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**NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION**

February 8, 2010

FILED

FEB 08 2010

Clerk's Office
N.C. Utilities Commission

Ms. Renné C. Vance, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4325

Re: Docket No. E-100, Sub 118
Docket No. E-100, Sub 124
Docket No. E-100, Sub 125

Dear Ms. Vance:

Enclosed for filing are twenty-one (21) copies of the confidential version of the Public Staff's Comments and two (2) copies of the redacted version.

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

Yours very truly,

Kendrick C. Fentress
Staff Attorney

KCF/bll

Enclosures

Executive Director
733-2435

Communications
733-2810

Economic Research
733-2902

Legal
733-6110

Transportation
733-7766

Accounting
733-4279

Consumer Services
733-9277

Electric
733-2267

Natural Gas
733-4326

Water
733-5610

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**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-100, SUB 118
DOCKET NO. E-100, SUB 124
DOCKET NO. E-100, SUB 125

FILED

FEB 08 2010

Clerk's Office
N.C. Utilities Commission

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-100, SUB 118

In the Matter of
Investigation of Integrated Resource
Planning in North Carolina – 2008

DOCKET NO. E-100, SUB 124

In the Matter of
Investigation of Integrated Resource
Planning in North Carolina – 2009

DOCKET NO. E-100, SUB 125

In the Matter of
2009 REPS Compliance Plans

PUBLIC STAFF'S COMMENTS

NOW COMES THE PUBLIC STAFF – North Carolina Utilities Commission, by and through its Executive Director, Robert P. Gruber, and submits the following comments pursuant to Commission Rule R8-60(j) and the Commission's October 19, 2009 *Order Scheduling Hearings on 2009 Integrated Resource Plans and REPS Compliance Plans and Consolidating Dockets for Decision*, issued in Docket Nos. E-100, Subs 118 and 124 (*Scheduling Order*). In that order, the Commission directed that the 2009 integrated resource plans (IRPs) filed by the electric utilities that were not investor-owned (IOUs) be addressed by the Public Staff and other intervenors through comments, while the IRPs of the IOUs be addressed through testimony. These comments address the 2009 annual reports on the IRPs (2009 IRPs) filed by the North Carolina Electric Membership Corporation (NCEMC) and four independent electric membership corporations (EMCs), i.e., Piedmont EMC (Piedmont), Haywood EMC (Haywood), Rutherford EMC (Rutherford), and EnergyUnited EMC (EU). In addition, these comments address the Renewable Energy and Energy Efficiency Portfolio

Standard (REPS) compliance plans filed by GreenCo Solutions, Inc. (GreenCo),¹ Halifax EMC (Halifax), and EU, as well as those filed by EMCs that serve North Carolina customers but are headquartered outside the State, and those filed by the State's municipal electric systems, which are not required to file IRPs.

I. INTRODUCTION

Several General Statutes and Commission Rules guide the Commission's review of the electric utilities' planning. G.S. 62-110.1(c) requires the Commission to "develop, publicize, and keep current an analysis of the long-range needs" for electricity in this State. The Commission's analysis should include: (1) its estimate of the probable future growth of the use of electricity; (2) the probable needed generating reserves; (3) the extent, size, mix, and general location of generating plants; and (4) arrangements for pooling power to the extent not regulated by the Federal Energy Regulatory Commission (FERC). G.S. 62-110.1 further requires the Commission to consider this analysis in acting upon any petition for construction. In addition, G.S. 62-110.1 requires the Commission to submit annually to the Governor and to the appropriate committees of the General Assembly the following: (1) a report of the Commission's analysis and plan; (2) the progress to date in carrying out such plan; and (3) the program of the Commission for the ensuing year in connection with such plan. G.S. 62-15(d) requires the Public Staff to assist the Commission in this analysis and plan.

In addition, G.S. 62-2(a)(3a) vests the Commission with the duty to regulate public utilities and their expansion in relation to long-term energy conservation and management policies. These policies include assuring that "resources necessary to meet future growth through the provision of adequate, reliable utility service include use of the entire spectrum of demand-side options, including but not limited to conservation, load management and efficiency programs, as additional sources of energy supply and/or energy demand reductions."

A. Procedural History/Docket No. E-100, Sub 118

2008 IRPs were filed by Progress Energy Carolinas, Inc. (PEC), Duke Energy Carolina, LLC (Duke), Virginia Electric Power Company d/b/a Dominion North Carolina Power (DNCP) (collectively IOUs), NCEMC, Piedmont, Blue Ridge, Rutherford, and EU. REPS compliance plans were also filed by the IOUs as well as GreenCo, Halifax, and EU.

On August 18, 2008, GreenCo requested a waiver of the requirement for each of its member EMCs² to file individual REPS compliance plans and permission for it to file

¹ GreenCo filed a consolidated 2009 REPS Compliance Plan on behalf of Albemarle EMC, Blue Ridge EMC, Brunswick EMC, Cape Hatteras EMC, Craven-Carteret EMC, Central EMC, Edgecombe-Martin County EMC, Four County EMC, French Broad EMC (French Broad), Haywood, Jones-Onslow EMC, Lumbee River EMC, Pee Dee EMC, Piedmont, Pitt & Greene EMC, Randolph EMC, Roanoke EMC, South River EMC, Surry-Yadkin EMC, Tideland EMC, Tri-County EMC, Union EMC, and Wake EMC.

² GreenCo's member EMCs are listed in footnote 1.

a consolidated REPS compliance plan on behalf of its member EMCs, with the exception of Halifax, Rutherford, and EU. On the same day, NCEMC, Blue Ridge, Piedmont, and French Broad requested a waiver of the requirement to file individual REPS compliance plans and permission to have GreenCo file a consolidated REPS compliance plan on their behalf. On August 22 and 25, 2008, Duke filed a motion for an extension of time to file its biennial report and REPS compliance plan to November 3, 2008. On August 27, 2008, the Commission granted the requests of GreenCo, NCEMC, Blue Ridge, Piedmont, and French Broad for waiver of the requirement that each member EMC file an individual REPS compliance plan and for permission to file a consolidated report, and granted Duke's request for an extension of time to file its biennial report and REPS compliance plan. On August 28, 2008, Rutherford filed a notice with the Commission that its REPS compliance plan would be included in Duke's biennial report and REPS compliance plan. On August 28, 2008, Rutherford filed its biennial report and Halifax filed its REPS compliance plan. On August 29, 2008, DNCP and EU filed their biennial reports and REPS compliance plans. On September 2, 2008, PEC filed its biennial report and REPS compliance plan. On September 12, 2008, NCEMC, Blue Ridge, and Piedmont filed their biennial reports, and NCEMC also filed its Energy Efficiency Potential Study Final Report. On the same day, GreenCo filed the consolidated REPS compliance plan and a motion for a protective order and confidential treatment for information attached to the consolidated report. On September 18, 2008, the Commission granted GreenCo's request for a protective order. On November 3, 2008, Duke filed its biennial report and REPS compliance plan. On January 29, 2009, Fibrowatt LLC (Fibrowatt) filed comments regarding the REPS compliance plans. On March 25, 2009, the Public Staff moved that the deadline for the filing of initial and reply comments on the biennial reports be extended and filed a motion to intervene in the docket and the Commission allowed the motion on March 30, 2009.

In addition to the Public Staff, the following parties intervened in Docket No. E-100, Sub 118: the Carolina Industrial Group for Fair Utility Rates I, II, III (CIGFUR); NC WARN; the Carolina Utility Customers Association (CUCA), GreenCo, Fibrowatt, the North Carolina Sustainable Energy Association (NCSEA), and the Attorney General.

On January 29, 2009, Fibrowatt filed comments regarding the REPS compliance plans. On April 16, 2009, NC WARN filed its initial comments on the biennial reports and a request for an evidentiary hearing. On April 24, 2009, initial comments were filed by NCSEA. Also, on April 24, 2009, the Public Staff submitted its initial comments in the Sub 118 proceeding.

On May 27, 2009, reply comments were filed by the IOUs and the Public Staff. On the same day, NCSEA submitted additional comments.

On July 28, 2009, the Commission issues an Order Denying Request for Evidentiary Hearing, Scheduling Public Hearing, and Requiring Public Notice. This order set the public hearing in the Sub 118 docket for August 31, 2009.

On August 12, 2009, NC WARN filed a Motion for Reconsideration and Renewal of Request of Hearing.

The public hearing was held as scheduled with six public witnesses in attendance. All six public witnesses testified in regard to REPS compliance plan issues.

B. Procedural History/ Docket No. E-100, Sub 124 and 125

On or about September 1, 2009, the 2009 IRPs, which update the 2008 IRPs, were filed by the IOUs, NCEMC, Piedmont, Rutherford, EU, and Haywood. Also, on or about September 1, 2009, the 2009 REPS compliance plans were submitted by GreenCo, Halifax, and EU. The following parties have intervened in the 2009 IRP proceeding: CIGFUR, CUCA, NC WARN, Nucor Steel-Hertford, and the Public Works Commission of the City of Fayetteville (Fayetteville). The Attorney General filed a Notice of Intervention pursuant to G.S. 62-20. The Public Staff is also a party.

REPS compliance plans have been filed in Docket No. E-100, Sub 125 by Fayetteville, the Murphy Electric Power Board, North Carolina Eastern Municipal Power Agency (NCEMPA), North Carolina Municipal Power Agency Number 1 (NCMPA1), Mountain Electric Cooperative, Inc. (Mountain Electric), Tri-State EMC (Tri-State), Blue Ridge Mountain EMC (Blue Ridge Mountain), the Cities of Concord and Kings Mountain, and the Towns of Black Creek, Dallas, Enfield, Forest City, Highlands, Lucama, Oak City, Pinetops, Sharpsburg, Stantonsburg, Waynesville, Windsor, and Winterville.

On October 15, 2009, the Public Staff filed a motion for extension of time until January 15, 2010 for it and other intervenors to file alternative IRPs, evaluations of, or comments on the 2009 IRPs.

On October 19, 2009, the Commission issued its *Scheduling Order*. In the *Scheduling Order*, the Commission consolidated the 2008 IRPs and the 2009 IRPs, reflecting Commission Rule R8-60 that requires the filing of biennial reports on the IRPs in even-numbered years and the filing of updates to those biennial reports in odd-numbered years. The Commission scheduled an evidentiary hearing for the 2009 IRPs and REPS compliance plans filed by the IOUs. The Commission further directed that the 2009 IRPs filed by the other utilities (the non-IOUs) be addressed through the normal comments process contained in R8-60(j).

On November 20, 2009, EU filed an updated 2009 IRP.

On January 13, 2010, the Public Staff filed a second motion for extension of time to file comments on February 8, 2010, which was allowed by Commission order issued January 14, 2010.

On January 29, 2010, CPI USA North Carolina LLC, f/k/a EPCOR USA North Carolina LLC, filed a petition to intervene in Docket No. E-100, Sub 124.

C. Senate Bill 3 and Commission Rules

Senate Bill 3

Senate Bill 3 (SB3) expanded the Commission's review of electric utilities' planning. First, subsection (a)(10) of SB3 provides that it is the policy of North Carolina "to promote the development of renewable energy and energy efficiency through the implementation of a Renewable Energy and Energy Efficiency Portfolio Standard" that will: (1) diversify the resources used to reliably meet the energy needs of North Carolina's consumers, (2) provide greater energy security through the use of indigenous energy resources available in North Carolina, (3) encourage private investment in renewable energy and energy efficiency (EE), and (4) provide improved air quality and other benefits to the citizens of North Carolina. To that end, SB3 requires that each IOU, EMC, and municipality in North Carolina be subject to REPS compliance, through the use of new renewable supply-side resources, demand-side management (DSM) or EE, to varying extents. Through SB3, the Commission is required to submit a report to the Governor, the Environmental Review Commission, and the Joint Legislative Utility Review Committee on the compliance with the REPS requirements by the IOUs, EMCs, and municipalities every year.

SB3 further provides that "[e]ach electric power supplier to which G.S. 62-110.1 applies shall include an assessment of demand-side management and energy efficiency in its resource plans submitted to the Commission and shall submit cost-effective demand-side management and energy efficiency options that require incentives to the Commission for approval."³ It specifically defines DSM as "activities, programs, or initiatives undertaken by an electric power supplier or its customers to shift the timing of electric use from peak to nonpeak demand periods" and an EE measure as "an equipment, physical or program change implemented after 1 January 2007 that results in less energy being used to perform the same function."⁴ EE measures do not include DSM.⁵ The Public Staff will reply upon these statutory definitions in these comments.

Commission Rules

To meet the requirements of G.S. 62-110.1, G.S. 62-2(3a), and SB3, the Commission conducts an annual investigation into the electric utilities' IRPs and REPS compliance. With regard to the IRPs, Commission Rule R8-60 requires that each of the electric utilities furnish the Commission with a biennial report in even-numbered years that contains the specific information set out in subsection (i) of that Commission Rule. R8-60(h)(2) further requires that in each year in which a biennial report is not filed, "an annual report shall be filed with the Commission containing an updated 15-year forecast . . . as well as significant amendments or revisions to the most recently filed biennial report, including amendments or revisions to the type and size of resources identified,

³ G.S. 62-133.8(c).

⁴ G.S. 62-133.7(a)(2) and (a)(4).

⁵ G.S. 62-133.7(a)(4).

as applicable.” In addition, Commission Rule R8-62(p) requires that the electric utilities incorporate information in their IRP reports concerning the construction of transmission lines.

Commission Rule R8-60(h)(4) requires that each biennial and annual report include the utility’s REPS compliance plan pursuant to R8-67(b). Rule R8-67(b)(3) requires that IOUs and EMCs file their REPS compliance plans as part of their IRP filings and that the Commission review and approve those plans pursuant to R8-60. According to R8-60(h)(4), approval of the REPS compliance plan as part of the IRP does not constitute an approval of the recovery of costs associated with the plan or a determination that the electric power supplier has complied with the REPS requirements. Furthermore, Commission Rule R8-67(b)(4) requires municipalities to file their REPS compliance plans for information only; they are not subject to Commission Rule R8-60.

As noted previously, the Public Staff addresses the IRPs filed by NCEMC, Piedmont, Rutherford, EU, and Haywood and the REPS compliance plans filed by GreenCo, Halifax, and EU in Docket No. E-100, Sub 124, pursuant to Rule R8-60. The Public Staff also addresses the REPS compliance plans filed by these entities: Fayetteville, the Murphy Electric Power Board, NCEMPA, NCEMPA1, Mountain Electric, Tri-State, Blue Ridge Mountain, the Cities of Concord and Kings Mountain, and the Towns of Black Creek, Dallas, Enfield, Forest City, Highlands, Lucama, Oak City, Pinetops, Sharpsburg, Stantonsburg, Waynesville, Windsor, and Winterville in Docket No. E-100, Sub 125, pursuant to R8-67(b)(4).

In addition, the 2009 IRPs are, as described above, the annual updates to the 2008 IRPs. Therefore, consistent with Rule R8-60(h)(2), the Public Staff’s comments here address the non-IOUs’ updated 15 year forecasts and significant amendments or revisions to their 2008 IRPs. The Public Staff’s initial comments on the 2008 IRPs, filed April 24, 2009, and its reply comments filed May 27, 2009 (collectively “2008 Comments”) in Docket No. E-100, Sub 118, are incorporated by reference and the Public Staff will refer to those comments, as appropriate, herein.

II. PEAK AND ENERGY FORECASTS

All of the EMCs use accepted econometric models to forecast their peak and energy needs. As with any forecasting methodology, there is a degree of uncertainty associated with these models that rely, in part, on assumptions that certain historical trends or relationships will continue in the future.

The Public Staff has reviewed the EMCs’ 15-year peak and energy forecasts for 2010 through 2024. The growth rates in annual peaks and annual energy sales include the load and energy savings attributed to DSM and EE programs. The compound annual growth rates (CAGRs) for the EMCs are within the range of 1.0% and 2.4%. The EMCs’ DSM and EE programs are discussed briefly below and fully in the DSM and EE section.

In assessing the reasonableness of the forecasts, the Public Staff first compared the most recent peak load to the EMCs' forecasts in their 2008 annual reports. Second, the Public Staff analyzed the accuracy of NCEMC's peak demand and energy sales predictions in its 2004 annual reports compared to its actual peak demands and energy sales.⁶ Third, the Public Staff reviewed the 2009 load forecast reports that the EMCs recently filed with the Rural Utilities Service (RUS). The RUS reports contain detailed information on the models used to forecast the EMCs' summer and winter peaks and the monthly energy sales. Fourth, the Public Staff reviewed several of the assumptions that underlie the forecasts and the growth rate forecasts of other nearby electric cooperatives and the Southeastern Electric Reliability Corporation (SERC).

A. NCEMC

NCEMC's 15-year forecast predicts that its summer peaks will grow at an average annual rate of 2.4%,⁷ the same rate used in its 2008 IRP. Similarly, NCEMC predicts that its winter peaks will grow at an average annual rate of 2.4%. Its energy sales are predicted to grow at an average annual rate of 2.4%. The average annual growth of its summer peak, which is considered its system peak, is 80 megawatts (MW), the same amount predicted in its 2008 IRP.

While NCEMC is considered a summer peaking utility, its annual system peak of 3,082 MW occurred on January 17, 2009 at hour-ending 8 p.m., which is comparable to its 2008 system peak on January 4, 2008 of 3,060 MW. At the time of the 2009 annual peak, NCEMC did not activate any of its DSM programs which, according to its 2008 IRP would have reduced the peak by 69 MW. The forecast for 2009 in NCEMC's 2008 IRP under predicted its peak load by 201 MW, a 7% forecast error.⁸

The Public Staff's analysis of NCEMC's peak load forecasting accuracy over the past five years indicates that the forecasts with DSM in its 2004 annual report were, on average, 332 MW lower than the actual system load, a 11% forecast error, whereas, its energy sales forecast has been more accurate with less than a 5% error rate. All of the peak load predictions from the 2004 Annual Plan have been less than the actual peak loads experienced. The Public Staff has noted this pattern of under-forecasting of peak loads in comments filed in previous IRP dockets. Since NCEMC does not weather normalize its peak loads, the Public Staff is unable to examine the accuracy of the forecasts excluding the effects of weather.

As it did in its comments in Docket No. E-100, Sub 118, the Public Staff continues to recommend that NCEMC examine its peak load forecasting models and

⁶ Due to a lack of historical data, the accuracy of the forecasts of EU, Haywood, Piedmont, and Rutherford was not reviewed.

⁷ As noted on page 4 of its IRP, NCEMC completed a forecast in late 2009 that reflected the impact of the 2008/2009 economic recession. The new forecast indicates CAGRs of 1.6% for summer peaks, 1.6% for winter peaks, and 1.3% for energy sales. The peak load forecasts are based on more current information than that available to NCEMC at the time of the filing of its 2009 IRP.

⁸ The Mean Absolute Error is used to calculate the forecast error.

assumptions for possible sources of bias leading to under-forecasting of peak loads, as well as other factors that may have contributed to the relatively large forecast errors. NCEMC is addressing this concern in two ways. First, it has informed the Public Staff that it intends to use a weather normalization methodology in its 2010 IRP. Second, NCEMC is evaluating other peak demand models. Both of these actions should assist NCEMC in improving its forecasting accuracy.

B. EU

EU's 15-year forecast predicts that its summer peaks will grow at an average annual rate of 1.9% and its winter peaks will grow at an average annual rate of 1.8%. Its energy sales are predicted to grow at an average annual rate of 1.9%. The average annual growth of EU's summer peak, which is considered its system peak, is 12 MW over the 15-year forecast.

EU's annual peak of 607 MW occurred on Saturday, January 17, 2009 at hour-ending 9 a.m. At the time of the peak, it did not activate any DSM. However, at other hours on that day, EU reduced its winter peak by 16 MW by activating DSM.

C. Haywood

Haywood's 15-year forecast predicts that its summer peaks will grow at an average annual rate of 1.4% and its winter peaks will grow at an average annual rate of 1.3%. Its energy sales are predicted to grow at an average annual rate of 1.0%. The average annual growth of Haywood's winter peak, which is considered its system peak, is 1 MW over the 15-year forecast.

Haywood's annual peak of 92 MW occurred on Thursday, February 5, 2009 at hour-ending 8 a.m. It did not activate any DSM at the time of its peak.

D. Piedmont

Piedmont's 15-year forecast predicts that its summer peaks and winter peaks will grow at an average annual rate of 1.8%. Its energy sales are predicted to grow at an average annual rate of 1.6%. The average annual growth of Piedmont's summer peak, which is considered its system peak, is 3 MW over the 15-year forecast.

Piedmont's annual peak of 140 MW occurred on Saturday, January 17, 2009 at hour-ending 9 a.m. It activated 900 kW of DSM at the time of the winter peak.

E. Rutherford

Rutherford's 15-year forecast predicts that its summer peaks and winter peaks will grow at an average annual rate of 1.1%. Its energy sales are predicted to grow at an average annual rate of 1.0%. The average annual growth of Rutherford's winter peak, which is considered its system peak, is 3 MW over the 15-year forecast.

Rutherford's annual peak of 346 MW occurred on Thursday, February 5, 2009 at hour-ending 7 a.m. It did not activate any DSM at the time of its winter or summer peak.

With the exception of NCEMC's peak load forecasts reported in its 2009 IRP,⁹ the Public Staff believes that the forecasts by the EMCs are reasonable for planning purposes.

F. Conclusion

The following table summarizes the growth rates for the EMCs' peak and energy sales forecasts based on their filings-to-date.

2010- 2024 Growth Rates
(After New EE and DSM)

EMC	Summer Peak	Winter Peak	Energy Sales	Annual MW Growth
NCEMC	2.4% ⁹	2.4% ⁹	2.4% ⁹	80
EU	1.9%	1.8%	1.9%	12
Haywood	1.4%	1.3%	1.0%	1
Piedmont	1.8%	1.8%	1.6%	3
Rutherford	1.1%	1.1%	1.0%	3

III. GENERATING FACILITIES

EU, Piedmont, Haywood, and Rutherford neither own nor plan to own any generation. NCEMC's existing generation includes part ownership in the Catawba Nuclear Station with reliability exchange with the McGuire Nuclear Station to ensure delivery of full 682 MW of capacity. Its other generation includes combustion turbines for peaking and diesel generation, used primarily for peak shaving and voltage support. In regard to planned generation, NCEMC issued requests for proposals (RFPs) for 500 MW of firm intermediate and peaking capacity beginning in 2012, 500 MW of baseload beginning in the 2020 timeframe, and 200 MW of renewable energy resources. As a result of the RFPs, it entered into contracts with PEC and Southern Power. Additionally, several of the proposals for renewable energy resources are still under consideration to meet NCEMC's needs through the planning period.

IV. RESERVE MARGINS

A reserve margin is necessary to ensure that adequate capacity is available to meet the customers' needs while allowing for scheduled and unscheduled maintenance, higher than expected load growth, variance in load due to extreme weather, and

⁹ The Public Staff believes NCEMC's updated forecast, as discussed in footnote 7, with CAGRs of 1.6% for summer peaks, 1.6% for winter peaks, and 1.3% for energy sales, is more accurate in light of current conditions.

disruptions in power from power purchase agreements (PPAs). To maintain an adequate reserve margin, NCEMC states that it purchases resources considered "system firm," maintains a 13% margin for its self-owned generation and non-firm resources, and purchases back-up and reserves contracts. NCEMC states that to participate in the PJM market, it must purchase unforced capacity to maintain market requirements for reserves. It contends that for these reasons, it is inappropriate to provide the reserve margin calculation in its portfolio of resources and thus the reserve margin does not appear on the load and resource tables.

EU has contracted with Southern Power for 15% of its peak load to account for reserve margins. Both Piedmont and Haywood have contracted with Duke and PEC for planning, procurement, and firm capacity for all needs to include required reserve margin above their existing Southeastern Power Administration (SEPA) allocation and NCEMC resources. Rutherford's 100% firm contracts with NCEMC, SEPA, Morgan Stanley, and Duke for capacity and energy include provisions for responsibility for any necessary reserves.

V. RESERVE MARGIN ADEQUACY

NCEMC's 13% margin for its self-owned generation and non-firm resources has been adequate, based on past performance, and appears justified for its near-term future requirements. EU's reserve margin should be adequate for the load served. The agreements entered into by Piedmont, Haywood, and Rutherford appear adequate to ensure adequate reserve margins.

VI. NON-UTILITY GENERATION

Pursuant to Commission Rule R8-60(i)(2)(C), each electric utility shall provide a separate and updated list of all non-utility electric generating facilities in its service areas, including customer-owned and stand-by generating facilities, in its biennial IRP report, updated as necessary in its annual update. This information continues to be part of the IRP because the utilities rely upon this capacity to meet resource requirements. Commission Rule R8-60(i)(2)(iii) additionally requires the electric utilities to provide the location of the facilities employing stand-by generation and quantify the available capacity. The location and capacity of stand-by generation is critical information for safety because electric utility employees could be harmed during an outage if this generation energizes the grid without the employees' knowledge.

NCEMC's non-utility generation (NUG) includes QVC Rocky Mount (1 MW DC) and a number of small customer-owned self-generation facilities. NCEMC includes the smaller facilities as DSM resources. EU's NUG consists of one renewable resource, a 10 kW solar facility in Cornelius, North Carolina. Piedmont's NUG consists of isolated small solar, and several backup generators. Piedmont treats this generation as a demand side resource and did not include it in its list of power supply resources. Haywood's NUG consists of isolated small solar, one 10 kilowatt (kW) wind generator, and several backup generators. Rutherford has 13.5 MW of diesel generation used for

peaking, which is controlled and dispatched by Duke. The air permit for these diesel generators limits them to 300 hours of generation per year. Rutherford considers this generation as a demand side resource, and did not include it in its list of generation.

VII. WHOLESALE CONTRACTS FOR PURCHASE AND SALE OF POWER

Commission Rule R8-60(i)(4) requires each utility to provide a list of firm wholesale purchased power contracts reflected in the biennial report and certain specified information about those contracts, a discussion of the results of any RFPs issued since the last biennial report, and a list of wholesale power sales contracts for capacity or firm energy entered into since the last biennial report and certain specified information about them. In its 2009 IRP, NCEMC discussed changes to seven contracts since the filing of its 2008 IRP. These new contracts include reserves, and NCEMC stressed that future contracts will include this requirement. EU's 2009 IRP lists ten contracts, two of which expire in 2010. EU detailed the available generation in each year, and it appears that the generation should be adequate to meet the required load. Piedmont enumerated four contracts, two of which expire in 2010. It listed the available generation in each year, and it appears that the generation should be adequate to meet the required load. Haywood discussed four contracts in its 2009 IRP, two of which expire in 2021. Rutherford listed contracts with NCEMC, Morgan Stanley, SEPA, and Duke, all of which are considered 100% firm.

VIII. TRANSMISSION FACILITIES

According to Commission Rule R8-60(i)(5), each utility shall list transmission lines and other associated facilities (161kilovolts (kV) or over) that are under construction or for which there are specific plans to be constructed over the planning horizon, including the capacity and voltage levels, location, and schedules for completion and operation. The IRP should also discuss the adequacy of the utility's transmission system (161 kV and above).

NCEMC owns only one mile of transmission to integrate its generators to the PEC system. NCEMC relies upon the planning, expansion, and operation of PEC and Duke's transmission to serve its customers. EU, Haywood, and Rutherford do not own transmission facilities greater than 161kV. Piedmont has new transmission facilities consisting of 500 feet of 230 kV tap in Person County, and 1000 feet of existing 230 kV tap.

IX. DSM AND EE

NCEMC relies on the DSM and EE programs described by GreenCo in its REPS compliance plan to provide the Commission information on those programs. Piedmont and Haywood are also members of GreenCo. Therefore, for purposes of commenting on NCEMC's DSM and EE programs with respect to the 2009 IRPs, the Public Staff has addressed the DSM and EE programs described in NCEMC's IRP and GreenCo's REPS compliance plan jointly. The Public Staff has also referred to GreenCo's REPS

compliance plan with regard to Haywood and Piedmont. GreenCo's REPS compliance plan is discussed in more detail in the section below covering the REPS compliance plans.

A. NCEMC / GreenCo

Existing Programs

NCEMC made no changes in the DSM/EE inputs to its load forecast for its 2009 IRP. In its 2008 IRP, NCEMC described its existing DSM and EE programs water heating control, heat pump and air conditioning load control, space heating load control, and customer-owned generation as its backbone DSM/EE portfolio of resources. NCEMC continues to rely on these programs in its 2009 IRP. These resources provide approximately 70 MW of DSM capacity. NCEMC includes a constant level of these existing resources across the entire planning horizon.

Proposed DSM/EE Programs

Consistent with its 2008 IRP, GreenCo listed its proposed DSM and EE in its 2009 REPS Compliance Plan. The listed programs are: Energy Star Lighting, Water Heater Retrofit, Energy Cost Monitor, Community Efficiency Campaign, Energy Star Appliances, Energy Star New Construction, Commercial Energy Efficient Equipment, and Agricultural Energy Efficiency. The Public Staff continues to work with GreenCo to analyze the portfolio of the DSM/EE programs. GreenCo has indicated that it intends to file these programs with the Commission by spring of 2010.

In its 2008 IRP, GreenCo listed two proposed DSM/EE programs not listed in its 2009 REPS compliance plan: Solar Water Heating Pilot and Commercial New Construction. The Commercial New Construction program is still being considered, but the Solar Water Heating Pilot is no longer being considered as a proposed EE program.

Programs Rejected from Consideration

As with the 2008 IRP, NCEMC did not list any DSM/EE programs that were considered and subsequently rejected.

Education Programs

In its 2009 IRP, NCEMC did not include significant updates to the education programs in its 2008 IRP; the education resources remain essentially the same as described in the Public Staff's comments on the 2008 IRP. Because GreenCo filed a REPS compliance plan, it is not required to comply with R8-60(i)(6)(iv), which requires the utility to list all consumer education programs that it currently provides. Nevertheless, as the Public Staff noted in its 2008 Comments, many of GreenCo's proposed programs involve educating consumers about the benefits of the programs.

B. EU

Existing Programs

In its 2009 IRP, EU did not significantly update the DSM/EE programs from its 2008 IRP. EU continues to rely on its existing water heater load control, air conditioning load control, and customer-owned generation for approximately 25 MW of existing DSM capacity. Its 2009 IRP also included two new EE programs approved by the Commission in Docket No. EC-82 in September 2009, the Residential Heat Pump Rebate Program and the Commercial and Industrial Lighting Program. EU anticipates these programs providing an additional 0.4 to 13 MW of DSM resources over the planning horizon. EU is the only independent EMC to have sought and received approval from the Commission to begin offering a DSM or EE program.

New or Proposed DSM/EE Programs

EU did not propose any additional programs to its DSM/EE portfolio, nor did it indicate that any were under development.

Programs Rejected from Consideration

There were no programs considered and subsequently rejected by EU in its 2009 IRP.

Education Programs

EU has not significantly updated its 2008 IRP with respect to its consumer education programs. It continues to rely on its website and monthly communication with its membership to offer information about EE to its customers.

C. Piedmont

Existing Programs

Piedmont did not significantly update its 2008 list of DSM/EE programs described 2008 IRP. Piedmont continues to rely on its existing water heater load control, air conditioning load control, and customer-owned generation for approximately 17 MW of existing DSM capacity.

New or Proposed DSM/EE Programs

Piedmont stated that it began offering its customers four new EE programs in 2009: a compact fluorescent bulb (CFL) rebate program that credits a customer's account \$15 for the purchase of CFL bulbs; a water heater insulation kit; a Smart Grid Meter Deployment Program that allows customers a prepayment option for billing and internet access to a daily energy monitoring system. This program uses the electric distribution

system to send information from the customer's meter to Piedmont's headquarters. Piedmont is also implementing a solar water heating pilot that offers customers \$500 credit toward the installation of a solar water heating system.

In response to a Public Staff data request, Piedmont indicated that the CFL and water heater insulation programs were instituted as part of GreenCo's portfolio of programs. Piedmont is relying on GreenCo to submit these programs for approval in early 2010. Piedmont is implementing the Smart Grid Meter program and solar water heater pilot program independent of GreenCo. Piedmont further indicated that it considers the solar water heater pilot to be a renewable energy program, rather than an EE program.

Programs Rejected from Consideration

There were no programs considered and subsequently rejected by Piedmont.

Education Programs

Similar to its 2008 IRP, Piedmont listed several education initiatives, including energy audits, school programs, advertising, and website resources.

D. Haywood

Existing Programs

In previous years, Haywood's forecast of loads and resources were filed as part of NCEMC's IRPs. In 2008, Haywood became an independent EMC. It continues to rely on its existing water heater load control, space heating load control, and air conditioning load control, and customer-owned generation for approximately 20 MW of existing DSM capacity. With respect to existing EE programs, Haywood described a heat pump financing program, water heater insulation kits, and a CFL bulb giveaway program to help customers reduce energy consumption.

The Public Staff notes that G.S. 62-133.9(c), which became effective on August 20, 2007, requires each electric power supplier to which G.S. 62-110.1 applies, to submit cost-effective DSM and EE options that require incentives to the Commission for approval. The Public Staff recommends that Haywood file its listed existing EE programs for Commission approval under G.S. 62-133.9(c) and Commission Rule R8-68 if they were adopted and implemented after August 20, 2007.

New or Proposed DSM/EE Programs

Haywood indicated that it would begin offering home energy audits to residential customers in 2010 to residential customers and that it will participate in the GreenCo portfolio of DSM and EE programs. In a response to a Public Staff data request, Haywood indicated that savings from the four programs from the GreenCo portfolio

(Energy Star Lighting, Water Heater Retrofit, Power Cost Monitor, and Energy Star Appliances) were incorporated into the capacity and energy needs illustrated on Tables 1.2 and 1.3 of the 2009 IRP. These savings were based on the GDS Associates, Inc. study used by GreenCo to develop its portfolio of DSM and EE programs

Programs Rejected from Consideration

There were no programs considered and subsequently rejected by Haywood.

Education Programs

Haywood uses advertising in a monthly electric membership cooperative magazine and presentations at community events as its primary education programs for DSM and EE information.

E. Rutherford

Existing Programs

Rutherford did not significantly update its 2008 IRP with respect to DSM/EE programs. It described the same DSM/EE programs included in its 2008 IRP. Rutherford continues to rely on its existing water heater load control, air conditioning load control and customer-owned generation for approximately 22 MW of existing DSM capacity.

Proposed DSM/EE Programs

Rutherford indicated no plans to offer any new DSM or EE programs. Rutherford is not a member of GreenCo; therefore, Rutherford's customers will not participate in GreenCo's portfolio of DSM and EE programs.

Programs Rejected from Consideration

Rutherford did not indicate that it considered and subsequently rejected any programs.

Education Programs

Rutherford indicated that it uses a promotional CFL bulb giveaway as a main effort to educate customers about energy efficiency.

F. General Comments

With the exception of Rutherford, the Public Staff believes the EMCs are developing new DSM/EE programs for their customers. Each EMC has continued to rely on its existing load control resources as its primary DSM/EE resources. The Public

Staff is encouraged to see GreenCo develop a portfolio of DSM/EE resources that will be available to each of its participating members. The Public Staff expects that these new programs will be submitted to the Commission for approval early in 2010.

The Public Staff believes that as DSM and EE resources continue to have a greater impact on the utilities' IRPs as required by SB3, the design and use of the individual DSM and EE programs should reflect this intended impact. For example, if an EMC plans to rely on a DSM resource for system capacity requirements, it should be used when conditions warrant. Historically, these DSM resources have served only as a "last resort." Although a system peak may not represent a system emergency, loads on peak days typically require the use of more expensive conventional supply-side resources during the peak hours.

While the Commission does not regulate the rates of the EMCs, the Public Staff believes that system operational costs should be minimized and that capacity resources, including DSM and EE resources, should be developed and used in a least cost manner for the benefit of all customers. The Public Staff will continue to monitor how DSM/EE resources are incorporated into the IRPs and ultimately utilized by the EMCs and all utilities.

The Public Staff will also continue to monitor the effect of the American Recovery and Reinvestment Act on the energy and demand savings associated with DSM and EE programs in the next year.

X. EVALUATION OF RESOURCE OPTIONS

Commission Rule R8-60(i)(8) provides that each utility shall provide a description and a summary of the results of its analyses of potential resource options and combinations of resource options performed by it pursuant to subsection (g) of this rule to determine its IRP.

NCEMC evaluates its power supply needs with the use of a production cost model to assist in the development and evaluation of its resource options in a manner consistent with least cost planning. Based on forecasts of peak loads and energy sales, the model optimizes current and planned supply-side options into an integrated plan at least cost while providing reliable service. NCEMC's supply-side options include its existing generation facilities, allocated hydroelectric capacity from SEPA, PPAs with Duke, PEC, DNCP, South Carolina Electric & Gas Company, American Electric Power Service Corporation, PJM, DSM, EE, and renewable energy resources. To assist in the planning for its members, NCEMC utilizes PROMOD IV, a production cost simulation model, which is comparable to the models used by the IOUs.

EU integrates its allocated hydroelectric capacity from SEPA, existing DSM and EE programs, renewable energy projects, one non-utility peaking generator, and wholesale PPAs with NCEMC, Morgan Stanley, Southern Power Company, and several nearby utilities. The three other EMCs have long-term PPAs that are integrated into the

IOUs' IRPs: Haywood and Piedmont have several non-utility peaking generators and PPAs with Duke and PEC. Rutherford has one non-utility peaking generator, and PPAs with NCEMC, SEPA, Morgan Stanley, and Duke.

All of the EMCs' resource options include the evaluation of bids obtained through RFPs from power suppliers. None of the EMCs addressed the effect of potential legislation placing limits on carbon emission in their 2009 IRPs. The Public Staff recommends that the EMCs consider including such discussions in future IRP submissions.

Specific comments on REPS requirements are addressed in the review of the EMCs' REPS Compliance Plans.

XI. LEVELIZED BUSBAR COSTS

This section is not applicable to the EMCs.

XII. ASSESSMENT OF ALTERNATIVE SUPPLY-SIDE ENERGY RESOURCES

Commission Rule R8-60(i)(7) requires each utility to file its current overall assessment of existing and potential alternative supply-side energy resources, including a descriptive summary of each analysis performed or used by the utility in the assessment. Each utility also is required to provide general information on any changes to the methods and assumptions used in the assessment since its most recent biennial or annual report. This rule applies to North Carolina Electric Membership Corporation and any individual electric membership corporations to the extent that they are responsible for procurement of any or all of their power supply resources.

G.S. 62-133.8 requires all electric power suppliers, including EMCs and municipalities, to comply with the REPS by including specified percentages of renewable energy resources in their generation mix. Alternatively, a supplier may comply with the REPS by reducing energy consumption through implementation of EE measures (and also DSM measures, in the case of EMCs and municipalities). Commission Rule R8-60(e) states that alternative supply-side energy resources include but are not limited to hydro, wind, geothermal, solar thermal, solar photovoltaic, municipal solid waste, fuel cells, and biomass. All these resources can be used to meet part of an electric power supplier's REPS requirements.

The REPS compliance plans submitted by electric membership corporations and municipalities provide assessments of alternative supply side energy resources and are discussed below.

XIII. REPS COMPLIANCE PLAN REVIEW

G.S. 62-133.8(c) makes electric membership corporations and municipalities subject to the REPS requirements. Each EMC or municipality is required to include the

following percentages of renewable energy in its generation mix or reduce energy consumption by an equivalent amount through DSM or energy efficiency:

3% of 2011 North Carolina retail sales by 2012

6% of 2014 North Carolina retail sales by 2015

10% of 2017 North Carolina retail sales by 2018 and thereafter

There are additional requirements for resource-specific renewable energy that begin in 2010 for all electric power suppliers. These requirements are as follows:

<u>Calendar Year</u>	<u>Requirement for Solar Energy Resources</u>
2010	0.02%
2012	0.07%
2015	0.14%
2018	0.20%

<u>Calendar Year</u>	<u>Requirement for Swine Waste Resources</u>
2012	0.07%
2015	0.14%
2018	0.20%

<u>Calendar Year</u>	<u>Requirement for Poultry Waste Resources</u>
2012	170,000 megawatt-hours
2013	700,000 megawatt-hours
2014	900,000 megawatt-hours

G.S. 62-133.8(c)(2) allows EMCs and municipalities to meet their REPS obligations by purchasing electricity from a wholesale supplier whose portfolio options include the required renewable resources. Unlike electric public utilities, EMCs and municipalities can meet their entire REPS requirements (aside from the solar, swine, and poultry set-aside requirements) by reducing energy consumption through the implementation of DSM or EE measures. EMCs and municipalities also have the option, not available to electric public utilities, to satisfy up to 30% of the REPS requirements with hydroelectric power produced at a facility constructed prior to the enactment of the REPS – for instance, power purchased from SEPA.

Commission Rule R8-67(b) requires electric power suppliers to file a plan on or before September 1 of each year explaining how they will meet the requirements of G.S. 62-133.8(b), (c), (d), (e), and (f). The plans must cover the current year and the next two calendar years, in this case 2009, 2010, and 2011. The only compliance requirement covered by this planning period is in G.S. 62-133.8(d) for solar energy resources.

On August 14, 2009, several electric suppliers including NCEMC, NCEMPA, and NCMPA1 (Joint Movants) filed a motion requesting that the Commission delay and reduce the poultry waste set-aside requirement and delay the swine waste set-aside

requirement. Numerous parties filed comments opposing the Joint Movants' request. On December 16, 2009, the electric suppliers withdrew their request regarding poultry waste, stating that they had resolved their primary issues with the State's poultry waste generators. On January 29, 2010, the Joint Movants, together with several parties interested in generating power from poultry and swine waste, requested Commission approval of an RFP for swine waste generation. On February 5, 2010, a proposal was filed for allocation of the poultry and swine waste set-asides among the State's electric power suppliers. (Under G.S. 62-133.8 these two set-asides are designated as aggregate requirements for all electric power suppliers in the State.) These proposals are currently before the Commission for consideration in its rulemaking docket, Docket No. E-100, Sub 113.

A. EMCs

GreenCo filed a REPS compliance plan on behalf of 23 of the 31 EMCs serving customers in North Carolina. Six of the remaining eight EMCs filed independently. Two of them did not file a plan.

GreenCo

On behalf of its 23 EMC members, GreenCo submitted a 2009 REPS compliance plan which details steps taken thus far to comply with G.S. 62-133.8, and which also summarizes the future plans of GreenCo members to meet the EE and renewable energy portions of the REPS requirements.

GreenCo's members plan to rely on a significant contribution from EE programs to meet REPS requirements. GreenCo submitted details of its EE programs in its response to Commission Rule R8-60(i)(6). These programs are discussed in detail above in the section covering DSM/EE resources. The following is a discussion of the renewable energy portion of GreenCo's compliance plan.

GreenCo intends to meet the solar energy requirements of G.S. 62-133.8(d) by purchasing RECs from the QVC, Inc. and approved in Docket No. SP-362, Sub 1. Since the filing of its plan, GreenCo has informally advised the Public Staff that
BEGIN CONFIDENTIAL

END CONFIDENTIAL In addition, two GreenCo members have constructed their own solar photovoltaic (PV) facilities to generate renewable energy certificates (RECs) for GreenCo. One became operational in March 2008 and expects to produce approximately 180 RECs per year. The second one became operational in December 2009 and is expected to produce 89 RECs per year.

GreenCo also intends to purchase RECs from the NextEra wind energy facility in Story County, Iowa.

GreenCo's members will use their allocation of energy from SEPA to meet up to 30 percent of their REPS requirements as allowed by G.S. 62-133.8(c)(2)c.

Since the filing of its plan, GreenCo has provided the following additional information to the Public Staff: (1) At the time of its filing, GreenCo had almost completed negotiations with Decker Energy for construction and operation of a wood burning generation facility in late 2009, but was unable to finish the process due to concerns over financing the project. (2) GreenCo is pursuing several landfill gas generation projects in its members' service territories, and is also considering issuing another RFP for renewable generation facilities to meet the non-set-aside REPS requirements. (3) GreenCo planned to implement a residential solar hot water heating pilot program in 2009, but suspended that effort in light of the current economic downturn.

Commission Rule R8-67(b)(1)(iv) requires the submission of projected North Carolina retail sales and year-end customer counts by class for each year. In response to this requirement GreenCo submitted the following aggregated projections for its 23 members:

	2009	2010	2011
Total MWh Sales	13,548,679	13,849,084	14,153,596

Number of Customers	2009	2010	2011
Residential	726,323	742,197	758,586
Commercial	77,900	79,490	81,119
Industrial	101	101	101
Other	3,693	3,734	3,772

Rule R8-67(b)(1)(v) requires the submission of current and projected avoided cost rates for each year. GreenCo stated that it used \$0.05 per kilowatt-hour (kWh) as the avoided cost for all of its members in all analyses supporting the information reported in its 2009 compliance plan.

Rules R8-67(b)(1)(vi) and (vii) require the submission of projected total and incremental costs anticipated to implement the compliance plan for each year and a comparison of the projected costs to the annual cost caps for each year. A table summarizing this information provided by GreenCo follows:

	2009	2010	2011
Total costs	\$5,074,845	\$12,792,589	\$14,701,180
Incremental costs	\$3,503,755	\$9,836,874	\$9,863,873
Annual cost cap	\$10,325,885	\$10,546,865	\$10,773,133
Reserve	\$6,822,131	\$709,991	\$909,259

EU

EU's REPS compliance plan listed the following actions:

- It has contracted for the purchase of the energy from a 3-MW landfill gas generator in Iredell County that began production in July 2008. The facility has the potential to increase its size to 5 MW in the future.
- It has signed a 20-year contract with SunEdison for the construction and operation of a 1-MW solar facility in Alexander County. The project is expected to be operational in March 2010.
- It has signed a contract to purchase RECs produced at a landfill gas facility in Forsyth County.
- It has made a one-time purchase of RECs generated at an out-of-state wind turbine project.
- It has received Commission approval of two energy efficiency programs: high efficiency heat pump rebates and high efficiency lighting rebates.
- It also plans to use its SEPA resources for compliance, as authorized by G.S. 62-133.8(c)(2)(c).

EU estimated its annual REPS riders for 2009-11, and the estimated riders are below the per-account caps imposed by G.S. 62-133.8(h)(4). It did not, however, provide its current and projected avoided cost rates as required by Commission Rule R8-67(b)(v), nor did it provide projections of its incremental costs as required by Commission Rule R8-67(b)(vi).

Halifax

Halifax plans to meet up to 30% of its overall REPS requirements through the use of its SEPA hydroelectric entitlement. Halifax intends to also meet the REPS requirements through REC purchases, EE programs, or project investment. It has not executed any contracts for RECs, but has implemented the following EE programs: distribution of CFL light bulbs, residential energy audits, and high efficiency heat pump rebates. The Public Staff believes that if these programs offer incentives to customers and were adopted and implemented after August 20, 2007, Halifax should file these programs for Commission approval under G.S. 62-133.9(c) and Commission Rule R8-68.

Halifax is evaluating options to meet its solar energy requirements but has not committed to any initiatives. Halifax stated that its avoided cost rate is 4.813 cents per kWh.

Halifax provided an estimate of its total and incremental REPS compliance costs for 2009 as required by Commission Rule R8-67(b)(vi), and its estimate shows that the 2009 incremental costs are negative. Because of the extremely vague nature of its compliance plans for 2010 and 2011, it reported that its total and incremental costs for these years are not available.

Rutherford

Duke will meet all of Rutherford's REPS requirements.

EMCs Headquartered Outside North Carolina

Five electric membership corporations, headquartered in other states, provide service to customers in North Carolina and consequently are required to comply with the REPS and file compliance plans. Three of these EMCs – Blue Ridge Mountain, Mountain Electric, and Tri-State – have full power requirements contracts with the Tennessee Valley Authority (TVA). Their plans state that they have begun the development and implementation of new EE programs. They will implement programs and purchase solar REC's from TVA to meet the solar energy requirement of G.S. 62-133.8(d). Blue Ridge Mountain and Tri-State have an avoided cost rate of 2.657 cents per kWh. This low rate decreases the cost effectiveness of EE programs, and it also decreases the portion of energy payments to renewable energy facilities that is solely for energy. Mountain Electric stated that its 2009 avoided cost rate is 4.738 cents per kWh, and its projected rates for 2010 and 2011 are not available.

Broad River EMC (Broad River) filed a letter on October 7, 2009, stating that it would file a REPS compliance plan and a REPS compliance report. On January 22, 2010, Broad River filed a letter stating that its compliance plan would be prepared by GreenCo. On February 1, 2010, GreenCo informally confirmed to the Public Staff that it would file a plan and meet Broad River's REPS requirements.

Mecklenburg EMC has not filed a REPS compliance plan as the Commission's rules require. However, on February 1, 2010, GreenCo told the Public Staff that it will meet Mecklenburg's REPS requirements.

B. Municipalities

Commission Rule R8-67(b) requires that each municipality submit a REPS compliance plan. Compliance for the majority of the municipalities in the State will be handled by either NCEMPA or NCMPA1. NCEMPA filed a plan on behalf of 32 municipalities¹⁰ and NCMPA1 filed a plan for 19 municipalities.¹¹

NCEMPA

¹⁰ The following municipalities are members of NCEMPA: Apex, Ayden, Belhaven, Benson, Clayton, Edenton, Elizabeth City, Farmville, Fremont, Greenville, Hamilton, 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.

¹¹ The following municipalities are members of NCMPA1: Albemarle, Bostic, Cherryville, Cornelius, Drexel, Gastonia, Granite Falls, High Point, Huntersville, Landis, Lexington, Lincolnton, Maiden, Monroe, Morganton, Newton, Pineville, Shelby and Statesville.

According to NCEMPA, its member municipalities have no plans to generate electricity at a renewable energy facility at least until 2018 because of their full requirements contract with PEC, with the exception of the 0.3% of their requirements that are met by hydroelectric purchases from SEPA. NCEMPA intends to investigate the market for RECs and the use of solar thermal facilities by retail customers to meet the requirement of G.S. 62-133.8(d). It has begun implementing several EE programs.

Approximately 30% of NCEMPA's power supply is purchased at wholesale from PEC as supplemental power, with the balance provided through its minority ownership in various PEC power plants. This supplemental power is provided by PEC from its overall generation mix, and PEC is expected to be in compliance with the requirements of the REPS. NCEMPA asserts in its compliance plan that "pursuant to the provisions of N.C.G.S. § 62-133.8(c)(2)(e), the allocation of each NCEMPA Municipality's power supply from Supplemental Power will be used by each NCEMPA Municipality to meet a concomitant portion of its REPS Requirement." NCEMPA does not contend that PEC has expressly agreed to provide NCEMPA with REPS compliance services, and PEC has specifically advised the Public Staff that it has not entered into such an agreement with NCEMPA.

In the Public Staff's view, NCEMPA cannot gain credit toward its REPS requirements merely by virtue of the fact that PEC is selling power to NCEMPA, and is expected to comply with the REPS. It is true that PEC's generation mix is expected to include sufficient renewable and EE resources to meet the percentage requirements of G.S. 62-133.8, but the costs of these renewable and EE resources have been incurred by PEC and will ultimately be borne by PEC's ratepayers. They have not been incurred by NCEMPA and will not be recovered from the ratepayers of the NCEMPA municipalities.

In accordance with G.S. 62-133.8(c)(2)(e), several municipalities have entered into agreements under which, for an agreed price, PEC will provide them with REPS compliance services. PEC will provide these services by acquiring sufficient renewable resources, over and above its own requirements, to meet the renewable requirements of the contracting municipalities. Several other municipalities and EMCs have similarly contracted to obtain REPS compliance services from Duke. It would not be necessary for a municipality to enter into such a contract if it could simply "piggyback" on PEC's compliance efforts at no cost. If NCEMPA is allowed to rely on its power purchase from PEC as a method of REPS compliance under paragraph (c)(2)(e), without purchasing REPS compliance services from PEC, then the renewable and EE resources acquired by PEC for its own use will be double-counted: once for PEC, and then a second time for NCEMPA.

In accordance with Rule R8-67(b)(1)(iv), NCEMPA submitted the following aggregated projections of North Carolina retail sales and year-end customer counts by class for each year:

	2009	2010	2011
Total MWh Sales	7,037,175	7,115,463	7,211,080

Number of Customers	2009	2010	2011
Residential	229,425	231,978	235,095
Commercial	38,078	38,502	39,019
Industrial	548	554	561

NCEMPA provided the following data on its avoided costs:

Avoided Energy Costs		Avoided Capacity Costs	
On-Peak	Off-Peak	Jan-May, Oct-Dec	June-Sept
\$/MWh	\$/MWh	\$/MWh	\$/MWh
55.01	42.87	25.44	30.86

To facilitate comparison with other electric power suppliers, the Public Staff has used the above data to calculate a single per-kWh avoided cost figure for NCEMPA, including both energy and capacity costs. The Public Staff's calculations indicate that NCEMPA's overall avoided costs amount to 5.66 cents per kWh.

NCEMPA provided information, as required by Rules R8-67(b)(1)(vi) and (vii), on the projected total and incremental costs anticipated to implement its compliance plan for each year, together with a comparison of these costs to the annual cost caps. The information provided by NCEMPA is summarized in the following table:

	2009	2010	2011
Total costs	\$4,300,000	\$4,500,000	\$4,700,000
Incremental costs	\$3,100,000	\$3,200,000	\$3,200,000
Annual cost cap	\$3,100,000	\$3,200,000	\$3,200,000

As can be seen, NCEMPA expects to reach the annual cost cap each year.

NCMPA1

NCMPA1 has executed contracts for RECs generated by wind, biomass, and poultry waste resources and intends to issue a request for proposals (RFP) for more renewable resources. It did not receive sufficient responses to its RFP for the swine waste set-aside to meet G.S. 62-133.8(e), but received two small swine waste proposals that it intends to investigate with other electric power suppliers. It intends to meet the poultry waste set-aside by purchasing RECs. NCMPA1 plans to investigate constructing other new renewable generation facilities. Its members intend to include the delivery of hydroelectric power from SEPA to meet part of their REPS requirements. NCMPA1 does not anticipate having its wholesale suppliers' assistance in meeting its

The information provided by NCMAPA1 pursuant to Rule R8-67(b)(1)(vi) and (vii), on the projected total and incremental costs anticipated to implement its compliance plan for each year, and on its projected annual cost caps, is set out in the following table:

	2009	2010	2011
Total costs	\$600,000	\$900,000	\$900,000
Incremental costs	\$600,000	\$800,000	\$800,000
Annual cost cap	\$3,000,000	\$3,000,000	\$3,000,000

Fayetteville

Fayetteville submitted a plan stating that it will meet its REPS obligations during the compliance period with its purchases of wholesale power from PEC pursuant to a contract in effect through June of 2012. Fayetteville's position is similar to that of NCEMPA, however, in that PEC has informed the Public Staff that it has not entered into an agreement to provide REPS compliance services to Fayetteville, and Fayetteville makes no assertion that it has entered into any such agreement with PEC. In the absence of an agreement to obtain REPS compliance services, Fayetteville is not entitled to use PEC's renewable and energy efficiency resources for its own compliance obligation.

Fayetteville has submitted the following information on its projected retail kWh sales and year-end customer counts for 2009-11:

	2009	2010	2011
Total MWh Sales	2,033,449	2,063,950	2,094,910

Number of Customers	2009	2010	2011
Residential	69,684	70,985	71,702
Commercial	8,562	8,726	8,891
Industrial	21	21	21

Fayetteville estimates its avoided cost rates at 2.087 cents per kWh for 2009, 2.119 cents per kWh for 2010, and 2.150 cents per kWh for 2011. At these low avoided cost rates, as previously noted, the cost effectiveness of energy efficiency programs is reduced. Since Fayetteville has not made any plans for acquiring renewable energy or implementing energy efficiency programs, no estimates of its total or incremental REPS compliance costs can be made at this time.

Other Municipalities

There are several municipalities not included in the filings of NCEMPA or NCMAPA1. For instance, the Towns of Waynesville, Black Creek, Lucama, Sharpsburg, and Stantonsburg have signed wholesale power contracts with PEC that require PEC to

supply the renewable energy needed for their REPS compliance. The City of Dallas, Town of Forest City, City of Concord, Town of Highlands, and City of Kings Mountain have signed similar contracts with Duke. The REPS compliance requirements associated with these wholesale contracts were included in the compliance plans filed by PEC and Duke; therefore, the Public Staff considers the requirements of Rule R8-67 to have been met for these municipalities. The Town of Enfield has signed a similar contract with Halifax, and Halifax included this contract in its plan. The Town of Pinetops noted in its compliance plan that it has a full requirements wholesale contract with the City of Wilson, which, in turn, has a wholesale contract with NCEMPA. It is not clear, however, that NCEMPA has taken Pinetops' REPS obligations into account in preparing its compliance plan. The Town of Windsor purchases its power supply from DNCP (except for limited amounts supplied by SEPA and by the Town's own generation) and has submitted a copy of a letter in which DNCP agrees to provide sufficient resources to meet Windsor's REPS obligations. However, DNCP's REPS Compliance Plan does not contain any language expressly taking Windsor's obligations into account. The Murphy Electric Board obtains its full power supply from TVA. In its compliance plan it stated that it has begun the development and implementation of new EE programs and that it will implement programs and purchase solar RECs from TVA to meet the solar energy requirement of G.S. 62-133.8(d).

The Town of Winterville submitted a plan detailing its plans for compliance. The Town of Oak City filed a plan, but it did not provide total or incremental costs as required in Commission Rule R8-67(b)(vi) or a comparison of projected costs to the annual cost caps as required in R8-67(b)(vii).

Three municipalities have failed to file REPS compliance plans, although the Public Staff has contacted each of them and called attention to the filing requirements. These are the Towns of Fountain, Macclesfield and Walstonburg. The Town of Wilson has advised the Commission that it provides the power supply for Macclesfield and Walstonburg but has not indicated that it will provide additional REPS resources to meet the compliance requirements of these towns. Wilson obtains its power from NCEMPA, and, as noted above with respect to the Town of Pinetops, it is not clear that NCEMPA has taken the obligations of Macclesfield and Walstonburg into account in its compliance plan.

C. Conclusions on REPS Compliance Plans

It appears that the great majority of the EMCs and municipalities have submitted REPS Compliance Plans that satisfy most or all of the filing requirements of Commission Rule R8-67. Some of the plans, however, omit certain information that is called for in the Commission's rule, and others are so vague that it is not at all clear whether they reflect any real progress toward compliance. Some plans – specifically those of NCEMPA and Fayetteville – reflect an incorrect understanding of the REPS, in the Public Staff's view, and will need to be modified if compliance with the percentage requirements of G.S. 62-133.8 is to be achieved. Finally, there are three municipalities and two EMCs that failed to file any plan at all.

There are three matters of general application, not previously addressed in these comments, that should be discussed. First, the Public Staff has not reviewed the methods used by the EMCs and municipalities in calculating the costs of their planned renewable purchases and energy efficiency programs. How an EMC or municipality calculates its costs impacts how quickly it reaches the cost ceiling of G.S. 62-133.8(h)(4).

Second, several EMCs and municipalities have contracted to obtain REPS compliance services from their primary power supplier, but they produce a limited amount of additional power from their own generation. If the provider of REPS compliance services bases its calculations only on the amount of power that it has sold to the EMC or municipality, then the EMC or municipality may fall just short of compliance, as the REPS percentages are based on the total retail MWh sales of the EMC or municipality.

Finally, G.S. 62-133.8(c)(2)(b) provides that one method of REPS compliance available to an EMC or municipality is to "[r]educe energy consumption through the implementation of demand-side management or energy efficiency measures." Commission Rule R8-67(c)(1)(i) provides that, with regard to REPS compliance, renewable energy certificates for EE may be based on estimates of reduced energy consumption through the implementation of EE measures, to the extent approved by the Commission. The Public Staff believes that it may be appropriate to clarify this Rule, particularly with regard to its application to EMCs and municipalities. Unlike the IOUs, EMCs and municipalities do not undergo cost recovery proceedings under G.S. 62-133.9 and Commission Rule R8-69 for their DSM and EE programs. In those proceedings, IOUs will submit detailed M&V for the Commission's review at the time they seek to recover their costs and, potentially, collect an incentive. The Public Staff does not, however, seek clarification of this Rule at this time as part of this proceeding.

XIV. RECOMMENDATIONS

In conclusion, the Public Staff makes the following recommendations:

A. That NCEMC examine its peak load forecasting models and assumptions for possible sources of bias leading to under-forecasting of peak loads, as well as other factors that may have contributed to the relatively large forecast errors;

B. That the Commission monitor the differential between the amount of DSM resources included in a utility's IRP for system capacity requirements and the actual amount deployed; and


C. That any EMC which seeks to implement, or is currently implementing, DSM or EE programs under which incentives are offered to customers (except those programs being filed for approval by GreenCo), file such programs for Commission


approval under G.S. 62-133.9(c) and Commission Rule R8-68 if they were adopted and implemented after August 20, 2007.


Respectfully submitted, this the 8th day of February, 2010.

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CERTIFICATE OF SERVICE

I do hereby certify I have this day served a copy of the foregoing Comments on each of the parties of record in this proceeding or their attorneys of record by causing a copy of the same to be deposited in the United States Mail, postage prepaid, properly addressed to each.

This the 8th day of February, 2010.


Kendrick C. Fentress