

SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 919-967-1450

601 WEST ROSEMARY STREET, SUITE 220
CHAPEL HILL, NC 27516-2356

Facsimile 919-929-9421

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Clerk's Office
N.C. Utilities Commission

VIA HAND DELIVERY

Ms. Renné Vance
Chief Clerk
North Carolina Utilities Commission
430 North Salisbury Street
Dobbs Building
Raleigh, NC 27603-5918

RE: Investigation of Integrated Resource Planning in North Carolina - 2010
Docket No. E-100, Sub 128

Dear Ms. Vance:

Enclosed for filing in the referenced docket are an original and thirty (30) copies of Brief of Southern Alliance for Clean Energy, along with a compact disc containing a Word version of the document. By copy of this letter, I am serving all parties of record.

Sincerely,

Robin G. Dunn

Robin G. Dunn

RGD

Enclosures

cc: Parties of Record

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Barnes

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-100, SUB 128

In the Matter of:
Investigation of Integrated Resource
Planning in North Carolina – 2010

) BRIEF OF
) SOUTHERN ALLIANCE FOR
) CLEAN ENERGY

FILED
JUN 06 2011

North Carolina
Utilities Commission
Public Office

PURSUANT TO North Carolina Utilities Commission Rule R1-25 and the Commission's May 5, 2011 Order Allowing Parties To File Proposed Orders and/or Briefs, intervenor Southern Alliance for Clean Energy ("SACE"), through counsel, files this brief on issues raised by the 2010 biennial integrated resource plans ("IRPs") of Duke Energy Carolinas, LLC ("Duke") and Progress Energy Carolinas, Inc. ("PEC").

I. SUMMARY OF PROPOSED FINDINGS.

As explained below, and detailed in the Initial Comments of Southern Alliance for Clean Energy filed with the Commission on February 10, 2011 ("SACE Comments" or "SACE's Comments"), the 2010 IRPs of Duke and PEC give rise to the following findings:

- Duke and PEC failed to comply with the minimum filing requirements in Commission Rule R8-60.
- Portfolios including Duke's "High DSM" case are the lowest cost and lowest risk portfolios in Duke's IRP.
- Duke and PEC did not properly consider energy efficiency in their evaluation of resource options.
- Duke overstates its need for new generating capacity in its IRP.
- Neither Duke nor PEC has shown in its 2010 IRP that it has a realistic plan for reducing its greenhouse gas emissions.
- Both Duke and PEC have prudently decided to retire their existing unscrubbed coal-fired generating units, but neither utility has shown in its IRP that continued operation of its scrubbed coal units is economical.

- Duke and PEC have not evaluated renewable resources beyond minimum compliance with North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard.
- Modeling of economic impacts would inform the evaluation of resource portfolios in the IRPs.
- An IRP working group would facilitate an open and collaborative process whereby utilities, public staff and stakeholders could discuss and address resource planning issues like the ones raised in these comments.

II. LEGAL FRAMEWORK FOR RESOURCE PLANNING.

In North Carolina, electric utility resource planning must result in the "the least cost mix of generation and demand-reduction measures which is achievable" N.C. Gen. Stat. § 62-2(3a). This "least cost mix" includes the "entire spectrum of demand-side options, including but not limited to conservation, load management and efficiency programs." *Id.* Commission Rule R8-60 requires each electric utility to file a biennial report of its integrated resource planning process, with updates filed in the off years. Rule R8-60 (h). As the Commission stated in its order on the 2009 IRPs, "[t]he biennial reports are to contain all required information, full and robust analyses and sensitivities, which should encompass a range of scenarios including potential regulatory changes." Order Approving Integrated Resource Plans and REPS Compliance Plans, In the Matter of Investigation of Integrated Resource Planning in North Carolina – 2008 and 2009, Docket Nos. E-100, Sub 118 and E-100, Sub 124 (Aug. 10, 2010) ("2009 IRP Order") at 20.

Commission Rule R8-60 sets forth certain minimum IRP filing requirements. The rule provides, among other things, that each utility must:

- Provide a 15-year forecast of demand-side resources. Rule R8-60(c)(1).

- Conduct a “comprehensive analysis” of demand-side and supply-side resource options. Rule R8-60(c)(2) and (f).
- “[C]onsider and compare . . . both demand-side and supply side [resource] options, to determine an integrated resource plan that offers the least cost combination (on a long-term basis) of reliable resource options for meeting the anticipated needs of its system.” Rule R8-60(g).
- “[P]rovide the results of its overall assessment of existing and potential demand-side management programs, including a descriptive summary of each analysis performed or used by the utility in the assessment” as well as “general information on any changes to the methods and assumptions used in the assessment . . .” Rule R8-60(i)(6). The results of the assessment must include programs “evaluated but rejected” by the utility. Id.
- Describe and summarize “its analyses of potential resource options and combinations of resource options performed by it . . . to determine its integrated resource plan.” Rule R8-60(i)(8).

III. DUKE AND PEC FAILED TO COMPLY WITH THE FILING REQUIREMENTS OF COMMISSION RULE R8-60.

Duke and PEC failed to comply with the minimum filing requirements set forth in Commission Rule R8-60. Specifically, both utilities failed to provide the required information, including the capacity and energy available and number of customers enrolled, for each available demand-side management (“DSM”)¹ program over the 15-year planning period, as required by Rule R8-60(i)(6). This information is likely available in other dockets, but not necessarily in a manner that corresponds to the

¹ Pursuant to Commission Rule R8-60(f), DSM refers to demand response programs and energy efficiency and conservation programs.

assumptions used to develop the resource plans. Duke notes that it has complied with the forecasting requirements provided in R8-60(i)(1), Duke Reply at 19-20, but as Duke witness Stevie testified in the 2009 IRP docket, “information on the capacity, energy, number of customers, and other required information ... should have been included in the filing.” Transcript of Hearing, Volume IV at 16, In the Matter of Investigation of Integrated Resource Planning in North Carolina – 2008 and 2009, NCUC Docket Nos. E-100 Subs. 118 and 124 (March 17, 2010). This information, required by Rule R8-60(i)(6), is critical to understanding each utility’s overall assessment of its DSM resources. Therefore, the Commission should direct Duke and PEC to amend their IRPs to include this information.

PEC failed to meet its obligations under Rule R8-60 for two additional reasons. First, PEC provided a one-sentence summary of the results of an update to its DSM Potential Study. PEC 2010 IRP at E-7. PEC provided the updated energy and capacity estimates, but this information alone does not satisfy PEC’s obligation to provide “a descriptive summary of each analysis performed or used by the utility in the assessment.” Rule R8-60(i)(6).² Second, PEC’s IRP includes confusing and/or inconsistent data regarding the forecasted capacity and energy impacts of its demand-side resources. As in its 2009 IRP, there are discrepancies between the data presented in Table 1 and Appendix E of PEC’s IRP. The Commission should direct PEC to amend its 2010 IRP to correct these deficiencies.

² In response to a SACE data request, PEC provided updated information for Tables 15-17 in the potential study. PEC should have filed this information with its IRP, along with updates to Tables 5-8, 11, 13 and 14 and Figures 3-4.

IV. DUKE SHOULD HAVE PRIORITIZED ITS “HIGH DSM” ALTERNATIVE.

As detailed in SACE’s Comments, Duke did not select a portfolio that included the “High Energy Efficiency,” or “High DSM” case,³ despite the fact that the portfolios incorporating this case cost less, have lower risk, and appear to result in lower average electricity rates than does Duke’s selected portfolio. SACE Comments at 3-7. As a result, Duke’s plan does not result in the “least cost mix” of resources, as required by N.C. Gen. Stat. § 62-2(3a).

Duke’s own analysis shows that the “High DSM” case results in lower cost to customers. Duke modeled three resource portfolios for its IRP: (i) no new nuclear capacity (the CT/CC portfolio); (ii) full ownership of new nuclear capacity (the 2 Nuclear Units portfolio); and (iii) shared ownership of new nuclear capacity (the 1 Nuclear Unit portfolio). Duke concluded that “[t]he 2 Nuclear Unit portfolios resulted in a lower cost to customer in every case with the exception of increased nuclear capital cost and lower fuel cost.” Duke IRP at 91. However, Duke did not include in its IRP the modeling results of incorporating its “High DSM” case in its portfolios, including the selected 2 Nuclear Units portfolio. In terms of the net present value of revenue requirements, all of the “High DSM” portfolios modeled by Duke are lower cost than the “base DSM” portfolios over the 50-year analysis time frame. See SACE Comments, Attachment 1. Therefore, Duke’s failure to incorporate its “High DSM” case in the modeled portfolios prevented it from selecting a least-cost resource mix.

³ The “High DSM” sensitivity case “includes the full target impacts of the save-a-watt bundle of programs for the first five years and then increases the load impacts at 1% of retail sales each subsequent year until the load impacts reach the economic potential identified by the 2007 market potential study,” which results in a 13 percent decrease in retail sales when fully implemented. Duke 2010 IRP at 88.

Duke dismisses SACE's comparison of the "High DSM" sensitivity cases to base case portfolios as "misleading" and presenting an "apples-to-oranges" comparison because it compares model portfolios with different load profiles. Duke Reply at 20-21. Duke contends that it is useless, for resource planning purposes, to compare any sensitivity portfolio, including the "High DSM" case, to base case portfolios. Id. at 21. Duke is incorrect. SACE's analysis matched two nearly-identical portfolios and demonstrated that Duke could modify its future load profile—by investing in its "High DSM" strategy and reducing its planned investments in baseload capacity—to reduce cost, risk and rates for its customers. This is valuable information for least-cost resource planning purposes.

In fact, SACE patterned its analysis after Duke's own comparisons of sensitivities to the base case portfolio. In Table A2 of its IRP, Duke compares the selected 2 Nuclear Units portfolio to the Natural Gas portfolio under High and Low load profiles, as well as the "High DSM" case. Duke IRP at 91. Like Attachment 1 to SACE's Comments, Duke's Table A2 compares model portfolios with different load profiles. Moreover, although Attachment 1 to SACE's comments did not include the selected 2 Nuclear Units portfolio incorporating the "High DSM" case, this inadvertent omission does not detract from the fact that the model portfolios incorporating the "High DSM" case result in lower costs to customers than does the selected plan.⁴

Duke's "High DSM" case would also reduce customers' risk of cost increases. Duke analyzes the risk associated with the various portfolios by comparing them across a range of sensitivities. As explained in more detail in SACE's Comments, Duke's

⁴ SACE strongly refutes any suggestion that this omission was intentional, and notes that the omitted information is summarized in Table 2 of SACE's comments.

quantitative analysis shows that the “High DSM” strategy would reduce system risk due to fuel price and CO₂ price variability. SACE Comments at 3-5. Similarly, as detailed in Table 2 of SACE’s Comments, “High DSM” case portfolios would likely result in lower electric rates, as compared to the base case. *Id.* at 7.

Finally, the three qualitative factors that Duke outlines to support a regional approach to securing its selected 2 Nuclear Unit portfolio—load growth, financial impact, and regulatory uncertainty—also favor the “High DSM” alternative. Duke 2010 IRP at 92; SACE Comments at 5-6. First, Duke argues that a regional nuclear approach is preferable because “[s]maller blocks of base load generation brought on-line over a period of years would more closely match projected load growth.” Duke 2010 IRP at 92. Because the “High DSM” alternative strategy develops system resources on an annual basis, it is even more closely matched to projected load growth than a regional nuclear approach. Second, Duke states that under a regional nuclear approach “the substantial capital cost would be phased in over a longer period of time and would spread the risk if there were cost increases.” *Id.* Again, the “High DSM” alternative strategy is preferable because the capital costs are lower, new capacity is phased in over a longer period of time, and it is less sensitive to the risk of cost increases. Third, Duke argues that “[u]sing a regional approach would allow utilities to better optimize their portfolios as legislation or regulation change over time.” *Id.* All of the portfolios Duke considered as alternatives to meet legislative or regulatory requirements included the “High DSM” strategy.⁵ Therefore, the “High DSM” strategy is well-suited to address regulatory uncertainty.

⁵ Moreover, it is worth noting that energy efficiency is an important component of a utility’s environmental compliance strategy; it can mitigate compliance costs and rate effects and lower electric bills. *See, e.g.,* Dir. Testimony of John D. Wilson at 9, In the Matter of Investigation of Integrated Resource Planning in North Carolina – 2009, NCUC Docket No. E7, Sub. 124.

Duke errs in excluding the “High DSM” case on the basis that “the likelihood of achieving [the high efficiency] impacts is unknown.” Duke Reply at 23. Although there is some uncertainty associated with the “High DSM Case,” such uncertainty does not justify Duke’s failure to prioritize this resource alternative. As Duke acknowledges, the 2 Nuclear Unit portfolios carry several significant uncertainties as well, including the time required for licensing and construction, uncertainty regarding GHG regulation/legislation, potential for decreased demand, capital costs, and the ability to secure financing. *Id.* at 94. Duke does not provide any comparison showing that the risks of resource delays or cost overruns are less significant for nuclear power development than for High-DSM resource development. SACE Comments at 5.

In sum, Duke erred in omitting the modeling results of incorporating its “High DSM” case in its portfolios in its IRP. Duke’s omission resulted in its failure to prioritize the “High DSM” case, even though the portfolios incorporating this case cost less, have lower risk, and appear to result in lower average electricity rates than does Duke’s selected portfolio. Because Duke’s selected plan does not result in the “least cost mix” of resources, the Commission should require Duke to amend its IRP by including the modeling results of incorporating its “High DSM” case in its portfolios.

Unlike Duke, PEC failed to even model a “high efficiency” case. PEC’s failure to model different levels of energy efficiency reveals a critical flaw in the Company’s analysis, and contravenes the Commission’s 2009 IRP Order requiring “full and robust analyses and sensitivities.” 2009 IRP Order at 20. SACE requests that the Commission direct PEC to evaluate, at a minimum, a “High DSM” case as part of its least-cost IRP analysis.

V. DUKE AND PEC DID NOT PROPERLY CONSIDER ENERGY EFFICIENCY IN THEIR EVALUATION OF RESOURCE OPTIONS.

Despite the well-documented benefits of energy efficiency, Duke and PEC significantly underestimate the potential energy efficiency savings in their IRPs. The utilities failed to consider the efficiency resource on an equivalent basis as supply-side resources, and therefore, their IRPs do not result in the “least-cost mix” of resource options.

A. Duke and PEC's long-term efficiency savings projections lag behind those of leading utilities.

As discussed in detail in SACE's Comments, both PEC and Duke have increased the amount of energy efficiency in their resource plans since the 2009 IRPs, yet both utilities' projected long-term energy efficiency savings still lag behind those of leading utilities. SACE Comments at 8-10. Duke and PEC expect to achieve about 5.2% and 3.6%, respectively, in cumulative energy savings from energy efficiency programs over the next decade—equivalent to an annual energy savings goal of 0.36 – 0.52%, which is among the lowest in the country. A 1% annual savings goal is consistent with the findings of recent studies, including a 2010 Georgia Tech meta-analysis of several potential studies in the South, which found that the achievable electric efficiency potential ranges from 7.2 to 13.6% after 10 years.⁶

B. Neither Duke nor PEC has used a complete energy efficiency resource analysis in developing its IRP.

⁶ Chandler, S. and M.A. Brown, “Meta-Review of Efficiency Potential Studies and Their Implications for the South,” Working Paper # 51 (August 2009). See also American Council for an Energy-Efficient Economy, “North Carolina's Energy Future: Electricity, Water, and Transportation Efficiency,” Report Number E102, March 2010, at 15 (finding that the “medium case” energy savings potential for utility-led energy efficiency programs is approximately 17% by 2025).

A major reason that the energy efficiency savings impacts projected by Duke and PEC in their IRPs fall short is that neither utility is using a comprehensive energy efficiency potential study in its resource planning process or a consistent standard in determining the extent to which energy efficiency can be achieved. See SACE Comments at 12-14. The Commission should therefore direct the utilities to conduct updated energy efficiency potential studies, as recommended by the Public Staff. Public Staff Comments at 14. Duke and PEC agree that efficiency potential studies should be updated, and Duke requests permission to submit the update with the 2012 IRP, should the Commission require updates. Duke Reply at 4; PEC Reply at 6. SACE agrees with Public Staff's position and Duke's timeline, and recommends that the Commission require that Duke and PEC submit updated energy efficiency potential studies with their 2012 biennial IRPs.

C. Duke and PEC should evaluate a range of energy efficiency resources and should model efficiency on an equal basis with supply-side resources.

Duke and PEC have not modeled an adequate range of levels of investment in energy efficiency resources. PEC offers no variation whatsoever in energy efficiency across its scenarios and sensitivities. Duke's use of scenarios and sensitivities provides some useful information, but the limited number and range of options considered ("High DSM" vs. base case) does not provide sufficient information to offer even a directional estimate of the risk of price spikes for different resource mixes. In order to properly measure risk in a sensitivity analysis, a utility must conduct numerous model runs for each portfolio.

Duke and PEC integrate their limited range of energy efficiency as a fixed model input, best characterized as a load adjustment. While this treatment is appropriate for

demand response, industry best practice is to treat energy efficiency as equal or even preferred to supply-side resources for planning purposes.⁷ North Carolina utilities should use an approach that models energy efficiency as a resource, just as generating plants are modeled on the supply side, so as to distinguish between discretionary and lost-opportunity energy efficiency resources. SACE Comments at 15. One approach, which was created by Northwest Power and Conservation Council, is to use two supply curves for energy efficiency in the model that develops least-cost portfolios.⁸

SACE recommends that the Commission require each electric utility to model resource portfolios with a range of resource development levels, including base and higher levels. SACE further recommends that the utilities model energy efficiency on an equal basis with supply-side resources, rather than as an adjustment to a load factor. This will require utilities to develop supply curves that consider the deliverability of different kinds of energy efficiency resources.

VI. DUKE OVERSTATES ITS NEED FOR NEW CAPACITY.

A. Duke uses an unreasonably high 17 percent reserve margin.

Duke assumes a 17 percent reserve margin over the planning period in its assessments of its loads and resources and its need for new capacity. This reserve margin appears excessive when compared to reserve margins used by comparable utilities, such as PEC's 14-15 percent reserve margin.⁹

⁷ See, e.g., Aspen Environmental Group and Energy and Environmental Economics, Inc. (Aspen/E3), *Survey of Utility Resource Planning and Procurement Practices for Application to Long-Term Procurement Planning in California: Final Report and Appendices*, prepared for California Public Utilities Commission, April 2009, <http://docs.cpuc.ca.gov/published/Graphics/103213.PDF>

⁸ *Id.* at 71.

⁹ Duke's affiliates in Indiana and Ohio use 13.8 percent and 15.3 percent reserve margins, respectively. See, e.g., Duke Energy Ohio *Revised 2010 Electric Long-Term Forecast Report and Resource Plan* at 144 -145 (Ohio's October 7, 2010). Dominion North Carolina Power uses the 15.3 percent reserve margin recommended by PJM to develop what it terms "an effective 11 percent" reserve

Duke has not shown that it needs a 17 percent reserve margin to ensure its ability to meet customer loads. SACE endorses the Public Staff's recommendation that Duke (and PEC) be required to conduct a comprehensive study to determine the appropriate reserve and capacity margin values to be used in resource planning. Public Staff Comment at 13. SACE also agrees with Duke that if the Commission orders such updated studies, it would be appropriate for the studies to be conducted for purposes of the next biennial IRP filing in 2012. Duke Reply at 3.

B. Duke treats demand response as a resource option with its own reserve requirement, rather than as a load adjustment.

Duke applies its 17 percent reserve margin to its demand response programs. This methodology ignores the fact that demand response programs reduce load. Duke should instead adopt PEC's method of calculating its reserves, capacity margins and reserve margins on the basis of its firm loads after demand response. See PEC 2010 IRP at 23.

Duke contends that some of its DSM programs should not be regarded as load reduction mechanisms, and that reserves are necessary as a backstand for such programs. Duke Reply at 25-26. Duke appears to be concerned that some of its DSM programs may result in "less demand reduction than anticipated," not that these resources may fail completely. Id at 26. Therefore, SACE recommends that the Commission require Duke to distinguish between programs that require a backstand and those that do not, and, if the

margin. *Dominion North Carolina and Dominion Virginia Power's Report of Its Integrated Resource Plan*, at 4-3 and 4-4 (September 1, 2010). SCE&G has determined that the appropriate level of reserves for its system is in the 12-18 percent range. *SCE&G's Integrated Resource Plan*, SCPSC Docket No. 2009-9-E, at 27 (February 2010).

former, determine whether the programs require a full or partial backstop, and apply its findings to its calculation of the reserve margin required for resource planning purposes.

VII. DUKE AND PEC DO NOT USE REALISTIC ASSUMPTIONS ABOUT COAL GENERATION IN THEIR EVALUATION OF RESOURCE OPTIONS.

- A. Both Duke and PEC acknowledge the inevitability of greenhouse gas regulation, but neither IRP includes a realistic plan for reducing its greenhouse gas emissions.**

Duke acknowledges the risk that federal regulation will require reductions of greenhouse gas emissions. However, Duke does not demonstrate that it has a realistic plan for reducing its greenhouse gas emissions during the planning period. In fact, Duke currently projects that its system carbon dioxide ("CO₂") emissions will *increase* between 2010 and 2030, whether it adds new nuclear units or just new natural-gas-fired units. Duke 2010 IRP, Figure A.4.

Like Duke, PEC recognizes that it is likely that Congress will adopt mandatory GHG emission legislation and that EPA is undertaking actions to regulate emissions of GHGs from power plants. Unlike Duke, however, PEC does not even include a figure in its IRP showing the trajectory of future annual CO₂ emissions under its proposed and alternative resource plans.

The Commission should direct Duke and PEC to model a scenario for reduced CO₂ emissions over the resource planning period, and submit the results to the Commission with their 2012 IRPs. The plan should have the goal of reducing Duke's annual CO₂ emissions by approximately 14 to 20 percent by 2020 and by approximately 40 percent by 2030.

B. Both Duke and PEC have prudently decided to retire their existing unscrubbed coal units, but neither utility shows in the IRP that continued operation of their scrubbed coal units is economical.

In addition to climate change legislation, existing coal-fired units face an array of regulatory risks including new EPA air quality regulations, regulations under Section 316(b) of the Clean Water Act, new steam electric effluent guidelines and new coal combustion waste regulations. These regulations will require capital investments and increased operating expenses. Both Duke and PEC have prudently decided to retire their remaining unscrubbed coal units, but neither utility shows in its IRP that continued operation of its scrubbed coal units is economical.

Specifically, neither Duke nor PEC presents in its 2010 IRP any specific analysis of the risks faced by its existing scrubbed coal plants, any assessment of what controls will be needed to be added at each of these units, or whether it will be more economical to add such needed controls than to retire the unit(s). The Commission should require Duke and PEC to analyze the economics of the retirement versus continued operation of each of the existing coal units that each Company is not currently planning to retire, and to present the results of this analysis in the 2012 IRPs.

VIII. DUKE AND PEC HAVE NOT EVALUATED RENEWABLE RESOURCES BEYOND MINIMUM REPS COMPLIANCE.

PEC and Duke primarily evaluate renewable energy resources in the context of minimum compliance with the Renewable Energy Portfolio Standard ("REPS"). Renewable energy potential is barely varied among the strategies considered in the 2010 resource plans proposed by Duke and PEC.

PEC and Duke should consider future investments beyond the minimum REPS requirements. Because development of on-system renewable energy resources is not

required beyond 2020, these resource options should be evaluated in comparison to “traditional” resource options.

Additionally, Duke and PEC should conduct an analysis of the potential ancillary benefits or costs of integrating significant levels of on-system renewable energy resources, including:

- The potential benefits regarding grid stability;
- The potential efficiency gains in transmission and distribution associated with higher levels of distributed generation; and
- The reduced costs associated with greenhouse gas and air pollutant mitigation.

The Commission should require Duke and PEC to conduct sensitivity analyses for future technologies, such as offshore wind, that demonstrate maximum cost levels that would be reasonable for initial levels of resource development considered appropriate by the renewable industry. Based on that analysis, the utilities should identify any technologies that could be cost-effective under favorable development assumptions and then identify any steps that could be taken by the utility and/or the State to support progress towards achieving those favorable conditions.

IX. MODELING ECONOMIC IMPACTS WOULD INFORM THE EVALUATION OF RESOURCE PORTFOLIOS.

Several major utilities across the country perform modeling and analyses to understand the economic impacts of their resource planning decisions. While this economic analysis is not required in North Carolina, information about economic impacts would assist electric utilities, the Commission and interested parties in understanding the broader implications of the utilities’ resource planning decisions. The Commission should consider requesting that electric utilities provide such information on a trial basis

in their next biennial IRP filing in 2012 to estimate the economic impacts of resource options.

X. AN IRP WORKING GROUP WOULD FACILITATE AN OPEN, COLLABORATIVE IRP PROCESS.

The Commission should consider establishing a working group to discuss and report on certain issues related to the utilities' IRPs and the resource planning process more generally. An IRP working group would allow stakeholders and the utilities to come together to discuss many of the concerns raised in this docket, and would allow for a more transparent and collaborative process. SACE respectfully suggests that such a working group would be more effective if it met on an ongoing basis, so that the suggestions and recommendations of the working group members could inform the utilities' development of the 2011 annual reports and 2012 biennial reports. To enable the full participation of the Public Staff, the Commission may wish to engage a third-party facilitator if it decides to convene such a workgroup.

XI. RECOMMENDATIONS.

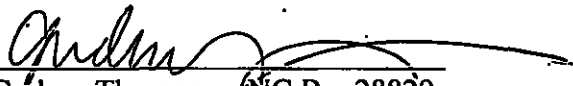
In conclusion, SACE recommends that the Commission take the following actions:

- Direct Duke and PEC to amend their IRPs to meet the minimum filing requirements set forth in Commission Rule R8-60, specifically including descriptions of the capacity and energy and number of customers for each DSM program over the 15-year planning period.
- Direct PEC to provide a descriptive summary of the results of its DSM Potential update, and to clarify and correct inconsistencies between data provided in Table 1 and Appendix E regarding the capacity and energy impacts of its demand-side resource forecast.
- Direct Duke to amend its IRP by including the modeling results of incorporating its "High DSM" case in its portfolios.

- Direct PEC to evaluate, at a minimum, a “High DSM” case as part of its least-cost IRP analysis.
- Direct Duke and PEC to submit updated energy efficiency potential studies along with their 2012 biennial IRPs.
- Direct North Carolina utilities to model resource portfolios with a range of investment levels, including base and aggressive (similar to Duke’s “High DSM” case).
- Direct North Carolina utilities to model energy efficiency on an equivalent basis to supply-side resources, which may be accomplished by adopting a two-supply-curve approach to evaluate the energy efficiency resources in their IRP processes.
- Direct Duke and PEC to conduct a comprehensive study to determine the appropriate reserve and capacity margin values to be used in resource planning, and to submit such study along with its next biennial IRP filing in 2012.
- Direct Duke to distinguish between DSM programs that require a backstop (full or partial) and those that do not in its reserve margin analysis, and apply its findings to its reserve margin calculation.
- Direct Duke and PEC each to model a scenario for reducing their CO₂ emissions over the 2012 IRP planning period (14-20% reduction by 2010 and a 40% reduction by 2030) and include the results with their 2012 IRPs.
- Direct Duke and PEC to analyze the economics of the retirement versus continued operation of each existing coal unit that each company is not currently planning to retire, and to present the results of this analysis in the 2012 IRPs.
- Direct PEC and Duke to evaluate future investments in renewable energy resources beyond the minimum REPS requirements in comparison to “traditional” resource options, and analyze the potential ancillary benefits or costs of integrating significant levels of on-system renewable energy resources.
- Require Duke and PEC to conduct sensitivity analyses for future renewable technologies to demonstrate the maximum cost levels that would be reasonable for initial levels of resource development, and identify any technologies that could be cost-effective under favorable development assumptions.

- Consider requesting that electric utilities provide information concerning the economic impacts of their resource planning decisions on a trial basis in their next biennial IRP filing in 2012 to estimate the economic impacts of resource options.
- Consider establishing an IRP working group to meet regularly to assist utilities in the development of their 2011 annual reports and 2012 biennial reports.

Respectfully submitted this 6th day of June, 2011.


Gudrun Thompson, NC Bar 28829
SOUTHERN ENVIRONMENTAL LAW CENTER
601 West Rosemary Street, Suite 220
Chapel Hill, NC 27516-2356
Telephone: (919) 967-1450
Fax: (919) 929-9421
gthompson@selcnc.org
Attorney for Southern Alliance for Clean Energy

CERTIFICATE OF SERVICE

I hereby certify that the persons on the service list have been served with Brief of Southern Alliance for Clean Energy either by electronic mail or by deposit in the U.S. Mail, postage prepaid.

This the 6th day of June, 2011.

Robin A. Dunn
Robin Dunn