the 2015 requirements of G.S. 62-133.8(e) and (f) was filed by Duke Energy Carolinas, LLC (DEC);[1] Duke Energy Progress, LLC (DEP);[2] Virginia Electric and Power Company, d/b/a Dominion North Carolina Power (Dominion);[3] GreenCo Solutions, Inc.; Public Works Commission of the City of Fayetteville; EnergyUnited Electric Membership Corporation; Halifax Electric Membership Corporation; the Tennessee Valley Authority (TVA);[4] North Carolina Eastern Municipal Power Agency (NCEMPA);[5] and North Carolina Municipal Power Agency Number 1 (NCMPA1)[6] (hereinafter referred to collectively as the Joint Movants). The Joint Movants requested that the Commission relieve them of compliance with G.S. 62-133.8(e) (Compliance With [North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (REPS)] Requirement Through Use of Swine Waste Resources) and G.S. 62-133.8(f) (Compliance With REPS Requirement Through Use of Poultry Waste Resources) by delaying their need to comply with these requirements by one year until 2016. The joint motion further requested that the Commission allow the Joint Movants to bank any poultry and swine renewable energy certificates (RECs) previously or subsequently acquired for use in future compliance years and allow the Joint Movants to replace compliance with the swine and poultry waste set-aside requirements in 2015 with other compliance

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

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

[3] Dominion asserted that it is also acting in its capacity as REPS compliance aggregator for the Town of Windsor.

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

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

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

measures pursuant to G.S. 62-133.8(b), (c), and (d). The Joint Movants stated that they have individually and collectively made reasonable efforts to comply with the REPS poultry and swine waste resource provisions and that the relief sought is in the public interest. The Joint Movants requested that the Commission consider and approve their joint motion without an evidentiary hearing.

On August 18, 2015, the Commission issued an Order Requesting Comments. The Order requested comments from interested parties on the Joint Movants' motion to be filed by October 2, 2015. In their comments, parties were requested to address whether the poultry waste set-aside requirement would be achievable in 2015 if it were maintained at the 2014 level. On October 2, 2015, the Commission granted a motion for an extension of time filed by the North Carolina Pork Council (NCPC), extending the deadline by which parties may file comments until October 9, 2015.

On October 2, 2015, the North Carolina Poultry Federation (NCPF), the Public Staff, and the North Carolina Sustainable Energy Association (NCSEA) filed comments on the Joint Movant's motion. On October 9, 2015 NCPC and Optima KV, LLC (Optima), filed comments on the Joint Movant's motion. On October 15, 2015, the Public Staff filed revised comments. On October 16, 2015, DEC and DEP filed supplemental comments.

On October 27, 2015, the Joint Movants filed reply comments. On November 9, 2015, NCPC filed a motion to strike the Joint Movants' reply comments. NCPC noted that the Commission's August 18, 2015 Order Requesting Comments did not request or authorize reply comments. The Commission finds that the Joint Movant's reply comments are unnecessary to reaching its determination, and, therefore, grants NCPC's motion to strike.

NCPF, in its comments, stated that it "does not oppose the requested delay in meeting the 2015 statutory requirements" with regard to the poultry waste set-aside. NCPF further stated that it takes no position with regard to banking poultry waste RECs and substituting other types of RECs for 2015 compliance purposes.

The Public Staff, in its initial comments, stated that it had reviewed the Joint Movants' motion, the triannual reports, and the data in the North Carolina Renewable Energy Tracking System (NC-RETS). The Public Staff concluded 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 2015. The Public Staff further stated in its initial comments that if the 2014 poultry waste level were maintained "there are currently insufficient in-state poultry waste RECs to meet the in-state portion of the 2014 poultry waste requirement in 2015." However, in its revised comments, the Public Staff added "other resources in accordance with Section 4 of S.L. 2010-195, as amended by S.L. 2011-279 (Senate Bill 886)" (S886 RECs) to its analysis of whether the poultry waste set-aside requirement could be achieved at the 2014 level. The addition of S886 RECs to the Public Staff's analysis resulted the following amended conclusion:

> Based on the Public Staff's analysis, if the Commission were to use its authority under G.S. 62-133.8(i)(2) to maintain the poultry waste requirement at its current level of 170,000 MWh for an additional year, it

appears that the Electric Suppliers could achieve compliance with the amended requirement in 2015.

The Public Staff recommended that the Commission delay the Joint Movants' need to comply with the swine waste set-aside requirement of G.S. 62-133.8(e) until calendar year 2016 and modify the requirements of G.S. 62-133.8(f) to maintain the poultry waste set-aside requirement at 170,000 MWh for calendar year 2015.

NCSEA, in its comments, stated that "[w]here some equitable level of partial compliance is a viable option, yet another complete delay of the swine waste and poultry waste set-aside requirements would run counter to the intent of the General Assembly." NCSEA recommended that the Commission require the stakeholders to partake in a joint analysis to determine the adequate level of partial compliance.

Optima, in its comments, stated that DEC and DEP have not made reasonable efforts to comply with the swine waste set-aside requirement "because they have refused to contract with Optima for the purchase of swine waste biogas at a commercially reasonable price, even though Optima's technology is viable (as confirmed through independent expert review), and it has long-term feedstock agreements in place." Optima described its facilities and technology and stated that it had proposed to sell DEC and DEP "biogas to generate electricity would produce the equivalent of approximately 10,500 RECs per year." Optima further stated that DEC and DEP "rejected the proposal out of hand based on price and refused to meet with Optima to discuss the project." Optima stated that it attempted to contract with DEC and DEP at a lower price, but such negotiations were continually rejected. Optima stated that "the proposed price would allow DEP or DEC to meet a significant portion of its swine waste set-aside obligation while consuming a relatively small percentage of its REPS cost cap" and noted Commission precedent that the set-asides should have priority under the cost cap over the general requirement. Optima recommended that the Commission "find that DEP and DEC have not made reasonable efforts to comply with their swine waste set-aside obligations in 2015." Further, Optima recommended that the Joint Movants "should be required to partially comply with the 2015 swine waste set-aside requirements to the extent that they are able to do so based on RECs previously acquired." Optima concurred with NCSEA's approach to establish partial compliance. Optima also recommended changes to the triannual reporting requirements to include initial offer prices, reasons that contracts were not executed, and the current status of any contracts entered into, including any reason for termination. Finally, Optima recommended that the minutes from the Public Staff's stakeholder meetings be made publicly available.

NCPC, in its comments, expressed concerns that requests to delay the set-asides have "become the norm", that the motions for delay have become formulaic, and that the triannual reports have "become less than fully informative." NCPC stated that "by acknowledging that contracts were not entered due to price, the [Joint Movants] have now placed 'price' squarely in issue." Thus, NCPC contended that the Commission must determine that the Joint Movants' contentions regarding price are accurate and reasonable before it can determine that a reasonable compliance effort has been put forth. NCPC stated its support for the approach recommended by Optima using the legislative cost cap as a surrogate for reasonableness. NCPC stated that there is no

shortage of swine waste in the State and that proven technologies exist such that production facilities would be built at an adequate price point. NCPC recommended that the triannual reports be reduced to semiannual and provided a new list of information to be included in the reports to avoid the formulaic nature of the reports. NCPC also stated its support for Optima's recommendation that each electric power supplier submit to the Commission a compliance plan for meeting the requirements of the set-aside and NCSEA's recommendation regarding partial compliance.

DEC and DEP, in their supplemental comments, stated that if the poultry waste set-aside requirement "were to be held at the state-wide 2014 level of 170,000 MWh, the Companies collectively would be able to meet the compliance target."

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

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

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

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

The Commission has previously exercised this authority and delayed compliance with the swine and poultry waste set-aside requirements on two occasions: first in its November 29, 2012 Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Granting Other Relief (2012 Delay Order), and a second time in its March 26, 2014 Final Order Modifying the Poultry and Swine Waste Set-Aside Requirements and Providing Other Relief (2013 Delay Order), both issued in Docket No. E-100, Sub 113. Additionally, the Commission delayed compliance with the swine waste set-aside requirement a third time in its November 13, 2014 Order Modifying the Swine Waste Set-Aside Requirement and Providing Other Relief (2014 Delay Order).

Based on the triannual reports submitted by the electric power suppliers in Docket No. E-100, Sub 113A, the Joint Movants' 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 2015 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 2015 swine

waste set-aside requirement could be met. While Optima stated that DEC and DEP had not made a good faith effort to comply with the swine waste set-aside requirement, it acknowledged that "DEP and DEC are not now in a position to comply with the swine waste set-aside in 2015, whether or not they contract with Optima." Optima further added that "the initial Optima project can deliver some biogas relatively quickly, the project will take approximately nine (9) months to be fully operational. The other two Optima projects are not as far along in development and one of them is unlikely to be able to produce biogas in 2016." NCPC stated that projects could be developed in North Carolina at the right price point; however, NCPC made no contention that the swine waste set-aside requirement could be met in 2015.

The Commission, at this time, is not persuaded that pricing disputes were a significant contributing factor to the Joint Movants' failure to meet the swine waste set-aside requirement. Therefore, based on the overall availability of swine waste RECs, the lack of technological progress in the market, and contract performance, the Commission finds it appropriate to delay the swine waste set-aside by one year. However, the Commission also finds merit in NCPC's contention that it may be inappropriate for the electric power suppliers to reject proposals solely based on the price of RECs when there is ample room under the REPS cost-cap. The Commission has clearly stated that the set-aside requirements take priority and the General Assembly has established the reasonable limit an electric power supplier can spend for compliance with the REPS. Therefore, while the Commission does not intend to interject itself into negotiations, further monitoring of such negotiations may be necessary in future years. The failure to contract with swine waste developers is directly relevant to the question of whether the electric power suppliers have made a good faith effort to comply with the swine waste set-aside requirement. Therefore, the Commission finds merit in some of the NCPC and Optima's proposed changes to the triannual reporting requirements and stakeholder process.

The Commission finds good cause to amend the triannual reporting requirement to occur semiannually. In addition to the previously required information, the electric power suppliers shall include the following information in their semiannual reports: (1) an estimate of the number of RECs needed to comply with the swine waste set-aside in the present calendar year; (2) project developers with whom the electric supplier submitting the report had formal discussions with during the prior six months, a description of the discussions, including their current status, and any proposed project resulting from the discussion; and (3) whether any proposals were rejected during the reporting period and a thorough discussion of why an agreement could not be reached. The Commission also finds merit in the suggestion that the stakeholder meetings be synchronized with the filing of the semiannual reports and requests that the Public Staff convene a stakeholder meeting within 6 weeks of the date a semiannual report is filed. Finally, the Commission requests that the Public Staff file minutes from the stakeholder meetings in Docket No. E-100, Sub 113A. The Commission will not require the number of RECs currently held, the number expected by the end of the calendar year, the contracts in place and the RECs that will be supplied under the contract by the end of the year to be submitted at this time, as that information has typically been treated as confidential.

With regard to NCSEA, NCPC, and Optima's request that a level of partial compliance with the swine waste set-aside requirement be required in 2015 and that the Joint Movants not bank their previously acquired swine waste RECs for future use, the Commission notes that it has permitted the Joint Movants to bank RECs for three 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, the Commission finds that it is in the public interest to delay the entire requirement of G.S. 62-133.8(e) for one year. Electric power suppliers that have acquired swine waste RECs for 2015 REPS compliance should be allowed to bank such RECs for swine waste set-aside requirement compliance in future years. Electric power suppliers should continue to make efforts to comply with the swine waste set-aside requirement as modified by this Order.

Based on the triannual reports submitted by the electric power suppliers in Docket No. E-100, Sub 113A, the Joint Movants' motion, the parties' comments, and the entire record herein, the Commission further finds that the State's electric power suppliers have made a reasonable effort to comply with the 2015 statewide poultry waste set-aside requirement established by G.S. 62-133.8(f), but will not be able to comply. 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 2015 poultry waste set-aside requirement could be met; however, the Public Staff, DEC, and DEP stated that, due to the availability of S886 RECs, the 2014 level of the poultry waste set-aside could be maintained. Unlike the swine waste set-aside requirement, the market for poultry waste RECs, including S886 RECs, appears at least robust enough to sustain the 2014 requirement of 170,000 MWh going forward. Therefore, 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 (2015) of compliance at the 170,000 MWh threshold, prior to escalating the requirement to 700,000 MWh.

IT IS, THEREFORE, ORDERED as follows:

1. That the 2015 swine waste set-aside requirement of G.S. 62-133.8(e), as established in the Commission's 2014 Delay Order, is 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:

Calendar Year	Requirement for Swine Waste Resources
2016-2017	0.07%
2018-2020	0.14%
2021 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 2015 with other compliance measures pursuant to G.S. 62-133.8(b), (c), and (d).

2. That the 2015 poultry waste set-aside requirement of G.S. 62-133.8(f), as established in the Commission's 2013 Delay Order, is modified to maintain the same level as the 2014 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:

Calendar Year	Requirement for Poultry Waste Resources
2014	170,000 MWh
2015	170,000 MWh
2016	700,000 MWh
2017 and thereafter	900,000 MWh

3. That the triannual filing requirement first required by the Commission's 2012 Delay Order and that now, pursuant to the 2013 Delay Order, applies to DEP, DEC, Dominion, GreenCo, Fayetteville, EnergyUnited, Halifax, NCEMPA and NCMPA1 shall be due semiannually. The first semiannual report shall be due to the Commission no later than January 1, 2016. Thereafter, the report shall be due to the Commission on each June 1 and December 1 until the Commission finds that it is no longer necessary. In addition to the information specified in Ordering Paragraph 4 of the Commission's 2012 Delay Order, the report shall include: (1) an estimate of the number of RECs needed to comply with the swine waste set-aside in the present calendar year; (2) project developers with whom the electric supplier submitting the report had formal discussions with during the prior six months, a description of the discussions, including their current status, and any proposed project resulting from the discussion; and (3) whether any proposals were rejected during the reporting period and a thorough discussion of why an agreement could not be reached.

4. That the Public Staff is requested 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 and options for addressing them. The Public Staff is requested to file minutes from the stakeholder meetings in Docket No. E-100, Sub 113A.

ISSUED BY ORDER OF THE COMMISSION.

This the 1st day of December, 2015.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Rulemaking Proceeding to Implement Session Law 2007-397	)	ORDER ESTABLISHING 2015 POULTRY WASTE SET-ASIDE REQUIREMENT ALLOCATION

BY THE COMMISSION: On December 1, 2015, the Commission issued an Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief. Among other things, that Order established that the Renewable Energy and Energy Efficiency Portfolio Standard (REPS) aggregate poultry waste set-aside requirement for 2015 would be 170,000 MWh.

On October 19, 2015, the Commission issued an Order Addressing Poultry Compliance Shortfall and Requesting Comments on New Allocation Method (October Order). In the October Order, the Commission found that the current functionality in the North Carolina Renewable Energy Tracking System (NC-RETS) for allocating the aggregate poultry waste set-aside requirement is "too dynamic" in that every electric power supplier's obligation changes whenever one electric power supplier corrects a retail sales data error. Among other things, the October Order requested that parties provide comments as to alternative methods of allocating the aggregate poultry waste set-aside requirement, with comments to be filed by December 30, 2015, and reply comments to be filed by January 29, 2016.

The Commission is aware that the pendency of this matter creates some uncertainty for electric power suppliers regarding the allocation of the aggregate poultry waste set-aside requirement for compliance year 2015. The Commission, therefore, finds good cause to issue this Order to clarify the allocation of the aggregate poultry waste set-aside requirement for 2015.

Commission Rule R8-67(h)(11) states, in part:

> Each electric power supplier, or its utility compliance aggregator, shall, within 60 days of NC-RETS beginning operations, and by June 1 of each subsequent year, enter its previous year's retail electricity sales into NC-RETS, which sales will be used by NC-RETS to calculate each electric power supplier's REPS obligations and NC-RETS charges.

In its October Order, the Commission reiterated that "it is implicit that if a regulated entity cannot comply [with the above requirement], it must ask the Commission for a waiver." No such waivers are currently pending before the Commission.

The 2014 retail electric sales that have been reported to NC-RETS by electric power suppliers and utility compliance aggregators as required by Rule R8-67(h)(11) are as shown in Appendix A of this Order. Based on the foregoing, the Commission finds good cause to require that this 2014 retail sales data shall be used to allocate, on a pro-rata basis, the 170,000 MWh aggregate poultry waste set-aside requirement for 2015. This decision does not preclude an electric power supplier from requesting a waiver in order to correct its 2014 retail sales data and thereby adjust its general REPS obligation for 2015. However, under such circumstance, the electric power suppliers' 2015 poultry waste set-aside obligations shall remain unchanged.

IT IS, THEREFORE, ORDERED as follows:

1) That the 2015 aggregate poultry waste set-aside requirement of 170,000 MWh shall be allocated among the electric power suppliers and utility compliance aggregators on a pro-rata basis, based on the 2014 retail sales provided to NC-RETS as of the date of this Order in compliance with Rule R8-67(h)(11) and as shown in Appendix A; and

2) That the NC-RETS Administrator shall allocate the 2015 poultry waste set-aside requirement of 170,000 MWh for REPS compliance reporting within NC-RETS consistent with this Order.

ISSUED BY ORDER OF THE COMMISSION.

This the __15th__ day of December, 2015.

NORTH CAROLINA UTILITIES COMMISSION

Jackie Cox, Deputy Clerk

Electric Power Supplier/Utility Compliance Aggregator
2014 Retail Sales (MWh) Reported to NC-RETS

Entity	2014 Retail Sales (MWh)
Dominion NC Power	4,446,757
Duke Energy Carolinas	60,600,225
Duke Energy Progress	37,703,084
EnergyUnited	2,427,479
Fayetteville PWC	2,087,801
GreenCo Solutions, Inc.	12,991,492
Halifax EMC	200,388
NCEMPA	7,118,072
NCMPA1	4,966,126
Tennessee Valley Authority	604,268
Town of Fountain	3,486
Total	133,149,178

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Rulemaking to Implement Session Law 2007-397	))	ORDER ESTABLISHING METHOD OF ALLOCATING THE AGGREGATE POULTRY WASTE RESOURCE SET-ASIDE REQUIREMENT

BY THE COMMISSION: On October 19, 2015, the Commission issued an Order Addressing Poultry Compliance Shortfall and Requesting Comments on New Allocation Method[1] in which it addressed a potential shortfall in compliance with the aggregate poultry waste set-aside requirement in G.S. 62-133.8(f). That potential shortfall had resulted when several electric power suppliers submitted corrected historic retail sales data into the North Carolina Renewable Energy Tracking System (NC-RETS), which caused NC-RETS to re-allocate the 2014 170,000-MWh aggregate poultry waste set-aside obligation among the electric power suppliers. This re-allocation occurred late in 2015, well after several electric power suppliers had already submitted their 2014 REPS compliance reports. The Order addressed the 2014 shortfall, but also stated:

> This is the first year in which the NC-RETS functionality for allocating the aggregate poultry obligation has been used. The Commission believes that this method is too dynamic in that every electric power supplier's obligation changes whenever one electric power supplier corrects a retail sales data error. The Commission believes it would be preferable to periodically establish an allocation of the poultry obligation, based on historic retail sales, and leave that allocation in place for a period of years. (For example, perhaps each electric power supplier would submit three years of retail sales data to the Commission, and that data would be used to establish a poultry MWh allocation that would remain static for five years, after which the process would be repeated.) The Commission seeks comments on how an allocation that is stable and fair, yet based on each electric power supplier's share of total retail sales, might be accomplished.

The Order invited parties to provide comments as to alternative methods of allocating the aggregate poultry waste set-aside obligation in the future. On December 30, 2015, comments were filed by the Public Staff and jointly by Duke

[1] The Order was issued in the following dockets: Docket No. E-2, Sub 1071; Docket No. E-7, Sub 1074; Docket No. E-22, Sub 525; Docket No. E-100 Sub 113; Docket No. E-100, Sub 121; and Docket No. E-100, Sub 145.

Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP, collectively Duke). No reply comments were filed.

The Public Staff provided a spreadsheet showing the 2012, 2013, and 2014 retail sales data for the 11 electric power suppliers and compliance aggregators that together demonstrate compliance each year with the State's Renewable Energy and Energy Efficiency Portfolio Standard (REPS). The Public Staff recommended that the average of the past three years of each electric power supplier's retail sales be used to set its share of the total poultry waste set-aside requirement, and that this share should be static for three years. The Public Staff stated that after three years the process of calculating the allocation should be repeated.

Similarly, Duke stated:

> The Companies agree that establishing an allocation for each electric supplier based on its share of aggregate average annual retail sales calculated for a certain period of years, and fixing that allocation for [a] number of compliance years, is a reasonable approach.... However, the Companies suggest that calculating the allocation based on an average of the three most current years' historic data and holding the allocation constant for the next three compliance years, rather than holding it static for five years, allows for the reflection of more current MWh sales levels and trends while still providing sufficient stability in establishing the electric power suppliers' annual poultry compliance obligations.

Duke went on to state that it would be reasonable that if an electric power supplier were to change its prior year retail sales numbers after the June 1 deadline[2] that any additional compliance obligation should be assigned to that electric power supplier. Finally, Duke noted that DEP and DEC act as utility compliance aggregators for several municipal and electric membership corporation electric power suppliers. Duke requested that poultry waste set-aside obligations should be "explicitly and separately established for each electric power supplier, such that if in the future [an electric power supplier] for which DEC or DEP provides compliance services is no longer aggregated with DEC or DEP, [the electric power supplier] becomes individually responsible for meeting its separate poultry compliance obligation...."

No party opposed the recommendation to allocate the aggregate poultry waste set-aside obligation based on three years of historic retail sales, with the resulting allocation being held constant for three years. This approach would be very similar to the current method in that the requirement would be allocated based on historic retail sales. However, because it would be re-established once every three years it would provide certainty for the electric power suppliers and ensure that sales data corrections made by one power supplier do not result in revised poultry waste set-aside obligations for any electric power suppliers. In addition, it appears that there is very little, if any, change in the load ratio shares of the electric power suppliers from one year to the next. Therefore,

[2] See Commission Rule R8-67(h)(11).

the Commission concludes that the proposal put forward by the Public Staff, and supported by Duke, is a reasonable way to proceed.

The Commission reiterates that June 1, 2016, is the deadline for all electric power suppliers to submit their 2015 retail sales data to NC-RETS. For the reasons explained by Duke, retail sales data, while it may be provided by a utility compliance aggregator, should be provided separately for each electric power supplier and not aggregated for a group of suppliers. If an electric power supplier is unable to meet the June 1 annual deadline it must request a waiver of Rule R8-67(h)(11) from the Commission. After the 2015 sales data is received, the NC-RETS administrator will use an average of the sales data from 2013, 2014, and 2015 to calculate each electric power supplier's share (by percentage, rounded to the fourth decimal place) of the aggregate poultry waste set-aside obligation, and that share will be used to determine each electric power supplier's obligation for the 2016, 2017, and 2018 compliance years.[3]

IT IS, THEREFORE, ORDERED as follows:

1. That, starting with compliance year 2016, the aggregate poultry waste set-aside obligation shall be allocated among the electric power suppliers by averaging three years (2013, 2014, and 2015) of historic retail sales, with the resulting allocation being held constant for three years;

2. That all electric power suppliers shall submit their 2015 retail sales data to NC-RETS by June 1, 2016, with each electric power supplier's sales data provided separately;

3. That the NC-RETS administrator shall initiate programming changes to effectuate this Order as soon as reasonably possible; and

4. That the NC-RETS administrator shall file with the Commission in this docket the load ratio shares for all electric power suppliers that will be in effect for compliance years 2016, 2017, and 2018 as soon as reasonably feasible.

ISSUED BY ORDER OF THE COMMISSION.

This the ___18th____ day of April, 2016.

NORTH CAROLINA UTILITIES COMMISSION

Paige J. Morris

Paige J. Morris, Deputy Clerk

[3] This process would be repeated in 2018; retail sales data from 2015, 2016, and 2017 would be used to calculate the allocation that would be used for compliance in 2018, 2019, and 2020.

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 ON NCSEA'S REQUEST

BY THE COMMISSION: On June 1, 2015, the North Carolina Sustainable Energy Association (NCSEA) filed a Request for Declaratory Ruling on Meaning of N.C.G.S. 62-133.9 and NCUC Rule R8-67 and, if Necessary and Appropriate, a Rulemaking to Clarify NCUC Rule R8-67 (Request) in the above-captioned docket. In summary, NCSEA requests that the Commission issue a declaratory ruling that:

> A new topping cycle combined heat and power ("CHP") system - including such a system that uses nonrenewable energy resources - that both (a) produces electricity or useful, measureable thermal or mechanical energy at a retail electric customer's facility and (b) results in less energy being used to perform the same function or provide the same level of service at the retail electric customer's facility constitutes an "energy efficiency measure" for purposes of [G.S.] 62-133.9 and Commission Rule R8-67.

In addition, if necessary, NCSEA requests that the Commission issue a complimentary declaratory ruling that:

> It is inconsistent with the clear and unambiguous language of [G.S.] 62-133.8 and 62-133.9 to recognize only the heat recovery component of a new topping cycle CHP system as an "energy efficiency measure." [Emphasis in original.]

Finally, NCSEA requests that, in the event that one or both of the requested declaratory rulings are issued, the Commission initiate a rulemaking to make clarifying changes to Commission Rule R8-67.

On June 2, 2015, and on June 18, 2015, NCSEA filed a compilation of letters of support for NCSEA's position from business and academic interests.

On August 13, 2015, the Chairman issued an Order Requesting Comments allowing all parties to file initial comments on or before September 30, 2015, and reply comments on or before October 15, 2015. In addition to requesting comments on NCSEA's Request, the Chairman sought comment on whether an actual dispute exists between a CHP

operator and an electric utility or whether NCSEA's petition is more in the nature of an advisory opinion. If the latter, the Chairman sought comment on whether a controversy exists justiciable under the Declaratory Judgement Act.

On August 24, 2015, NCSEA filed its initial comments. On September 28, 2015, Duke Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP) (collectively Duke), filed joint initial comments. On September 30, 2015, Dominion submitted a letter in lieu of formal comments generally supporting Duke's comments. On September 30, 2015, the Public Staff – North Carolina Utilities Commission (Public Staff) filed initial comments.

On October 14, 2015, NCSEA filed reply comments.

REQUEST OF NCSEA

As outlined above, NCSEA seeks a ruling as to whether new topping cycle CHP systems constitute energy efficiency measures under G.S. 62-133.9 and Commission Rule R8-67. NCSEA claims jurisdiction under G.S. 62-60, contending that the Commission may exercise the powers under the Declaratory Judgment Act with respect to all subjects over which the Commission has jurisdiction.

NCSEA, through the testimony of Isaac Panzella, explains that CHP, also known as cogeneration, is an energy efficient approach to generating electricity and useful thermal energy from a single fuel source at the point of use. Panzella states that an on-site CHP system can provide both electricity and thermal energy at an efficiency of 75% versus the combined efficiency of the conventional method of providing electricity and thermal requirements via separate systems.

Panzella explains there are two types of CHP systems, a topping cycle CHP system and a bottoming cycle CHP system. In a topping cycle CHP system the fuel is first combusted in a prime mover, such as a gas turbine, for purposes of generating electricity. The thermal energy, or waste heat, that would otherwise be lost is recovered to provide process or space heating, cooling, and/or dehumidification. These systems are sized to meet a facility's baseload thermal demand. In a bottoming cycle CHP system, also called a waste heat to power system, the waste heat, that is generated as part of an industrial process and that would normally be lost, is used to produce high-grade steam through a heat recovery process that feeds into a steam turbine to generate electricity.

Panzella indicates that North Carolina has 66 CHP systems totaling 1,540 MW of capacity, of which 62 are topping cycle systems. Further, there is great potential for CHP systems in North Carolina. ICF, International and Southeast Clean Energy Application Center (SE-CEAC) estimate approximately 6,428 MW of new topping cycle technical potential in North Carolina, with 4,667 MW in the industrial sector and 1,761 MW in the commercial sector.

NCSEA argues that topping cycle CHP meets the definition of energy efficiency.

Pursuant to the statute, "energy efficiency measure" means, in relevant part:

> An equipment, physical, or program change implemented after January 1, 2007, that results in less energy used to perform the same function. "Energy efficiency measure" includes, but is not limited to, energy produced from a combined heat and power system that uses nonrenewable energy resources.

G.S. 62-133.8(a)(4). The phrase "combined heat and power system," as used in the statutory definition, is itself defined as "a system that uses waste heat to produce electricity or useful, measurable thermal or mechanical energy at a retail electric customer's facility." G.S. 62-133.8(a)(1).

NCSEA argues that read together, the statutes clearly and unambiguously state that "energy produced from a combined heat and power system that uses nonrenewable energy resources" is an energy efficiency measure. "Where the language of a statute is clear and unambiguous, there is no room for judicial construction and the courts must give it its plain and definite meaning, and are without power to interpolate, or superimpose, provisions and limitations not contained therein." In re Town of Smithfield, 230 N.C. App 252, 749 S.E.2d 293, 296 (2013). Further, the relevant statutes do not state that energy produced from only the waste heat recovery component of a CHP system that uses nonrenewable energy resources is an energy efficiency measure. Nor do the relevant statutes state that a waste heat recovery component, standing alone and apart from a prime mover and a generator, shall constitute an entire CHP system. Instead, the relevant statutes refer to a "system," clearly meaning all the components of the system, including not only the waste heat recovery component but also the prime mover and generator components. This reading of the statute supports the argument that the entire topping cycle CHP system meets the definition of energy efficiency measure.

NCSEA posits that Duke's (and possibly the Public Staff's) current understanding(s) may be the result of a strict reading of a three-word phrase in the Commission's definition of "energy efficiency measure" in Commission Rule R8-67(a)(3). Commission Rule R8-67 contains the following administrative definition of "energy efficiency measure," in relevant part:

> "Energy efficiency measure" . . . includes energy produced from a combined heat and power system that uses nonrenewable resources to the extent the system: (i) Uses waste heat to produce electricity or useful, measureable thermal or mechanical energy at a retail electric customer's facility; and (ii) Results in less energy used to perform the same function or provide the same level of service at a retail electric customer's facility. Commission Rule R8-67(a)(3).

NCSEA states that the "to the extent" phrase included in the Commission's definition was merely intended to introduce the Commission's restatement of the two legislative prerequisites for a new CHP system to qualify as an energy efficiency measure and was intended to be read as "so long as."

In the event the Commission intended the "to the extent" phrase to limit an electric utility's ability to recognize more than the heat recovery component of a new topping cycle CHP system as an "energy efficiency measure," NCSEA contends that the Commission exceeded its delegated authority by effectively re-writing a clear and unambiguous statute to include a limitation that does not exist in the statute. See, e.g., State ex rel. Commissioner of Ins. v. Integon Life Ins. Co., 28 N.C. App. 7, 11, 220 S.E.2d 409, 412 (1975) ("An administrative agency has no power to promulgate rules and regulations which alter or add to the law it was set up to administer or which have the effect of substantive law."); see also, In re Town of Smithfield, 230 N.C. App. 252, 749 S.E.2d 293, 296 (2013) (Where a party's interpretation would "giv[e] to the statutory phraseology a distorted meaning at complete variance with the language used[,]" a court is "powerless to construe away [or create a] limitation just because [the court] feel[s] that the legislative purpose behind the requirement can be more fully achieved in its absence [or presence]."). In such an event, NCSEA urges the Commission to revisit, pursuant to G.S. 62-31 and 62-80, and revise its earlier ruling promulgating the administrative definition.

Lastly, NCSEA argues that recognizing topping cycle CHP as an energy efficiency measure will accomplish several goals, such as to further enable the use of low-cost natural gas to advance the systemic efficiency of the electric suppliers' grids, confirm that electric suppliers have a powerful tool for use in attracting opt-out eligible customers to opt in, and further enable such systems to be strategically deployed to enhance the reliability and resiliency of the grid.

INITIAL COMMENTS OF THE PARTIES

NCSEA

On August 24, 2015, NCSEA filed initial comments addressing the jurisdictional question posed by the Chairman in the Order Requesting Comments dated August 13, 2015. NCSEA argued that although NCSEA contends that a justiciable controversy exists under the Declaratory Judgment Act, the Commission does have jurisdiction under its quasi-legislative authority.

Joint Comments of DEC and DEP

As to the jurisdictional issue, Duke finds it reasonable for the Commission to rule on this question. Duke disagrees with NCSEA's position on what components of a CHP system should qualify as energy efficiency and requests that the Commission find that a topping cycle CHP system may be found to constitute an energy efficiency measure under G.S. 62-133.9 or Commission Rule R8-67 only to the extent that it uses waste heat to produce electricity or useful, measurable thermal or mechanical energy. If the Commission agrees with NCSEA’s interpretation of the statute, Duke requests that the Commission institute certain requirements to prevent gaming of the system.

Duke opines that the proper reading of G.S. 62-133.9 is that CHP systems eligible as energy efficiency measures are only those that use waste heat to generate electricity. Specifically, pursuant to G.S. 62-133.8(a), a "combined heat and power system" is defined as "a system that uses waste heat to produce electricity or useful, measurable, thermal or mechanical energy at a retail electric customer's facility." Section 62-133.9, which governs the cost recovery for demand-side management and energy efficiency measures, expressly states in subsection (a) that "[t]he definitions set out in G.S. 62-133.8 apply to this section." Thus, the combined heat and power system definition contained in G.S. 62-133.8 is controlling. Section 62-133.8(a) defines "energy efficiency measure" as follows:

> (4) "Energy efficiency measure" means an equipment, physical, or program change implemented after January 1, 2007, that results in less energy used to perform the same function. "Energy efficiency measure" includes, but is not limited to, energy produced from a combined heat and power system that uses nonrenewable energy resources. "Energy efficiency measure" does not include demand-side management.

Further, Commission Rule R8-68, which governs approval of energy efficiency incentive programs, states that all terms used in that rule shall be defined as they are in Rule R8-67(a). Pursuant to Commission Rule R8-67(a)(3), an "energy efficiency measure" is more particularly defined as follows:

> (3) "Energy efficiency measure" means an equipment, physical, or program change that when implemented results in less use of energy to perform the same function or provide the same level of service. "Energy efficiency measure" does not include demand-side management. It includes energy produced from a combined heat and power system that uses nonrenewable resources to the extent the system:
>
> (i) Uses waste heat to produce electricity or useful, measurable thermal or mechanical energy at a retail electric customer's facility; and
>
> (ii) Results in less energy used to perform the same function or provide the same level of service at a retail electric customer's facility.

Commission Rule R8-67(a)(3).

Duke argues that topping cycle CHP systems do not use waste heat to produce electricity. As a result, based on that reading, Duke contends that the electricity from the primary component of a topping cycle CHP system is not an "energy efficiency measure" to be included in Duke's respective non-residential energy efficiency incentive programs. Therefore, Duke requests that the Commission find that topping cycle CHP systems do not qualify as energy efficiency measures under G.S. 62-133.8(a)(4), except to the extent that they use waste heat to produce electricity or useful, measurable thermal or mechanical energy.

Duke argues that if the Commission determines that topping cycle CHP systems qualify as energy efficiency measures under G.S. 62-133.8(a)(4), then Duke recommends that the Commission prevent "gaming of the system" by implementing language similar to the FERC's revised rules on cogeneration. Specifically, if all of the net energy from topping cycle CHP systems is allowed to qualify as energy efficiency, these systems should meet the following requirements:

> (1) the standard efficiency of a topping cycle CHP system must be greater than 60 percent to ensure that the system is developed in the optimum manner. This would help prevent customers from installing a system that is extremely inefficient and being able to claim that it nevertheless is an energy efficiency measure and eligible for an incentive under a utility program; and
>
> (2) the system must be sized to not exceed the site's electric load.

Public Staff

The Public Staff states that it has no comment on whether NCSEA's petition is more appropriately considered a request for declaratory judgment or an advisory opinion. The Public Staff opines that the petition can be addressed through a rulemaking proceeding and states that it would be in the public interest for the Commission to rule on NCSEA's request as it would end some regulatory uncertainty.

The Public Staff explains that "topping cycle CHP consists of burning fuel first to generate electricity (the primary component), and then using the thermal energy left after that process for other useful purposes (the secondary component)." Based upon how topping cycle CHP works, the Public Staff opines that in a topping cycle CHP system, only the electricity or useful measurable thermal or mechanical energy produced from waste heat, the secondary component of the system, should be eligible for consideration as energy efficiency.

The Public Staff indicates that this position is consistent with the Commission's October 29, 2013 Order in the Nonresidential Smart Saver docket, Docket No. E-7, Sub 1032, in which the Commission held:

> Electric generation, from either non-renewable or renewable sources, is not considered an energy efficiency measure and therefore does not qualify for payments; however, bottoming-cycle Combined Heat and Power ("CHP") systems or the waste heat recovery components of topping-cycle CHP may be eligible for payments.

The Public Staff further states that the statutory language is ambiguous as to what components of a topping cycle CHP system might qualify as energy efficiency. Two possible interpretations of the statutory language exist, either as allowing all energy from a topping cycle CHP system to qualify as energy efficiency even if less than one percent comes from waste heat, or as allowing only the electricity (or measurable useful

mechanical or thermal energy) produced by the waste heat to qualify as energy efficiency. The Public Staff supports the latter interpretation that only allows electricity or measurable useful energy from the waste heat component of a topping cycle CHP to qualify for energy efficiency. The Public Staff states the burning of nonrenewable fuel in the primary component of a topping cycle CHP at a utility customer's site merely displaces the burning of fuel at a utility generating station. There is no efficiency gain in that primary component of topping cycle CHP. However, use of the waste heat from the secondary component to produce additional electricity or useful measurable energy is an efficiency gain: no additional fuel is burned to obtain the additional power from the secondary component of a CHP system. Therefore, it is the secondary (waste heat) component – and only that component – that meets the definition of energy efficiency in G.S. 62-133.8(a)(4): "less energy used to perform the same function." Lastly, the Public Staff states that if the Commission adopts NCSEA's interpretation, then the Commission should impose as minimum requirements that such topping cycle CHP systems must be greater than 60 percent efficient and must be sized not to exceed the site's electric load, as requested by Duke.

REPLY COMMENTS

On October 14, 2015, NCSEA filed reply comments. NCSEA argues that even though the electric utilities and the Public Staff have two very different interpretations of the statutory language at issue, both selectively disregard key phrases within the statutory language. NCSEA's construction, on the other hand, takes all of the statutory language into account and, thus, yields no "surplusage" of language. NCSEA argues that the electric utilities and the Public Staff both appear to concede that NCSEA's construction of the statute can be operationalized through rules similar to the federal rules already in place to reduce or eliminate the threat of "gaming."

NCSEA first responds to Duke's comments. NCSEA states that Duke's argument boils down to the following two statements excerpted from their comments:

> The Company's reading of G.S. 62-133.9 is that combined heat and power systems use waste heat to generate electricity. Specifically, pursuant to G.S. 62-133.8(a), a "combined heat and power system" is defined as "a system that uses waste heat to produce electricity or useful, measurable, thermal or mechanical energy at a retail electric customer's facility."
>
> Topping cycle CHP systems do not use waste heat to produce electricity. As a result, based on that reading, DEC and DEP do not consider the electricity from the primary component of topping cycle CHP systems as an "energy efficiency measure" to be included in their respective non-residential energy efficiency incentive programs.

NCSEA states that Duke's argument is flawed in that G.S. 62-133.8(a)(1) provides that "[c]ombined heat and power system means a system that uses waste heat to produce electricity <u>or useful, measurable thermal or mechanical energy</u> at a retail electric

customer's facility." (Emphasis added.) NCSEA argues that Duke's argument ignores the phrase "or useful, measurable thermal or mechanical energy."

NCSEA's construction of the statutory definition recognizes the disjunctive "or" and does not create surplusage. In other words, NCSEA asserts the statute should be construed to state, in effect: A CHP system is "a system that uses waste heat [somewhere in its configuration] to produce electricity ... at a retail electric customer's facility" or "a system that uses waste heat [somewhere in its configuration] to produce ... useful, measurable thermal or mechanical energy at a retail electric customer's facility." NCSEA concludes that because topping cycle CHP systems are unquestionably configured to use waste heat to produce useful, measurable thermal or mechanical energy, there should be no question that topping cycle CHP systems can qualify as energy efficiency measures.

NCSEA next responds to the Public Staff's comments. NCSEA argues that the Public Staff takes a different tack from Duke, asserting that the statute should be construed to require a component approach. Specifically, the Public Staff asserts that "only the electricity or useful measurable thermal or mechanical energy produced from waste heat - the secondary component of the system - should be eligible for consideration as EE[.]" The Public Staff argues, at least in part, that the Commission should implement such an approach because the statute is "ambiguous." NCSEA disagrees that the statute is ambiguous. NCSEA argues that the statute is clear and uses the word "system," not "component." NCSEA states that FERC, the Internal Revenue Code and the North Carolina Revenue Code all use the word "system" in the CHP context as opposed to the Public Staff's component approach.

NCSEA states that in support of its interpretation of the statute, the Public Staff asserts that "[t]he burning of nonrenewable fuel in the primary component of a topping cycle CHP at a utility customer's site merely displaces the burning of fuel at a utility generating station. There is no efficiency gain in that primary component of topping cycle CHP." NCSEA argues that the Public Staff appears to be assuming that a large commercial or industrial customer interested in replacing two separate heat and power generators with a topping cycle CHP system will replace the existing power generator with a primary component that is of equal efficiency. NCSEA believes this is a poor assumption given technological advancements. A large commercial or industrial customer considering replacing older, less efficient, separate generators of heat and power most likely will seek out a more efficient primary component at the same time that it is investigating combining its heat and power generation into one system. Installation of a primary component that uses less energy to perform the same function unquestionably yields an efficiency gain, aside and apart from any waste heat efficiencies achieved. On this point, NCSEA would have the Commission note that, in their recently filed IRP updates, DEC and DEP acknowledge that replacement of two separate heat and power generators with a single CHP system can yield such efficiencies: "CHP incorporating a CT and heat recovery steam generator (HRSG) is more efficient than the conventional method of producing usable heat and power separately via a gas package boiler."

NCSEA disagrees with the Public Staff's assertion that "the Commission has already ruled once that only the secondary waste heat component of topping cycle CHP - and not energy from the primary component - qualifies as EE." NCSEA argues that the Commission's October 29, 2013 order merely ratified the parties' stipulated settlement agreement in the case. The stipulated settlement contained DEC's agreement to "clarify that its ... Non-Residential Smart-Saver Custom Program and Non-Residential Smart-Saver® Custom Energy Assessments Program do not exclude bottoming-cycling CHP or the waste heat recovery components of topping-cycle CHP" and, at the same time, DEC's agreement to continue discussing the extent to which topping cycle CHP qualifies as an energy efficiency measure regardless of the settled eligibility parameters of the two programs.

NCSEA states that if the Commission agrees with the Public Staff's component approach, the Commission will violate the rules of statutory construction by creating surplusage (i.e., reading operative language out of the statute). NCSEA clarifies that G.S. 62-133.8 provides, in relevant part, that "'Energy efficiency measure' includes, but is not limited to, energy produced from a combined heat and power system that uses nonrenewable energy resources." If the General Assembly intended only the secondary waste heat component of topping cycle CHP to qualify as an energy efficiency measure, it would have been unnecessary to include this sentence because the fuel choice for the primary component (and whether it is renewable or not) would have been irrelevant. NCSEA's proffered construction does not make surplusage of this sentence. Under NCSEA's proposed construction, this sentence sends a clear message that, within the context of Senate Bill 3, replacement of existing, older, less efficient, separate generators of heat and power with a single more efficient CHP system, even a system whose primary component is fueled by a fossil fuel, for example, natural gas can constitute an energy efficiency measure so long as the other statutory requirements (e.g., customer-sited and using less to perform the same) are met and so long as the system meets whatever FERC-like "Efficiency standard" and "Fundamental Use" test the Commission chooses to put in place under its express rulemaking authority to avoid gaming.

DISCUSSION AND CONCLUSIONS

None of the parties disagree that the Commission has jurisdiction under its rulemaking authority to issue a ruling in this matter. The Commission finds it has jurisdiction in this matter pursuant to its rulemaking authority.

As to NCSEA's request, the Commission has reviewed the submissions of the parties and is not persuaded by NCSEA's arguments. The Commission agrees with Duke and the Public Staff that only the electricity or useful measurable thermal or mechanical energy produced from waste heat from a topping cycle CHP should be considered an energy efficiency measure pursuant to the statute. The statutory definition of combined heat and power system is clear that the electricity or useful measurable thermal or mechanical energy must be produced from waste heat. G.S. 133.8(a)(1).

NCSEA argues that if the Commission reads the statute to not include the electricity not created by waste heat in a topping cycle CHP system, the Commission is violating the rules of statutory construction by creating surplusage. NCSEA argues that its interpretation of the statute does not create surplusage in the definition of energy efficiency measure. Pursuant to the statutory definition, energy efficiency measure "includes, but is not limited to, energy produced from a combined heat and power system that uses no renewable energy resources." G.S. 133.8(a)(4). NCSEA argues that if the General Assembly intended only energy derived from the waste heat of a topping cycle CHP system to qualify as an energy efficiency measure, this sentence would have been unnecessary and surplusage. The Commission disagrees. Statutory provisions must be read "in para materia." State ex rel. Hunt v. North Carolina Reinsurance Facility, 302 N.C. 274, 288, 275 S.E.2d 399, 405 (1981). The Commission, in reading the statute as a whole, finds that this sentence in the definition of energy efficiency measure was inserted to clarify that energy from a CHP being used as an energy efficiency measure does not need to use waste heat derived from a renewable energy resource, as opposed to language in other portions of the statute that discuss waste heat from a renewable energy resource. For example, the definition of a renewable energy resource includes waste heat derived from a renewable energy resource and used to produce electricity or useful, measurable thermal energy at a retail electric customer's facility. G.S. 133.8(a)(8). Further, under G.S. 133.8(b)(2)(b), an electric public utility may meet its renewable energy and energy efficiency standards (REPS) by using a renewable energy resource to generate power other than electric power from waste heat derived from the combustion of fossil fuel. The language within the definition of energy efficiency measure is clarifying that the waste heat from a CHP system does not need to derive from a renewable energy resource for the electricity or useful measurable thermal or mechanical energy produced from it to qualify as an energy efficiency measure. Therefore, under the Commission's interpretation of the statute regarding topping cycle CHP systems, the sentence in the definition of energy efficiency measure is not surplusage.

The definition of CHP system is clear that for purposes of Senate Bill 3, and for purposes of being deemed an energy efficiency measure, the electricity or useful, measurable thermal or mechanical energy must be produced from waste heat. In a bottoming cycle CHP, the waste heat from an industrial process is used to create electricity and potentially thermal energy. In a topping cycle CHP system, the electricity is not produced from waste heat, but rather is produced from a resource like natural gas, which also produces waste heat that is used to produce thermal or mechanical energy. It is only the secondary thermal or mechanical energy that is produced from the waste heat that qualifies as an energy efficiency measure under the statute.

NCSEA argues that if the Commission solely relies upon the language of Commission Rule R8-67(a)(3), then the Commission has erred in adding requirements to the statute and creating a limit that does not exist in the statute. The Commission's decision in this matter relies on its interpretation of the statute, thus making responding to this argument unnecessary. However, the Commission will note that it is NCSEA, not the Commission, which seems to be adding words to the statute to fit its interpretation of it. In its reply comments, NCSEA states that the statute should be construed to state a

CHP system is a system that uses waste heat somewhere in its configuration to produce electricity. The words “somewhere in its configuration” is not language within the statute.

IT IS, THEREFORE, ORDERED as follows:

1. That a topping cycle CHP 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 and meets the definition of energy efficiency measure in G.S. 62-133.8(a)(4); and

2. That the Commission has jurisdiction under its rulemaking authority to determine and clarify this issue.

ISSUED BY ORDER OF THE COMMISSION.

This the ___6th___ day of June, 2016.

NORTH CAROLINA UTILITIES COMMISSION

Paige J. Morris

Paige J. Morris, Deputy Clerk

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 113

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Rulemaking to Implement Session Law 2007-397	))	ORDER ESTABLISHING 2016, 2017, AND 2018 POULTRY WASTE SET-ASIDE REQUIREMENT ALLOCATION

BY THE COMMISSION: On April 18, 2016, the Commission issued an Order Establishing Method of Allocating the Aggregate Poultry Waste Resource Set-Aside Requirement. Among other things, that Order established that starting with compliance year 2016, the aggregate poultry waste set-aside requirement of G.S. 62-133.8(f) shall be allocated among the electric power suppliers by averaging three years of historic retail sales (2013, 2014, and 2015), with the resulting allocation being held constant for three years (2016, 2017, and 2018).[1] That Order, consistent with the annual reporting requirement in Rule R8-67(h)(11), also required all electric power suppliers to submit their 2015 retail sales data to NC-RETS by June 1, 2016. Finally, that Order required the NC-RETS Administrator to calculate and file with the Commission in this docket the load ratio shares for all electric power suppliers that will be in effect for compliance years 2016, 2017, and 2018.

On July 11, 2016, the NC-RETS Administrator filed in this docket a spreadsheet detailing the following data for each electric power supplier: retail electricity sales for 2013, 2014, and 2015; the average of those three years of retail sales; the load ratio share of the State's aggregate retail sales for those three years; and the corresponding 2016 poultry waste set-aside compliance requirement based upon an aggregate 2016 poultry waste set-aside requirement of 700,000 MWh as established by the Commission's Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief issued December 1, 2015, in this docket. That Order also established the annual aggregate poultry waste set-aside requirement for calendar years 2017 and thereafter as 900,000 MWh.

On July 18, 2016, the Commission issued an Order Allowing Comments on Poultry Waste Resource Allocation Calculations. That Order directed the NC-RETS Administrator to send to each electric power supplier an electronic version of the spreadsheet filed on July 11, 2016, in a format that allows for inspection and verification of the data, formulae, and calculations used to determine the allocation of the poultry waste set-aside requirements. The Order also directed the electric power suppliers to file comments in

[1] Footnote 3 of the April 18, 2016 order inadvertently stated that this process would be repeated in 2018, when, in fact, the allocation should be recalculated in 2019 for the next three year period.

this docket by August 1, 2016, to the extent that they believe that any of that data, formulae, or calculations are in error.

On July 28, 2016, Virginia Electric and Power Company, d/b/a Dominion North Carolina Power, filed comments stating that it has reviewed the allocation calculations and has not identified any errors. On July 29, 2016, Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC, jointly filed comments stating that they have reviewed the allocation calculations and do not take issue with the calculations. No other party or person filed comments.

The 2013, 2014, and 2015 retail sales data that have been reported to NC-RETS by electric power suppliers and utility compliance aggregators as required by Rule R8-67(h)(11) and the resulting load ratio shares calculated based upon that data are shown in the spreadsheet filed by the NC-RETS Administrator in this docket on July 11, 2016. The electric power suppliers and other interested persons have had an opportunity to review and comment on that data and those calculations, and no electric power supplier or other person has alerted the Commission to errors in that data or those calculations.

Based upon the foregoing, the Commission finds good cause to require that the three years of retail sales data and the load ratio shares based upon that data shall be used to allocate the aggregate poultry waste set-aside requirement for 2016, 2017, and 2018. Consistent with the Order Establishing 2015 Poultry Waste Set-Aside Requirement Allocation issued December 15, 2015, in this docket, this decision does not alter the annual reporting requirement of Commission Rule R8-67(h)(11), nor does it preclude an electric power supplier from requesting a waiver to correct its 2015 retail sales data. Such waiver, if granted, and correction would adjust an electric power supplier's general REPS obligation, but its load share ratio calculation and the resulting allocated share of the aggregate poultry waste set-aside requirement for 2016, 2017, and 2018 shall remain unchanged.

IT IS, THEREFORE, ORDERED as follows:

1. 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 shown in the spreadsheet filed by the NC-RETS Administrator in this docket on July 11, 2016; and

2. That the NC-RETS Administrator shall allocate the aggregate poultry waste set-aside requirement for REPS compliance reporting within NC-RETS consistent with this Order.

ISSUED BY ORDER OF THE COMMISSION.

This the __5th___ day of August, 2016.

NORTH CAROLINA UTILITIES COMMISSION

Paige J. Morris

Paige J. Morris, Deputy Clerk

APPENDIX 3

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. RET-10 SUB 0
DOCKET NO. SP-628 SUB 2
DOCKET NO. SP-629 SUB 2
DOCKET NO. SP-630 SUB 2
DOCKET NO. SP-630 SUB 4
DOCKET NO. SP-630 SUB 6
DOCKET NO. SP-630 SUB 9
DOCKET NO. SP-630 SUB 10
DOCKET NO. SP-631 SUB 2
DOCKET NO. SP-631 SUB 4
DOCKET NO. SP-631 SUB 6
DOCKET NO. SP-930 SUB 2
DOCKET NO. SP-930 SUB 5
DOCKET NO. SP-930 SUB 6
DOCKET NO. SP-976 SUB 1
DOCKET NO. SP-977 SUB 1
DOCKET NO. SP-1275 SUB 2
DOCKET NO. SP-1275 SUB 4
DOCKET NO. SP-1287 SUB 1
DOCKET NO. SP-1520 SUB 1
DOCKET NO. SP-1520 SUB 3
DOCKET NO. SP-1521 SUB 1
DOCKET NO. SP-1522 SUB 1
DOCKET NO. SP-1522 SUB 3
DOCKET NO. SP-1538 SUB 1
DOCKET NO. SP-1539 SUB 1
DOCKET NO. SP-1580 SUB 1
DOCKET NO. SP-1582 SUB 1
DOCKET NO. SP-1582 SUB 3
DOCKET NO. SP-2397 SUB 1
DOCKET NO. SP-2470 SUB 1
DOCKET NO. SP-3231 SUB 1
DOCKET NO. SP-1082 SUB 0
DOCKET NO. SP-1175 SUB 0
DOCKET NO. SP-1176 SUB 0
DOCKET NO. SP-1177 SUB 0
DOCKET NO. SP-1179 SUB 0
DOCKET NO. SP-1180 SUB 0
DOCKET NO. SP-1181 SUB 0
DOCKET NO. SP-1182 SUB 0
DOCKET NO. SP-1183 SUB 0
DOCKET NO. SP-1184 SUB 0

DOCKET NO. SP-674 SUB 0
DOCKET NO. EMP-50 SUB 0
DOCKET NO. EMP-40 SUB 0
DOCKET NO. EMP-51 SUB 0
DOCKET NO. EMP-35 SUB 0
DOCKET NO. EMP-14 SUB 1
DOCKET NO. EMP-49 SUB 0
DOCKET NO. SP-405 SUB 1
DOCKET NO. SP-895 SUB 1
DOCKET NO. SP-1108 SUB 4
DOCKET NO. SP-1108 SUB 5
DOCKET NO. SP-1108 SUB 6
DOCKET NO. SP-1221 SUB 0
DOCKET NO. SP-1393 SUB 1
DOCKET NO. SP-1518 SUB 0
DOCKET NO. SP-1519 SUB 0
DOCKET NO. SP-1565 SUB 11
DOCKET NO. SP-1635 SUB 0
DOCKET NO. SP-1765 SUB 1
DOCKET NO. SP-1794 SUB 1
DOCKET NO. SP-1795 SUB 1
DOCKET NO. SP-1846 SUB 1
DOCKET NO. SP-1942 SUB 0
DOCKET NO. SP-2152 SUB 1
DOCKET NO. SP-2164 SUB 0
DOCKET NO. SP-2342 SUB 0
DOCKET NO. SP-2371 SUB 0
DOCKET NO. SP-2373 SUB 0
DOCKET NO. SP-2401 SUB 1
DOCKET NO. SP-2423 SUB 1
DOCKET NO. SP-2443 SUB 0
DOCKET NO. SP-2444 SUB 0
DOCKET NO. SP-2484 SUB 1
DOCKET NO. SP-2485 SUB 0
DOCKET NO. SP-2576 SUB 1
DOCKET NO. SP-2704 SUB 0
DOCKET NO. SP-2705 SUB 0
DOCKET NO. SP-2707 SUB 0
DOCKET NO. SP-2708 SUB 0
DOCKET NO. SP-2710 SUB 0
DOCKET NO. SP-2711 SUB 0
DOCKET NO. SP-2712 SUB 0
DOCKET NO. SP-2715 SUB 0
DOCKET NO. SP-2720 Sub 0
DOCKET NO. SP-2721 Sub 0
DOCKET NO. SP-2893 Sub 0

DOCKET NO. SP-2895 Sub 0
DOCKET NO. SP-2896 Sub 0
DOCKET NO. SP-2900 Sub 0
DOCKET NO. SP-2922 Sub 0
DOCKET NO. SP-2972 Sub 0
DOCKET NO. SP-2990 Sub 0
DOCKET NO. SP-3024 Sub 0
DOCKET NO. SP-3026 Sub 0
DOCKET NO. SP-3103 Sub 0
DOCKET NO. SP-3105 Sub 0
DOCKET NO. SP-3176 Sub 0
DOCKET NO. SP-3181 Sub 0
DOCKET NO. SP-3225 Sub 0
DOCKET NO. SP-3239 Sub 0
DOCKET NO. SP-3255 Sub 0
DOCKET NO. SP-3380 Sub 0
DOCKET NO. SP-3414 Sub 0
DOCKET NO. SP-3436 Sub 0
DOCKET NO. SP-3444 Sub 0
DOCKET NO. SP-3450 Sub 0
DOCKET NO. SP-3492 Sub 0
DOCKET NO. SP-3512 Sub 0
DOCKET NO. SP-3520 Sub 0
DOCKET NO. SP-3619 Sub 0
DOCKET NO. SP-3666 Sub 0
DOCKET NO. SP-3673 Sub 0
DOCKET NO. SP-3897 Sub 0
DOCKET NO. SP-3898 Sub 0
DOCKET NO. SP-3899 Sub 0
DOCKET NO. SP-4005 Sub 0
DOCKET NO. SP-4024 Sub 0
DOCKET NO. EMP-36 Sub 0
DOCKET NO. SP-2795 Sub 0
DOCKET NO. EMP-66 Sub 0
DOCKET NO. EMP-41 Sub 0
DOCKET NO. EMP-31 Sub 0
DOCKET NO. EMP-32 Sub 0
DOCKET NO. EMP-34 Sub 0
DOCKET NO. SP-2802 Sub 0

DOCKET NO. E-100 SUB 130

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

BY THE COMMISSION: On August 12, 2015, the Commission issued an Order giving notice of its intent to revoke the registration of 233 new and renewable energy facilities because their owners had not completed or filed the annual certifications required each April 1 as detailed in Commission Rule R8-66(b). According to Commission records, and records maintained in North Carolina Renewable Energy Tracking System (NC-RETS), the owners of the 127 new and renewable energy facilities listed in Appendices A and B did not complete their annual certifications on or before October 1, 2015, as required by the Commission's August 12, 2015 Order, nor has an annual certification been completed for these facilities as of the date of this Order.

The Commission, therefore, finds good cause to revoke the registrations for the 127 facilities listed in Appendices A and B effective October 1, 2015.

IT IS, THEREFORE, ORDERED as follows:

1. That the registrations previously approved by the Commission for the 127 facilities listed in Appendices A and B shall be, and are hereby, revoked effective October 1, 2015.

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, 2015 or later.

4. That any RECs dated October 1, 2015 or later earned by one of the facilities listed in Appendices A and B whose registration has been revoked pursuant to this Order are ineligible to be used by an electric power supplier for compliance with the Renewable Energy and Energy Efficiency Portfolio Standard.

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

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

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

ISSUED BY ORDER OF THE COMMISSION.

This the 2nd day of December, 2015.

NORTH CAROLINA UTILITIES COMMISSION

Jackie Cox, Deputy Clerk

Revocation of Registered Facilities (*NC-RETS Participants*)		
Docket Number	**Facility Owner**	**State**
RET-10 Sub 0	North Mecklenburg Aquatics	NC
SP-628 Sub 2	Reily; Kevin & Katie	NC
SP-629 Sub 2	Kunal Thakkar, LLC	NC
SP-630 Sub 2	Triangle Realty Investment, LLC	NC
SP-630 Sub 4	Triangle Realty Investment, LLC	NC
SP-630 Sub 6	Triangle Realty Investment, LLC	NC
SP-630 Sub 9	Triangle Realty Investment, LLC	NC
SP-630 Sub 10	Triangle Realty Investment, LLC	NC
SP-631 Sub 2	Jewels Realty Investment, LLC	NC
SP-631 Sub 4	Jewels Realty Investment, LLC	NC
SP-631 Sub 6	Jewels Realty Investment, LLC	NC
SP-930 Sub 2	Vandewouw; Dave	NC
SP-930 Sub 5	Vandewouw; Dave	NC
SP-930 Sub 6	Vandewouw; Dave	NC
SP-976 Sub 1	Yao; Hong Shi& Chengwi	NC
SP-977 Sub 1	Patel; Asmita K. & Kaushik	NC
SP-1275 Sub 2	Waller; Steven	NC
SP-1275 Sub 4	Waller; Steven	NC
SP-1287 Sub 1	Barber, Peter	NC
SP-1520 Sub 1	Information Analytics Consulting, Inc.	NC
SP-1520 Sub 3	Information Analytics Consulting, Inc.	NC
SP-1521 Sub 1	Yin Yin	NC
SP-1522 Sub 1	Plutusmax, LLC	NC
SP-1522 Sub 3	Plutusmax, LLC	NC
SP-1538 Sub 1	Farrelly; Eugene M. and Amber R. J.	NC
SP-1539 Sub 1	Lui; Kejun	NC
SP-1580 Sub 1	Kamath; Rajeev V.	NC
SP-1582 Sub 1	Bamboo Stone Properties, LLC	NC
SP-1582 Sub 3	Bamboo Stone Properties, LLC	NC
SP-2397 Sub 1	Patel; Snehalkumar V.	NC
SP-2470 Sub 1	Flying Dragon, LLC	NC
SP-3231 Sub 1	Flippini; Dave	NC

Revocation of Registered Facilities *(Non NC-RETS Participants*)		
Docket Number	**Facility Owner**	**State**
SP-1082 Sub 0	GCL Eastside, LLC	CA
SP-1175 Sub 0	GCL Highland, LLC	CA
SP-1176 Sub 0	GCL Antelope Valley, LLC	CA
SP-1177 Sub 0	GCL AV Adult, LLC	CA
SP-1179 Sub 0	GCL Lancaster, LLC	CA
SP-1180 Sub 0	GCL Quartz Hill, LLC	CA
SP-1181 Sub 0	GCL Palmdale, LLC	CA
SP-1182 Sub 0	GCL Little Rock, LLC	CA
SP-1183 Sub 0	GCL Desert Wind, LLC	CA
SP-1184 Sub 0	GCL Knight, LLC	CA
SP-674 Sub 0	Exelon Solar Chicago, LLC	IL
EMP-50 Sub 0	Streator-Cayuga Ridge Wind Power, LLC	IL
EMP-40 Sub 0	Barton Windpower, LLC	IA
EMP-51 Sub 0	Elm Creek Wind II, LLC	MN
EMP-35 Sub 0	Farmers City Wind, LLC	NC
EMP-14 Sub 1	Industrial Power Generating Company, LLC	NC
EMP-49 Sub 0	Atlantic Wind, LLC	NC
SP-405 Sub 1	Potluck Power Company	NC
SP-895 Sub 1	Asheville Alternative Energy, LLC	NC
SP-1108 Sub 4	North Carolina Renewable Energy, LLC	NC
SP-1108 Sub 5	North Carolina Renewable Energy, LLC	NC
SP-1108 Sub 6	North Carolina Renewable Energy, LLC	NC
SP-1221 Sub 0	RES Ag-DM 1-1, LLC	NC
SP-1393, Sub 1	Mountain Heritage Expo Center, LLC	NC
SP-1518 Sub 0	Great Train Robbery Solar Plant, LLC	NC
SP-1519 Sub 0	ADDCO Solar Plant, LLC	NC
SP-1565 Sub 11	ESA Renewables IV, LLC	NC
SP-1635 Sub 0	Vale Farm, LLC	NC
SP-1765 Sub 1	Trenton Farm 2, LLC	NC
SP-1794 Sub 1	Innovative Solar 9, LLC	NC
SP-1795 Sub 1	Innovative Solar 8, LLC	NC
SP-1846 Sub 1	Trenton Farm 1, LLC	NC
SP-1942 Sub 0	Buffalo Ridge I LLC	NC
SP-2152 Sub 1	Innovative Solar 12, LLC	NC
SP-2164 Sub 0	Wake Solar, LLC	NC

SP-2342 Sub 0	Adventure Solar, LLC	NC
SP-2371 Sub 0	Red Springs Farm, LLC	NC
SP-2373 Sub 0	Wagstaff Farm 2, LLC	NC
SP-2401 Sub 1	Tier One Solar, LLC	NC
SP-2423 Sub 1	Innovative Solar II, LLC	NC
SP-2443 Sub 0	Carthage Farm, LLC	NC
SP-2444 Sub 0	Greenville Farm, LLC	NC
SP-2484 Sub 1	Lily; Richard	NC
SP-2485 Sub 0	FLS Solar 140, LLC	NC
SP-2576 Sub 1	Mayfield; John	NC
SP-2704 Sub 0	Webb Solar Farm, LLC	NC
SP-2705 Sub 0	Whitehart Farm, LLC	NC
SP-2707 Sub 0	Dunlap Farm, LLC	NC
SP-2708 Sub 0	Enfield Farm, LLC	NC
SP-2710 Sub 0	Goldengate Farm, LLC	NC
SP-2711 Sub 0	Monroe Farm, LLC	NC
SP-2712 Sub 0	Goldivey Farm, LLC	NC
SP-2715 Sub 0	Myrick Farm, LLC	NC
SP-2720 Sub 0	Peanut Farm, LLC	NC
SP-2721 Sub 0	Redding Solar Farm, LLC	NC
SP-2893 Sub 0	Dobbins Mill Farm, LLC	NC
SP-2895 Sub 0	Mayodan Farm, LLC	NC
SP-2896 Sub 0	Ostrich Farm, LLC	NC
SP-2900 Sub 0	Wiggins Mill Farm, LLC	NC
SP-2922 Sub 0	Elroy Farm, LLC	NC
SP-2972 Sub 0	Wall Solar Farm, LLC	NC
SP-2990 Sub 0	Eubanks Solar Farm, LLC	NC
SP-3024 Sub 0	Parmele Farm, LLC	NC
SP-3026 Sub 0	Sandy Ridge Solar Farm, LLC	NC
SP-3103 Sub 0	Pinewood Solar Center, LLC	NC
SP-3105 Sub 0	Tower Solar Center, LLC	NC
SP-3176 Sub 0	ESA Benson Solar, LLC	NC
SP-3181 Sub 0	Gantt Farm, LLC	NC
SP-3225 Sub 0	Bunch Solar Farm, LLC	NC
SP-3239 Sub 0	Edgecomb Mercer Farm, LLC	NC
SP-3255 Sub 0	Roady Lane Farm, LLC	NC
SP-3380 Sub 0	Berkeley Farm, LLC	NC
SP-3414 Sub 0	Bethel Farm, LLC	NC
SP-3436 Sub 0	Kim Solar, LLC	NC
SP-3444 Sub 0	Tarboro Farm, LLC	NC
SP-3450 Sub 0	British Farm, LLC	NC

SP-3492 Sub 0	Stoneville Farm, LLC	NC
SP-3512 Sub 0	TWE Creswell Solar Project, LLC	NC
SP-3520 Sub 0	Chambless; Lloyd	NC
SP-3619 Sub 0	Innovative Solar 40, LLC	NC
SP-3666 Sub 0	North Silar Farm, LLC	NC
SP-3673 Sub 0	Pit 64 Farm, LLC	NC
SP-3897 Sub 0	Innovative Solar 69, LLC	NC
SP-3898 Sub 0	Innovative Solar 71, LLC	NC
SP-3899 Sub 0	Innovative Solar 72, LLC	NC
SP-4005 Sub 0	Davidson Solar, LLC	NC
SP-4024 Sub 0	North Selma Solar, LLC	NC
EMP-36 Sub 0	Rugby Wind, LLC	ND
SP-2795 Sub 0	Ampersand Mt. Ida Hydro, LLC	NY
EMP-66 Sub 0	Blue Creek Wind Farm, LLC	OH
EMP-41 Sub 0	Buffalo Ridge II, LLC	SD
EMP-31 Sub 0	Barton Chapel Wind Farm	TX
EMP-32 Sub 0	Penascal Wind Power, LLC	TX
EMP-34 Sub 0	Penascal II Wind Project, LLC	TX
SP-2802 Sub 0	Zirpolo; Michael	VA

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1086
DOCKET NO. E-7, SUB 1087

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Application of Duke Energy Carolinas, LLC, for Registration of New Renewable Energy Facilities	)))	ORDER ACCEPTING REGISTRATION OF NEW RENEWABLE ENERGY FACILITIES

HEARD: Tuesday, November 3, 2015, at 2:00 p.m., in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE: Chairman Edward S. Finley, Jr., Presiding, Commissioners Bryan E. Beatty, ToNola D. Brown-Bland, Don M. Bailey, Jerry C. Dockham and James G. Patterson

APPEARANCES:

For Duke Energy Carolinas, LLC:

Kendrick Fentress, Associate General Counsel, Duke Energy Corporation, P.O. Box 1551/NCRH20, Raleigh, North Carolina 27602

Robert W. Kaylor, Law Office of Robert W. Kaylor, P.A., 353 E. Six Forks Road, Suite 260, Raleigh, North Carolina 27609

For North Carolina Pork Council:

Kurt J. Olson, Law Offices of Kurt J. Olson, 3737 Glenwood Avenue, Suite 100, Raleigh, North Carolina 27612

For North Carolina Sustainable Energy Association:

Michael D. Youth, Regulatory Counsel, 4800 Six Forks Road, Suite 300, Raleigh, North Carolina 27609

For Optima KV, LLC:

Steven J. Levitas, Attorney at Law, Kilpatrick Townsend & Stockton, LLP, 4208 Six Forks Road, Suite 1400, Raleigh, North Carolina 27609

For the Using and Consuming Public:

Tim R. Dodge, Staff Attorney, Public Staff - North Carolina Utilities Commission, 430 N. Salisbury Street, 4326 Mail Service Center, Raleigh, North Carolina 27699-4300

BY THE COMMISSION: On June 8, 2015, in Docket No. E-7, Sub 1086 and June 9, 2015, in Docket No. E-7, Sub 1087, Duke Energy Carolinas, LLC (DEC), filed registration statements as new renewable energy facilities for its Buck and Dan River combined-cycle generating facilities, respectively. DEC stated that Buck and Dan River "will be combusting directed biogas derived from swine waste and other biomass to generate electricity for DEC's customers." DEC further stated that it "has entered into two contracts to purchase directed biogas produced by a swine waste renewable development company and a poultry processing plant in the Midwest." Finally, DEC noted that the Commission determined that directed biogas is a renewable energy resource in its March 21, 2012 Order on Request for Declaratory Ruling in Docket No. SP-100, Sub 29. On July 9, 2015, DEC filed amendments to the Buck and Dan River registration statements in response to a request by the Public Staff for additional information.

In the Buck and Dan River registration statements, DEC states that it has entered into contracts to purchase directed biogas produced by two waste processers that produce swine waste renewable fuel: High Plains Bioenergy, LLC (High Plains), and Roeslein Alternative Energy of Missouri, LLC (RAE) (collectively, directed biogas suppliers). High Plains will produce biogas by anaerobic digestion of swine waste and other biomass at three covered anaerobic lagoons located in Guymon, Oklahoma. RAE will produce biogas by anaerobic digestion of 100% swine waste produced at nine hog farms in northern Missouri. The biogas produced by both directed biogas suppliers will be cleaned to pipeline quality, metered, injected into the interstate pipeline system, and nominated for use by DEC at Buck and Dan River. DEC states that it will secure contract paths and storage to ship the biogas in the interstate gas pipeline system to Buck and Dan River. DEC states that the Directed Biogas Fuel Producer Attestation form, Attachment 3 to each of the registration statements, will be used monthly by its directed biogas suppliers to: (1) represent, warrant, and attest to the quantity of directed biogas produced, and (2) confirm that all environmental attributes of the biogas being sold and delivered to DEC to be fired at Buck and Dan River remains intact and has not been resold.

The registration statements also include certified attestations that: (1) the facilities are in substantial compliance with all federal and state laws, regulations and rules for the protection of the environment and conservation of natural resources; (2) the facilities will be operated as new renewable energy facilities; (3) DEC will not remarket or otherwise resell any renewable energy certificates sold to an electric power supplier to comply with G.S. 62-133.8; and (4) DEC will consent to the auditing of its books and records by the Public Staff insofar as those records relate to transactions with North Carolina electric power suppliers, the purchase of fuel for the facilities or the generation of electricity at the facilities, and DEC agrees to provide the Public Staff and Commission with access to those books and records wherever they are located, as well as access to the facilities.

Petitions to intervene in both of the above-captioned dockets were granted by the Commission for the North Carolina Pork Council (NCPC); the North Carolina Sustainable Energy Association (NCSEA); GreenCo Solutions Inc.; the North Carolina Farm Bureau; Optima KV, LLC; and North Carolina Eastern Municipal Power Agency and North Carolina Municipal Power Agency Number 1.

On July 24, 2015, the Public Staff filed its recommendation as required by Commission Rule R8-66(e) stating that DEC's registration statements as new renewable energy facilities should be considered to be complete and that Buck and Dan River should be considered new renewable energy facilities. Additionally, the Public Staff stated that it had reviewed DEC's multi-fuel calculations and recommended that they be accepted.

On July 29, 2015, NCPC filed comments and requested a hearing in both of the above-captioned dockets. In summary, NCPC noted that "[t]he directed biogas combusted at Buck and Dan River would be generated primarily from swine waste collected from locations in Oklahoma and Missouri." NCPC stated that the swine waste set-aside requirement is intended to promote in-state goals and objectives and that DEC's proposal "will not advance those goals and in fact, could seriously impede the development of the in-state industry and infra-structure needed for those objectives and goals to be reached." NCPC recited the legislative history of the Renewable Energy and Energy Efficiency Portfolio Standard (REPS), in particular, that of the swine waste set-aside requirement, and noted prior Commission Orders stating that the "legislature's intent [for the set-aside requirements was] to foster local economic development and the use of indigenous renewable energy resources." NCPC also acknowledged the Commission's determination in Docket No. SP-100, Sub 29 that directed biogas is a renewable energy resource, but stated that the Commission did not "resolve the question of whether RECs [renewable energy certificates] generated from the directed biogas would be subject to the out-of-state limits." NCPC noted that in Docket SP-100, Sub 29 the Commission stated that "the definition of renewable energy resource is not geographically dependent." NCPC requested that the Commission determine that RECs produced at Buck and Dan River "be deemed out-of-state RECs subject to the limits in [G.S.] 62-133.8(b)(2)e and (c)(2)d beginning in compliance year 2018." NCPC stated that the suggestion to wait until compliance year 2018 "is intended to permit DEC to recoup costs invested to date in the projects and recognizes that in-state sources are unlikely to meet demand in the short term." Alternatively, NCPC requested that the Commission delay acceptance of DEC's registration statements "for 6 to 12 months to allow time for the projects that are now taking form to come to fruition or to a point in development that shows they will commence production in the short-term."

On August 3, 2015, NCSEA filed comments in support of NCPC's requests. NCSEA opined that Buck and Dan River are different from the two directed biogas facilities previously approved by the Commission, stating:

> First, DEC's proposed "new renewable energy facilities" will not address resources or issues indigenous to the State; DEC's facilities will actually impede indigenous resource use and create, rather than resolve, an issue.

Second, DEC's proposed "new renewable energy facilities" will not actually foster new development of renewable energy facilities.

On August 18, 2015, RAE filed a letter in support of DEC's registration of Buck and Dan River. In summary, RAE described its project with Murphy-Brown of Missouri, LLC, in which RAE will harvest biogas from swine waste using anaerobic digesters developed by RAE. In addition, RAE stated that this project can be a model for North Carolina and other states to use in developing similar systems.

On August 18, 2015, DEC filed a response to NCPC's comments. In summary, DEC asserted that its registration statements for Buck and Dan River meet the requirements of G.S. 62-133.8 and the Commission's rules for registration as a new renewable energy facility. Further, DEC stated that NCPC's position should be rejected because it would impose on DEC restrictions that are beyond the REPS requirements and would adversely affect DEC's compliance with the REPS. Further, DEC maintained that registration of Buck and Dan River represents an interim step in DEC's ongoing compliance strategy to achieve and maintain full compliance with the REPS. According to DEC, these transactions would allow it to achieve at least partial compliance with the swine waste set-aside requirement while it continues to seek a diversified portfolio of multiple contracts with developers in North Carolina. Finally, DEC stated that it was opposed to NCPC's request for a hearing because there were no factual or legal issues in dispute.

On October 15, 2015, the Commission issued an Order scheduling an oral argument on November 3, 2015, regarding NCPC's request that RECs produced at Buck and Dan River be deemed out-of-state RECs subject to the limits in G.S. 62-133.8(b)(2)e and (c)(2)d. On November 3, 2015, the oral argument was held as scheduled.

On November 6, 2015, RAE filed additional comments in response to three contentions made during the oral argument. In summary, RAE stated that: (1) RAE's project is not being subsidized by federal or state funds or unrecovered costs, (2) the project is on target to be competed in a timely manner, and (3) depending on the success of its project in Missouri, RAE intends to be active in similar projects in North Carolina.

DISCUSSION

Registration as New Renewable Energy Facilities

Pursuant to G.S. 62-133.8(a)(5), a "new renewable energy facility" is a renewable energy facility that was placed into service on or after January 1, 2007. A "renewable energy facility" includes a facility that generates electric power by the use of a "renewable energy resource," G.S. 62-133.8(a)(7), which includes "a biomass resource, including agricultural waste, animal waste," and various other biomass resources. G.S. 62-133.8(a)(5).

In previous orders, the Commission has concluded that biogas derived from the anaerobic digestion of animal waste is a renewable energy resource. See, e.g., Order

Accepting Registration of New Renewable Energy Facility, In re Application of Orbit Energy, Inc., Docket No. SP-297, Sub 0 (June 19, 2008); Order Accepting Registration of New Renewable Energy Facility, In re Application of Green Energy Solutions NV, Inc., Docket No. SP-578, Sub 0 (Jan. 20, 2010).

Further, in Docket No. SP-100, Sub 29, the Commission concluded that such biogas, produced outside of North Carolina, injected into the natural gas pipeline, and nominated for use by a natural gas-fueled electric generating facility is a renewable energy resource pursuant to G.S. 62-133.8(a)(5). On March 21, 2012, at the request of Bloom Energy Corporation, the Commission issued a declaratory ruling that such "directed biogas" qualifies as a renewable energy resource where, on a case-by-case basis, a proper showing can be made that the biogas is displacing natural gas and retains all required environmental attributes that make the gas renewable. Order on Request for Declaratory Ruling, In re Request of Bloom Energy Corporation, Docket No. SP-100, Sub 29 (March 21, 2012) (Bloom Order). The Commission stated:

> [B]y purchasing the Directed Biogas and nominating it for delivery to the Facility, an Owner is displacing, or offsetting, conventional natural gas that would have otherwise been injected into the pipeline. The Commission, therefore, concludes that, as long as appropriate attestations are made and records kept regarding the source and amounts of biogas injected into the pipeline and used by the Facility to ensure that no biogas is double-counted, the Directed Biogas would be a renewable energy resource and the resulting electric generation would be eligible to earn RECs that may be used for REPS compliance.

Bloom Order, at 4. In addition, the Commission emphasized that the "definition of renewable energy resource is not geographically dependent" and that issues regarding the production of in-State versus out-of-State RECs are "irrelevant to the question of whether the Directed Biogas is a renewable energy resource." Id. at 5.

Subsequent to the Bloom Order, the Commission approved registration statements for two facilities fueled by directed biogas as eligible for REPS compliance. On December 10, 2012, in Docket No. SP-1642, Sub 1, the Commission approved Apple Inc.'s request to register a 10 MW fuel cell generating facility as a new renewable energy facility. On May 5, 2014, in Docket No. SP-2014, Sub 1, the Commission approved a facility fueled by directed biogas for the production of combined heat and power as a new renewable energy resource.

Applying the plain language of the above statutes, as the Commission has done in the Bloom Order and in subsequent orders, the Commission concludes that DEC has met the requirements of the REPS statute and Commission Rule R8-66 for registration of Buck and Dan River as new renewable energy facilities. Buck was placed into service in 2011; Dan River in 2012. Further, each facility utilizes, at least in part, directed biogas, a renewable energy resource, to generate electricity. The geographic location from which the biogas is sourced is irrelevant to the determination of whether Buck and Dan River

are new renewable energy facilities, which only considers the dates on which the facilities began operations and the type of fuel used, at least in part, to generate electricity. In addition, based upon the Public Staff's review and unopposed recommendation, the Commission accepts DEC's multi-fuel calculations.

Use of Renewable Energy Certificates for REPS Compliance

No party disagrees that Buck and Dan River should be registered as new renewable energy facilities or that the biogas used at these facilities to generate electricity is a renewable energy resource. NCPC, however, has urged the Commission to allow the use of electricity derived from out-of-State directed biogas to meet no more than 25% of the REPS swine waste set-aside requirement. G.S. 62-133.8(e).

Pursuant to G.S. 62-133.8(b)(2), an electric public utility such as DEC may comply with the REPS requirements by any one or more of the following:

(a) Generate electricity at a new renewable energy facility;
(b) Use a renewable energy resource at a generating facility, other than waste heat derived from the combustion of a fossil fuel;
(c) Reduce energy consumption through implementation of an energy efficiency measure;
(d) Purchase electricity from a new renewable energy facility, including such a facility located outside North Carolina if the power is delivered to a public utility that provides retail electricity to customers within North Carolina;
(e) Purchase unbundled renewable energy certificates (RECs) derived from a new renewable energy facility, with the use of unbundled RECs derived from out-of-State facilities limited to 25% of the public utility's REPS requirements;
(f) Use banked RECs; or
(g) Electricity demand reduction.

A REC is defined, in pertinent part, as a

> tradable instrument that is equal to one megawatt hour of electricity or equivalent energy supplied by a renewable energy facility, a new renewable energy facility, or reduced by implementation of an energy efficiency measure that is used to track and verify compliance with the requirements of this section as determined by the Commission.

G.S. 62-133.8(a)(6). Thus, the owner of a renewable energy facility earns one REC for every megawatt-hour of energy generated by a renewable energy resource. RECs, however, are not required to be bundled, or sold together with the associated renewable energy, but may also be unbundled and sold separately from the energy. This allows the energy to be sold to a local utility or other purchaser and the REC to be sold to a different, often remote entity.

On September 22, 2009, the Commission issued an Order in Docket No. E-100, Sub 113 in response to a request by Dominion North Carolina Power to clarify the use of unbundled out-of-State RECs purchased to meet the REPS solar, swine waste, and poultry waste set-aside requirements. G.S. 62-133.8(d)-(f). The Commission concluded that allowing the electric power suppliers to use the same compliance methods to meet the REPS general obligation and set-aside requirements best harmonizes the provisions of the REPS. Thus, pursuant to G.S. 62-133.8(b)(2)e and (c)(2)d, unbundled RECs derived from out-of-State renewable and new renewable energy facilities can be used to meet no more than 25% of the solar, swine waste, and poultry waste set-aside requirements.

The NCPC urges the Commission to deem all of the RECs earned by DEC at Buck and Dan River from the use of out-of-State directed biogas to be out-of-State RECs, thus limiting their usage for compliance to not more than 25% of the applicable REPS requirements, including the swine waste set-aside requirement, beginning in compliance year 2018. NCPC contends that the General Assembly included the swine waste set-aside requirement to address the need of North Carolina farmers to utilize swine waste in a way that would eliminate or greatly reduce the environmental impacts presently being experienced in this State. NCPC recounts the history of problems with hog lagoon/spray field treatment systems and the General Assembly's decision in 2007, the same year as the REPS, to make permanent the previously temporary moratorium on lagoon/spray field treatment systems. NCPC maintains that these two actions by the General Assembly signify the legislature's intent to use the swine waste set-aside requirement to help resolve North Carolina's swine waste problem and to promote the expansion of environmentally compatible hog production in North Carolina. NCPC contends that this goal will be severely hampered or defeated if DEC and other electric power suppliers are allowed to use RECs associated with energy derived from directed biogas to fulfill their total swine waste set-aside requirement.

DEC effectively counters NCPC's position by providing a step-by-step analysis of (1) the manner in which DEC intends to earn RECs from directed biogas at Buck and Dan River, and (2) the application of G.S. 62-133.8(a) and (b) in determining the guidelines for earning RECs, in particular in-State versus out-of-State RECs. In addition, DEC states that the General Assembly chose not to place any geographic limits on the source of renewable energy resources. DEC notes that the General Assembly obviously knew how to expressly impose such geographic limits when it intended to do so, citing the 25% limitation on the use of unbundled out-of-State RECs. Moreover, DEC points to some of the practical difficulties that would result if the Commission attempted to define and regulate geographic limits on the renewable energy resources used by electric power suppliers. For example, DEC states that the Commission would be hard pressed to determine whether waste wood used by a renewable energy facility was derived from building projects and timber operations in North Carolina or was trucked in from a bordering state, such as Virginia or South Carolina. The same practical considerations would apply to attempts to track the location at which swine and poultry waste was produced. In addition, DEC submits that it has worked with NCPC and other stakeholders to develop cost-effective swine waste-to-energy facilities in North Carolina and will continue to do

so. Lastly, DEC contends that the development of swine waste-to-energy facilities by RAE and High Plains in Missouri and Oklahoma, respectively, will produce new and improved technologies that will help jump-start the development of such projects in North Carolina.

NCPC's public policy argument is compelling. There is little doubt that the General Assembly's main purpose in enacting the swine waste set-aside requirement was to incentivize the utilization of new technologies in North Carolina for environmentally friendly uses of swine waste in the production of electricity. Nevertheless, NCPC's position that the REPS is ambiguous is not persuasive.

The Commission's first task in carrying out the legislature's intent is to interpret the plain meaning of the words of a statute, rule or regulation. See Lenox, Inc. v. Tolson, 353 N.C. 659, 664, 548 S.E.2d 513, 518 (2001). The Commission can consider the legislative history of a statute, particularly when there is ambiguity in the statute. However, the Commission finds no ambiguity in the provisions of G.S. 62-133.8 that are at issue in this docket.

As described above, under G.S. 62-133.8(b)(2), there are numerous methods by which electric public utilities can meet their REPS obligations. The statute is very specific in describing each method separately and in plain language, and it allows an electric public utility to meet its REPS obligations by any one or more of the methods. In the present docket, DEC is planning to meet all or a portion of its swine waste set-aside obligation by generating electricity at two new renewable energy facilities located in North Carolina. This method complies with G.S. 62-133.8(b)(2)a. As the fuel used to generate the electricity is derived from swine waste, the RECs may be used to meet the swine waste set-aside requirement of G.S. 62-133.8(e).

In addition, it is possible that DEC will sell some of the swine waste RECs earned at Buck and Dan River to other electric power suppliers for their own use in meeting the REPS swine waste set-aside requirement. For example, if DEC has more swine waste RECs than it needs, it might sell a portion of the swine waste RECs to Duke Energy Progress, LLC (DEP). In that event, DEP could meet its own REPS swine waste set-aside obligation, or a portion of that obligation, by purchasing unbundled RECs from in-State new renewable energy facilities, as allowed under 62-133.8(b)(2)e. Based on the plain meaning of G.S. 62-133.8(b)(2)a, the swine waste RECs produced at Buck and Dan River would be RECs derived from generating electricity at in-State new renewable energy facilities and, therefore, not subject to the 25% limitation of 62-133.8(b)(2)e and (c)(2)d on unbundled out-of-State RECs.

Lastly, it is clear that NCPC's requested relief is not based on an interpretation of the language of the REPS statute, but on a public policy argument. Otherwise, the limitation urged for the use of the RECs derived from out-of-State directed biogas would be effective for all REPS compliance and not applicable only in compliance years beginning at some future time. The Commission is not persuaded that it should adopt NCPC's policy argument in this case to so distort the plain meaning and intent of the legislature. Rather, the policy argument advocated by NCPC is properly a subject for the

legislature which can impose additional limitations, if desired, on the use for REPS compliance of RECs associated with the generation of energy at in-State new renewable energy facilities by out-of-State swine waste-derived directed biogas.

CONCLUSIONS

Based on the registration statements filed by DEC and the record as a whole in these dockets, including the source of fuel stated in the registration statements, the Commission finds good cause to accept registration of Buck and Dan River as new renewable energy facilities. DEC shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year and shall be required to participate in the NC-RETS REC tracking system (http://www.ncrets.org) in order to facilitate the issuance of RECs. Pursuant to Commission Rule R8-67(d)(2), because DEC is using multiple fuels to generate electricity at Buck and Dan River, it shall earn RECs based only upon the energy derived from the renewable energy resources in proportion to the relative energy contents of the fuels used. Consistent with the Commission's January 20, 2010 Order on Motion for Clarification issued in Docket No. E-100 Sub 113, if any organic material other than swine waste is used to produce the directed biogas, only that portion of the electricity generated from the directed biogas that is derived from swine waste is eligible to earn RECs that may be used to meet the REPS swine waste set-aside requirement. Lastly, 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.

IT IS, THEREFORE, ORDERED as follows:

1. That the registration statements filed by DEC for Buck and Dan River as new renewable energy facilities shall be, and the same hereby are, accepted.

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

ISSUED BY ORDER OF THE COMMISSION.

This the _11th day of March, 2016.

NORTH CAROLINA UTILITIES COMMISSION

Gail L. Mount

Gail L. Mount, Chief Clerk

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 130

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Revocation of Registration of Renewable Energy Facilities and New Renewable Energy Facilities Pursuant to Rule R8-66(f) - 2016	)))))	ORDER GIVING NOTICE OF INTENT TO REVOKE REGISTRATION OF RENEWABLE ENERGY FACILITIES AND NEW RENEWABLE ENERGY FACILITIES

BY THE COMMISSION: Pursuant to Commission Rule R8-66(b), for renewable energy certificates (RECs) earned by a facility to be eligible for use by an electric power supplier in North Carolina for compliance with the Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the owner of the facility shall register it with the Commission as a renewable energy facility or new renewable energy facility and is thereafter required to file an annual certification. Each Commission order approving the registration of a renewable energy facility or new renewable energy facility states that the owner of the facility shall annually file the information required by Commission Rule R8-66 on or before April 1 of each year. Specifically, Commission Rule R8-66(b)(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, 26 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, 2016. In addition, 215 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, 2016.

The Commission finds good cause to notice its intent to revoke, as of October 1, 2016, 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, 2016, 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 2016 annual certification requirement in

Rule R8-66(b) for recently-registered facilities that received orders approving registration after January 1, 2016.

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, 2016, 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, 2016, 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.

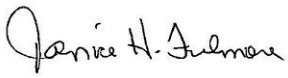
4. That the Chief Clerk shall serve a copy of this Order on the owner of each facility listed in Appendices A and B by certified mail, return receipt requested.

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 ___25th___ day of __August__, 2016.

NORTH CAROLINA UTILITIES COMMISSION



Janice H.Fulmore, Deputy Clerk

Registered Facilities Pending Revocation (*NC-RETS Participants*)		
Docket Number	**Facility Owner**	**State**
SP-2252, Sub 0	Aiwin, LLC	NC
SP-1365 Sub 0	Biltmore Energy Company, LLC and Biltmore Natural Resources, LLC	NC
SP-1015 Sub 1	Commonwealth Brands, Inc.	NC
SP-2672, Sub 1	Diconilio; Michelle	NC
SP-513 Sub 1	Dominion Realty Partners	NC
SP-1188 Sub 1	Easter Holdings, LLC	NC
SP-294 Sub 0	Hamlin Family, LLC	NC
SP-127 Sub 4	Jordan Hydroelectric Limited Partnership	NC
SP-595 Sub 0	Kublickis; Peter and Judith Cestaro	NC
SP-404 Sub 0	Landair Farms, LLC	NC
SP-1279 Sub 0	Old Dominion Freight Line, Inc.	NC
SP-1249 Sub 1	Rockingham; County of	NC
SP-565 Sub 1	T.D. Burgess, Sr. Revocable Trust	NC
E-37 Sub 1	Town of Lake Lure	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

Registered Facilities Pending Revocation *(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-746, Sub 0	Costco Corporation	CA
SP-746, Sub 1	Costco Corporation	CA
SP-746, Sub 2	Costco Corporation	CA
SP-746, Sub 3	Costco Corporation	CA
SP-746, Sub 4	Costco Corporation	CA
SP-746, Sub 5	Costco Corporation	CA
SP-746, Sub 6	Costco Corporation	CA
SP-746, Sub 7	Costco Corporation	CA
SP-746, Sub 8	Costco Corporation	CA
SP-746, Sub 9	Costco Corporation	CA
SP-746, Sub 10	Costco Corporation	CA
SP-746, Sub 11	Costco Corporation	CA
SP-746, Sub 12	Costco Corporation	CA
SP-746, Sub 13	Costco Corporation	CA
SP-746, Sub 14	Costco Corporation	CA
SP-746 Sub 15	Costco Corporation	CA
SP-746 Sub 16	Costco Corporation	CA
SP-746 Sub 17	Costco Corporation	CA
SP-782 Sub 0	Solar Star California II, LLC	CA
SP-782 Sub 1	Solar Star California II, LLC	CA
SP-782 Sub 2	Solar Star California II, LLC	CA
SP-782 Sub 3	Solar Star California II, LLC	CA
SP-1026 Sub 0	RE-SDS, LLC	CA
SP-1027 Sub 0	RE-PRI, LLC	CA
SP-4747 Sub 0	Unadilla Solar, LLC	GA
EMP-72 Sub 0	Elk Rover Windfarm, LLC	KS
EMP-33 Sub 0	Smoky Hills Wind Project II, LLC	KS
EMP-39 Sub 0	Smoky Hills Wind Farm, LLC.	KS
SP-1616 Sub 0	Ecocorp Inc.	MD

RET-27 Sub 0	Gaston County Schools	NC
SP-203 Sub 1	Aquesta Bank	NC
SP-203 Sub 2	Aquesta Bank	NC
SP-605 Sub 1	Samuel B. Moore	NC
SP-605 Sub 3	Samuel B. Moore	NC
SP-677 Sub 0	Renewable Energy Business Group, Inc.	NC
SP-779 Sub 0	Grandfather Mountain Stewardship Foundation, Inc.	NC
SP-804 Sub 1	510 REPP One, LLC	NC
SP-833 Sub 0	Tony Smith	NC
SP-833 Sub 1	Tony Smith	NC
SP-844 Sub 1	Tropical Nut & Fruit Co.	NC
SP-1204 Sub 0	Solar Noir, LLC	NC
SP-1308 Sub 1	Effect Energy, Inc	NC
SP-1377 Sub 0	FLS Solar 60, LLC	NC
SP-1568 Sub 0	Plymouth Solar, LLC	NC
SP-1623 Sub 0	North Cargo Building, LLC	NC
SP-1743 Sub 0	Chatham Park Solar Farm, LLC	NC
SP-1754 Sub 0	Alamance Community College	NC
SP-1960 Sub 0	Paul Anthony McInerney	NC
SP-1979 Sub 0	Manway Solar, LLC	NC
SP-2042 Sub 1	Calypso Solar, LLC	NC
SP-2170 Sub 1	Irwin Funderburk	NC
SP-2197 Sub 1	Oakboro Farm, LLC	NC
SP-2222 Sub 1	Tyson Furniture	NC
SP-2224 Sub 0	Alesia & Perry Dickerson	NC
SP-2236 Sub 0	Graham Avenue Solar, LLC	NC
SP-2239 Sub 0	TelExpress, Inc.	NC
SP-2317 Sub 1	Snow Hill Solar, LLC	NC
SP-2408 Sub 0	Jim Stramler	NC
SP-2431 Sub 0	FLS Solar 220, LLC	NC
SP-2446 Sub 1	Green Creek Vineyards, LLC	NC
SP-2665 Sub 16	Fresh Air Energy II, LLC	NC
SP-2811 Sub 0	Mark and Janet Hosey	NC
SP-2826 Sub 1	Charles R. Hayes	NC
SP-2894 Sub 0	Greenville Farm 2, LLC	NC
SP-2910 Sub 2	SolNCPower1, 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-2993 Sub 0	Aulander Solar, LLC	NC
SP-3025 Sub 0	Wommack Farm, LLC	NC
SP-3029 Sub 0	Ashok and Mary Ann Iyer	NC
SP-3034 Sub 0	Paul and Claudine Cremer	NC
SP-3062 Sub 0	Coastal Beverage Company, Inc.	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-3104 Sub 0	Mariposa Solar Center, LLC	NC
SP-3106 Sub 0	Lake Solar Center, LLC	NC
SP-3109 Sub 0	Industrial Centers, LLC	NC
SP-3116 Sub 1	Wayne S. Cooley	NC
SP-3132 Sub 0	Mason Solar Center, LLC	NC
SP-3167 Sub 0	Woodland 258 Farm, LLC	NC
SP-3214 Sub 0	Westside Solar Farm, LLC	NC
SP-3220 Sub 0	SolNCPower2, LLC	NC
SP-3234 Sub 0	Jamesville Solar, LLC	NC
SP-3241 Sub 0	Sun-Power-System, Inc.	NC
SP-3259 Sub 0	Weldon Solar, 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-3468 Sub 0	RayLen Vineyards Solar, LLC	NC
SP-3476 Sub 0	Innovative Solar 41, LLC	NC
SP-3511 Sub 0	TWE Kelford Solar Project, LLC	NC
SP-3606 Sub 0	Battleboro Solar, LLC	NC
SP-3615 Sub 0	Innovative Solar 33, LLC	NC
SP-3617 Sub 0	Innovative Solar 37, LLC	NC
SP-3618 Sub 0	Innovative Solar 38, LLC	NC
SP-3649 Sub 0	Ariel Solar, LLC	NC
SP-3816 Sub 0	American Proteins, Inc.	NC

SP-3829 Sub 0	Cabaniss Farm, LLC	NC
SP-3830 Sub 0	Columbo Farm, LLC	NC
SP-3880 Sub 0	Estes Express Lines, Inc.	NC
SP-3880 Sub 1	Estes Express Lines, Inc.	NC
SP-3931 Sub 0	Spring Valley Farm, LLC	NC
SP-3951 Sub 0	County Home Solar Center	NC
SP-3952 Sub 0	Winding Oak Solar Center, LLC	NC
SP-3953 Sub 0	Freemont Solar Center, LLC	NC
SP-3955 Sub 0	Meares Solar Center, LLC	NC
SP-3983 Sub 0	George R. McManus	NC
SP-4001 Sub 1	Harvest Solar 1, 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-4092 Sub 0	Wilkesboro Hydropower, 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-4342 Sub 0	Peanut Market Farm Solar, LLC	NC
SP-4343 Sub 0	Stephenson Farm 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-4443 Sub 0	Mc Dougald Solar, LLC	NC
SP-4449 Sub 0	Thomas Solar 1, LLC	NC
SP-4463 Sub 0	Staley Solar, LLC	NC
SP-4468 Sub 0	Four Oaks Solar, LLC	NC
SP-4469 Sub 0	Thomas Solar 2, LLC	NC
SP-4470 Sub 0	Kalish Farm Solar, LLC	NC
SP-4568 Sub 0	Nashville Solar, LLC	NC
SP-4597 Sub 0	Cree, Inc.	NC

SP-4619 Sub 0	233 Randolph 74 Solar I, 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-4652 Sub 0	232 Long Branch 29 Solar 1, LLC	NC
SP-4661 Sub 0	Thigpen Farms Solar, LLC	NC
SP-4683 Sub 0	Midway Power, LLC	NC
SP-4689 Sub 0	ESA Elm City NC, LLC	NC
SP-4752 Sub 0	ESA Princeton 2 NC, LLC	NC
SP-4765 Sub 0	Dowtin Farm, 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-4806 Sub 0	ESA Erwin NC, LLC	NC
SP-4841 Sub 0	GTP 3, LLC	NC
SP-4866 Sub 0	Wire Grass Solar, LLC	NC
SP-4894 Sub 0	Fresh Air Energy XXIX, 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-4944 Sub 0	Spring Valley Lake Solar, LLC	NC
SP-5003 Sub 0	Foothills Renewables, LLC	NC
SP-5013 Sub 0	Willard Keith Oneal	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-5098 Sub 0	Shine Solar, LLC	NC
SP-5099 Sub 0	Clear Solar I, LLC	NC
SP-5100 Sub 0	Fire Solar I, LLC	NC
SP-5100 Sub 1	Fire Solar I, LLC	NC

SP-5108 Sub 0	Doug Stuber	NC
SP-5136 Sub 0	TWC Administration, LLC	NC
SP-5138 Sub 0	Mark Mautner	NC
SP-5145 Sub 0	Country Oak Solar Farm, 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-5422 Sub 0	North 301 Solar, LLC	NC
SP-5440 Sub 0	Five Forks Solar, LLC	NC
SP-5442 Sub 0	Edenton Airport Solar, LLC	NC
SP-5467 Sub 0	RB Solar, LLC	NC
SP-5471 Sub 0	Innovative Solar 73, LLC	NC
SP-5472 Sub 0	Innovative Solar 79, LLC	NC
SP-5475 Sub 0	Louisburg Solar 1, LLC	NC
SP-5574 Sub 0	Megan Lynch	NC
SP-5593 Sub 0	Lyon Solar, LLC	NC
SP-5594 Sub 0	Tolson Solar, LLC	NC
SP-5650 Sub 0	HCE Moore 1, LLC	NC
SP-5661 Sub 0	234 Williamston WF Solar I, 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-5907 Sub 0	Innovative Solar 56, 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-6230 Sub 0	Lynda Haberer	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
SP-5858 Sub 0	Gettysburg Energy and Nutrient Recovery Facility	PA

Annual Certification for Renewable Energy Facility Registration

Facility Name: _____

Facility NCUC Docket No.: _____

☐	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.
☐	I certify that the facility satisfies the requirements of G.S. 62-133.8(a)(5) or (7) as a O renewable energy facility, or O new renewable energy facility, and the facility will be operated as a O renewable energy facility, or O new renewable energy facility.
☐	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.
☐	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.
☐	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.
☐	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.

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