

STYERS, KEMERAIT & MITCHELL

attorneys+counselors@law

1101 Haynes Street, Suite 101
Raleigh, North Carolina 27604
919.600.6270

StyersKemerait.com

PSM
n-Comm
AG
Watson
Green
Conrad
Duffley
Hauer
Kito
Heburn
Serrano
Eucison
Jones
Hodge
Ecklin
3-Logan
3-Acft
3-Ekc
2-EC/Red

M. Gray Styers, Jr.
Karen M. Kemerait
Charlotte A. Mitchell

September 9, 2013

OFFICIAL COPY

VIA HAND DELIVERY

Ms. Gail Mount
Chief Clerk
North Carolina Utilities Commission
Fifth Floor, Room 5063
430 N. Salisbury Street
Raleigh, NC 27603

FILED
SEP 09 2013
Clerks Office
N.C. Utilities Commission

**Re: In the Matter of Biennial Integrated Resource Plans and
Related 2012 REPS Compliance Plans
Docket E-100, Sub 137**

Dear Ms. Mount:

Enclosed for filing in the above-referenced docket is an original and thirty-one (31) copies of Mid-Atlantic Renewable Energy Coalition's Brief filed on behalf of MAREC counsel, Bruce Burcat.

Please stamp the extra copy as "Filed" and return to me via our courier.

Thank you for your assistance with regard to this matter. If you have any questions concerning this submission, please do not hesitate to contact me.

Sincerely,



Charlotte A. Mitchell

Enclosures

cc: All parties of record

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

FILED
SEP 09 2013

DOCKET NO. E-100, SUB 137

Clerk's Office
N.C. Utilities Commission

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

**In the Matter of the Investigation of the) BRIEF OF THE MID-
2012 Biennial Integrated Resource Plans) ATLANTIC RENEWABLE
and Related 2012 REPS Compliance Plans) ENERGY COALITION**

In accordance with the North Carolina Utilities Commission's July 15, 2013 *Order Denying Request for Evidentiary Hearing and Allowing Proposed Orders and Briefs*, the Mid-Atlantic Renewable Energy Coalition ("MAREC"), through the undersigned attorney, respectfully submits the following brief on certain issues raised by the 2012 biennial integrated resource plans ("IRPs") filed by Progress Energy Carolinas, Inc. ("PEC") and Duke Energy Carolinas, LLC ("DEC").

This brief adopts by reference MAREC's Amended Initial Comments filed in this docket on February 7, 2013. As has been MAREC's primary focus in this proceeding, the brief will focus on the IRPs and related Renewable Energy Efficiency Portfolio Standard ("REPS") Compliance Plans ("REPS Compliance Plans") inadequate focus on planning for renewable energy, especially with respect to onshore wind energy.

I. SUMMARY OF PROPOSED FINDINGS

As explained in MAREC's Amended Initial Comments, PEC and DEC failed to adequately address wind energy and other renewables in their filings for this docket. The failure to adequately plan for wind resources within the State and the region in the IRP and the REPS Compliance Plans is striking. MAREC's proposed findings will be limited to this failure and potential corrective action that the North Carolina Utilities Commission

(“NCUC” or “Commission”) could implement to address this significant deficiency, which is counter to North Carolina’s strong public policy supporting the growth of renewables in the State, and which is also counter to the low cost of new wind energy to hedge against fossil fuel price volatility. The following is a summary of proposed findings recognizing that:

- There is strong public policy in North Carolina supporting the growth of renewables.
- The PEC and DEC IRPs did not appropriately evaluate wind energy resources as a means of compliance with the REPS and as an alternative supply-side resource.
- PEC and DEC should be required to evaluate wind energy development in North Carolina and in the region to determine whether the state would benefit from:
 - a long-term procurement process for wind energy that would provide a hedge value to the price volatility of fossil fuels used to generate electricity;
 - the economic development benefits of wind energy developed in-state;
 - diversifying the energy portfolios of PEC and DEC as a result of greater reliance on wind energy; and
 - improved air quality and other positive environmental attributes for the state as the result of wind displacing other forms of generation.
- North Carolina would benefit from a competitive request for proposal (“RFP”) process for renewable energy that would include a significant portion of long-term procurements of renewables.

II. LEGAL FRAMEWORK FOR RENEWABLES IN INTEGRATED RESOURCE PANNING

N.C. Gen. Stat. §62-110.1 (c) provides that the North Carolina Utilities Commission, “[s]hall develop, publicize, and keep current an analysis of the long-range needs for expansion of facilities for the generation of electricity in North Carolina,

including its estimate of the probable future growth of the use of electricity, the probable needed generating reserves, the extent, size, mix and general location of generating plants and arrangements for pooling power to the extent not regulated by the Federal Energy Regulatory Commission.” To meet this requirement the NCUC conducts an annual investigation into each utilities filed IRP. According to Commission Rule R8-60, electric utilities have to provide the Commission with a biennial IRP containing information specifically prescribed by the Commission in even-numbered years, as well as an update to the electric utilities filed IRP in odd-numbered years. Additionally, Commission Rule R8-67(b) requires electric suppliers to file a Renewable Energy and Energy Efficiency Portfolio Standard Compliance Plan as part of its IRP report.

On September 4, 2012, PEC and DEC (the two utilities on whose IRPs the Mid-Atlantic Renewable Energy Coalition has focused on in this docket) filed their 2012 IRPs. Included with its IRP filings, the companies submitted their 2012 REPS Compliance Plans.

N.C. Gen. Stat. § 62-2 states that it shall be the policy of the state 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 (REPS) that will do all of the following:

- a. Diversify the resources used to reliably meet the energy needs of consumers in the State.
- b. Provide greater energy security through the use of indigenous energy resources available within the State.
- c. Encourage private investment in renewable energy and energy efficiency.

- d. Provide improved air quality and other benefits to energy consumers and citizens of the State.”

In setting this policy, the General Assembly created a clear framework to encourage renewable energy use and development of renewable energy projects. In August 2007, North Carolina enacted comprehensive energy legislation, Session Law 2007-397 (Senate Bill 3), which, among other things, established the REPS. Renewable portfolio standards are policies designed to increase generation of electricity from renewable resources by requiring or encouraging electricity producers to supply a certain minimum share of their electricity from designated renewable resources. All electric power suppliers in North Carolina must meet an increasing amount of their retail customers' energy needs by a combination of renewable energy resources and reduced energy consumption.

Pursuant to N.C. Gen. Stat. § 62-133.8(b)(1), in 2012 PEC and DEC are each required to purchase a minimum of 3% of its supply from renewable resources with the compliance requirement increasing every three years until it reaches 12.5% by 2021. Pursuant to N.C. Gen. Stat § 62-133.8(a)(8), “renewable energy resources” for compliance with the REPS include a number of resources, such as solar, electric, solar thermal, wind, hydropower, geothermal, certain biomass, and a number of other resources; however, renewable energy resources do not include peat, a fossil fuel, or nuclear energy resources.

Commission Rule R8-67(b), Renewable Energy and Energy Efficiency Portfolio Standard (REPS), requires each electric power supplier to file its REPS Compliance Plan with the Commission on or before September 1 of each year. Additionally, any electric

power supplier subject to Rule R8-60 is required to file its REPS compliance plan as part of its integrated resource plan filing. The Commission will review and approve of the REPS Compliance Plans pursuant to Rule R8-60.

**III. PEC AND DEC IRPS FAIL TO ADEQUATELY CONSIDER
NORTH CAROLINA'S LEGISLATED POLICY SUPPORTING RENEWABLE
ENERGY**

In its IRP, PEC showed that its overall compliance strategy to meet the REPS requirements consisted of: (1) PEC ownership of, or purchases from, new renewable energy generation; (2) the use of renewable energy resources from existing generating facilities; (3) purchases of RECs; and (4) implementation of energy efficiency measures. PEC stated that it keeps an open RFP for non-solar projects 10 MW or less and utilizes these contracts for REPS compliance purposes; however, Appendix C of PECs IRP does not show any wholesale power contracts with wind generators. PEC states that it has some out-of-state wind REC purchases, but that appears to be the extent of the company's reliance on wind the meet their compliance targets under the State's REPS.

In its IRP, DEC showed that its overall compliance strategy included: (1) introduction of EE programs; (2) purchases of unbundled RECs; (3) continued operations of company-owned renewable energy facilities; and (4) research studies to enhance its ability to comply in the future. DEC states that as compared to the prior year's IRP, the company has assumed more development of solar resources along with corresponding reductions in the development of wind resources (pg. 61). According to Table 5.E Expected Renewable Resource Capacity Additions, in 2021 DEC is projecting to have 970 MW of renewable energy resources interconnected to the DEC system by 2021, with

only 324 of these MW being wind resources. In its IRP DEC, states that it “does recognize that several land-based wind developers are presently pursuing projects of significant size in North Carolina” (pg. 62); however, DEC has decided not to use land based wind RECs as a reasonable portion of its compliance with the State’s REPS. In fact, even to the extent that DEC has included a rather small amount of wind capacity in its plan for 2021 (324 MW), its IRP is devoid of any information on how it would expect to procure that capacity.

In both instances, DEC and PEC have not adequately considered wind energy in their IRPs. The IRPs should provide greater detail and consideration of wind resources, both in-and out-of-state, in order to meet compliance requirements. In addition, as required by the Commission’s Rules, both PEC and DEC should be required to assess alternative supply-side resources, such as wind energy, in greater detail on an ongoing basis.¹ There is no analysis detailing the benefits of wind energy or any other types of renewables, no analysis of the costs of wind energy compared to the costs of traditional generation as well as other forms of renewables, no discussion of externalities or benefits that the citizens of North Carolina receive from wind projects, and no significant analysis of fuel diversity.

While PEC and DEC appear to have incorporated a strategy that will potentially allow them to procure a sufficient level of renewable energy resources to meet the REPS compliance requirements over the planning horizon, both of the utilities’ approaches would achieve these goals in a minimalist way without doing so in a manner that would be responsive to the legislative policy behind the REPS, which was enunciated in N.C.

¹ NCUC R8-60(e). Also see NCUC R8-60(g), wherein each utility is required to consider among other things “a comprehensive set of potential resource options, including both demand-side and supply side options”

Gen. Stat. § 62-2. By not adequately considering wind energy as a substantial contributor in meeting the REPS, PEC and DEC have not sufficiently planned for the reliable diversification of its energy resources in accordance with N.C. Gen. Stat. § 62-2a.

By essentially ignoring the potential for onshore wind development in North Carolina, PEC and DEC have failed to directly address the legislative intent of providing greater energy security from the development of indigenous renewable energy resources available in North Carolina.² As MAREC noted in its Amended Initial Comments with respect to the DEC IRP:

“On page 60 of its filed IRP in this docket, DEC discusses the very limited extent that it intends to rely on land-based wind to meet its REPS compliance requirements, even though it recognizes the pursuit by several land-based wind developers to develop projects of significant size in North Carolina. DEC backs up this lack of interest/reliance on wind with its Table 5.E on page 61 of its IRP, which only includes in its projections, an expected nameplate capacity addition of wind resources of 100 MW for 2015 and growing to only 329 MW in 2021.

DEC states that it is actually reasonable to expect that land-based wind will be developed in North Carolina within the planning horizon. Even though DEC admits that there is significant ongoing activity to develop land-based wind facilities in North Carolina, DEC’s IRP does not appear to consider wind energy as an important part of its energy supply portfolio. DEC does not acknowledge the benefits that would accrue if wind energy projects were developed in North Carolina; such as improved air quality, diversification of its energy portfolio and reduced pricing risks as it relates to the wholesale energy market as compared to projects fueled by traditional generation resources. In its discussion on page 62, DEC seems to base its lack of support for greater reliance on wind energy on its statement that supportive tax policy for wind development “was set to decline at the end of 2012.” This language is essentially repeated in DEC’s REPS 2012 Compliance Plan (Redacted) attached to DEC’s IRP.”³

² See N.C. Gen. Stat. § 62-2b.

³ MAREC Amended Initial Comments at 6-7.

This lack of real consideration of any indigenous wind resources located within the State also runs counter to the policy of encouraging private investment in renewable energy investment as was envisioned in N.C. Gen. Stat. § 62-2c. As stated in our Amended Initial Comments, MAREC members are committed to the growth of renewables in North Carolina to help meet legislative mandates and to support economic development in the State. The development of wind and other renewable resources within North Carolina and in the region will provide for improved air quality, as anticipated by N.C. Gen. Stat. § 62-2d., as this zero emitting resource will offset the need for a level of traditional fossil fuel generation.

With regard to DEC's statement in the above excerpt about supportive tax policy for wind being "set to decline in 2012", we now know that the federal Production Tax Credit was in fact extended for projects beginning construction in 2013 - and allowing projects built in 2014 and 2015 to continue to have the Production Tax Credit. The federal wind Production Tax Credit has existed in some form since the early 1990s, and while past is not prologue, it has expired and been renewed many times. Interestingly, DEC's IRP heavily relies on solar energy capacity (538 MW in 2021 rising to 885 by 2026)⁴, even though there is a very favorable state tax credit supporting solar technologies set to expire at the end of 2015⁵, and with the federal solar investment tax credit set to expire in 2016. Because of the expiration of the state tax credit, wind energy's attractive pricing and the ability of wind energy to be deployed on a much larger scale than solar technologies, it would be much more reasonable for DEC to have included a far greater level of wind capacity than it actually had included in its 2012 IRP.

⁴ DEC IRP (Redacted) at 61.

⁵ § 105-129.16A(e).

Also, it is generally the case that wind and other renewable energy generating resources tend to be dispatched earlier than traditionally produced energy, thus at various times renewable resources will displace the need for generation resources tied to higher fuel costs. Due to the lower production costs of these renewable resources, a utility that includes sufficient levels of these resources in its generation mix could see significant fuel costs savings as a result – which lowers the cost of all forms of generation to ratepayers. Another economic benefit, which has not been addressed in the IRPs, is the potential value of PEC and DEC securing long-term wind contracts for energy and Renewable Energy Credits (“RECs”). Benefits from such an arrangement would include long-term price certainty, since wind generators (unlike traditional generators) do not have fuel costs and minimal production costs. There would be no price volatility with wind, as the price of the energy and RECs during the term of the contract would essentially be fixed; whereas market changes could cause drastic price swings with traditional resources.

IV. PEC AND DEC SHOULD BE REQUIRED TO PROVIDE A MORE DETAILED ANALYSIS OF WIND ENERGY AND OTHER RENEWABLE TECHNOLOGIES IN THEIR IRPS CONSISTENT WITH STATE POLICY

Consistent with the REPS legislation, MAREC proposes that in their next IRPs, DEC and PEC include a thorough discussion of the benefits of renewable resources; including, but not limited to: the diversification benefits of adding greater scale deployment of wind energy resources to their projections; evaluating the energy security value of wind and other renewable generation developed in the State; analyzing the in-state investment and economic development resulting from having wind projects located

in North Carolina; consideration of and the environmental benefits of having a zero emitting resource providing clean energy to North Carolina customers. MAREC also proposes that the next IRPs include a discussion of how the addition of varying amounts of wind energy and other renewables to PEC's and DEC's energy portfolio could serve to offset the need of new conventional generation and to what extent these additions would affect the utility's fuel prices. In addition, PEC and DEC should be required to address the hedge value of long-term stable wind and solar energy contracts.

V. PEC AND DEC SHOULD BE CONDUCTING COMPETITIVE LONG-TERM PROCUREMENTS FOR RENEWABLE ENERGY

MAREC also proposes, as it did in its Amended Initial Comments, that DEC and PEC each be required to include a provision in its next IRP (and future IRPs) for a new RFP process that would solicit wind and other renewable energy proposals through long-term contract(s) for energy and RECs. A long-term strategy, especially in the context of the IRP process, makes economic sense. Long-term procurements of renewable energy through an RFP process would act as a hedge against price volatility and be a competitive tool utilized to help meet DEC and PEC's present and future REPS requirements. These contracts enable projects to be financed at more advantageous financing terms, which also benefits ratepayers. Additionally, changing state and federal tax incentives will continue to modify the economics of new generation. Structuring procurements to take advantage of federal tax credits is prudent for North Carolina ratepayers to ensure they get the lowest cost of renewable energy.

The proposed procurement process would be competitive, open, and transparent, which could result in the development of new land based wind energy projects and other

renewable energy projects. Of course, any RFP process should include safeguards to ensure that the process was truly competitive and that the goals and objectives of the procurement were achieved. MAREC proposes that a working group be convened by the Commission to help address any technical issues posed by the RFP process and procurement and to provide recommendations on any safeguards that should be implemented.

As the Commission's IRP Rules contemplate (NCUC R8-60(e)), there should be consideration of a "comprehensive set of potential resource options, including both demand-side and supply-side 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." (emphasis added). As this Commission Rule supports, IRPs are not built for the short-term outlook. When planning for renewables, the long-term outlook is critical and over-reliance on any short-term options, like REC purchases on the spot market, is not prudent. Today's snapshot of lower REC prices will likely change over time as North Carolina's REPS requirements and the renewable portfolio standards of the states in the region continue to increase. It would also be imprudent to rely too much on the stability of low natural gas prices. While natural gas prices are currently at lower levels, history has shown that the best of long-term projections have failed to accurately forecast the wild swings in prices this resource, and for that matter other traditional fuels used for generating electricity, have experienced.

By enhancing their wind energy portfolio through a competitive procurement process, DEC and PEC could diversify their energy resource portfolios; increase their opportunity to use more energy resources that are indigenous to the state of North

Carolina; encourage more investment in renewable resources; and improve air quality for the citizens of North Carolina – all factors which the Legislature deemed to be the policy of the State of North Carolina. In their jointly filed Reply Comments in this docket on March 5, 2013, the Sierra Club and Southern Alliance for Clean Energy supported the concept of an RFP process soliciting new wind capacity through long-term contracts and noted that the ‘[e]stablishment of an RFP process would signal to wind developers that the State welcomes their investment and the benefits that wind energy would bring to North Carolina’s ratepayers, economy and environment.’⁶

VI. CONCLUSION

For the reasons stated herein, the 2012 IRPs and 2012 REPS Compliance Plans filed by PEC and DEC do not adequately consider wind energy resources as an option to help meet the REPS and as an alternative supply-side option. This lack of consideration is inconsistent with the clear State policy to promote renewables. PEC and DEC’s non-supportive approach to wind energy has contributed to the fact that there are no commercial wind farms in operation in the State. The small level of wind energy capacity planned in the IRPs and the lack of detail as to how this resource will be procured will continue to limit the opportunity for any significant development to occur in North Carolina. Consequently, the State’s citizens are missing out on the benefits this energy resource can provide. It is incumbent under the law that PEC and DEC satisfy the REPS in a manner consistent with the state policy, which has been enunciated into statute and further interpreted by the Commission through its Rules.

⁶ Sierra Club and Southern Alliance for Clean Energy Reply Comments at 13.

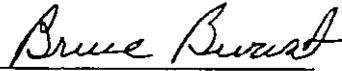
Therefore, in order to promote compliance with the State's policy on renewable energy and resource planning, MAREC respectfully recommends that the Commission take the following actions:

- I. Direct DEC and PEC in their next IRP filings and all future IRP filings to include a thorough discussion and analysis of the benefits of renewable resources; including, but not limited to:
 - a. the benefits of including additional wind resources to their energy portfolios as a means of diversifying their energy resource mixes used to serve their customer bases;
 - b. an evaluation of the energy security value of wind energy generation developed in North Carolina;
 - c. an analysis of the in-state investment and economic development impacts resulting from having wind projects located in North Carolina;
 - d. an analysis of incremental additions of wind energy capacity in their fuel mixes and the resulting benefits to air quality; and
 - e. a discussion of how the addition of varying amounts of wind energy and other renewables to PEC's and DEC's energy portfolio could serve to offset the need for new conventional generation and to what extent these additions would affect their respective fuel price scenarios.

2. Direct DEC and PEC to include a provision for a new RFP process in their next IRP filing and all future IRP filings that would solicit new wind energy and other renewable energy capacity through long-term contract(s) for energy and RECs. As part of this requirement, the Commission could convene a working group, which could help

address any technical issues of an RFP and recommend to the Commission any safeguards that would ensure a competitive procurement process.

Respectfully submitted this 9th day of September, 2013.

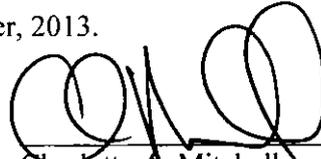


Bruce Burcat, Esq.
Attorney for Mid-Atlantic Renewable Energy Coalition
P.O. Box 38
Camden, DE, 19934
Telephone: (302) 331-4639
bburcat@marec.us

CERTIFICATE OF SERVICE

It is hereby certified that the foregoing Brief by Mid-Atlantic Renewable Energy Coalition has been served upon each of the parties of record in this proceeding this day by hand delivery, electronic mail or by depositing copies of same in a depository under the exclusive care and custody of the United States Postal Service in postage prepaid envelopes.

This 9th day of September, 2013.



Charlotte A. Mitchell
Styers, Kemerait & Mitchell, PLLC
1101 Haynes Street, Suite 101-C
Raleigh, NC 27604
Telephone: 919/600-6277
Fax: 919/600-6290
E-mail: cmitchell@styerskemerait.com