



**NORTH CAROLINA  
PUBLIC STAFF  
UTILITIES COMMISSION**

January 8, 2016

Ms. Gail L. Mount, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

Re: Docket No. E-100, Sub 145

Dear Ms. Mount:

In connection with the above-referenced docket, I transmit herewith for filing the Comments of the Public Staff. In the discussion of the compliance report filed by the Fayetteville Public Works Commission (Fayetteville), at the bottom of page 6, two words are confidential and have been redacted. The unredacted version will be provided to any party that has entered into a confidentiality agreement with Fayetteville.

By copy of this letter, I am forwarding a copy of the redacted version to all parties of record.

Sincerely,

Electronically submitted  
/s/ Robert S. Gillam  
Staff Attorney  
[bob.gillam@psncuc.nc.gov](mailto:bob.gillam@psncuc.nc.gov)

RSG/bl

Enclosures

c: Parties of Record

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**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-100, SUB 145

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of ) 2015 REPS Compliance Plans and ) 2014 REPS Compliance Reports )	COMMENTS OF THE PUBLIC STAFF
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NOW COMES THE PUBLIC STAFF – North Carolina Utilities Commission, by and through its Executive Director, Christopher J. Ayers, and submits the following comments pursuant to the Commission’s order of September 15, 2015, in Docket No. E-100, Sub 145. These comments address the 2014 Renewable Energy and Energy Efficiency Portfolio Standard (REPS) Compliance Reports (Reports) and Compliance Plans (Plans) filed in the fall of 2015 by EnergyUnited, the Fayetteville Public Works Commission (Fayetteville), the Town of Fountain (Fountain), GreenCo Solutions, Inc. (GreenCo),<sup>1</sup> Halifax EMC (Halifax),<sup>2</sup> the North Carolina Eastern Municipal Power Agency (NCEMPA),<sup>3</sup> North Carolina Municipal Power Agency 1 (NCMPA1),<sup>4</sup> and the Tennessee Valley Authority (TVA)<sup>5</sup> (collectively, the Muni/EMC Suppliers).

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<sup>1</sup> GreenCo filed a consolidated Report and consolidated Plan on behalf of Albemarle Electric Membership Corporation (EMC), Broad River Electric Cooperative, Brunswick EMC, Cape Hatteras EMC, Craven-Carteret EMC, Central EMC, Edgecombe-Martin County EMC, Four County EMC, French Broad EMC, Haywood EMC, Jones-Onslow EMC, Lumbee River EMC, Mecklenburg Electric Cooperative, 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. Edgecombe-Martin County EMC will meet the REPS compliance requirements of the Town of Oak City.

<sup>2</sup> Halifax will meet the REPS compliance requirements of the Town of Enfield, and it filed a consolidated Report and consolidated Plan on behalf of itself and Enfield.

<sup>3</sup> NCEMPA filed a consolidated Report and consolidated Plan on behalf of Apex, Ayden, Belhaven, Benson, Clayton, Edenton, Elizabeth City, Farmville, Fremont, Greenville, Hamilton,

G.S. 62-133.8 requires all electric power suppliers in North Carolina to meet specified percentages of their retail sales using renewable energy and energy efficiency through the REPS. Section (c) of this statute contains requirements that are specific only to the Muni/EMC Suppliers. The Reports filed by the Muni/EMC Suppliers include the information required by Commission Rule R8-67(c) to demonstrate their compliance with the REPS in 2014. Compliance is demonstrated by the number of renewable energy certificates (RECs) and energy efficiency certificates (EECs) that the Muni/EMC Suppliers place into the North Carolina Renewable Energy Tracking System (NC-RETS). A REC represents one megawatt-hour (MWh) of renewable energy or the thermal equivalent. EECs are similar to RECs and are earned by savings from energy efficiency (EE) programs, demand side management (DSM) programs, and electricity demand reduction. EECs require evaluation, measurement, and verification (EM&V) to prove their validity. The Muni/EMC Suppliers may use energy from a hydroelectric power facility and allocations from the Southeastern Power Administration (SEPA) to meet up to 30% of the requirements of G.S. 62-133.8(c), and they may obtain RECs from out-of-state sources to satisfy up to 25% of these requirements. An electric power supplier may have its REPS

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Hertford, Hobgood, Hookerton, Kinston, LaGrange, Laurinburg, Louisburg, Lumberton, New Bern, Pikeville, Red Springs, Robersonville, Rocky Mount, Scotland Neck, Selma, Smithfield, Southport, Tarboro, Wake Forest, Washington, and Wilson. Wilson will meet the REPS compliance requirements of Pinetops, Macclesfield, and Walstonburg.

<sup>4</sup> NCMPA1 filed a consolidated Report and consolidated Plan on behalf of Albemarle, Bostic, Cherryville, Cornelius, Drexel, Gastonia, Granite Falls, High Point, Huntersville, Landis, Lexington, Lincolnton, Maiden, Monroe, Morganton, Newton, Pineville, Shelby, and Statesville.

<sup>5</sup> TVA filed a consolidated Report and consolidated Plan on behalf of Tri-State EMC, Mountain EMC, Blue Ridge Mountain EMC, and the Murphy Electric Power Board.

requirements met by a utility compliance aggregator as defined in Rule R8-67(a)(5).

In addition to the requirements discussed above, G.S. 62-133.8 also requires all electric power suppliers to obtain energy derived from solar, swine waste, and poultry waste resources. These provisions of the statute are also known as set-asides. These additional requirements are contained in sections (d), (e), and (f) of the statute respectively.

### **Comments on the 2014 REPS Compliance Reports**

#### **General Comments on the Reports**

Under G.S. 62-133.8(c), the Muni/EMC Suppliers were required in 2014 to meet 3 percent of their 2013 retail sales with renewable energy or savings from DSM and EE; under the solar set-aside requirement of G.S. 62-133.8(d), they were required to meet 0.07 percent of their 2013 retail sales with solar energy. The Commission's order of November 13, 2014, in Docket No. E-100, Sub 113, delayed the swine waste set-aside requirement of G.S. 62-133.8(e) until 2015. The requirements of G.S. 62-133.8(f) were modified by the Commission on March 26, 2014, to provide that the electric public utilities and the Muni/EMC suppliers must pursue retirement of 170,000 poultry waste RECs derived from electrical or thermal energy. The required number of poultry waste RECs for each electric power supplier is based upon the supplier's percentage of state-wide electric sales.

All but one of the Muni/EMC Suppliers met the general requirement<sup>6</sup> of G.S. 62-133.8(c) and the solar set-aside provisions of G.S. 62-133.8(d). This one supplier, Fountain, currently has not submitted for retirement sufficient non-hydroelectric RECs for 2014 compliance. TVA is the only Muni/EMC Supplier that did not meet the poultry waste requirement for 2014. It has not yet demonstrated that 75% of its poultry waste RECs were obtained from in-state sources. The steps that should be taken to ensure compliance by Fountain and TVA are discussed below.

The incremental compliance costs of all of the Muni/EMC Suppliers were below the annual cost caps for 2014 set forth in G.S. 62-133.8(h)(3) and (4). Incremental costs are defined in G.S. 62-133.8(h)(1) as all costs for REPS compliance in excess of an electric power supplier's avoided costs. The following table shows each Muni/EMC Supplier's compliance requirements and costs:

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<sup>6</sup> The total amount of renewable energy required by G.S. 62-133.8(c), net of the set-asides provided for in subsections (d) through (f), is customarily referred to as the "general requirement."

Table 1: 2014 REPS Compliance for Muni/EMC Suppliers

Muni/EMC Supplier	2013 Sales (MWh) <sup>1</sup>	Total No. of RECs/EECs req'd (3% of Sales)	No. of Solar RECs req'd (0.07% of Sales)	No. of Poultry Waste RECs req'd	Incremental REPS Costs (\$)	Total Cost Cap (\$)	% of Cost Cap
EnergyUnited	2,359,481	70,784	1,652	3,096	1,286,422	3,787,430	34%
Fayetteville	2,026,104	60,783	1,418	2,658	865,217	3,441,728	25%
Fountain	3,573	107	3	5	5,859	9,768	60%
GreenCo	12,363,411	370,902	8,654	16,220	3,955,922	15,956,682	25%
Halifax	193,834	5,815	136	254	133,356	350,290	38%
NCEMPA	6,924,830	207,745	4,847	9,085	1,174,640	9,042,590	13%
NCMPA1	4,855,329	145,660	3,399	6,370	982,133	6,166,996	16%
TVA	17,586	528	12	769	1,786,868 <sup>2</sup>	1,694,586	105%
<b>TOTAL</b>	<b>28,744,148</b>	<b>862,324</b>	<b>20,121</b>	<b>38,457</b>	<b>10,190,417</b>	<b>40,450,070</b>	

<sup>1</sup> The MWh Sales include the sales of other EMCs and municipal power suppliers for which the suppliers listed are providing REPS compliance services.


<sup>2</sup> TVA does not charge for REPS compliance services to its distributors in North Carolina.

## Specific Comments on the Reports

### EnergyUnited

EnergyUnited's Report and NC-RETS sub-account indicate that it met its REPS requirements for 2014. EnergyUnited included EECs from two programs, the Commercial Lighting Program and the Heat Pump Rebate Program. The Public Staff agrees with the EM&V results for these programs. The Public Staff recommends that the Commission approve EnergyUnited's 2014 Report, including the EM&V results for the EECs it earned in 2014.

### Fayetteville

Fayetteville's Report and NC-RETS sub-account indicate that it met its REPS requirements for 2014. Fayetteville did not use any EECs for REPS compliance in 2014 but is implementing four EE programs: (1) CFL Distribution Program, (2) LED Street Lighting Pilot Program, (3) High Efficiency Audit Program, and (4) HVAC Replacement Program. The CFL Distribution Program is the only EE program for which Fayetteville has performed EM&V and banked EECs. For EM&V, it used data from Duke Energy Progress, LLC (DEP), which the Public Staff considers acceptable. Although Fayetteville remained below the cost cap for 2014, the Public Staff is concerned that **[BEGIN CONFIDENTIAL]**  **[END CONFIDENTIAL]** of Fayetteville's REPS expenses were for its LED Street Lighting Pilot Program. The avoided costs of any energy savings from Fayetteville's EE programs should be subtracted from the program costs to determine the REPS incremental costs. The Public Staff will monitor these costs in future Reports.

The Public Staff recommends that the Commission approve Fayetteville's 2014 Report, including the EM&V results for the EECs it banked in 2014.

#### Fountain

As of this date, Fountain's Report indicates that it used only hydroelectric RECs to comply with the general requirements in G.S. 62-133.8(c). However, under G.S. 62-133.8(c)(2)(c), the Muni/EMC Suppliers may use hydroelectric RECs to meet no more than 30% of the total requirements. The Public Staff recommends that Fountain request the Commission to reopen its NC-RETS sub-account as soon as possible and input the proper number of non-hydroelectric RECs. Fountain has agreed to remedy the excess use of hydroelectric RECs as soon as its NC-RETS account is reopened. Once Fountain has replaced a sufficient number of hydroelectric RECs with RECs from other renewable sources, the Public Staff will file supplemental comments recommending that Fountain's 2014 REPS Compliance Report be approved.

Although Fountain's REPS costs remained below the cost cap for 2014, it may have difficulty in staying below the cost cap in future years due to its small number of customers (308). In 2014, its administrative costs for REPS were approximately 89 percent of its total REPS costs. The Public Staff notes that other very small municipalities have been able to reduce their REPS compliance costs substantially by contracting for compliance services with larger electric power suppliers, and it recommends that Fountain consider this course of action.

Fountain did not use any EECs for REPS compliance in 2014.



## GreenCo

GreenCo's Report and NC-RETS sub-account indicate that it met its REPS requirements for 2014.

In the past, Broad River Electric Cooperative and Mecklenburg Electric Cooperative have had REPS expenses that were close to the cost cap. In 2014, however, neither Broad River nor Mecklenburg incurred any REC purchase costs, because each had sufficient RECs banked from prior years to meet the 2014 requirements.

GreenCo's members earned EECs from the following programs:

Energy Star Lighting Program – GreenCo participants distribute CFLs to their members through various channels. However, GreenCo does not claim EECs earned from CFLs installed after 2013, because it considers CFLs now to be a baseline technology.

Water Heating Efficiency Program – GreenCo members distribute kits that include water heater blankets, pipe insulation, and low flow faucet and shower head aerators.

Community EE and Community EE Low Income Programs – These two programs provide home air sealing and insulation measures to residential customers. No distinctions exist between the programs except that one is oriented toward low income customers. Both of these programs represent small portions of the overall EE savings.

Agriculture EE, Commercial EE, Energy Star Appliances, Energy Star New Homes, Energy Cost Monitor, and Refrigerator/Freezer Replacement

Programs – Supporting calculations for the energy savings associated with these programs are based on data and analyses from GDS's 2013 market potential study and other customer-specific reports. The Public Staff agrees with the 2013 study's assessment of these programs.

GreenCo's administrative costs are 34% of its incremental REPS costs, which is much higher than most of the other Muni/EMC suppliers.

The Public Staff recommends that the Commission approve GreenCo's 2014 Report, including the EM&V results for the EECs it earned in 2014.

#### Halifax

Halifax's Report and NC-RETS sub-account indicate that it met the requirements for general RECs and solar RECs for 2014. For the poultry waste REC requirement, Halifax originally placed only out-of-state RECs in its NC-RETS sub-account as of this date. However, under G.S. 62-133.8(c)(2)(d), out-of-state RECs are limited to 25% of its total requirement and 25% of each set-aside. In response to a Public Staff data request, Halifax corrected this compliance issue by submitting for retirement a sufficient number of poultry waste RECs.

Halifax earned EECs from the following programs:

CFL Program – Halifax has, to date, provided free CFLs to its members but will cease to claim EECs from future CFL installations.

Heat Pump Rebate Program – This program provides rebates to encourage the installation of high efficiency heat pump and air conditioning systems. In support of the calculations for this program Halifax, has provided

spreadsheets showing the efficiency ratings of the units removed and the new units installed. Halifax determined the program savings by using a widely accepted energy savings calculator, which the Public Staff finds to be satisfactory.

Residential Appliance Credit Program – Customers who have an energy audit and implement the recommendations will receive a credit on their electric bill.

LED Street Lights and Outdoor Lights – Savings from the replacement of less efficient lights earn EECs.

In its Renewable Energy Generation tariff filed in Docket No. EC-33, Sub 67, Halifax offers members who install and operate a renewable energy generation source on their side of the delivery point and in parallel with Halifax's distribution system \$60 for a solar REC and \$90 for a wind REC. These REC prices are significantly higher than current REC prices paid by other suppliers and found in the REC market in general. The reasonableness and prudence of purchasing RECs under this tariff in the future and using these RECs for REPS compliance could become an issue, particularly if Halifax's compliance costs are approaching its cost cap.

The Public Staff recommends that the Commission approve Halifax's 2014 Report after it puts the proper number of in-state poultry waste RECs into its NC-RETS sub-account and approve the EM&V results for the EECs Halifax earned in 2014'

### NCEMPA

NCEMPA's Report and NC-RETS sub-account indicate that it met its REPS requirements for 2014.

NCEMPA earned EECs from its EE Kit Distribution Program. The impacts associated with these kits are derived from the installation of CFL bulbs but do not include savings from any other components of the kit. NCEMPA has been relying on EM&V from a 2008 study by DEP as support for the savings associated with the program. However, more recent EM&V data suggest that the number of kilowatt-hours saved per CFL is smaller than the initial studies indicated. The Public Staff has no objection to the estimated savings for this program for 2014 but recommends that NCEMPA use the latest EM&V data available as the basis for determining EECs for this program for RECs claimed in 2015 and beyond. One option that would be satisfactory to the Public Staff for this purpose is to use DEP's EM&V study on EE Lighting filed July 17, 2014, in Docket No. E-2, Sub 950.

With this understanding, the Public Staff recommends that the Commission approve NCEMPA's 2014 Report, including the EM&V results for the EECs it earned in 2014.

### NCMPA1

NCMPA1's Report and NC-RETS sub-account indicate that it met its REPS requirements for 2014.

NCMPA1 earned EECs from its EE Kit Distribution Program but did not use any EECs for 2014 REPS compliance. This program is identical to the

program offered by NCEMPA, and like NCEMPA, NCMPA1 used DEP's 2008 data as support for the savings associated with the program. As with NCEMPA, the Public Staff recommends that NCMPA1 use the latest EM&V data available, such as DEP's EM&V study on EE Lighting filed July 17, 2014, in Docket No. E-2, Sub 950, as the basis for determining EECs for this program for compliance in 2015 and beyond.

The Public Staff recommends that the Commission approve NCMPA1's 2014 Report, including the EM&V results for the EECs it earned in 2014.

#### TVA

TVA's Report and NC-RETS sub-account indicate that it met the requirements for general RECs and solar RECs for 2014. For the poultry waste REC requirement, TVA has placed only out-of-state RECs in its NC-RETS sub-account; however, under G.S. 62-133.8(c)(2)(d) and the Commission's *Order on Dominion's Motion for Further Clarification*, issued on September 22, 2009, in this docket, out-of-state RECs are limited to 25% of each REPS set-aside. TVA has suggested that the facility from which it purchased poultry waste RECs was misclassified as out-of-state. The Public Staff is in agreement and encourages TVA to pursue this issue as quickly and vigorously as practicable. Once these RECs have been reclassified as in-state, the Public Staff will file supplemental comments recommending that TVA's 2014 REPS Compliance Report be approved.

TVA did not use any EECs for REPS compliance in 2014. TVA provides REPS compliance services at no cost to the four distributors of its electricity in North Carolina.<sup>7</sup>

## **Comments on the REPS Compliance Plans**

### **General Comments on the Plans**

The Plans contain the information filed by the Muni/EMC Suppliers as required by Commission Rule R8-67(b) to demonstrate how they intend to comply with REPS in the current year and next two following years, in this case, 2015, 2016, and 2017 (the planning period). The total amount of renewable energy or EECs that is required for 2015, 2016, and 2017 is equal to 6% of the Muni/EMC Suppliers' North Carolina retail sales for the preceding year.

All electric power suppliers must file their Plans on or before September 1 of each year and explain how they will meet the requirements of G.S. 62-133.8(b), (c), (d), (e), and (f).

Specific comments on each Muni/EMC Supplier's Plan are presented below, followed by separate comments on compliance with the swine waste and poultry waste requirements in G.S. 62-133.8(e) and (f), and a summary of planned REPS compliance information in Tables 2 and 3.

All of the Muni/EMC Suppliers indicated that they will achieve the general and solar requirements of G.S. 62-133.8 (c) and (d) for the planning period and

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<sup>7</sup> The costs incurred by TVA in acquiring renewable energy for its four distributors exceeded the distributors' combined cost caps for 2014. However, the statutory obligation to comply with the REPS falls upon the distributors, not upon TVA; and since TVA provides its compliance services free of charge, the distributors themselves incurred no compliance costs. Consequently, there is no violation of the cost cap provisions of G.S. 62-133.8.

that their expenses to comply with the REPS will not exceed the annual cost caps established in G.S. 62-133.8(h)(3) and (4).

### **Specific Comments on the Plans**

#### EnergyUnited

To comply with its REPS requirements, EnergyUnited plans to purchase renewable energy from two landfill gas projects, together with out-of-state wind and biomass RECs. It also plans to obtain RECs from in-state biomass plants, its SEPA allocation, and small hydroelectric facilities in North Carolina. To meet the solar set-aside, EnergyUnited expects to purchase RECs from three in-state PV facilities. It has signed contracts to obtain swine and poultry waste RECs.

#### Fayetteville

Fayetteville plans to purchase RECs to meet most of its REPS compliance requirements, including the solar set-aside, and does not intend to purchase bundled renewable energy. It will also use RECs from its SEPA allocation. Fayetteville plans to earn EECs from its CFL program and LED streetlight program and is investigating other EE programs.

#### Fountain

Fountain plans to purchase RECs to meet its REPS compliance requirements. It does not plan to earn EECs.

#### GreenCo

GreenCo submitted a Plan on behalf of its 22 member EMCs, together with Mecklenburg and Broad River, which are not members of GreenCo. To

meet the general requirements, GreenCo plans to rely on EECs from 11 EE programs, SEPA allocations, and other energy and REC purchases from solar, biomass, landfill gas, and wind energy generators. It has signed contracts to obtain swine and poultry waste RECs.

### Halifax

Halifax plans to meet the general REPS requirements for itself and the Town of Enfield through its EE programs, SEPA allocations, out-of-state wind RECs, and the Weyerhaeuser Combined Heat and Power Facility. To meet its solar set-aside requirements, Halifax has installed a 98.56-kW solar PV facility and executed a REC purchase agreement with a commercial solar developer.

Halifax expressed concern that the expansion of an industrial customer will increase its electricity sales by 10 percent and, therefore, increase its REPS compliance requirements by 10 percent. The difficulty arises because the industrial customer will have a cost cap of only \$1,000, but its energy purchases could create a REPS compliance cost that greatly exceeds that amount. For example, if an industrial customer increases its annual usage by 50,000 MWh, its supplier will have to buy an additional 3,000 RECs, but the annual REPS charge it collects from the customer is limited under G.S. 62-133.8(h)(4) to \$1,000 – far less than the likely cost of 3,000 RECs. Since the cost cap is based on total costs but a supplier's revenue from REPS charges is based on its number of customer accounts, Halifax is concerned that its residential and commercial customers will have to pay for the increased compliance requirements created by the expanded industrial customer. The Public Staff understands Halifax's



concern but believes the problem is unavoidable with a REPS charge that has a per-customer ceiling.

Halifax is considering phasing out its EE programs due to the cost and difficulty of compliance. It has a CFL program, a Heat Pump Rebate program, and a Residential Appliance Credit program. For these three programs, Halifax used measure life data from a study by GDS Associates, Inc., that was completed in 2006. If Halifax plans to earn EECs from these programs in the future, the Public Staff recommends that Halifax obtain the latest EM&V data available.

Halifax also has the potential to earn EECs from its LED Outdoor Lighting and Street Lighting programs. For these two programs, it used an EM&V algorithm that compares the wattage of the new and old fixtures and the average daily hours of usage for the lighting unit being replaced. The Public Staff agrees with this EM&V method.

#### NCEMPA

NCEMPA plans to use EECs and in-state and out-of-state unbundled RECs to comply with most of the municipalities' REPS requirements. Energy purchases from SEPA will also be used. Additionally, NCEMPA will consider energy and REC purchase contracts with any qualifying facilities that interconnect with its members, and it plans to earn EECs through the distribution of the CFLs in the Energy Saver Kits it has provided to residents of its member municipalities. However, NCEMPA will not claim EECs for any other components of the kits.

For the solar set-aside, NCEMPA has executed contracts for sufficient in-state and out-of-state unbundled solar RECs to satisfy the REPS requirements for the planning period. NCEMPA's swine and poultry waste REC contractors have not delivered the intended number of RECs; however, NCEMPA has signed additional contracts with swine and poultry REC producers.

#### NCMPA1

To meet its REPS requirements, NCMPA1 has executed contracts for the purchase of RECs and bundled renewable energy from various in-state and out-of-state resources. NCMPA1 plans to earn EECs through the distribution of the CFLs in the Energy Saver Kits it has provided to residents of its member municipalities, but it will not earn EECs for any other components of the kits. It has not built any renewable generation facilities but continues to investigate and seek proposals for such facilities. Its members intend to use their SEPA allocations to meet part of their REPS requirements.

To meet the solar set-aside during the planning period, NCMPA1 plans to purchase in-state and out-of-state solar RECs and has implemented a standard offer program for solar photovoltaic RECs from facilities in its members' service areas. NCMPA1's swine and poultry waste REC contractors have not delivered the intended number of RECs; however, it has signed additional contracts to obtain these RECs.

## TVA

TVA plans to comply with the general REPS requirement by purchasing in-state and out-of-state RECs. TVA also plans to use RECs from the SEPA allocations of the North Carolina distributors of its electricity.

To meet the solar set-aside, TVA intends to earn RECs through its TVA Generation Partners program, which provides incentives for residential and business users of TVA power to install and operate renewable energy facilities, including solar PV facilities. TVA does not plan to use EECs for REPS compliance. TVA plans to meet the REPS compliance requirements of the distributors at no cost to them.

### **Swine Waste and Poultry Waste Set-Asides in G.S. 62-133.8(e) and (f)**

As mentioned above, G.S. 62-133.8(e) and (f) require all electric power suppliers to meet a portion of their REPS obligations with energy derived from swine waste and poultry waste beginning in 2012. As allowed in G.S. 62-133.8(i)(2), most of the electric power suppliers jointly petitioned the Commission in Docket No. E-100, Sub 113, to delay these set-asides for 2012 and 2013 because they had difficulty obtaining energy from these sources. The Commission issued orders in those years to delay the swine and poultry waste set-asides as requested. The 2012 order also required DEP and Duke Energy Carolinas, LLC (DEC), to file tri-annual reports describing the state of their compliance with the set-asides and reporting on their negotiations with the developers of swine and poultry waste-to-energy projects. The 2013 order

extended the tri-annual reporting to Dominion North Carolina Power and most of the Muni/EMC Suppliers. It also requested that the Public Staff hold stakeholder meetings, two in 2014 and two in 2015, to facilitate compliance with the swine and poultry waste set-asides.

In 2014, many of the electric power suppliers filed a joint request to delay the swine waste set-aside for one more year, and the Commission granted the request. There was no request to delay the poultry waste set-aside. One reason that the electric power suppliers did not request a delay in the poultry waste set-aside is the relatively low requirement in 2014 of 170,000 MWh or equivalent energy and the suppliers' ability to bank RECs from earlier years. In addition, the availability of poultry waste RECs in the marketplace has been increased due to advances in the technology of power generation from poultry waste and by the use of thermal energy to meet the set-aside as authorized by N.C. Session Law 2011-309. Assuming that TVA makes the necessary adjustments to its NC-RETS accounts, 2014 will be the first year that the electric power suppliers have complied with this set-aside as modified by the Commission.

In 2015, the electric power suppliers again filed for a delay in the swine and poultry waste set-asides. The swine waste-to-energy industry is still not large enough to deliver the required number of swine waste RECs (0.07% of annual sales or approximately 93,000 total RECs for all electric power suppliers combined). Although some parties stated that DEC and DEP were not accepting valid offers of swine waste energy, the Commission determined that the electric power suppliers had made reasonable efforts to comply. Looking ahead,

however, the Public Staff believes that the capacity of swine waste-to-energy facilities may not be sufficient to generate enough RECs for 2016 and 2017.

After achieving the poultry waste energy requirement of 170,000 RECs in 2014, the poultry waste-to-energy industry proved to be unable to deliver the modified 2015 requirement of 700,000 RECs. After an inquiry, the Commission required the electric power suppliers to pursue retirement of 170,000 poultry waste RECs for 2015. The Public Staff believes all electric power suppliers will likely continue to have difficulty meeting the poultry waste set-aside for at least the next two years. The modified poultry waste set-aside will remain at 700,000 RECs in 2016 and will rise to 900,000 MWh RECs in 2017. The Public Staff believes that the capacity of poultry waste-to-energy facilities may not be sufficient to generate enough RECs for 2016, and possibly 2017. However, in 2015, a 20-megawatt (MW) combined heat and power facility that burns wood waste and poultry waste became operational in Lumberton, which could greatly increase the supply of poultry waste RECs. Current plans indicate that the facility output may eventually increase to 35 MW.

In 2014 and 2015, the Public Staff held stakeholder meetings as requested by the Commission. The attendees included farmers, the North Carolina Pork Council, the North Carolina Poultry Federation, waste-to-energy developers, financiers, state environmental regulators, and the electric power suppliers. The Public Staff believes that the meetings were productive insofar as they allowed the stakeholders to network and voice their concerns to the other parties. The Public Staff intends to hold more meetings in the future as

requested by the Commission in its December 1, 2015, order in Docket No. E-100, Sub 113.

In the Public Staff's view, the lack of swine and poultry waste-to-energy facilities is the result of: (1) limited technology development and expertise due to the fact that currently North Carolina is the only state with swine and poultry set-aside requirements; (2) the utilities' reluctance to commit to purchase contracts they deem too expensive for speculative technologies; (3) limited availability of financing; and (4) uncertainty over REC prices.

### **Summary of the REPS Plans**

The tables on the following pages are drawn from data submitted in the Muni/EMC Suppliers' Plans. Table 2 shows the projected annual North Carolina MWh sales on which their REPS obligations are based. It is important to note that the figures shown for each year are the MWh sales for the preceding year; for instance, the sales in the 2015 column are sales for the calendar year 2014. The sales totals are presented in this manner because each Muni/EMC Supplier's REPS obligation is determined as a percentage of its MWh sales for the preceding year. Table 3 presents a comparison of the Muni/EMC Suppliers' projected annual incremental REPS compliance costs with their annual cost caps.

**Table 2:** North Carolina MWh Sales for preceding year

Electric Power Supplier	Compliance Year		
	2015	2016	2017
EnergyUnited	2,380,382	2,460,130	2,550,147
Fayetteville	2,046,840	2,045,741	2,066,681
Fountain	3,573	3,486	3,486
GreenCo <sup>8</sup>	12,983,959	13,193,654	13,480,817
Broad River	5,872	5,621	5,584
Mecklenburg	1,748	1,633	1,633
Halifax	196,690	203,183	210,080
NCEMPA	7,364,658	7,428,204	7,475,204
NCMPA1	5,124,834	5,187,271	5,252,286
TVA	604,268	610,311	616,414
<b>TOTAL</b>	<b>30,712,824</b>	<b>31,139,234</b>	<b>31,662,332</b>

<sup>8</sup> Broad River and Mecklenburg are not members of GreenCo but have contracted with GreenCo for REPS compliance services.

**Table 3:** Projected REPS incremental costs and annual cost caps

Electric Power Supplier	2015			2016			2017		
	Costs	Cap	%	Costs	Cap	%	Costs	Cap	%
EnergyUnited	1,024,676	6,232,842	16%	1,406,250	6,306,706	22%	1,767,155	6,381,804	28%
Fayetteville	1,361,433	5,042,184	27%	1,424,633	5,047,686	28%	1,524,783	5,054,844	30%
Fountain	6,620	15,270	43%	6,565	15,270	43%	6,565	15,270	43%
GreenCo	8,843,158	31,247,954	28%	9,373,824	31,654,372	30%	9,922,405	32,137,274	31%
Broad River	6,925	14,560	48%	8,125	14,788	55%	8,125	14,755	55%
Mecklenburg	3,275	5,184	63%	3,475	5,184	67%	3,575	5,184	69%
Halifax	134,841	605,466	22%	215,943	605,582	36%	220,893	606,970	36%
NCEMPA	2,300,000	14,300,000	16%	2,300,000	14,300,000	16%	2,800,000	14,400,000	19%
NCMPA1	1,700,000	9,200,000	18%	2,100,000	9,200,000	23%	2,200,000	9,300,000	24%
TVA <sup>9</sup>	0	2,517,742	0%	0	2,542,782	0%	0	2,568,224	0%
<b>TOTAL</b>	<b>15,380,928</b>	<b>69,181,202</b>		<b>16,838,815</b>	<b>69,692,370</b>		<b>18,453,501</b>	<b>70,484,325</b>	

<sup>9</sup> TVA plans to meet the REPS compliance requirements of the distributors at no cost to them.



**Conclusions and Recommendations on  
REPS Compliance Reports**

The Public Staff's recommendations on the 2014 REPS Compliance Reports filed by the Muni/EMC Suppliers are as follows:

1. The Commission should approve the 2014 REPS Compliance Reports filed by EnergyUnited, Fayetteville, Halifax, GreenCo, NCEMPA, and NCMPA1.

2. The Commission should encourage Fountain to pursue, as quickly as practicable, reopening its NC-RETS sub-account and replacing 68 or more hydroelectric RECs with RECs from other renewable sources. Once Fountain has done so, the Public Staff will file supplemental comments recommending that its 2014 REPS Compliance Report be approved.

3. The Commission should direct NCEMPA and NCMPA1, in future years, to use the latest EM&V data available to calculate the EECs earned from their distribution of CFLs.

4. The Commission should encourage TVA to take all appropriate steps, as quickly as practicable, to ensure that the poultry waste RECs placed in its 2014 NC-RETS compliance sub-account are correctly classified with respect to their in-state or out-of-state status. Once TVA has ensured that 75% of the poultry waste RECs in this sub-account are in-state RECS, the Public Staff will file supplemental comments recommending that its 2014 REPS Compliance Report be approved.

**Recommendations on REPS Compliance Plans**

The Public Staff's recommendations regarding the REPS Compliance Plans filed by the Muni/EMC Suppliers are as follows:

1. The Commission should find that all of the Muni/EMC Suppliers have submitted REPS Compliance Plans that satisfy the filing requirements of Commission Rule R8-67(b).

2. The Commission should find that the REPS Compliance Plans of the Muni/EMC Suppliers indicate that they should be able to meet their REPS obligations during the planning period without nearing or exceeding their cost caps, with the exception of the swine and poultry waste set-asides. The swine waste requirement will be difficult to achieve in the near future. Although the Muni/EMC Suppliers should be capable of meeting the modified poultry waste set-aside of 170,000 RECs for 2015, they may not be able to meet the modified set-asides of 700,000 RECs for 2016 and 900,000 RECs for 2017.

3. The Commission should find that if Halifax plans to earn EECs from its EE programs in the future, it should obtain and utilize the latest EM&V data available.

WHEREFORE, the Public Staff prays that the Commission take these comments and recommendations into consideration in reaching its decision in this proceeding.

Respectfully submitted this the 8th day of January, 2016.

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CERTIFICATE OF SERVICE

I certify that a copy of these Comments has been served on all parties of record or their attorneys, or both, by United States mail, first class or better; by hand delivery; or by means of facsimile or electronic delivery upon agreement of the receiving party.

This the 8th day of January, 2016.

Electronically submitted  
s/ Robert S. Gillam