STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. M-100, SUB 135

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of	
Recommendations by the Staffs of the) ORDER AMENDING RULES AND
Federal Energy Regulatory Commission) SCHEDULING WORKSHOP
and the North American Electric Reliability) REGARDING CURTAILMENT OF GAS
Corporation Resulting from Outages and) SERVICE TO ELECTRIC
Curtailments During the Southwest Cold) GENERATING PLANTS
Weather Event of February 1-5, 2011)

BY THE COMMISSION: On May 7, 2013, the Commission issued an Order Proposing Rules, Requesting Comments, And Establishing Requirements For Electric Integrated Resource Plans To Be Filed In 2014. In that Order the Commission requested comments by June 14, 2013, regarding proposed amendments to its Rule R8-41 (Filing of Emergency Load Reduction Plans and Procedures), and Rule R8-61 (Preliminary Plans and Certificates of Public Convenience and Necessity for Construction of Electric Generation and Transmission Facilities In North Carolina, Etc.). The Commission also required parties to file responses to questions related to the Commission's Rule R6-19.2 (Curtailment of [Gas] Service) by June 14, 2013.

On June 6, 2013, Duke Energy Progress, Inc. (Progress), and Duke Energy Carolinas, LLC (Duke), filed a joint motion for extension of time to file comments and responses to questions. On June 7, 2013, the Commission issued an Order extending the due date for comments and responses to July 12, 2013.

On July 12, 2013, comments and/or responses were filed by Cardinal Pipeline Company, LLC (Cardinal); Dominion North Carolina Power (Dominion); Piedmont Natural Gas Company, Inc. (Piedmont); Public Service Company of North Carolina, Inc. (PSNC); and the Public Staff. On the same day joint comments were filed by Duke Energy Carolinas, LLC and Duke Energy Progress, Inc. (jointly the Duke Operating Companies).

Proposed Amendments to Rule R8-41

In its May 7, 2013 Order, the Commission proposed to amend Rule R8-41 as follows:

Filing of Emergency Load Reduction Plans and Emergency Procedures

- (a) All certified public electric utility companies, electric membership corporations and municipal corporations engaged in the generation, transmission or distribution of electric energy, shall design and adopt a set of load-reducing plans and emergency procedures that will provide judicious treatment to all affected customers in the event that emergency load reduction is required, provided that compliance with the requirements of this subsection by any municipal corporation shall be voluntary. Furthermore, the plans and procedures of each such electric supplier or participating municipal corporation shall be coordinated with the plans and procedures of its <u>natural gas suppliers</u>, <u>natural gas distribution utilities</u>, <u>gas pipelines</u>, wholesale suppliers and/or wholesale-for-resale customers to the extent reasonably practicable.
- (b) A detailed copy of emergency load reduction plans and emergency procedures in effect shall initially be filed by each electric supplier or municipal corporation in the office of the Commission in Docket No. E-100, Sub 10A by April 15, 1972. This filing shall be considered to be a part of the annual reports required to be filed with the Commission (G.S. 62-36 and G.S. 62-47) and shall be updated annually not later than May 15. Each filing shall contain a certification that such plans and procedures have been coordinated with the electric utilities' natural gas suppliers, natural gas distribution utilities, and gas pipelines, as well as wholesale power suppliers or wholesale-for-resale customers as applicable. Localized plans and procedures shall be made available for public review by such electric suppliers or municipal corporations in the local area offices to which these plans and procedures apply.
- (c) In its annual filing, each electric public utility and electric membership corporation shall include a verified statement by an officer stating that: (1) the utility had identified all the gas-electric dependencies and inter-dependencies that could threaten electric operations or customer service during extreme cold weather or other emergencies; (2) the electric utility had discussed those dependencies and inter-dependencies with the appropriate gas utility(ies) and pipeline(s); (3) the electric utility had, in cooperation with the gas utility(ies) and/or pipeline(s), established a plan for managing the dependencies and inter-dependencies during extreme cold weather events and other emergencies; and (4) the electric utility had within the last 12 months demonstrated its ability to start its black start generators from a cold shutdown state during cold weather.

In its comments Dominion stated that it agreed with the Commission's proposed amendments. Dominion stated that it had already "begun its effort to identify the gas-electric dependencies and inter-dependencies that could threaten electric operations or customer service during extreme cold weather or other emergencies." The

Company stated, however, that it might not be possible to test one of its black start units during cold weather conditions. In the event the unit is needed to serve customers, it might not be possible for the Company to shut it down, and wait for it to achieve cold status, in order to perform a black start test.

The Public Staff stated that it agreed with the Commission's proposed changes to Rule R8-41. The Duke Operating Companies stated that they did not object to the proposed amendments, and PSNC stated that it did not have any comments concerning the proposed changes.

Therefore, the Commission finds that it is appropriate to amend its rules, as indicated above. In the event that an electric utility is unable to conduct a cold weather start up test of a black start generating unit in a given year, as described by Dominion, the utility may request a waiver of the requirement for that specific year.

Proposed Amendments to Rule R8-61

In its May 7, 2013 Order, the Commission proposed to amend Rule R8-61, which details the requirements for applications for the construction of generating facilities by public utilities, as follows:

- (b) In filing an application for a certificate of public convenience and necessity pursuant to G.S. 62-110.1(a) in order to construct a generating facility in North Carolina, a public utility shall include the following information supported by relevant testimony:
 - (12) Risk factors related to the construction and operation of the generating facility, including a verified statement that the facility will be capable of operating during the lowest temperature that has been recorded in the area where the plant will be located; and ...

Dominion stated that, while the Company does not object to the proposed rule, it suggested that the Commission allow for exceptions in the event the capability of a proposed generating facility to operate during extreme cold weather is not "applicable under the circumstances." Dominion went on to argue that:

The merits of any proposed generating facility are unique and can depend on a variety and combination of factors, including, without limitation, a facility's design, expected operating attributes, economics, or other characteristics. Rule R8-61 should continue to allow utilities flexibility to fully consider all options and propose new generating facilities in the best interest of its customers, and without unnecessarily restricting options to only those that are capable of operating during the lowest temperature recorded in the area.

The Commission finds that Dominion's comments have merit. Certainly some newer generation technologies, such as solar photovoltaics, are not operable at night, which is when the lowest temperatures are likely to occur. In developing their Integrated Resource Plans, public utilities must assure reliable service during extreme cold weather, but they must also comply with the State's Renewable Energy and Energy Efficiency Portfolio Standard. It is possible that construction of a facility that could not operate during cold weather would nonetheless be in the public interest. The Commission finds, therefore, that it is appropriate to address this concern, as indicated in the rule revision below:

(12) Risk factors related to the construction and operation of the generating facility, including a verified statement <u>as to whether that</u> the facility will be capable of operating during the lowest temperature that has been recorded in the area where the plant will be located; and ...

The Duke Operating Companies stated that while they do not object to the amendment proposed by the Commission in its May 7, 2013 Order, a more specific, objective approach would aid in compliance. They proposed the following language:

(12) Risk factors related to the construction and operation of the generating facility, including a verified statement that the facility will be capable of operating during the lowest temperature that has been recorded in the area, using information from the National Weather Service Automated Surface Observing System (ASOS) First Order Station in Asheville, Charlotte, Greensboro, Hatteras, Raleigh or Wilmington, depending upon the station that is located closest to where the plant will be located; and ...

The Commission agrees that the amendments proposed by the Duke Operating Companies will clarify the rule and aid compliance.

The Public Staff stated that it agreed with the Commission's proposed changes to Rule R8-61 and recommended that they be adopted. PSNC stated that it does not have any concerns with the proposed change.

Based on the comments received by the parties, the Commission finds that it is appropriate to amend Rule R8-61 as follows:

(12) Risk factors related to the construction and operation of the generating facility, including a verified statement as to whether the facility will be capable of operating during the lowest temperature that has been recorded in the area using information from the National Weather Service Automated Surface Observing System (ASOS) First Order Station in Asheville, Charlotte, Greensboro,

Hatteras, Raleigh or Wilmington, depending upon the station that is located closest to where the plant will be located; and ...

Potential Need to Change North Carolina's Gas Curtailment Policy

The Commission's May 7, 2013 Order required parties to provide responses to the following questions:

- (1) How does the current gas curtailment policy work in actual practice? Include a detailed description of the order in which customers are curtailed today (specifically addressing electric generators) and considering that curtailments can occur locally rather than system-wide.
- (2) Is it still appropriate for gas service to customer groups to be curtailed based on margin? Why or why not?
- (3) Whether and under what circumstances should an electric generating plant be of higher or lower priority than other customers during a gas curtailment?
- (4) Should curtailments of any customer groups be prioritized based on end use rather margin? Why or why not?

The Public Staff stated that it believes that a detailed description of how the current gas curtailment policy works is best provided by the natural gas utilities. The Public Staff stated that:

In its Order Approving Rule issued October 31, 1989, in Docket No. G-100, Sub 51, the Commission suspended the priority system for curtailment of natural gas service to customers which had been adopted during the severe gas shortages in the 1970s, finding that circumstances had changed as an adequate supply of gas was available throughout most of the 1980s and that the original reason for Commission Rule R6-19.2 no longer existed. The Commission adopted the current system of curtailment by margin, which requires that natural gas utilities curtail service to customer groups based on which group pays the lowest margin, rather than by priority based on end use.

In response to concerns expressed by a party regarding changing the curtailment policy in 1989, the Commission stated that the utilities should not have any chance to unfairly or unreasonably manipulate the curtailment system based on margin, curtailment would strictly follow the Commission-approved rates that are published, and the only exceptions would be (1) where the Commission has specifically ordered an exception based on unusual and compelling circumstances, and (2) where the customer receives the benefit of negotiating below tariff rates, in which

case the customer has the choice and he will still be curtailed according to the unit margin he pays.

The Public Staff believes that the reasons for suspending Rule R6-19.2 in 1989 and replacing it with the current system remain valid and that it is still appropriate for gas service to customer groups to be curtailed based on margin. The Public Staff nevertheless agrees with the Commission that due to the increasing reliance of North Carolina's electric utilities on natural gas as a fuel for generating electricity, the current approach to natural gas curtailment may no longer be appropriate in certain situations. While not advocating that the Commission reinstate the former priority system, the Public Staff believes that the increasing reliance may constitute unusual and compelling circumstances necessitating a limited exception or revision to the current system ... the electric and natural gas utilities are the parties most capable of developing a protocol to address issues such as gas-electric coordination and emergency planning ... this protocol should be presented to the Commission for its consideration.

PSNC stated that it "believes the curtailment of specific customer groups based on margin is working well for its system and for its customers." PSNC stated that it has two electric generation customers, each of which is served under a special contract filed with and approved by the Commission:¹

Both of the electric generation customers described above are provided firm natural gas transportation under the terms of their contracts. Neither of these customers has been subject to curtailment pursuant to the current policy and PSNC has not received a request to amend their contracts. PSNC therefore believes that curtailment by margin appropriately addresses the operational needs and expectations of all its customers, including electric generators.

...

Based on its system operations to date, PSNC has not experienced any circumstances indicating that an electric generating plant should be assigned a higher or lower priority than other customers during a gas curtailment. However, should the Commission decide to assign electric generation customers a higher or lower priority regardless of their margin, this change in policy should not affect curtailments of electric generation customers on PSNC's system due to the contractual arrangements PSNC has with these customers. PSNC is unable to anticipate the specifics of such a change, should it occur, but would generally not object should the Commission determine such a change is necessary.

Dominion stated that its gas-fueled electric generation units have contracted for firm transportation with the major interstate pipeline companies:

¹ Docket No. G-5, Sub 398 and Docket No. G-5, Sub 517.

These supplies will not be interrupted based on margin. The pipeline operator would have to declare a force majeure event during which all customers on the line would be curtailed by the same amount based on their share of the available FT [firm transportation]. Force majeure events would be the result of some physical problem with the line rather than economic issues. That being said, DNCP believes that curtailments should be based on something other than margin alone. Specifically, if a major gas fueled generating unit was interrupted and that created a regional Bulk Electrical System (BES) disruption, the other gas customers would lose the electrical components necessary to achieve the end use of the gas supply. DNCP believes that a reasonable gas curtailment policy should result in the least overall impact on the gas and electrical energy supply systems.

Cardinal stated that, since it is an intrastate pipeline company providing firm natural gas transportation services to two North Carolina local distribution companies, the gas curtailment policy in Rule R6-19.2 does not apply to Cardinal. Cardinal stated further that:

The terms governing any curtailment of Cardinal's firm transportation service to its two North Carolina local distribution company shippers are set forth in the service agreements between Cardinal and such shippers. Specifically, the service agreements provide that if due to force majeure or operating conditions Cardinal is unable to receive, transport, or redeliver gas tendered by the shipper for transportation or if the shipper is unable to deliver gas to Cardinal, then Cardinal, upon providing as much notice as possible under all of the circumstances, shall order reduction of the shipper's transportation contract quantity to the extent necessary depending upon the type and location of the occurrence, in accordance with the following procedures: Cardinal shall order allocation, to the extent necessary, of affected transportation service to all shippers proportionate to each shipper's transportation contract quantity. Where Cardinal's ability to render service is impaired in a particular segment of Cardinal's system, then such allocation shall be effected only in that segment of Cardinal's system in which service has been impaired.

Piedmont provided extensive comments that capture the complexity of the issues at hand. Piedmont stated that:

In considering the issue of curtailment priorities for firm service, it is important to keep in mind that curtailment is a last resort that will only be undertaken by Piedmont when all other options available to maintain natural gas service have been exhausted, including the suspension of interruptible services. It is also important to recognize that the transportation and delivery of natural gas is a dynamic process that can be impacted at many points along the production / supply / transportation/

distribution value chain. As such, Piedmont maintains various means and methods of immediate contact with all providers with whom it works in that chain. In the event of a threatened curtailment, Piedmont and its suppliers and upstream transporters would be in immediate and constant contact in order to manage the event threatening curtailment and to minimize its impacts. Finally, it is also important to recognize that Piedmont also would be in contact with its customers in the event of a threatened curtailment in order to manage and coordinate system demands on a rational basis to avoid or minimize the impacts of a threatened event. A primary example of this would be the possibility that firm electric generation customers would be able to dispatch other assets (or otherwise reduce load) in a way that would reduce their demand for natural gas. Similar requests would be made to firm industrial and manufacturing customers. In the event that Piedmont's efforts failed and the prospect of a curtailment came to fruition, Piedmont's thoughts concerning priorities in such a curtailment scenario are set out below.

As a general statement ... Piedmont continues to support curtailment by margin as that method of establishing curtailment priorities is both economically fair and generally consistent with an end use priority system.

. . .

As an exception to the curtailment by margin approach ... Piedmont believes that its firm electric generation customers (regardless of margin) should receive an elevated curtailment priority above Piedmont's tariff and special contract industrial and manufacturing customers in circumstances where all of the following criteria are met: (i) The utilization of natural gas fired generation is necessary to maintain electric service to North Carolina residential and commercial customers for human needs purposes and is otherwise necessary to maintain the stability of the electric grid; and (ii) Electric utilities are physically unable to utilize other generation assets to cover any shortfall that would otherwise result from natural gas curtailment; and (iii) Electric utilities, consistent with their tariffs and applicable curtailment priorities, take reasonable action (including curtailment of service to industrial and manufacturing customers and utilization of rolling brown-outs/black-outs where possible) to minimize their need for natural gas; and (iv) Prevailing system pressures on Piedmont's system at the respective electric generation facilities of each generator are sufficient to operate the turbines at those facilities.

In this situation, Piedmont believes that the public interest inherent in maintaining electric service to North Carolina citizens trumps the interests of large general or special contract industrial and manufacturing customers whose needs are primarily economic in nature. In no case, however, should electric generation receive a priority of use that would supersede or compete with Piedmont's provision and continuation of service to its human needs firm residential and commercial customers

because of the critical nature of the service they receive and because of the safety and practical issues posed by the possible need to relight gas burning equipment pilot lights over a broad geographic area.

Piedmont stated that it is in the public interest to afford municipal, military, human needs, and electric generation customers with curtailment priorities above those that would be determined by margin, in exceptional circumstances, which it described. Piedmont suggested that "before making any final decision about possible modifications to curtailment priorities," the Commission should "convene a workshop or technical conference hosted by the Commission Staff or Public Staff to discuss these issues." Piedmont stated that such a conference, followed by final comments from all parties, would allow all parties to have more in-depth discussions and contribute to a more reasoned final result.

The Duke Operating Companies stated that prior to filing its submittal, it had reviewed Piedmont's proposed comments. They stated that:

The Companies generally agree with the comments and positions put forth by Piedmont.... The Companies note that Piedmont is coordinating semi-annual discussions among the Companies, Piedmont, Public Service Company of North Carolina, Inc., and Transco to address possible curtailment scenarios on Transco that could impact the ability to meet minimum pressure guarantees to electric companies. The Companies look forward to discussions on that topic and other topics involving curtailment as well.

The Commission appreciates the extensive and thoughtful responses that it has received. It agrees with Piedmont and other parties that stated that the issues regarding curtailment of gas service are complex and require in-depth discussions in order to reach a reasoned final result. Therefore, the Commission will require its Staff to work with the parties to organize a technical workshop at a date and place to be established by future order of the Commission. Such workshop shall focus on the questions outlined in Appendix A of this Order.

IT IS, THEREFORE, ORDERED as follows:

1. That the Commission hereby amends its Rule R8-41 and Rule R8-61 as discussed earlier in this Order effective immediately; and

2. That Commission Staff shall work with parties to organize a technical workshop to focus on the questions outlined in Appendix A of this Order.

ISSUED BY ORDER OF THE COMMISSION.

This the <u>10th</u> day of September, 2013.

NORTH CAROLINA UTILITIES COMMISSION

Hail L. Mount

Gail L. Mount, Chief Clerk

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Piedmont stated in this docket that "it is in the public interest to afford municipal, military, human needs, and electric generation customers with curtailment priorities above those that would be determined by margin contribution," and stated that "the rationale behind this elevated priority is essentially that these types of services have the same type of end use characteristics as Piedmont residential and commercial customers and they also pose the same risks and difficulties in relighting if they are curtailed."

Please explain why you do or do not agree with this statement and what possible modifications to curtailment priorities for retail gas service in North Carolina should be made.

2. Piedmont stated that it believes that firm electric generation customers (regardless of margin) should receive an elevated curtailment priority above Piedmont's tariff and special contract industrial and manufacturing customers in circumstances where the following criteria are met: (i) The use of natural gas fired generation is necessary to maintain electric service to North Carolina residential and commercial customers for human needs purposes and is otherwise necessary to maintain the stability of the electric grid; (ii) Electric utilities are physically unable to use other generation assets to cover any shortfall that would result from natural gas curtailment; (iii) Electric utilities, consistent with their tariffs and applicable curtailment priorities, take reasonable action (including curtailment of service to industrial and manufacturing customers and use of rolling brown-outs/black-outs where possible) to minimize their need for natural gas; and (iv) Prevailing system pressures on Piedmont's system at the respective electric generation facilities are sufficient to operate those facilities.

Do you agree? If so, how would the Commission and the utilities implement such a policy?

- 3. Piedmont stated that in the specific scenario outlined in number 2 above, they supported gas curtailment according to the following priority order (the highest priority customers would be curtailed last), and stated that any curtailment that is necessary and appropriate within one of these classes would be by margin:
 - (1) Firm residential customers
 - (2) Firm commercial customers
 - (3) Firm municipal, military and other Commission-approved firm human needs customers
 - (4) Firm electric generation human needs customers

- (5) Firm industrial and manufacturing customers
- (6) Interruptible customers
- a. Please explain if you do or do not agree with this proposed curtailment list and what exceptions if any should be listed as reasons to deviate from this list.
- b. Please explain if you do or do not agree that any curtailment that is necessary and appropriate within one of these classes would be by margin and what exceptions if any should be listed as reasons to deviate from this list.
- 4. A catastrophic event could occur that disrupts all gas service coming into North Carolina through Transco, or that causes a line break in several major gas distribution lines. Please explain how your Company is prepared to handle such an event. Please explain how gas customers would be curtailed, and what your emergency plan is for restoring service.